vserver services commands

ONTAP commands

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Table of Contents

vserver services commands . . . 1
- vserver services access-check authentication get-claim-name . . . 1
  - Description . . . 1
  - Parameters . . . 1
  - Examples . . . 1
- vserver services access-check authentication get-dc-info . . . 1
  - Description . . . 1
  - Parameters . . . 2
  - Examples . . . 2
- vserver services access-check authentication login-cifs . . . 2
  - Description . . . 2
  - Parameters . . . 2
  - Examples . . . 3
- vserver services access-check authentication ontap-admin-login-cifs . . . 3
  - Description . . . 3
  - Parameters . . . 4
  - Examples . . . 4
- vserver services access-check authentication show-creds . . . 4
  - Description . . . 4
  - Parameters . . . 5
  - Examples . . . 5
- vserver services access-check authentication show-ontap-admin-unix-creds . . . 8
  - Description . . . 8
  - Parameters . . . 8
  - Examples . . . 9
- vserver services access-check authentication sid-to-uid . . . 9
  - Description . . . 9
  - Parameters . . . 9
  - Examples . . . 9
- vserver services access-check authentication sid-to-unix-name . . . 10
  - Description . . . 10
  - Parameters . . . 10
  - Examples . . . 10
- vserver services access-check authentication translate . . . 10
  - Description . . . 10
  - Parameters . . . 11
  - Examples . . . 11
- vserver services access-check authentication uid-to-sid . . . 11
  - Description . . . 12
  - Parameters . . . 12
  - Examples . . . 12
- vserver services access-check dns forward-lookup . . . 12
  - Description . . . 12

Parameters . . . 12
Examples . . . 13
vserver services access-check dns srv-lookup . . . 13
Description . . . 13
Parameters . . . 13
Examples . . . 14
vserver services access-check name-mapping show . . . 14
Description . . . 14
Parameters . . . 14
Examples . . . 14
vserver services access-check server-discovery reset . . . 15
Description . . . 15
Parameters . . . 15
Examples . . . 15
vserver services access-check server-discovery show-host . . . 15
Description . . . 16
Parameters . . . 16
Examples . . . 16
vserver services access-check server-discovery show-site . . . 16
Description . . . 16
Parameters . . . 17
Examples . . . 17
vserver services access-check server-discovery test . . . 17
Description . . . 17
Parameters . . . 17
Examples . . . 17
vserver services name-service cache group-membership delete-all . . . 18
Description . . . 18
Parameters . . . 18
Examples . . . 18
Related Links . . . 18
vserver services name-service cache group-membership delete . . . 18
Description . . . 18
Parameters . . . 18
Examples . . . 19
vserver services name-service cache group-membership show . . . 19
Description . . . 19
Parameters . . . 19
Examples . . . 20
vserver services name-service cache group-membership settings modify . . . 20
Description . . . 20
Parameters . . . 20
Examples . . . 21
vserver services name-service cache group-membership settings show . . . 21
Description . . . 21

Parameters . . . 21
Examples . . . 22
vserver services name-service cache hosts forward-lookup delete-all . . . 22
Description . . . 22
Parameters . . . 22
Examples . . . 22
vserver services name-service cache hosts forward-lookup delete . . . 23
Description . . . 23
Parameters . . . 23
Examples . . . 23
vserver services name-service cache hosts forward-lookup show . . . 24
Description . . . 24
Parameters . . . 24
Examples . . . 25
vserver services name-service cache hosts reverse-lookup delete-all . . . 26
Description . . . 26
Parameters . . . 26
Examples . . . 26
vserver services name-service cache hosts reverse-lookup delete . . . 26
Description . . . 26
Parameters . . . 26
Examples . . . 27
vserver services name-service cache hosts reverse-lookup show . . . 27
Description . . . 27
Parameters . . . 27
Examples . . . 28
vserver services name-service cache hosts settings modify . . . 28
Description . . . 29
Parameters . . . 29
Examples . . . 29
vserver services name-service cache hosts settings show . . . 30
Description . . . 30
Parameters . . . 30
Examples . . . 30
vserver services name-service cache netgroups ip-to-netgroup delete-all . . . 31
Description . . . 31
Parameters . . . 31
Examples . . . 31
vserver services name-service cache netgroups ip-to-netgroup delete . . . 31
Description . . . 31
Parameters . . . 32
Examples . . . 32
vserver services name-service cache netgroups ip-to-netgroup show . . . 32
Description . . . 32
Parameters . . . 32

Examples . . . 33
vserver services name-service cache netgroups members delete-all . . . 33
Description . . . 33
Parameters . . . 33
Examples . . . 34
vserver services name-service cache netgroups members delete . . . 34
Description . . . 34
Parameters . . . 34
Examples . . . 34
vserver services name-service cache netgroups members show . . . 34
Description . . . 34
Parameters . . . 35
Examples . . . 35
vserver services name-service cache netgroups settings modify . . . 36
Description . . . 36
Parameters . . . 36
Examples . . . 36
vserver services name-service cache netgroups settings show . . . 37
Description . . . 37
Parameters . . . 37
Examples . . . 38
vserver services name-service cache settings modify . . . 38
Description . . . 38
Parameters . . . 38
Examples . . . 39
vserver services name-service cache settings show . . . 39
Description . . . 39
Examples . . . 39
vserver services name-service cache unix-group group-by-gid delete-all . . . 39
Description . . . 39
Parameters . . . 39
Examples . . . 39
vserver services name-service cache unix-group group-by-gid delete . . . 40
Description . . . 40
Parameters . . . 40
Examples . . . 40
vserver services name-service cache unix-group group-by-gid show . . . 40
Description . . . 40
Parameters . . . 41
Examples . . . 41
vserver services name-service cache unix-group group-by-name delete-all . . . 42
Description . . . 42
Parameters . . . 42
Examples . . . 42
vserver services name-service cache unix-group group-by-name delete . . . 42

Description . . . 42
Parameters . . . 42
Examples . . . 43
vserver services name-service cache unix-group group-by-name show . . . 43
Description . . . 43
Parameters . . . 43
Examples . . . 44
vserver services name-service cache unix-group settings modify . . . 44
Description . . . 44
Parameters . . . 44
Examples . . . 45
vserver services name-service cache unix-group settings show . . . 45
Description . . . 45
Parameters . . . 45
Examples . . . 46
vserver services name-service cache unix-user settings modify . . . 47
Description . . . 47
Parameters . . . 47
Examples . . . 47
vserver services name-service cache unix-user settings show . . . 48
Description . . . 48
Parameters . . . 48
Examples . . . 49
vserver services name-service cache unix-user user-by-id delete-all . . . 49
Description . . . 49
Parameters . . . 49
Examples . . . 49
vserver services name-service cache unix-user user-by-id delete . . . 50
Description . . . 50
Parameters . . . 50
Examples . . . 50
vserver services name-service cache unix-user user-by-id show . . . 50
Description . . . 50
Parameters . . . 51
Examples . . . 51
vserver services name-service cache unix-user user-by-name delete-all . . . 52
Description . . . 52
Parameters . . . 52
Examples . . . 52
vserver services name-service cache unix-user user-by-name delete . . . 52
Description . . . 52
Parameters . . . 52
Examples . . . 53
vserver services name-service cache unix-user user-by-name show . . . 53
Description . . . 53

Parameters . . . 53
Examples . . . 54
vserver services name-service dns check . . . 54
Description . . . 54
Parameters . . . 54
Examples . . . 55
vserver services name-service dns create . . . 55
Description . . . 55
Parameters . . . 55
Examples . . . 56
vserver services name-service dns delete . . . 57
Description . . . 57
Parameters . . . 57
Examples . . . 57
vserver services name-service dns modify . . . 57
Description . . . 57
Parameters . . . 57
Examples . . . 58
Related Links . . . 59
vserver services name-service dns show . . . 59
Description . . . 59
Parameters . . . 59
Examples . . . 60
vserver services name-service dns dynamic-update modify . . . 60
Description . . . 60
Parameters . . . 60
Examples . . . 61
vserver services name-service dns dynamic-update prepare-to-downgrade . . . 61
Description . . . 61
Examples . . . 62
vserver services name-service dns dynamic-update show . . . 62
Description . . . 62
Parameters . . . 62
Examples . . . 63
vserver services name-service dns dynamic-update record add . . . 63
Description . . . 63
Parameters . . . 63
Examples . . . 63
vserver services name-service dns dynamic-update record delete . . . 64
Description . . . 64
Parameters . . . 64
Examples . . . 64
vserver services name-service dns hosts create . . . 65
Description . . . 65
Parameters . . . 65

Examples . . . 65
vserver services name-service dns hosts delete . . . 65
Description . . . 65
Parameters . . . 65
Examples . . . 66
vserver services name-service dns hosts modify . . . 66
Description . . . 66
Parameters . . . 66
Examples . . . 66
vserver services name-service dns hosts show . . . 67
Description . . . 67
Parameters . . . 67
Examples . . . 68
vserver services name-service getxxbyyy getaddrinfo . . . 68
Description . . . 68
Parameters . . . 68
Examples . . . 69
vserver services name-service getxxbyyy getgrbygid . . . 69
Description . . . 69
Parameters . . . 69
Examples . . . 70
vserver services name-service getxxbyyy getgrbyname . . . 70
Description . . . 70
Parameters . . . 70
Examples . . . 70
vserver services name-service getxxbyyy getgrlist . . . 71
Description . . . 71
Parameters . . . 71
Examples . . . 71
vserver services name-service getxxbyyy gethostbyaddr . . . 71
Description . . . 72
Parameters . . . 72
Examples . . . 72
vserver services name-service getxxbyyy gethostbyname . . . 72
Description . . . 72
Parameters . . . 72
Examples . . . 73
vserver services name-service getxxbyyy getnameinfo . . . 73
Description . . . 73
Parameters . . . 73
Examples . . . 74
vserver services name-service getxxbyyy getpwbyname . . . 74
Description . . . 74
Parameters . . . 74
Examples . . . 74

vserver services name-service getxxbyyy getpwbyuid . . . 75
Description . . . 75
Parameters . . . 75
Examples . . . 75
vserver services name-service getxxbyyy netgrpcheck . . . 76
Description . . . 76
Parameters . . . 76
Examples . . . 77
vserver services name-service ldap check . . . 77
Description . . . 77
Parameters . . . 77
Examples . . . 78
vserver services name-service ldap create . . . 78
Description . . . 78
Parameters . . . 78
Examples . . . 79
vserver services name-service ldap delete . . . 79
Description . . . 79
Parameters . . . 79
Examples . . . 79
vserver services name-service ldap modify . . . 80
Description . . . 80
Parameters . . . 80
Examples . . . 80
vserver services name-service ldap show . . . 81
Description . . . 81
Parameters . . . 81
Examples . . . 81
vserver services name-service ldap client create . . . 81
Description . . . 81
Parameters . . . 82
Examples . . . 85
vserver services name-service ldap client delete . . . 86
Description . . . 86
Parameters . . . 87
Examples . . . 87
vserver services name-service ldap client modify-bind-password . . . 87
Description . . . 87
Parameters . . . 87
Examples . . . 87
vserver services name-service ldap client modify . . . 88
Description . . . 88
Parameters . . . 88
Examples . . . 91
Related Links . . . 92

vserver services name-service ldap client show . . . 92
Description . . . 92
Parameters . . . 93
Examples . . . 95
vserver services name-service ldap client schema copy . . . 96
Description . . . 96
Parameters . . . 96
Examples . . . 96
vserver services name-service ldap client schema delete . . . 97
Description . . . 97
Parameters . . . 97
Examples . . . 97
vserver services name-service ldap client schema modify . . . 97
Description . . . 97
Parameters . . . 97
Examples . . . 99
Related Links . . . 100
vserver services name-service ldap client schema show . . . 100
Description . . . 100
Parameters . . . 100
Examples . . . 102
vserver services name-service netgroup load . . . 103
Description . . . 103
Parameters . . . 104
Examples . . . 104
vserver services name-service netgroup status . . . 104
Description . . . 104
Parameters . . . 105
Examples . . . 105
vserver services name-service netgroup file delete . . . 106
Description . . . 106
Parameters . . . 106
Examples . . . 106
vserver services name-service netgroup file show . . . 106
Description . . . 107
Parameters . . . 107
Examples . . . 107
vserver services name-service nis-domain create . . . 108
Description . . . 108
Parameters . . . 108
Examples . . . 109
vserver services name-service nis-domain delete . . . 109
Description . . . 109
Parameters . . . 109
Examples . . . 109

vserver services name-service nis-domain modify . . . 109
Description . . . 109
Parameters . . . 110
Examples . . . 110
Related Links . . . 110
vserver services name-service nis-domain show-bound . . . 110
Description . . . 110
Parameters . . . 111
Examples . . . 111
vserver services name-service nis-domain show . . . 111
Description . . . 111
Parameters . . . 112
Examples . . . 112
vserver services name-service nis-domain group-database build . . . 112
Description . . . 113
Parameters . . . 113
Examples . . . 113
vserver services name-service nis-domain group-database status . . . 113
Description . . . 113
Parameters . . . 113
Examples . . . 114
vserver services name-service nis-domain netgroup-database build . . . 114
Description . . . 115
Parameters . . . 115
Examples . . . 115
vserver services name-service nis-domain netgroup-database show-status . . . 115
Description . . . 115
Parameters . . . 115
Examples . . . 116
vserver services name-service nis-domain netgroup-database config modify . . . 116
Description . . . 117
Parameters . . . 117
Examples . . . 117
vserver services name-service nis-domain netgroup-database config show . . . 117
Description . . . 117
Parameters . . . 117
Examples . . . 118
vserver services name-service ns-switch create . . . 118
Description . . . 118
Parameters . . . 118
Examples . . . 120
vserver services name-service ns-switch delete . . . 120
Description . . . 120
Parameters . . . 120
Examples . . . 120

vserver services name-service ns-switch modify . . . 121
Description . . . 121
Parameters . . . 121
Examples . . . 122
vserver services name-service ns-switch show . . . 123
Description . . . 123
Parameters . . . 123
Examples . . . 124
vserver services name-service unix-group adduser . . . 124
Description . . . 124
Parameters . . . 124
Examples . . . 125
vserver services name-service unix-group create . . . 125
Description . . . 125
Parameters . . . 125
Examples . . . 125
vserver services name-service unix-group delete . . . 126
Description . . . 126
Parameters . . . 126
Examples . . . 126
vserver services name-service unix-group deluser . . . 126
Description . . . 126
Parameters . . . 126
Examples . . . 127
vserver services name-service unix-group load-from-uri . . . 127
Description . . . 127
Parameters . . . 127
Examples . . . 128
vserver services name-service unix-group modify . . . 128
Description . . . 128
Parameters . . . 128
Examples . . . 128
vserver services name-service unix-group show . . . 128
Description . . . 129
Parameters . . . 129
Examples . . . 129
vserver services name-service unix-group file show . . . 130
Description . . . 130
Parameters . . . 130
Examples . . . 130
vserver services name-service unix-group file status . . . 131
Description . . . 131
Parameters . . . 131
Examples . . . 132
vserver services name-service unix-group max-limit modify . . . 133

Description . . . 133
Parameters . . . 133
Examples . . . 133
vserver services name-service unix-group max-limit show . . . 133
Description . . . 133
Examples . . . 133
Related Links . . . 134
vserver services name-service unix-user create . . . 134
Description . . . 134
Parameters . . . 134
Examples . . . 135
vserver services name-service unix-user delete . . . 135
Description . . . 135
Parameters . . . 135
Examples . . . 135
vserver services name-service unix-user load-from-uri . . . 135
Description . . . 135
Parameters . . . 136
Examples . . . 136
vserver services name-service unix-user modify . . . 136
Description . . . 136
Parameters . . . 137
Examples . . . 137
vserver services name-service unix-user show . . . 137
Description . . . 137
Parameters . . . 137
Examples . . . 138
vserver services name-service unix-user file show . . . 138
Description . . . 139
Parameters . . . 139
Examples . . . 139
vserver services name-service unix-user file status . . . 139
Description . . . 139
Parameters . . . 140
Examples . . . 140
vserver services name-service unix-user max-limit modify . . . 141
Description . . . 141
Parameters . . . 141
Examples . . . 141
vserver services name-service unix-user max-limit show . . . 141
Description . . . 142
Examples . . . 142
Related Links . . . 142
vserver services name-service ypbind start . . . 142
Description . . . 142

Examples . . . 142
vserver services name-service ypbind status . . . 142
Description . . . 143
Examples . . . 143
vserver services name-service ypbind stop . . . 143
Description . . . 143
Examples . . . 143
vserver services ndmp generate-password . . . 143
Description . . . 143
Parameters . . . 143
Examples . . . 144
vserver services ndmp kill-all . . . 144
Description . . . 144
Parameters . . . 144
Examples . . . 144
vserver services ndmp kill . . . 145
Description . . . 145
Parameters . . . 145
Examples . . . 145
vserver services ndmp modify . . . 145
Description . . . 145
Parameters . . . 145
Examples . . . 151
vserver services ndmp off . . . 151
Description . . . 151
Parameters . . . 151
Examples . . . 151
vserver services ndmp on . . . 151
Description . . . 151
Parameters . . . 152
Examples . . . 152
vserver services ndmp probe . . . 152
Description . . . 152
Parameters . . . 153
Examples . . . 156
Related Links . . . 157
vserver services ndmp show . . . 157
Description . . . 158
Parameters . . . 158
Examples . . . 164
vserver services ndmp status . . . 165
Description . . . 165
Parameters . . . 166
Examples . . . 170
vserver services ndmp extensions modify . . . 170

Description . . . 170
Parameters . . . 170
Examples . . . 171
vserver services ndmp extensions show . . . 171
Description . . . 171
Examples . . . 171
vserver services ndmp log start . . . 171
Description . . . 171
Parameters . . . 171
Examples . . . 173
vserver services ndmp log stop . . . 173
Description . . . 174
Parameters . . . 174
Examples . . . 174
vserver services ndmp restartable-backup delete . . . 174
Description . . . 174
Parameters . . . 174
Examples . . . 174
vserver services ndmp restartable-backup show . . . 175
Description . . . 175
Parameters . . . 175
Examples . . . 179
vserver services web modify . . . 180
Description . . . 180
Parameters . . . 180
Examples . . . 180
vserver services web show . . . 180
Description . . . 180
Parameters . . . 181
Examples . . . 182
Related Links . . . 183
vserver services web access create . . . 183
Description . . . 183
Parameters . . . 183
Examples . . . 183
Related Links . . . 183
vserver services web access delete . . . 183
Description . . . 183
Parameters . . . 184
Examples . . . 184
Related Links . . . 184
vserver services web access show . . . 184
Description . . . 184
Parameters . . . 184
Examples . . . 185

Related Links 185

vserver services commands

vserver services access-check authentication get-claim-name

Get the Name of a Claim

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication get-claim-name` command obtains the display name for a given claim.

Parameters

`[-node {<nodename>|local}]` - Node Name (privilege: advanced)

The name of the node on which the command is executed.

`-vserver <vserver>` - Vserver Name (privilege: advanced)

The name of the Vserver.

`-claim-cn <text>` - Claim CN (privilege: advanced)

The claim ID of the claim display name.

Examples

This example gets the display name of a claim for the CIFS server created on Vserver vs2

```
cluster1::vserver services access-check*> authentication get-dc-info -node
vsim1 -vserver vs2 -claim-cn ad://ext/accountExpires:88d065c21536d9fe

Name of claim ad://ext/accountExpires:88d065c21536d9fe: accountExpires
```

vserver services access-check authentication get-dc-info

Get Domain Controller Information

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication get-dc-info` command obtains information about one of the Domain Controllers (DC) for the domain of which the CIFS server is a member. The information fetched is the Forest and Domain of which the DC is a member, the NetBIOS name of the Domain, the NetBIOS Hostname of the DC, the CIFS Server site, the CIFS Client site, GUID of the domain and flags. Flags describe the features and roles of the DC.

Parameters

[-node {<nodename>|local}] - Node Name (privilege: advanced)

The name of the node on which the command is executed.

-vserver <vserver> - Vserver Name (privilege: advanced)

The name of the Vserver.

Examples

This example gets the information about a Domain Controller for CIFS server created on Vserver vs2.

```
cluster1::vserver services access-check*> authentication get-dc-info -node
vsim2-d1-01 -vserver vs2
DC Information:
 ---------------
          Forest: cifs.lab.netapp.com
          Domain: cifs.lab.netapp.com
    NetBIOS Name: CIFSLAB
NetBIOS Hostname: A7-6
     Server Site: cifs-dev-j4
     Client Site:
            GUID: 0366BE1F-FA08-4747-B5AC56097189C90E
           Flags: 0x00000178
                  DS_LDAP_FLAG
                  DS_DS_FLAG
                  DS_KDC_FLAG
                  DS_TIMESERV_FLAG
                  DS_WRITABLE_FLAG
                  DS_PING_FLAGS
```

vserver services access-check authentication login-cifs

Authenticate a CIFS user

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication login-cifs` command authenticates a Windows user through the specified node using the specified Vserver's configuration. Upon success, it displays the user's Windows and UNIX credentials.

Parameters

[-node {<nodename>|local}] - Node (privilege: advanced)

The name of the node on which the command is executed.

-vserver <vserver> - Vserver (privilege: advanced)

The name of a Vserver with a configured CIFS server.

-user <text> - Windows Name (privilege: advanced)

The name of a user that is a member of the Windows or a trusted domain that the CIFS server in the specified Vserver belongs to.

[-clientIp <IP Address>] - Client IP Address (privilege: advanced)

The IP address of the client as specified by the user

Examples

This example authenticates the Windows user "administrator" through node "node2" using the configuration of "vs1." Upon success, it displays the Windows and UNIX credentials for user "administrator."

```
cluster1::vserver services access-check*> authentication login-cifs
-vserver vs1 -user administrator -node node2

Enter the password:
Windows User: administrator Domain: EXAMPLE Privs: a7
 Primary Grp: S-1-5-21-1407423728-2963865486-1834115207-513
      Domain: S-1-5-21-1407423728-2963865486-1834115207 Rids: 500, 520,
513, 22226, 26625, 1842, 512, 519, 518, 8323, 1645, 1648, 1644, 1647
      Domain: S-1-1 Rids: 0
      Domain: S-1-5 Rids: 11, 2
     Unix ID: 0, GID: 0
       Flags: 1
   Domain ID: 0
  Other GIDs:
Authentication Succeeded.
```

vserver services access-check authentication ontap-admin-login-cifs

Authenticate Data ONTAP admin CIFS user

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication ontap-admin-login-cifs` command authenticates the Data ONTAP administrator's user through the specified node using the specified Vserver's configuration. Upon success, it displays the user's Windows credentials.

Parameters

[-node {<nodename>|local}] - Node (privilege: advanced)

The name of the node on which the command is executed.

-vserver <vserver> - Vserver (privilege: advanced)

The name of a Vserver with a configured CIFS server.

-user <text> - User Name (privilege: advanced)

The name of a user that is a member of the Windows or a trusted domain that the CIFS server in the specified Vserver belongs to.

[-clientIp <IP Address>] - Client IP Address (privilege: advanced)

The IP address of the client as specified by the user

Examples

This example authenticates the Data ONTAP administrator user "administrator" through node "node2" using the configuration of Vserver "vs1." Upon success, it displays the CIFS credentials for "administrator."

```
cluster1::vserver services access-check*> authentication ontap-admin-
login-cifs -vserver vs1 -user administrator -node node2

Enter the password:
Windows User: administrator Domain: EXAMPLE Privs: a7
 Primary Grp: S-1-5-21-1407423728-2963865486-1834115207-513
      Domain: S-1-5-21-1407423728-2963865486-1834115207 Rids: 500, 520,
513, 22226, 26625, 1842, 512, 519, 518, 8323, 1645, 1648, 1644, 1647, 1003
      Domain: S-1-1 Rids: 0
      Domain: S-1-5 Rids: 11, 2
Authentication Succeeded.
```

vserver services access-check authentication show-creds

Display a user’s credentials based on a UNIX UID or Windows SID

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication show-creds` command returns the credentials for a Windows user using SID, a Windows user using a Windows username, a UNIX user using UID, or a UNIX user using a UNIX user name. This command is useful for retrieving information such as account type, SIDs, UIDs, GIDs, privileges, and domain or group membership.

Parameters

[-node {<nodename>|local}] - Node (privilege: advanced)

The name of the node on which the command is executed.

-vserver <vserver> - Vserver (privilege: advanced)

The command displays information for the specified Vserver.

{ -uid <integer> - UID (privilege: advanced)

The UNIX user's UID.

| -sid <text> - SID (privilege: advanced)

The Windows user's SID.

| -unix-user-name <text> - Unix User Name (privilege: advanced)

The UNIX username.

| -win-name <text> - Windows Name (privilege: advanced) }

The Windows username.

[-list-name {true|false}] - Display Translated Names (privilege: advanced)

If this parameter is specified, the command displays information as translated names.

[-list-id {true|false}] - Display IDs (privilege: advanced)

If this parameter is specified, the command displays information as IDs.

[-clientIp <IP Address>] - Client IP Address (privilege: advanced)

The IP address of the client as specified by the user

[-skip-domain-group {true|false}] - Skip Domain Groups (privilege: advanced)

If this parameter is specified, Windows domain group membership will not be fetched and only local group membership will be displayed, if any.

Examples

This example returns credential information for UNIX user with UID "0" on node "node1" for Vserver "vs1."

```
cluster1::*> vserver services access-check authentication show-creds -node
node1 -vserver vs1 -uid 0
(vserver services access-check authentication show-creds)
UNIX UID: root <> Windows User: CIFSQA\Administrator (User)
GID: root
 Supplementary GIDs: <None>
Windows Membership:
  CIFSQA\Schema Admins (Domain group)
  CIFSQA\Enterprise Admins (Domain group)
  CIFSQA\Domain Admins (Domain group)
  CIFSQA\Domain Users (Domain group)
  CIFSQA\Group Policy Creator Owners (Domain group)
  BUILTIN\Administrators (Alias)
  BUILTIN\Users (Alias)
 User is also a member of Everyone, Authenticated Users, and Network Users
Privileges (0x2b7):
  SeBackupPrivilege
  SeRestorePrivilege
  SeTakeOwnershipPrivilege
```

This example returns credential information for UNIX user with UID "0" on node "node1" for Vserver "vs1" when list-name "false" and list-id "true."

```
cluster1::*> vserver services access-check authentication show-creds -node
node1 -vserver vs1 -uid 0 -list-name false -list-id true
(vserver services access-check authentication show-creds)
UNIX UID: 0 <> Windows User: S-1-5-21-1407423728-2963865486-1834115207-500
GID: 0
 Supplementary GIDs: <None>
Windows Membership:
  S-1-5-21-1407423728-2963865486-1834115207-518
  S-1-5-21-1407423728-2963865486-1834115207-519
  S-1-5-21-1407423728-2963865486-1834115207-512
  S-1-5-21-1407423728-2963865486-1834115207-513
  S-1-5-21-1407423728-2963865486-1834115207-520
  S-1-5-32-544
  S-1-5-32-545
 User is also a member of S-1-1-0, S-1-5-11, and S-1-5-2
Privileges (0x2b7):
  SeBackupPrivilege
  SeRestorePrivilege
  SeTakeOwnershipPrivilege
```

This example returns credential information for UNIX user with UID "0" on node "node1" for Vserver "vs1"

when list-name "true" and list-id "true."

```
cluster1::*> vserver services access-check authentication show-creds -node
node1 -vserver vs1 -uid 0 -list-name false -list-id true
(vserver services access-check authentication show-creds)
UNIX UID: 0 (root) <> Windows User: S-1-5-21-1407423728-2963865486-
1834115207-500 (CIFSQA\Administrator (User))
GID: 0 (root)
 Supplementary GIDs: <None>
Windows Membership:
  S-1-5-21-1407423728-2963865486-1834115207-518     CIFSQA\Schema Admins
(Domain group)
  S-1-5-21-1407423728-2963865486-1834115207-519     CIFSQA\Enterprise
Admins (Domain group)
  S-1-5-21-1407423728-2963865486-1834115207-512     CIFSQA\Domain Admins
(Domain group)
  S-1-5-21-1407423728-2963865486-1834115207-513     CIFSQA\Domain Users
(Domain group)
  S-1-5-21-1407423728-2963865486-1834115207-520     CIFSQA\Group Policy
Creator Owners (Domain group)
  S-1-5-32-544     BUILTIN\Administrators (Alias)
  S-1-5-32-545     BUILTIN\Users (Alias)
 User is also a member of Everyone, Authenticated Users, and Network Users
Privileges (0x2b7):
  SeBackupPrivilege
  SeRestorePrivilege
  SeTakeOwnershipPrivilege
```

This example returns credential information for UNIX user with UID "0" on node "node1" for Vserver "vs1" when list-name "true" and list-id "false."

```
cluster1::*> vserver services access-check authentication show-creds -node
node1 -vserver vs1 -uid 0 -list-name true -list-id false
(vserver services access-check authentication show-creds)
UNIX UID: root <> Windows User: CIFSQA\Administrator (User)
GID: root
 Supplementary GIDs: <None>
Windows Membership:
  CIFSQA\Schema Admins (Domain group)
  CIFSQA\Enterprise Admins (Domain group)
  CIFSQA\Domain Admins (Domain group)
  CIFSQA\Domain Users (Domain group)
  CIFSQA\Group Policy Creator Owners (Domain group)
  BUILTIN\Administrators (Alias)
  BUILTIN\Users (Alias)
 User is also a member of Everyone, Authenticated Users, and Network Users
Privileges (0x2b7):
  SeBackupPrivilege
  SeRestorePrivilege
  SeTakeOwnershipPrivilege
```

vserver services access-check authentication show-ontap-admin-unix-creds

Display Data ONTAP admin Unix credentials based on username or user ID

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication show-ontap-admin-unix-creds` uses the Vserver's ns-switch configuration to determine and display Data ONTAP administrator's UNIX information.

Parameters

`[-node {<nodename>|local}]` - Node (privilege: advanced)

The name of the node on which the command is executed.

`-vserver <vserver>` - Vserver (privilege: advanced)

The name of the Vserver.

{ `-unix-user-name <text>` - Unix User Name (privilege: advanced)

The UNIX username.

| `-uid <integer>` - Unix User ID (privilege: advanced) }

The UID of a UNIX user.

Examples

This example shows Data ONTAP administrator's UNIX user's UID, GID, home directory, and login shell for user "root" on Vserver "vs1" for node "node2."

```
cluster1::vserver services access-check*> authentication show-ontap-admin-
unix-creds -vserver vs1 -unix-user-name root -node node2
       User ID: 0
      Group ID: 1
Home Directory: /
   Login Shell: /bin/csh
```

vserver services access-check authentication sid-to-uid

Translate a Windows SID to a UNIX user ID

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication sid-to-uid` translates a Windows SID to a UNIX UID.

Parameters

`[-node {<nodename>|local}]` - Node Name (privilege: advanced)

The name of the node on which the command is executed.

`-vserver <vserver>` - Vserver Name (privilege: advanced)

The name of the Vserver.

`-sid <text>` - Windows SID (privilege: advanced)

The SID of a Windows user.

`[-clientIp <IP Address>]` - Client IP Address (privilege: advanced)

The IP address of the client as specified by the user

Examples

This example translates a Windows SID on node "node2" and returns the corresponding UNIX user's UID.

```
cluster1::vserver services access-check*> sid-to-uid -vserver vs1 -sid S-
1-5-21-1407423728-2963865486-1834115207-500 -node node2
UID: 0
```

vserver services access-check authentication sid-to-unix-name

Translate a Windows SID to a UNIX User Name

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication sid-to-unix-name` translates a Windows SID to a UNIX Name.

Parameters

`[-node {<nodename>|local}]` - Node Name (privilege: advanced)

The name of the node on which the command is executed.

`-vserver <vserver>` - Vserver Name (privilege: advanced)

The name of the Vserver.

`-sid <text>` - Windows SID (privilege: advanced)

The Windows SID which is to be translated to the corresponding UNIX name.

Examples

This example translates a Windows SID on node "node2" and returns the corresponding UNIX name.

```
cluster1::vserver services access-check*> sid-to-unix-name -node node2
-vserver vs1 -sid S-1-5-21-1407423728-2963865486-1834115207-500
    SID Type: User
   UNIX Name: test
 Domain Name: TESTDOMAIN
Windows Name: test
```

vserver services access-check authentication translate

Translate between Various Names and Their Identifiers

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication translate` command translates SIDs, UIDs, and GIDs to names. If you enter a SID, the command returns a Windows name; if you enter a Windows name, the command returns a SID; if you enter a UNIX username, the command returns a UID; if you enter a UID, the command returns a UNIX username; if you enter a GID, the command returns a UNIX group name; if you enter a UNIX group-name, the command returns a GID.

Parameters

[-node {<nodename>|local}] - Node Name (privilege: advanced)
The name of the node on which the command is executed.

-vserver <vserver> - Vserver Name (privilege: advanced)
The name of the Vserver.

{ -uid <integer> - UNIX User ID (privilege: advanced)
The UNIX user's UID.

| -gid <integer> - UNIX Group ID (privilege: advanced)
The UNIX user's GID.

| -sid <text> - Windows SID (privilege: advanced)
The Windows user's SID.

| -unix-user-name <text> - UNIX User Name (privilege: advanced)
The UNIX username.

| -unix-group-name <text> - UNIX Group Name (privilege: advanced)
The UNIX group name.

| -win-name <text> - Windows Name (privilege: advanced) }
The Windows name.

Examples

This example translates the UNIX UID 0 to username "root" on node "node2" for Vserver "vs1."

```
cluster1::vserver services access-check*> authentication translate
-vserver vs1 -uid 0 -node node2
root
```

This example translates and the Windows username "administrator" to the corresponding SID on node "node2" for Vserver "vs1."

```
cluster1::vserver services access-check*> authentication translate
-vserver vs1 -win-name administrator -node node2
S-1-5-21-1407423728-2963865486-1834115207-500
```

vserver services access-check authentication uid-to-sid

Translate a UNIX user ID to a Windows SID

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check authentication uid-to-sid` translates a UNIX UID to a Windows SID.

Parameters

`[-node {<nodename>|local}]` - Node Name (privilege: advanced)

The name of the node on which the command is executed.

`-vserver <vserver>` - Vserver Name (privilege: advanced)

The name of the Vserver.

`-uid <integer>` - UNIX User ID (privilege: advanced)

The user ID of a UNIX user.

`[-clientIp <IP Address>]` - Client IP Address (privilege: advanced)

The IP address of the client as specified by the user

Examples

This example translates a UNIX user's UID on node "node2" and returns the corresponding SID.

```
cluster1::vserver services access-check*> uid-to-sid -vserver vs1 -uid 0
-node node2
SID: S-1-5-21-1407423728-2963865486-1834115207-500
```

vserver services access-check dns forward-lookup

Perform DNS forward lookup

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check dns forward-lookup` returns the IP address of a hostname based on the lookup done on the DNS server specified or the Vserver's DNS configuration.

Parameters

`[-node {<nodename>|local}]` - Node (privilege: advanced)

This specifies the name of the node on which the command is executed.

`-vserver <vserver>` - Vserver (privilege: advanced)

This specifies the name of the Vserver.

-hostname <text> - Hostname (privilege: advanced)

This specifies the hostname to be looked up on the DNS server.

[-lookup-type {ipv4|ipv6|all}] - Lookup Type (default: all) (privilege: advanced)

This specifies the type of IP address to be looked up on the DNS server. If you specify "all", it looks up both IPv4 and IPv6 addresses.

Examples

The following example returns the IPv6 addresses of the hostname "example" in Vserver "vs1" from the node "node2".

```
cluster1::vserver services access-check*> dns forward-lookup -vserver vs1
-node node2
-domains example.com -name-servers 10.72.46.234 -hostname example -lookup
-type ipv6
6ffe::1
3ffe::1
```

vserver services access-check dns srv-lookup

Perform DNS lookup for SRV records

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check dns srv-lookup` returns the IP addresses of a host that is providing the specified service in the network, based on the SRV record lookup done on the Vserver's DNS server.

Parameters

[-node {<nodename>|local}] - Node (privilege: advanced)

This specifies the name of the node on which the command is executed.

-vserver <vserver> - Vserver (privilege: advanced)

This specifies the name of the Vserver.

[-name-servers <IP Address>,…] - Name Servers (privilege: advanced)

This specifies the DNS servers in which the hostname lookup needs to be done.

-lookup-string <text> - Name to Lookup For (privilege: advanced)

This specifies the complete string for which SRV record needs to be looked up on the DNS server.

[-lookup-type {ipv4|ipv6|all}] - Lookup Type (default: all) (privilege: advanced)

This specifies the type of IP address to be looked up on the DNS server. If you specify "all", it looks up both IPv4 and IPv6 addresses. The lookup string must be in the form “service.protocol.domain”.

Examples

The following example returns the IPv6 addresses of the host providing "http" service on "tcp" protcocol in Vserver "vs1" from the node "node2".

```
cluster1::vserver services access-check*> dns srv-lookup -vserver vs1
-node node2
-lookup-string _http._tcp.nw7.na -lookup-type ipv6
9ffe::1
5ffe::1
```

vserver services access-check name-mapping show

Display or verify name mapping configuration

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check name-mapping show` command tests the name mapping configuration for the specified Vserver on the specified node. The command can perform name mapping for Kerberos to UNIX, Windows to UNIX, and UNIX to Windows directions.

Parameters

`[-node {<nodename>|local}]` - Node (privilege: advanced)

The name of the node on which the command is executed.

`-vserver <vserver>` - Vserver (privilege: advanced)

The name of the Vserver.

`-direction {krb-unix|win-unix|unix-win}` - Mapping Direction (privilege: advanced)

The mapping direction.

`-name <text>` - Name (privilege: advanced)

The username.

`[-clientIp <IP Address>]` - Client IP Address (privilege: advanced)

The IP address of the client as specified by the user

Examples

This example shows a name mapping on Vserver "vs1" from UNIX username "root," which is mapped to a Windows name "EXAMPLE\Administrator" on node "node2."

```
cluster1::vserver services access-check*> name-mapping show -vserver vs1
-direction unix-win -name root -node node2
root maps to EXAMPLE\Administrator
```

This example shows a name mapping on Vserver "vs1" from Windows name "EXAMPLE\Administrator" to a UNIX name "root."

```
cluster1::vserver services access-check*> name-mapping show -vserver vs1
-direction win-unix -name EXAMPLE\Administrator -node node2
EXAMPLE\Administrator maps to root
```

vserver services access-check server-discovery reset

Reset server discovery information for a Vserver

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check server-discovery reset` command deletes all of the discovered server information for a given Vserver on the given node. It returns a success message upon deleting. The next attempt to access external servers will trigger the server discovery process to acquire up-to-date server information.

Parameters

`[-node {<nodename>|local}]` - Node (privilege: advanced)

The name of the node on which the command is executed.

`-vserver <vserver>` - Vserver (privilege: advanced)

The name of the Vserver on which you want to delete all of the discovered server information.

Examples

This example deletes all of the discovered server information for Vserver "vs1" on the node "node2."

```
cluster1::vserver services access-check*> server-discovery reset -vserver
vs1 -node node2
Discovery Reset succeeded for Vserver: vs1
```

vserver services access-check server-discovery show-host

Display information about service host machines

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check server-discovery show-host` command displays information about service host machines.

Parameters

`[-node {<nodename>|local}]` - Node (privilege: advanced)

The name of the node on which the command is executed.

Examples

This example shows the host name and IP Address for five different service host machines.

```
cluster1::vserver services access-check*> server-discovery show-host
  Host Name: 172.19.3.11
Cifs Domain:
  AD Domain:
 IP Address: 172.19.3.11
Host Name: example-dc-1
Cifs Domain:
  AD Domain:
 IP Address: 172.17.152.40
Host Name: example-dc-2
Cifs Domain:
  AD Domain:
 IP Address: 172.17.152.41
Host Name: example-dc-3
Cifs Domain:
  AD Domain:
 IP Address: 172.17.152.42
Host Name: example-dc-4
Cifs Domain:
  AD Domain:
 IP Address: 172.17.152.43
```

vserver services access-check server-discovery show-site

Display site membership

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services access-check server-discovery show-site` command displays the site membership for a given Vserver on a given node.

Parameters

[-node {<nodename>|local}] - Node (privilege: advanced)

The name of the node on which the command is executed.

-vserver <vserver> - Vserver (privilege: advanced)

The name of the Vserver.

Examples

This example shows the site membership for Vserver "vs1" from the perspective of node "node2".

```
cluster1::vserver services access-check*> server-discovery show-site -node
node2 -vserver vs1
california
```

vserver services access-check server-discovery test

Verify server discovery

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The command `vserver services access-check server-discovery test` completes the entire discovery including domain controller (DC), LDAP, and NIS servers for the default domain for a given Vserver on a given node. The Vserver must have CIFS configured for it to run successfully. If the discovery is successful, the command returns a success message. The discovered server information can be seen using the command `vserver cifs domain discovered-servers`.

Parameters

[-node {<nodename>|local}] - Node (privilege: advanced)

The name of the node on which the command is executed.

-vserver <vserver> - Vserver (privilege: advanced)

The name of the Vserver on which you want to test all of the discovered server information.

Examples

This example tests all of the discovered server information on Vserver "vs1" on node "node2."

```
cluster1::vserver services access-check*> server-discovery test -vserver
vs1 -node node2
Discovery Global succeeded for Vserver: vs1
```

vserver services name-service cache group-membership delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The vserver services name-service cache group-membership delete command removes the cached group membership entries of the users for the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group membership entries need to be deleted.

Examples

The following example deletes all the cached group membership entries for Vserver vs0:

```
cluster1::> vserver services name-service cache group-membership delete-
all -vserver vs0
```

Related Links

- vserver services name-service cache group-membership delete

vserver services name-service cache group-membership delete

Delete an entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache group-membership delete` command removes the cached group membership entries of the users.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group membership entries need to be deleted.

`-user <text>` - User Name (privilege: advanced)

Use this parameter to specify the user name for which the cached group membership entries need to be

deleted.

-group <integer> - Gid (privilege: advanced)

Use this parameter to specify the primary group identifier or GID for which the cached group membership entries need to be deleted.

Examples

The following example deletes all the cached group membership entries for Vserver vs0, user 'a' and group '1':

```
cluster1::> vserver services name-service cache group-membership delete
-vserver vs0 -user a -group 1
```

vserver services name-service cache group-membership show

Display group list

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache group-membership show` command displays the cached group membership information of the users.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the cached group membership details of the user.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group membership entries need to be displayed.

[-user <text>] - User Name (privilege: advanced)

Use this parameter to display information only about the cached group membership entries that have the specified user name.

[-group <integer>] - Gid (privilege: advanced)

Use this parameter to display information only about the cached group membership entries of the users that have the specified primary group identifier or GID.

[-ngroups <integer>] - Number of Groups (privilege: advanced)

Use this parameter to display information only about the cached group membership entries of the users who belong to the specified number of groups.

[-groups <integer>,…] - Group List (privilege: advanced)

Use this parameter to display information only about the cached group membership entries of the users who belong to the specified group identifiers or GIDs.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the group membership entries that were cached at the specified time.

[-is-partial {true|false}] - Is Partial Result (privilege: advanced)

Use this parameter to display information only about the group membership entries that have the specified value for partial result. The Value *true* displays only the cached entries that have partial result and the value *false* displays only the cached entries that do not have partial result.

Examples

The following example displays the group membership details of the users for all the vservers:

```
cluster1::> vserver services name-service cache group-membership show
```

The following example displays all the group membership details of the users for Vserver vs0:

```
cluster1::> vserver services name-service cache group-membership show
-vserver vs0
```

vserver services name-service cache group-membership settings modify

Modify Group Membership Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache group-membership settings modify` command modifies the group membership cache configuration of the specified Vserver.

Parameters

-vserver <vserver name> - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group membership cache settings need to be modified.

[-is-enabled {true|false}] - Is Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the group membership database. The value *true* means the cache is enabled and the value *false* means the cache is diabled. The default value for this parameter is *true* .

[-grplist-ttl <[<integer>h][<integer>m][<integer>s]>] - Time to Live for Grplist (privilege: advanced)

Use this parameter to specify the time (in hours, minutes and seconds) for which the group membership entries need to be cached. The default value is 1 hour.

Examples

The following example modifies the group membership cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache group-membership settings
modify -vserver vs0 -grplist-ttl 600
```

The following example disables the group membership cache for Vserver vs0:

```
cluster1::> vserver services name-service cache group-membership settings
modify -vserver vs0 -is-enabled false
```

vserver services name-service cache group-membership settings show

Display Group Membership Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache group-membership settings show` command displays information about the group membership cache configuration for the users.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the group membership cache configuration settings.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to display information about the group membership cache configuration settings for the Vserver you specify.

[-is-enabled {true|false}] - Is Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the group membership cache configuration settings that have the specified cache enabled setting. The value *`true`* displays only the entries that have cache

enabled and the value *false* displays only the entries that have cache disabled.

[-grplist-ttl <[<integer>h][<integer>m][<integer>s]>] - Time to Live for Grplist (privilege: advanced)

Use this parameter to display information only about the group membership cache configuration settings that have the specified Time to Live.

Examples

The following example shows the group membership cache configuration settings for all the Vservers:

```
cluster1::> vserver services name-service cache group-membership settings
show
```

The following example shows the group membership cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache group-membership settings
show -vserver vs0
```

vserver services name-service cache hosts forward-lookup delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache hosts forward-lookup delete-all` command removes all the cached host to IP lookup entries for a Vserver.

Parameters

-vserver <vserver name> - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached forward lookup entries need to be deleted.

Examples

The following example deletes all the cached forward lookup entries for Vserver vs0:

```
cluster1::> vserver services name-service cache hosts forward-lookup
delete-all -vserver vs0
```

vserver services name-service cache hosts forward-lookup delete

Delete an entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache hosts forward-lookup delete` command removes a cached host to IP lookup entry.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached forward lookup table entries need to be deleted.

`-host <text>` - Hostname (privilege: advanced)

Use this parameter to specify the hostname of the cached forward lookup table entries that need to be deleted.

`-protocol {Any|ICMP|TCP|UDP}` - Protocol (privilege: advanced)

Use this parameter to specify the protocol of the cached forward lookup table entries that need to be deleted.

`-sock-type {SOCK_ANY|SOCK_STREAM|SOCK_DGRAM|SOCK_RAW}` - Sock Type (privilege: advanced)

Use this parameter to specify the socket type of the cached forward lookup table entries that need to be deleted.

`-flags {FLAG_NONE|AI_PASSIVE|AI_CANONNAME|AI_NUMERICHOST|AI_NUMERICSERV}` - Flags (privilege: advanced)

Use this parameter to specify the flag of the cached forward lookup table entries that need to be deleted.

`-family {Any|Ipv4|Ipv6}` - Family (privilege: advanced)

Use this parameter to specify the family of the cached forward lookup table entries that need to be deleted.

Examples

The following example deletes the cached forward lookup entry for Vserver vs0 and host "abc":

```
cluster1::> vserver services name-service cache hosts forward-lookup
delete -vserver vs0 -host abc
```

vserver services name-service cache hosts forward-lookup show

Display host-byname struct

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache hosts forward-lookup show` command displays the cached host to IP lookup entries.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the cached forward lookup table entries.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached forward lookup table entries need to be displayed.

[-host <text>] - Hostname (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified hostname.

[-protocol {Any|ICMP|TCP|UDP}] - Protocol (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specifed protocol.

[-sock-type {SOCK_ANY|SOCK_STREAM|SOCK_DGRAM|SOCK_RAW}] - Sock Type (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified socket type.

[-flags {FLAG_NONE|AI_PASSIVE|AI_CANONNAME|AI_NUMERICHOST|AI_NUMERICSERV}] - Flags (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified flags.

[-family {Any|Ipv4|Ipv6}] - Family (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified family.

[-canonname <text>] - Canonical Name (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified canonical name.

[-ips <IP Address>,…] - IP Addresses (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified IPs.

[-ip-protocol {Any|ICMP|TCP|UDP}] - Protocol (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified protocol of the resolved IP address from forward lookup.

[-ip-sock-type {SOCK_ANY|SOCK_STREAM|SOCK_DGRAM|SOCK_RAW}] - Sock Type (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified socket type of the resolved IP address from forward lookup.

[-ip-family {Any|Ipv4|Ipv6}] - Family (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified IP address family of the resolved IP address from forward lookup.

[-ip-addr-length <integer>,…] - Length (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified IP address length of the resolved IP address from forward lookup.

[-source {none|files|dns|nis|ldap|netgrp_byname|dc}] - Source of the Entry (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified IP source of the resolved IP address from forward lookup.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified time when the entry was cached.

[-ttl <integer>] - DNS TTL (privilege: advanced)

Use this parameter to display information only about the cached forward lookup table entries that have the specified Time To Live.

Examples

The following example displays all the cached forward lookup entries:

```
cluster1::> vserver services name-service cache hosts forward-lookup show
```

The following example displays all the cached forward lookup entries for Vserver vs0:

```
cluster1::> vserver services name-service cache hosts forward-lookup show
-vserver vs0
```

vserver services name-service cache hosts reverse-lookup delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache hosts reverse-lookup delete-all` command removes all the cached IP to host lookup entries for a Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver whose cached reverse lookup entries need to be deleted.

Examples

The following example deletes all the cached reverse lookup entries for Vserver vs0:

```
cluster1::> vserver services name-service cache hosts reverse-lookup
delete-all -vserver vs0
```

vserver services name-service cache hosts reverse-lookup delete

Delete an entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache hosts reverse-lookup delete` command removes a cached IP to host lookup entry.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached reverse lookup table entries need to be deleted.

`-ip <IP Address>` - IP Address (privilege: advanced)

Use this parameter to specify the IP address of the cached reverse lookup table entries that need to be deleted.

-serv-flag <integer> - Service flags (privilege: advanced)

Use this parameter to specify the service flag of the cached reverse lookup table entries that need to be deleted.

Examples

The following example deletes the cached reverse lookup entry for Vserver vs0 and IP address 1.1.1.1:

```
cluster1::> vserver services name-service cache hosts reverse-lookup
delete -vserver vs0 -ip 1.1.1.1
```

vserver services name-service cache hosts reverse-lookup show

Display ip-to-host struct

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache hosts reverse-lookup show` command displays the cached IP to host lookup(reverse lookup) entries.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the cached reverse lookup table entries.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached reverse lookup table entries need to be displayed.

[-ip <IP Address>] - IP Address (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified IP address.

[-serv-flag <integer>] - Service flags (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specifed service flag.

[-host <text>] - Hostname (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified hostname.

[-service <text>] - Service Name (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified service name.

[-aliases <text>,…] - Host Aliases (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified aliases.

[-addrtype <integer>] - Address Type (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified address type.

[-addrlength <integer>] - Address Length (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified address length.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified create time.

[-source {none|files|dns|nis|ldap|netgrp_byname|dc}] - Source of the Entry (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified source.

[-ttl <integer>] - DNS TTL (privilege: advanced)

Use this parameter to display information only about the cached reverse lookup table entries that have the specified Time To Live.

Examples

The following example displays all the cached reverse lookup entries:

```
cluster1::> vserver services name-service cache hosts reverse-lookup show
```

The following example displays the cached reverse lookup entries for Vserver vs0:

```
cluster1::> vserver services name-service cache hosts reverse-lookup show
-vserver vs0
```

vserver services name-service cache hosts settings modify

Modify Hosts Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache hosts settings modify` command modifies the hosts cache configuration of the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the hosts cache settings need to be modified.

`[-is-enabled {true|false}]` - Is Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the hosts database. The value *`true`* means the cache is enabled and the value *`false`* means the cache is disabled. The default value for this parameter is *`true`* .

`[-is-negative-cache-enabled {true|false}]` - Is Negative Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the negative entries. Negative entries means the entries which are not present in the hosts database and the lookup fails. The default value for this parameter is *`true`* . Negative cache is disabled by default if the parameter *`is-enabled`* is set to *`false`* .

`[-ttl <[<integer>h][<integer>m][<integer>s]>]` - Time to Live (privilege: advanced)

Use this parameter to specify the time (in hours, minutes and seconds) for which the positive entries need to be cached. The positive entries means the entries which are present in the hosts database and the lookup succeeds. The default value is 24 hours.

`[-negative-ttl <[<integer>h][<integer>m][<integer>s]>]` - Negative Time to Live (privilege: advanced)

Use this parameter to specify the time for which the negative entries need to be cached. The default value is 1 minute.

`[-is-dns-ttl-enabled {true|false}]` - Is TTL Taken from DNS (privilege: advanced)

Specifies whether TTL is taken from DNS or host settings. If this parameter is true, TTL is based on the DNS setting. If false, TTL is based on the host setting. The default value is true.

Examples

The following example modifies the hosts cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache hosts settings modify
-vserver vs0 -ttl 600 -negative-ttl 300
```

The following example disables the cache for Vserver vs0:

```
cluster1::> vserver services name-service cache hosts settings modify
-vserver vs0 -is-enabled false
```

vserver services name-service cache hosts settings show

Display Hosts Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache hosts settings show` command displays information about the hosts cache configuration of the specified Vserver.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the hosts cache configuration settings.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to display information about the hosts cache configuration settings for the Vserver you specify.

[-is-enabled {true|false}] - Is Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the hosts cache configuration settings that have the specified cache enabled setting. Value *true* displays only the entries that have cache enabled and value *false* displays only the entries that have cache disabled.

[-is-negative-cache-enabled {true|false}] - Is Negative Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the hosts cache configuration settings that have the specified negative cache enabled setting. Value *true* displays only the entries that have negative cache enabled and value *false* displays only the entries that have negative cache disabled.

[-ttl <[<integer>h][<integer>m][<integer>s]>] - Time to Live (privilege: advanced)

Use this parameter to display information only about the hosts cache configuration settings that have the specified Time to Live.

[-negative-ttl <[<integer>h][<integer>m][<integer>s]>] - Negative Time to Live (privilege: advanced)

Use this parameter to display information only about the hosts cache configuration setings that have the specified negative Time to Live.

[-is-dns-ttl-enabled {true|false}] - Is TTL Taken from DNS (privilege: advanced)

Specifies whether TTL is based on the DNS or host settings.

Examples

The following example shows the hosts cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache hosts settings show
-vserver vs0
```

The following example shows the hosts cache configuration settings that have cache disabled:

```
cluster1::> vserver services name-service cache hosts settings show -is
-enabled false
```

vserver services name-service cache netgroups ip-to-netgroup delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache netgroups ip-to-netgroup delete-all` command removes all the cached client IP to netgroup entries of the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached client IP to netgroup entries need to be deleted.

Examples

The following example deletes all the cached IP to netgroup entries for Vserver vs0:

```
cluster1::> vserver services name-service cache netgroups ip-to-netgroup
delete-all -vserver vs0
```

vserver services name-service cache netgroups ip-to-netgroup delete

Delete netgroup.byhost cache entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache netgroups ip-to-netgroup delete` command removes the cached client IP to netgroup entries.

Parameters

-vserver <vserver name> - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached client IP to netgroup entries need to be deleted.

-host <text> - Host field (privilege: advanced)

Use this parameter to specify the IP address for which the cached IP to netgroup entries need to be deleted.

-netgrp <text> - Netgroup field (privilege: advanced)

Use this parameter to specify the netgroup for which the cached IP to netgroup entries need to be deleted.

Examples

The following example deletes all the cached IP to netgroup entries for Vserver vs0, host 1.1.1.1 and netgrp 'abc':

```
cluster1::> vserver services name-service cache netgroups ip-to-netgroup
delete -vserver vs0 -host 1.1.1.1 -netgrp abc
```

vserver services name-service cache netgroups ip-to-netgroup show

Display netgroup.byhost cache entries

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache netgroups ip-to-netgroup show` command displays the cached client IP to netgroup entries.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the cached client IP to netgroup entries.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached client IP to netgroup entries need to be displayed.

[-host <text>] - Host field (privilege: advanced)

Use this parameter to display information only about the cached IP to netgroup entries that have the specified IP address.

[-netgrp <text>] - Netgroup field (privilege: advanced)

Use this parameter to display information only about the cached IP to netgroup entries that have the specifed netgroup.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the IP to netgroup entries that were cached at the specified time.

[-source {none|files|dns|nis|ldap|netgrp_byname|dc}] - Source of the Entry (privilege: advanced)

Use this parameter to display information only about the cached IP to netgroup entries that have the specified look-up source.

Examples

The following example displays all the cached IP to netgroup entries:

```
cluster1::> vserver services name-service cache netgroups ip-to-netgroup
show
```

The following example shows all the cached IP to netgroup entries for Vserver vs0:

```
cluster1::> vserver services name-service cache netgroups ip-to-netgroup
show -vserver vs0
```

vserver services name-service cache netgroups members delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache netgroups members delete-all` command deletes all the cached netgroup member entries of the specified Vserver.

Parameters

-vserver <vserver name> - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached netgroup members entries need to be deleted.

Examples

The following example deletes all the cached netgroup members of Vserver vs0:

```
cluster1::> vserver services name-service cache netgroups members delete-
all -vserver vs0
```

vserver services name-service cache netgroups members delete

Delete netgroup cache entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache netgroups members delete` command deletes the cached members of the netgroups.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached netgroup members entries need to be deleted.

`-netgroup <text>` - Netgroup (privilege: advanced)

Use this parameter to specify the netgroup for which the cached netgroup members entries need to be deleted.

Examples

The following example deletes all the cached netgroup members entries for Vserver vs0 and netgroup 'abc':

```
cluster1::> vserver services name-service cache netgroups members delete
-vserver vs0 -netgroup abc
```

vserver services name-service cache netgroups members show

Display netgroup cache entries

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache netgroups members show` command displays the

cached members of the netgroups.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the cached members of a netgroup.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the cached netgroup members entries need to be displayed.

[-netgroup <text>] - Netgroup (privilege: advanced)

Use this parameter to display information only about the cached members that belong to the specified netgroup.

[-hosts <text>] - Hosts (privilege: advanced)

Use this parameter to display information only about the cached netgroups that have the specifed host as a member.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the netgroup member entries that were cached at the specified time.

[-source {none|files|dns|nis|ldap|netgrp_byname|dc}] - Source of the Entry (privilege: advanced)

Use this parameter to display information only about the cached netgroup member entries that have the specified look-up source.

Examples

The following example displays all the cached netgroup members entries:

```
cluster1::> vserver services name-service cache netgroups members show
```

The following example displays all the cached netgroup members entries for Vserver vs0:

```
cluster1::> vserver services name-service cache netgroups members show
-vserver vs0
```

vserver services name-service cache netgroups settings modify

Modify Netgroup Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache netgroups settings modify` command modifies the netgroups cache configuration of the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the netgroups cache settings need to be modified.

`[-is-enabled {true|false}]` - Is Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the netgroups database. The value *`true`* means the cache is enabled and the value *`false`* means the cache is disabled. The default value for this parameter is *`true`* .

`[-is-negative-cache-enabled {true|false}]` - Is Negative Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the negative entries. Negative entries means the entries which are not present in the netgroups database and the look-up fails. The default value for this parameter is *`true`* . Negative cache is disabled by default if the parameter *`is-enabled`* is set to *`false`* .

`[-ttl <[<integer>h][<integer>m][<integer>s]>]` - Time to Live (privilege: advanced)

Use this parameter to specify the time (in hours, minutes and seconds) for which the positive entries need to be cached. The positive entries means the entries which are present in the netgroups database and the look-up succeeds. The default value is 24 hours.

`[-negative-ttl <[<integer>h][<integer>m][<integer>s]>]` - Negative Time to Live (privilege: advanced)

Use this parameter to specify the time (in hours, minutes and seconds) for which the negative entries need to be cached. The default value is 30 minutes.

`[-ttl-members <[<integer>h][<integer>m][<integer>s]>]` - TTL for netgroup members (privilege: advanced)

Use this parameter to specify the time (in hours, minutes and seconds) for which the netgroup members need to be cached. The default value is 24 hours.

Examples

The following example modifies the netgroups cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache netgroups settings modify
-vserver vs0 -ttl 600 -negative-ttl 300
```

The following example disables the cache for Vserver vs0:

```
cluster1::> vserver services name-service cache netgroups settings modify
-vserver vs0 -is-enabled false
```

vserver services name-service cache netgroups settings show

Display Netgroup Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache netgroups settings show` command displays information about the netgroups cache configuration of the specified Vserver.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the netgroups cache configuration settings.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to display information about the netgroups cache configuration settings for the Vserver you specify.

[-is-enabled {true|false}] - Is Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the netgroups cache configuration settings that have the specified cache enabled setting. Value *`true`* displays only the entries that have cache enabled and value *`false`* displays only the entries that have cache disabled.

[-is-negative-cache-enabled {true|false}] - Is Negative Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the netgroups cache configuration settings that have the specified negative cache enabled setting. Value *`true`* displays only the entries that have negative cache enabled and value *`false`* displays only the entries that have negative cache disabled.

[-ttl <[<integer>h][<integer>m][<integer>s]>] - Time to Live (privilege: advanced)

Use this parameter to display information only about the netgroups cache configuration settings that have the specified Time to Live.

[-negative-ttl <[<integer>h][<integer>m][<integer>s]>] - Negative Time to Live (privilege: advanced)

Use this parameter to display information only about the netgroups cache configuration setings that have the specified negative Time to Live.

[-ttl-members <[<integer>h][<integer>m][<integer>s]>] - TTL for netgroup members (privilege: advanced)

Use this parameter to display information only about the netgroups cache configuration settings that have the specified Time to Live for netgroup members.

Examples

The following example shows the netgroups cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache netgroups settings show
-vserver vs0
```

The following example shows the netgroups cache configuration settings that have cache disabled:

```
cluster1::> vserver services name-service cache netgroups settings show
-is-enabled false
```

vserver services name-service cache settings modify

Modify nameservice global cache settings

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache settings modify` command modifies the global name service cache configuration.

Parameters

[-eviction-time-interval <[<integer>h][<integer>m][<integer>s]>] - Cache Eviction Time Interval (privilege: advanced)

Use this parameter to specify the time interval after which a periodic cache eviction will happen. The default value is 4 hours.

[-is-remote-fetch-enabled {true|false}] - Is Remote Fetch Enabled (privilege: advanced)

Use this parameter to specify whether a node is allowed to fetch the data from a remote node or not. If the value is set as *`false`* , the node is not allowed to fetch the data from the remote node. If the value is set as *`true`* , remote fetch is allowed.

Examples

The following example modifies the global nameservice cache configuration:

```
cluster1::> vserver services name-service cache settings modify -eviction
-time-interval 1h -is-remote-fetch-enabled true
```

vserver services name-service cache settings show

Display nameservice global cache settings

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache settings show` command displays information about the global name service cache configuration.

Examples

The following example shows the global nameservice cache configuration:

```
cluster1::> vserver services name-service cache settings show
```

vserver services name-service cache unix-group group-by-gid delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-group group-by-gid delete-all` command removes all the group entries that are cached by the group identifier or GID.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group entries that are cached by the group identifier or GID need to be deleted.

Examples

The following example deletes all the cached group entries for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-group group-by-gid
delete-all -vserver vs0
```

vserver services name-service cache unix-group group-by-gid delete

Delete an entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-group group-by-gid delete` command removes the group entries that are cached by the group identifier or GID. If group cache propagation is enabled, the corresponding group-by-name cache entry will also be removed.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group entries that are cached by the group identifer or GID need to be deleted.

`-gr-gid <integer>` - gr_gid field (privilege: advanced)

Use this parameter to specify the group identifier or GID for which the cached entries need to be deleted.

Examples

The following example deletes all the cached group entries for Vserver vs0 and the group identifier or GID 123:

```
cluster1::> vserver services name-service cache unix-group group-by-gid
delete -vserver vs0 -gr-gid 123
```

vserver services name-service cache unix-group group-by-gid show

Display group struct

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-group group-by-gid show` command displays the group information cached by the group identifier or GID.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the group entries cached by the group identifier or GID.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group entries that are cached by the group identifer or GID need to be displayed.

[-gr-gid <integer>] - gr_gid field (privilege: advanced)

Use this parameter to display information only about the cached group entries that have the specified group identifier or GID.

[-gr-name <text>] - gw_name field (privilege: advanced)

Use this parameter to display information only about the cached group entries that have the specified group name.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the group entries that were cached at the specified time.

[-source {none|files|dns|nis|ldap|netgrp_byname|dc}] - Source of the Entry (privilege: advanced)

Use this parameter to display information only about the group entries cached by the group identifier or GID that have the specified lookup source.

Examples

The following example displays all the groups which are cached by the group identifier or GID:

```
cluster1::> vserver services name-service cache unix-group group-by-id
show
```

The following example displays all the group entries cached by the group identifier or GID for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-group group-by-id
show -vserver vs0
```

vserver services name-service cache unix-group group-by-name delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-group group-by-name delete-all` command removes all the group entries that are cached by the group name for the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group entries that are cached by group name need to be deleted.

Examples

The following example deletes all the cached group entries for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-group group-by-name
delete-all -vserver vs0
```

vserver services name-service cache unix-group group-by-name delete

Delete an entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-group group-by-name delete` command removes the group entries that are cached by group name. If group cache propagation is enabled, the corresponding group-by-gid cache entry will also be removed.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group entries that are cached by group name need to be deleted.

`-gr-name <text>` - gw_name field (privilege: advanced)

Use this parameter to specify the group name for which the cached entries need to be deleted.

Examples

The following example deletes all the cached group entries for Vserver vs0 and group name abc:

```
cluster1::> vserver services name-service cache unix-group group-by-name
delete -vserver vs0 -gr-name abc
```

vserver services name-service cache unix-group group-by-name show

Display group struct

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-group group-by-name show` command displays the group information cached by group name.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the group entries cached by group name.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the group entries that are cached by group name need to be displayed.

[-gr-name <text>] - gw_name field (privilege: advanced)

Use this parameter to display information only about the cached group entries that have the specified group name.

[-gr-gid <integer>] - gr_gid field (privilege: advanced)

Use this parameter to display information only about the cached group entries that have the specified group identifier or GID.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the group entries that were cached at the specified time.

[-source {none|files|dns|nis|ldap|netgrp_byname|dc}] - Source of the Entry (privilege: advanced)

Use this parameter to display information only about the group entries cached by group name that have the specified lookup source.

Examples

The following example displays all the groups which are cached by group name:

```
cluster1::> vserver services name-service cache unix-group group-by-name
show
```

The following example displays all the group entries cached by group name for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-group group-by-name
show -vserver vs0
```

vserver services name-service cache unix-group settings modify

Modify UNIX Group Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-group settings modify` command modifies the groups cache configuration of the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the groups cache settings need to be modified.

`[-is-enabled {true|false}]` - Is Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the groups database. The value *`true`* means the cache is enabled and the value *`false`* means the cache is disabled. The default value for this parameter is *`true`* .

`[-is-negative-cache-enabled {true|false}]` - Is Negative Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the negative entries. Negative entries means the entries which are not present in the groups database and the lookup fails. The default value for this parameter is *`true`* . Negative cache is disabled by default if the parameter *`is-enabled`* is set to *`false`* .

`[-ttl <[<integer>h][<integer>m][<integer>s]>]` - Time to Live (privilege: advanced)

Use this parameter to specify the time(in hours, minutes and seconds) for which the positive entries need to be cached. The positive entries means the entries which are present in the groups database and the lookup succeeds. The default value is 24 hours.

[-negative-ttl <[<integer>h][<integer>m][<integer>s]>] - Negative Time to Live (privilege: advanced)

Use this parameter to specify the time(in hours, minutes and seconds) for which the negative entries need to be cached. The default value is 5 minutes.

[-is-propagation-enabled {true|false}] - Is Propagation Enabled? (privilege: advanced)

Use this parameter to specify whether the cached groups entries need to be propagated to the group by the group identifier or GID cache. The default value is *true* . Specify *false* to disable propagation.

Examples

The following example modifies the groups cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-group settings modify
-vserver vs0 -ttl 600 -negative-ttl 300
```

The following example disables the cache for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-group settings modify
-vserver vs0 -is-enabled false
```

vserver services name-service cache unix-group settings show

Display UNIX Group Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-group settings show` command displays information about the groups cache configuration of the specified Vserver.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the groups cache configuration settings.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to display information about the groups cache configuration settings for the Vserver you specify.

[-is-enabled {true|false}] - Is Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the groups cache configuration settings that have the specified cache enabled setting. The value *true* displays only the entries that have cache enabled and the value *false* displays only the entries that have cache disabled.

[-is-negative-cache-enabled {true|false}] - Is Negative Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the groups cache configuration settings that have the specified negative cache enabled setting. The value *true* displays only the entries that have negative cache enabled and the value *false* displays only the entries that have negative cache disabled.

[-ttl <[<integer>h][<integer>m][<integer>s]>] - Time to Live (privilege: advanced)

Use this parameter to display information only about the groups cache configuration settings that have the specified Time to Live.

[-negative-ttl <[<integer>h][<integer>m][<integer>s]>] - Negative Time to Live (privilege: advanced)

Use this parameter to display information only about the groups cache configuration setings that have the specified negative Time to Live.

[-is-propagation-enabled {true|false}] - Is Propagation Enabled? (privilege: advanced)

Use this parameter to display information only about the groups cache configuration settings that have the specified propagation enabled setting. The value *true* displays only the entries that have the propagation of cached entries to groups by the group identifier or GID cache enabled and the value *false* displays only the entries that have the propagation of cached entries to groups by the group identifier or GID cache disabled.

Examples

The following example shows the groups cache configuration settings for all the Vservers:

```
cluster1::> vserver services name-service cache unix-group settings show
```

The following example shows the groups cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-group settings show
-vserver vs0
```

The following example shows the groups cache configuration settings that have cache disabled:

```
cluster1::> vserver services name-service cache unix-group settings show
-is-enabled false
```

vserver services name-service cache unix-user settings modify

Modify UNIX users Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-user settings modify` command modifies the users cache configuration of the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the users cache settings need to be modified.

`[-is-enabled {true|false}]` - Is Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the users database.The value *`true`* means the cache is enabled and the value *`false`* means the cache is disabled. The default value for this parameter is *`true`* .

`[-is-negative-cache-enabled {true|false}]` - Is Negative Cache Enabled? (privilege: advanced)

Use this parameter to specify if the cache needs to be enabled for the negative entries. Negative entries means the entries which are not present in the users database and the look-up fails. The default value for this parameter is *`true`* . Negative cache is disabled by default if the parameter *`is-enabled`* is set to *`false`* .

`[-ttl <[<integer>h][<integer>m][<integer>s]>]` - Time to Live (privilege: advanced)

Use this parameter to specify the time (in hours, minutes and seconds) for which the positive entries need to be cached. The positive entries means the entries which are present in the users database and the look-up succeeds. The default value is 24 hours.

`[-negative-ttl <[<integer>h][<integer>m][<integer>s]>]` - Negative Time to Live (privilege: advanced)

Use this parameter to specify the time (in hours, minutes and seconds) for which the negative entries need to be cached. The default value is 5 minutes.

`[-is-propagation-enabled {true|false}]` - Is Propagation Enabled? (privilege: advanced)

Use this parameter to specify whether the cached users entries need to be propagated to the users by id cache. The default value is *`true`* . Specify *`false`* to disable propagation.

Examples

The following example modifies the users cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-user settings modify
-vserver vs0 -ttl 600 -negative-ttl 300
```

The following example disables the cache for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-user settings modify
-vserver vs0 -is-enabled false
```

vserver services name-service cache unix-user settings show

Display UNIX users Cache Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-user settings show` command displays information about the users cache configuration of the specified Vserver.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the users cache configuration settings.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to display information about the users cache configuration settings for the Vserver you specify.

[-is-enabled {true|false}] - Is Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the users cache configuration settings that have the specified cache enabled setting. Value *`true`* displays only the entries that have cache enabled and value *`false`* displays only the entries that have cache disabled.

[-is-negative-cache-enabled {true|false}] - Is Negative Cache Enabled? (privilege: advanced)

Use this parameter to display information only about the users cache configuration settings that have the specified negative cache enabled setting. Value *`true`* displays only the entries that have negative cache enabled and value *`false`* displays only the entries that have negative cache disabled.

[-ttl <[<integer>h][<integer>m][<integer>s]>] - Time to Live (privilege: advanced)

Use this parameter to display information only about the users cache configuration settings that have the specified Time to Live.

[-negative-ttl <[<integer>h][<integer>m][<integer>s]>] - Negative Time to Live (privilege: advanced)

Use this parameter to display information only about the users cache configuration setings that have the specified negative Time to Live.

[-is-propagation-enabled {true|false}] - Is Propagation Enabled? (privilege: advanced)

Use this parameter to display information only about the users cache configuration settings that have the specified propagation enabled setting. Value *true* displays only the entries that have the propagation of cached entries to users by id cache enabled and value *false* displays only the entries that have the propagation of cached entries to users by id cache disabled.

Examples

The following example shows the users cache configuration settings for all the Vservers:

```
cluster1::> vserver services name-service cache unix-user settings show
```

The following example shows the users cache configuration settings for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-user settings show
-vserver vs0
```

The following example shows the users cache configuration settings that have cache disabled:

```
cluster1::> vserver services name-service cache unix-user settings show
-is-enabled false
```

vserver services name-service cache unix-user user-by-id delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-user user-by-id delete-all` command removes all the user entries that are cached by the user identifier or UID for the specified Vserver.

Parameters

-vserver <vserver name> - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the user entries that are cached by the user identifier or UID need to be deleted.

Examples

The following example deletes all the cached user entries for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-user user-by-id
delete-all -vserver vs0
```

vserver services name-service cache unix-user user-by-id delete

Delete an entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-user user-by-id delete` command removes the user entries that are cached by the user identifier or UID. If user cache propagation is enabled, the corresponding user-by-name cache entry will also be removed.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the user entries that are cached by the user identifier or UID need to be deleted.

`-pw-uid <integer>` - pw_uid field (privilege: advanced)

Use this parameter to specify the user identifier or UID for which the cached entries need to be deleted.

Examples

The following example deletes all the user entries cached by the user identifer or UID for Vserver vs0 and user identifier or UID 123:

```
cluster1::> vserver services name-service cache unix-user user-by-id
delete -vserver vs0 -pw-uid 123
```

vserver services name-service cache unix-user user-by-id show

Display password struct

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-user user-by-id show` command displays the user information cached by the user identifier or UID.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the user entries cached by the user identifier or UID.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the user entries that are cached by the user identifier or UID need to be displayed.

[-pw-uid <integer>] - pw_uid field (privilege: advanced)

Use this parameter to specify the user identifier or UID for which the cached entries need to be displayed.

[-pw-name <text>] - pw_name field (privilege: advanced)

Use this parameter to display information only about the cached user entries that have the specified user identifier or UID.

[-pw-gid <integer>] - pw_gid field (privilege: advanced)

Use this parameter to display information only about the cached user entries that have the specified group identifier or GID.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the user entries that were cached at the specified time.

[-source {none|files|dns|nis|ldap|netgrp_byname|dc}] - Source of the Entry (privilege: advanced)

Use this parameter to display information only about the user entries cached by the user identifier or UID that have the specified lookup source.

Examples

The following example displays all the users which are cached by the user identifier or UID:

```
cluster1::> vserver services name-service cache unix-user user-by-id show
```

The following example displays all the users entries cached by the user identifier or UID for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-user user-by-id show
-vserver vs0
```

vserver services name-service cache unix-user user-by-name delete-all

Delete all the entries for the vserver

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-user user-by-name delete-all` command removes all the user entries that are cached by the user name for the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the user entries that are cached by user name need to be deleted.

Examples

The following example deletes all the cached user entries for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-user user-by-name
delete-all -vserver vs0
```

vserver services name-service cache unix-user user-by-name delete

Delete an entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-user user-by-name delete` command removes the user entries that are cached by the user name. If user cache propagation is enabled, the corresponding user-by-id cache will also be removed.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the user entries that are cached by user name need to be deleted.

`-pw-name <text>` - pw_name field (privilege: advanced)

Use this parameter to specify the user name for which the cached entries need to be deleted.

Examples

The following example deletes all the cached user entries for Vserver vs0 and user name abc:

```
cluster1::> vserver services name-service cache unix-user user-by-name
delete -vserver vs0 -pw-name abc
```

vserver services name-service cache unix-user user-by-name show

Display password struct

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service cache unix-user user-by-name show` command displays the user information cached by the user name.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

Use this parameter to display detailed information about the user entries cached by the user name.

[-vserver <vserver name>] - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the user entries that are cached by the user name need to be displayed.

[-pw-name <text>] - pw_name field (privilege: advanced)

Use this parameter to display information only about the cached user entries that have the specified user name.

[-pw-uid <integer>] - pw_uid field (privilege: advanced)

Use this parameter to display information only about the cached user entries that have the specified user identifier or UID.

[-pw-gid <integer>] - pw_gid field (privilege: advanced)

Use this parameter to display information only about the cached user entries that have the specified group identifier or GID.

[-create-time <MM/DD/YYYY HH:MM:SS>] - Create Time (privilege: advanced)

Use this parameter to display information only about the user entries that were cached at the specified time.

[-source {none|files|dns|nis|ldap|netgrp_byname|dc}] - Source of the Entry (privilege: advanced)

Use this parameter to display information only about the user entries cached by user name that have the specified look-up source.

Examples

The following example displays all the users which are cached by user name:

```
cluster1::> vserver services name-service cache unix-user user-by-name
show
```

The following example displays all the users entries cached by user name for Vserver vs0:

```
cluster1::> vserver services name-service cache unix-user user-by-name
show -vserver vs0
```

vserver services name-service dns check

Display validation status of a DNS configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service dns check` command to check the status of configured DNS servers.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

-vserver <vserver name> - Vserver

Use this parameter to specify the Vserver whose DNS mapping needs to be validated.

[-name-server <IP Address>] - Name Server

Use this parameter to display information only about name-servers that match the value you specify.

[-status {up|down}] - Name Server Status

Use this parameter to display information only about name-servers with a status that matches the value you specify.

[-status-details <text>] - Status Details

Use this parameter to display information only about name-servers with status details that match the value you specify.

Examples

The following example checks the DNS server mapping on the Vserver vs0:

```
cluster1::> vserver services name-service dns check -vserver vs0
Vserver          Name Server     Status  Status Details
---------------- --------------- ------- -------------------------
vs0              10.11.12.13     up      Response time (msec): 55
vs0              10.11.12.14     up      Response time (msec): 70
vs0              10.11.12.15     down    Connection refused.
```

vserver services name-service dns create

Create a new DNS table entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service dns create` command creates new DNS server mappings. DNS servers provide remote connection information, such as IP addresses, based on domain and system names.

Parameters

-vserver <vserver name> - Vserver

Use this parameter to specify the Vserver on which to create the new DNS server mapping.

-domains <text>,… - Domains

Use this parameter to specify the domains of the Vserver. Separate multiple domains with commas.

-name-servers <IP Address>,… - Name Servers

Use this parameter to specify the IP addresses of the DNS servers that provide name service for the domains in this DNS server mapping. Separate multiple addresses with commas.

[-timeout <integer>] - Timeout (secs)

Use this parameter to specify a timeout value (in seconds) for queries to the name servers. The default value is 2 seconds.

[-attempts <integer>] - Maximum Attempts

Use this parameter to specify the number of attempts the Vserver should make when querying the DNS name servers. The default value is 1 attempt.

[-is-tld-query-enabled {true|false}] - Is TLD Query Enabled? (privilege: advanced)

Use this parameter to enable or disable top-level domain (TLD) queries. If the parameter is set to *false* , the resolver will not attempt to resolve a name that has no "." characters in it. The default value for this parameter is *true* .

[-require-source-address-match {true|false}] - Require Source and Reply IPs to Match (privilege: advanced)

Use this parameter to allow dns responses sourced from an IP that does not match where the vserver sent the request. If the parameter is set to *false* , the resolver will allow response from an IP other than the one to which the request was sent. The default value for this parameter is *true* .

[-require-packet-query-match {true|false}] - Require Packet Queries to Match (privilege: advanced)

Use this parameter to check if the query section of the reply packet is equal to that of the query packet. If the parameter is set to *false* , the resolver will not check if the query section of the reply packet is equal to that of the query packet. The default value for this parameter is *true* .

[-skip-config-validation <true>] - Skip Configuration Validation

Use this parameter to skip the DNS configuration validation.

The domain name specified with the `-domains` is validated with the following rules:

- The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_".
- The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9.
- The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9.
- The top level domain must contain only the following characters: A through Z, a through z.
- The maximum supported length is 254 characters.
- The system reserves the following names: "all", "local", and "localhost".

The hosts specified with the `-name-servers` parameter are validated to verify that each of the name servers is reachable, and is providing DNS services.

The validation fails, if the domain name is invalid, or there is no valid name server.

Examples

This example creates a new DNS server mapping for the Vserver vs0 in the domain example.com, specifying that 192.168.0.16 and 192.168.0.24 are the name servers for this domain.

```
cluster1::> vserver services name-service dns create -vserver vs0 -domains
example.com -name-servers 192.168.0.16,192.168.0.24
```

vserver services name-service dns delete

Remove a DNS table entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service dns delete` command removes the DNS server mapping from a Vserver.

Deleting a DNS server mapping removes it permanently. If you delete a DNS server mapping, commands or jobs that do not use IP addresses do not succeed.

Parameters

`-vserver <vserver name>` - Vserver

Use this parameter to specify the Vserver whose DNS server mapping is deleted.

Examples

This example removes the DNS server mapping from the Vserver node1.

```
cluster1::> vserver services name-service dns delete -vserver vs0
```

vserver services name-service dns modify

Change a DNS table entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service dns modify` command to modify an existing DNS server mapping.

To permanently remove a mapping, use the vserver services name-service dns delete command.

Parameters

`-vserver <vserver name>` - Vserver

Use this parameter to specify the Vserver whose DNS mapping is modified.

`[-domains <text>,…]` - Domains

Use this parameter to specify a domain for the Vserver.

`[-name-servers <IP Address>,…]` - Name Servers

Use this parameter to specify the IP addresses of the DNS name servers for this Vserver.

[-timeout <integer>] - Timeout (secs)

Use this parameter to specify a timeout value (in seconds) for queries to the DNS servers.

[-attempts <integer>] - Maximum Attempts

Use this parameter to specify the number of times to attempt queries to the DNS servers.

[-is-tld-query-enabled {true|false}] - Is TLD Query Enabled? (privilege: advanced)

Use this parameter to enable or disable top-level domain (TLD) queries. If the parameter is set to *false* , the resolver will not attempt to resolve a name that has no "." characters in it. The default value for this parameter is *true* .

[-require-source-address-match {true|false}] - Require Source and Reply IPs to Match (privilege: advanced)

Use this parameter to allow dns responses sourced from an IP that does not match where the vserver sent the request. If the parameter is set to *false* , the resolver will allow response from an IP other than the one to which the request was sent.

[-require-packet-query-match {true|false}] - Require Packet Queries to Match (privilege: advanced)

Use this parameter to check if the query section of the reply packet is equal to that of the query packet. If the parameter is set to *false* , the resolver will not check if the query section of the reply packet is equal to that of the query packet.

[-skip-config-validation <true>] - Skip Configuration Validation

Use this parameter to skip the DNS configuration validation.

The domain name specified with the `-domains` is validated with the following rules:

- The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_".
- The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9.
- The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9.
- The top level domain must contain only the following characters: A through Z, a through z.
- The maximum supported length is 254 characters.
- The system reserves the following names: "all", "local", and "localhost".

The hosts specified with the `-name-servers` parameter are validated to verify that each of the name servers is reachable, and is providing DNS services.

The validation fails, if the domain name is invalid, or there is no valid name server.

Examples

This example modifies the DNS server mapping for the domain example.com on the Vserver vs0, specifying that 10.0.0.1 and 10.0.0.2 are the name servers for this domain.

```
cluster1::> vserver services name-service dns modify -vserver vs0 -domains
example.com -name-servers 10.0.0.1,10.0.0.2
```

Related Links

- vserver services name-service dns delete

vserver services name-service dns show

Display DNS configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service dns show` command displays information about DNS server mappings. DNS servers provide remote connection information, such as IP addresses, based on domain and system names.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver

Use this parameter to display information only about the DNS server mapping of the Vservers you specify.

[-domains <text>,…] - Domains

Use this parameter to display information only about the DNS server mappings for Vservers in the domains you specify.

[-name-servers <IP Address>,…] - Name Servers

Use this parameter to display information only about DNS server mappings that use the DNS name servers you specify.

[-timeout <integer>] - Timeout (secs)

Use this parameter to display information only about DNS server mappings that have the timeout value you specify.

[-attempts <integer>] - Maximum Attempts

Use this parameter to display information only about DNS server mappings that make the maximum number of attempts you specify.

[-is-tld-query-enabled {true|false}] - Is TLD Query Enabled? (privilege: advanced)

Use this parameter to display information only about DNS server mappings that have the specified TLD query setting.

[-require-source-address-match {true|false}] - Require Source and Reply IPs to Match (privilege: advanced)

Use this parameter to display information only about DNS server mappings that have the specified setting to require the source address of the response packet to match the address where the vserver sent the request.

[-require-packet-query-match {true|false}] - Require Packet Queries to Match (privilege: advanced)

Use this parameter to display information only about DNS server mappings that have the specified setting to require the query section of the reply packet to match that of the query packet.

Examples

The following example shows typical output from the command. Note that cluster1 uses different name servers for example.com.

```
cluster1::> vserver services name-service dns show
                                                  Name
Vserver         Domains                           Servers
--------------- --------------------------------- ----------------
vs1             example.com                       10.0.0.1,
                                                  10.0.0.2
vs2             example.com, example2.com         10.0.0.1,
                                                  10.0.0.2
vs3             example.com, example2.com         192.168.0.1,
                                                  192.168.0.2
```

vserver services name-service dns dynamic-update modify

Modify a Dynamic DNS Update Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service dns dynamic-update modify` command modifies the configuration for dynamic DNS updates for a Data Vserver.

Parameters

-vserver <vserver name> - Vserver

Use this parameter to specify the Vserver for which you want to modify the dynamic DNS update configuration.

[-is-enabled {true|false}] - Is Dynamic DNS Update Enabled?

Use this parameter with value `true` to enable the dynamic DNS update feature. This field is set to `false` by default.

[-use-secure {true|false}] - Use Secure Dynamic Update?

Use this parameter with value `true` to enable secure dynamic DNS updates. This field is set to `false` by default.

[-vserver-fqdn <text>] - Vserver FQDN to Be Used for DNS Updates

Use this parameter to modify the Vserver FQDN to be used for dynamic DNS updates.

[-ttl <[<integer>h][<integer>m][<integer>s]>] - Time to Live for DNS Updates (privilege: advanced)

Use this parameter to modify the Time to Live value for the dynamic DNS updates. The default value is set to 24 hours. The maximum supported value for TTL is 720 hours.

[-skip-fqdn-validation <true>] - Skip Vserver FQDN Validation

If the parameter is specified, the FQDN name validation is skipped.

Examples

The following example enables the dynamic DNS update feature and modifies the FQDN to be used for dynamic DNS updates for the Vserver vs1, specifying vs1.abcd.com as the new FQDN.

```
cluster1::*> vserver services name-service dns dynamic-update modify
-vserver vs1 -is-enabled true -vserver-fqdn vs1.abcd.com
```

The following example modifies the dynamic DNS updates configuration to only send secure updates to the DNS server configured for the Vserver vs1.

```
cluster1::*> vserver services name-service dns dynamic-update modify
-vserver vs1 -is-enabled true -use-secure true
```

vserver services name-service dns dynamic-update prepare-to-downgrade

Disable the Dynamic DNS update feature to be compatible with releases earlier than Data ONTAP 8.3.1

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service dns dynamic-update prepare-to-downgrade` command disables the Dynamic DNS updates on all Vservers and removes all related configurations. This command is used to prepare for downgrading the system to a release earlier than Data ONTAP 8.3.1 only.

Examples

The following example disables the dynamic DNS updates feature.

```
cluster1::*> vserver services name-service dns dynamic-update prepare-to-
downgrade
  Warning: This command will disable dynamic DNS updates on all Vservers,
remove
    all related configurations, and disable the dynamic DNS update
    feature. Use this command to prepare for downgrading the system to a
    release earlier than Data ONTAP 8.3.1 only.
  Do you want to continue? {y|n}:
```

vserver services name-service dns dynamic-update show

Display Dynamic DNS Update Configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service dns dynamic-update show` command shows the dynamic DNS update configuration related to the DNS server for a Vserver.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver

Use this parameter to display dynamic DNS update configuration for the Vservers you specify.

[-is-enabled {true|false}] - Is Dynamic DNS Update Enabled?

Use this parameter with value `true` to display information about dynamic DNS update configurations that are active.

[-use-secure {true|false}] - Use Secure Dynamic Update?

Use this parameter with value `true` to display information about dynamic DNS update configurations that are set to send secure dynamic updates only.

[-vserver-fqdn <text>] - Vserver FQDN to Be Used for DNS Updates

Use this parameter to display information about dynamic DNS update configurations that are set to send the dynamic updates with the FQDN you have specified.

[-ttl <[<integer>h][<integer>m][<integer>s]>] - Time to Live for DNS Updates (privilege: advanced)

If you specify this parameter, the command displays dynamic DNS update configurations having the specified Time to Live value .

Examples

The following example shows all information about dynamic DNS update configurations.

```
cluster1::*> vserver services name-service dns dynamic-update show
      gupgclust-3::> dns dynamic-update show
      Vserver         Is-Enabled Use-Secure Vserver FQDN             TTL
      --------------- ---------- ---------- ------------------------
-------
      vs1             true       false      vs1.abcd.com             24h
      vs2             false      false      vs2.abcd.com             24h
      2 entries were displayed.
```

vserver services name-service dns dynamic-update record add

Adds a New DNS Resource Record

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service dns dynamic-update record add` command sends an update to add a new DNS resource record of an existing logical interface (LIF) of the Vserver to the configured DNS server.

Parameters

-vserver <vserver name> - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which you want to add a resource record on the configured DNS server.

-lif <lif-name> - Logical Interface (privilege: advanced)

Use this parameter to specify the Logical Interface(LIF) name for which you want to add a resource record on the configured DNS server.

Examples

The following example adds a resource record entry for the Logical Interface lif1 belonging to the Vserver vs1 to the configured DNS server.

```
cluster1::*> vserver services name-service dns dynamic-update record add
-vserver vs1 -lif lif1
```

vserver services name-service dns dynamic-update record delete

Deletes a DNS Resource Record

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service dns dynamic-update record delete` command sends an update to remove an existing DNS resource record of the Logical Interface (LIF) of the Vserver from the configured DNS server.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver of which you want to delete a resource record from the configured DNS server.

{ `-lif <lif-name>` - Logical Interface (privilege: advanced)

Use this parameter to specify the Logical Interface(LIF) name whose corresponding resource record you want to remove from the configured DNS server.

| `-address <IP Address>` - IP Address (privilege: advanced) }

Use this parameter to specify the IP address of the Logical Interface whose corresponding resource record you want to remove from the configured DNS server.

Examples

The following example removes a resource record entry of the Logical Interface lif1 belonging to the Vserver vs1 from the configured DNS server.

```
cluster1::*> vserver services name-service dns dynamic-update record
delete -vserver vs1 -lif lif1
```

The following example removes a resource record entry of the Logical Interface whose address is 1.1.1.1 belonging to the Vserver vs1 from the configured DNS server.

```
cluster1::*> vserver services name-service dns dynamic-update record
delete -address 1.1.1.1 -vserver vs1
```

vserver services name-service dns hosts create

Create a new host table entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service dns hosts create` command to create new DNS host table entries. These entries map hostnames to IP addresses.

Parameters

`-vserver <vserver name>` - Vserver

Use this parameter to specify the Vserver on which the host table entry will be created.

`-address <IP Address>` - IP Address

Use this parameter to specify the IP address of the new host table entry.

`-hostname <text>` - Canonical Hostname

Use this parameter to specify the full hostname for the new host table entry.

`[-aliases <text>,…]` - Aliases

Use this parameter to specify any aliases to include in the new host table entry. Separate multiple aliases with commas.

Examples

This example creates a new DNS host table entry for 10.0.0.17 on the vserver vs1, with the hostname test.example.com and the alias test.

```
cluster1::> vserver services name-service dns hosts create -vserver vs1
-address 10.0.0.17 -hostname test.example.com -aliases test
```

vserver services name-service dns hosts delete

Remove a host table entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service dns hosts delete` command to delete DNS host table entries.

Parameters

-vserver <vserver name> - Vserver

Use this parameter to specify the Vserver whose host table entry will be deleted.

-address <IP Address> - IP Address

Use this parameter to specify the IP address of the host table entry to delete.

Examples

This example removes the DNS host table entry of 10.0.0.15 from the host table of the vserver vs1.

```
cluster1::> vserver services name-service dns hosts delete -vserver vs1
-address 10.0.0.16

1 entry was deleted.
```

vserver services name-service dns hosts modify

Modify hostname or aliases

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service dns hosts modify` command to modify existing DNS host table entries.

Parameters

-vserver <vserver name> - Vserver

Use this parameter to specify the Vserver whose host table will be modified.

-address <IP Address> - IP Address

Use this parameter to specify the IP address of the host table entry to modify.

[-hostname <text>] - Canonical Hostname

Use this parameter to specify a full hostname for the host table entry.

[-aliases <text>,…] - Aliases

Use this parameter to specify alternate hostnames for the host table entry.

Examples

This example changes the host table of vserver vs1 so that the hostname stored in the host table entry for 10.0.0.57 is pgh.example.com.

```
cluster1::> vserver services name-service dns hosts modify -vserver -vs1
-address 10.0.0.57 -hostname pgh.example.com
1 entry was modified.
```

This example changes the host table of vserver vs1 to store the name loghost as an alternate hostname for IP address 10.0.0.5.

```
cluster1::> vserver services name-service dns hosts modify -vserver vs1
-address 10.0.0.5 -aliases loghost
1 entry was modified.
```

vserver services name-service dns hosts show

Display IP address to hostname mappings

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service dns hosts show` command to display Domain Name System (DNS) host table entries. These entries map hostnames to IP addresses. Entries may also include alternate hostnames, known as aliases. Host table entries enable you to refer to other Internet hosts by a memorable name instead of by a numeric IP address. This host table is similar to the /etc/hosts file found on most UNIX style systems.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver

Use this parameter to display information only about host table entries on the Vservers you specify.

[-address <IP Address>] - IP Address

Use this parameter to display information only about host table entries that match the IP addresses you specify.

[-hostname <text>] - Canonical Hostname

Use this parameter to display information only about host table entries that match the hostnames you specify.

[-aliases <text>,…] - Aliases

Use this parameter to display information only about host table entries that include the alternate hostnames you specify.

Examples

The following example shows a typical host table.

```
cluster1::> vserver services name-service dns hosts show
Vserver    Address         Hostname         Aliases
---------- -------------- --------------- ----------------------
vs1      10.0.0.10      mail.example.com
                                          mail, mailhost, snmp
vs1      10.0.0.15      ftp.example.com ftp
vs1      10.0.0.16      www.example.com www
vs2      10.0.0.10      mail.example.com
                                          mail, mailhost, snmp
vs2      10.0.0.15      ftp.example.com ftp
vs2      10.0.0.16      www.example.com www
vs2      10.0.0.17      test.example.com
7 entries were displayed.
```

vserver services name-service getxxbyyy getaddrinfo

Gets the IP address information by using the host name.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy getaddrinfo ` gets the IP address information by using the host name for a given Vserver. The underlying service for doing the lookup is selected based on the configured name service switch order.

Parameters

-node {<nodename>|local} - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

-vserver <vserver name> - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

-hostname <text> - Host Name (privilege: advanced)

Use this parameter to specify the Host Name for which the IP address information is needed

[-address-family {ipv4|ipv6|all}] - Return Addresses for Family (privilege: advanced)

Use this parameter to specify the Address Family for which the IP address information is needed

[-show-source {true|false}] - Show Source used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

[-use-cache <true>] - Enable/Disable cache (privilege: advanced)

If set to *true* , locally-cached values will be used. The default value is *false* .

Examples

The following example requests address information for localhost:

```
cluster1::*> vserver services name-service getxxbyyy getaddrinfo -node
cluster1-01 -vserver vs1 -hostname localhost -address-family all -show
-source true -use-cache false
   Source used for Lookup: Files
   Host name: localhost
   Canonical name: localhost
   IPv4 : 127.0.0.1
   IPv6 : ::1
```

vserver services name-service getxxbyyy getgrbygid

Gets the group members by using the group identifier or GID.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy getgrbygid ` gets the group members by using the group identifier or GID for a given Vserver. The underlying service for doing the lookup is selected based on the configured name service switch order.

Parameters

-node {<nodename>|local} - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

-vserver <vserver name> - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

-groupID <integer> - Group ID (privilege: advanced)

Use this parameter to specify the GroupID for which the members are requested

[-show-source {true|false}] - Source used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

[-use-cache <true>] - Use Locally-Cached Values (privilege: advanced)

If set to *true* , locally-cached values will be used. The default value is *false* .

Examples

```
The following example requests group information for the given groupid
```

```
cluster1::*> vserver services name-service getxxbyyy getgrbygid -node
cluster1-01 -vserver vs1 -groupID 1
      name: daemon
      gid: 1
```

vserver services name-service getxxbyyy getgrbyname

Gets the group members by using the group name.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy getgrbyname ` gets the group members by using the group name.

Parameters

`-node {<nodename>|local}` - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

`-vserver <vserver name>` - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

`-groupname <text>` - Group Name (privilege: advanced)

Use this parameter to specify the Group Name for which the members are requested

`[-show-source {true|false}]` - Source used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

`[-use-cache <true>]` - Use Locally-Cached Values (privilege: advanced)

If set to *`true`* , locally-cached values will be used. The default value is *`false`* .

Examples

The following example requests group information for the given group name

```
cluster1::*> vserver services name-service getxxbyyy getgrbyname -node
cluster1-01 -vserver vs1 -groupname daemon -show-source false
      name: daemon
      gid: 1
```

vserver services name-service getxxbyyy getgrlist

Gets the group list by using the user name.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy getgrlist ` gets the list of groups to which user belongs. This command will go through all the sources configured for the group database in the name servers ns-switch configuration.

Parameters

`-node {<nodename>|local}` - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

`-vserver <vserver name>` - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

`-username <text>` - User Name (privilege: advanced)

Use this parameter to retrieve the list of groups where the given user is a member

`[-use-cache <true>]` - Use Locally-Cached Values (privilege: advanced)

If set to *`true`* , locally-cached values will be used. The default value is *`false`* .

Examples

The following example requests the grouplist for the given username

```
cluster1::*> vserver services name-service getxxbyyy getgrlist -node
cluster1-01 -vserver vs1 -username root
      pw_name: root
      Groups: 5
```

vserver services name-service getxxbyyy gethostbyaddr

Gets the host information from the IP address.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy gethostbyaddr ` gets the host name by using the IP address. The underlying service for doing the lookup is selected based on the configured name service switch order.

Parameters

`-node {<nodename>|local}` - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

`-vserver <vserver name>` - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

`-ipaddress <IP Address>` - IP Address (privilege: advanced)

Use this parameter to specify the IPv4/IPv6 address for which the host information is needed

`[-show-source {true|false}]` - Source used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

`[-use-cache <true>]` - Enable/Disable cache (privilege: advanced)

If set to *`true`* , locally-cached values will be used. The default value is *`false`* .

Examples

The following example requests host information for the given IP address:

```
cluster1::*> vserver services name-service getxxbyyy gethostbyaddr -node
cluster1-01 -vserver vs1 -ipaddress 127.0.0.1 -show-source false -use
-cache false
  IP address: 127.0.0.1
  Host name: localhost
```

vserver services name-service getxxbyyy gethostbyname

Gets the IP address information from host name.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy gethostbyname ` gets the IP address by using the host name. The underlying service for doing the lookup is selected based on the configured name service switch order. When the look up happens from the hosts file, only the first IP address is returned for a host configured with multiple IP addresses.

Parameters

-node {<nodename>|local} - Node Name (privilege: advanced)

Node Use this parameter to specify the node where the lookup will be performed

-vserver <vserver name> - Vserver Name (privilege: advanced)

Vserver Name Use this parameter to specify the Vserver where the lookup will be performed

-hostname <text> - Host Name (privilege: advanced)

Use this parameter to specify the Hostname for which the IP address information is requested

[-show-source {true|false}] - Source used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

Examples

The following example requests IP Address information from the given hostname

```
cluster1::*> vserver services name-service getxxbyyy gethostbyname -node
cluster1-01 -vserver vs1 -hostname localhost -show-source false
  Host name: localhost
  Canonical name: localhost
  IPv4: 127.0.0.1
```

vserver services name-service getxxbyyy getnameinfo

Gets the name information by using the IP address.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy getnameinfo ` gets the host and service by using the socket address. The underlying service for doing the lookup is selected based on the configured name service switch order.

Parameters

-node {<nodename>|local} - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

-vserver <vserver name> - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

-ipaddress <IP Address> - IP Address (privilege: advanced)

Use this parameter to specify IPv4/IPv6 address for which the name information is requested

[-show-source {true|false}] - Source used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

[-use-cache <true>] - Enable/Disable cache (privilege: advanced)

If set to *true* , locally-cached values will be used. The default value is *false* .

Examples

The following example gets the name information for the given IP Address:

```
cluster1::*> vserver services name-service getxxbyyy getnameinfo -node
cluster1-01 -vserver vs1 -ipaddress 127.0.0.1 -show-source false -use
-cache false
      IP address: 127.0.0.1
      Host name: localhost
```

vserver services name-service getxxbyyy getpwbyname

Gets the password entry by using the user name.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy getpwbyname ` gets the password entry by using the user name. The underlying service for doing the lookup is selected based on the configured name service switch order.

Parameters

-node {<nodename>|local} - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

-vserver <vserver name> - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

-username <text> - User Name (privilege: advanced)

Use this parameter to specify the Username for which the password entry is requested

[-show-source {true|false}] - Source used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

[-use-cache <true>] - Enable/Disable cache (privilege: advanced)

If set to *true* , locally-cached values will be used. The default value is *false* .

Examples

The following example requests password entry from the given username:

```
cluster1::*> vserver services name-service getxxbyyy getpwbyname -node
cluster1-01 -vserver vs1 -username vsadmin -show-source true -use-rbac
false -use-cache false
      Source used for lookup: Files
      pw_name: daemon
      pw_passwd: *
      pw_uid: 1, pw_gid: 1
      pw_gecos: Owner of many system processes
      pw_dir: /root
      pw_shell: /usr/sbin/nologin
```

vserver services name-service getxxbyyy getpwbyuid

Gets the password entry by using the user identifier or UID.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy getpwbyuid ` gets the password entry by using the user identifier or UID. The underlying service for doing the lookup is selected based on the configured name service switch order.

Parameters

`-node {<nodename>|local}` - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

`-vserver <vserver name>` - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

`-userID <integer>` - User ID (privilege: advanced)

Use this parameter to specify the UserID for whom the password entry is requested

`[-show-source {true|false}]` - Source used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

`[-use-cache <true>]` - Enable/Disable cache (privilege: advanced)

If set to *`true`* , locally-cached values will be used. The default value is *`false`* .

Examples

The following example requests password entry by using the user ID:

```
cluster1::*> vserver services name-service getxxbyyy getpwbyuid  -node
cluster1-01 -vserver vs1 -userID 1001 -show-source true -use-rbac true
-use-cache false
      Source used for Lookup: Files
      pw_name: vsadmin
      pw_passwd: $1$f7b22f68$KihT1ptYqpEjcM4jfE60f0
      pw_uid: 1001
      pw_gid: 65533
      pw_gecos: User
      pw_dir: /var/home/vsadmin
      pw_shell: /sbin/ngsh
```

vserver services name-service getxxbyyy netgrpcheck

Check if a client is part of a netgroup using combined API

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The ` vserver services name-service getxxbyyy netgrpcheck ` checks if a client is part of a netgroup. The underlying service for doing the lookup is selected based on the configured name service switch order.

Parameters

`-node {<nodename>|local}` - Node Name (privilege: advanced)

Use this parameter to specify the node where the lookup will be performed

`-vserver <vserver name>` - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver where the lookup will be performed

`-netgroup <text>` - Netgroup Name (privilege: advanced)

Use this parameter to specify the Netgroup name

`-clientIP <IP Address>` - Client IP Address (privilege: advanced)

Use this parameter to specify the Client IP for which the membership in a given netgroup needs to be checked

`[-enable-domain-search-flag {true|false}]` - Use DNS domain (privilege: advanced)

Use this parameter to use DNS domain. Default value for this field is true

`[-trust-any-source {true|false}]` - Trust any source (privilege: advanced)

Use this parameter to set trust any source parameter. Default value for this field is false

`[-show-source {true|false}]` - Source Used for Lookup (privilege: advanced)

Use this parameter to specify if source used for lookup needs to be displayed

Examples

The following example checks if the given client is part of the given netgroup:

```
cluster1::*> vserver services name-service getxxbyyy netgrpcheck -node
cluster1-01 -vserver vs1 -netgroup net1 -clientIP 10.232.98.198 -show
-source false
    10.232.98.198 is a member of net1
```

vserver services name-service ldap check

Display validation status of a LDAP configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service ldap check` command to check the status of the LDAP configuration.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

-vserver <Vserver Name> - Vserver

Use this parameter to specify the Vserver whose LDAP configuration needs to be validated.

[-client-config <text>] - Client Configuration Name

Use this parameter to specify the LDAP client configuration which is assigned to LDAP configuration for the specified Vserver.

[-ldap-status {up|down}] - LDAP Status

Use this parameter to display information only about LDAP configurations with a status that matches the value you specify.

[-ldap-status-details <text>] - LDAP Status Details

Use this parameter to display information only about LDAP configurations with a status detail that matches the value you specify.

[-ldap-dn-status-details <text>,…] - LDAP DN Status Details

Use this parameter to display information only about LDAP DN configurations with a status detail that matches the value you specify.

Examples

The following examples check the LDAP configuration on the SVM vs0:

```
cluster1::> vserver services name-service ldap check -vserver vs0
                  Vserver: vs0
Client Configuration Name: c1
              LDAP Status: up
      LDAP Status Details: Successfully connected to LDAP server
"10.11.12.13".
   LDAP DN Status Details: All the configured DNs are available.
```

```
cluster1::> vserver services name-service ldap check -vserver vs0
                  Vserver: vs0
Client Configuration Name: c1
              LDAP Status: up
      LDAP Status Details: Successfully connected to LDAP server
"10.11.12.13".
   LDAP DN Status Details: Validation of Domains specified in the LDAP
client configuration failed. Reason: bind-dn is invalid or bind
credentials are invalid. Correct the configuration and try again.
In the above example, you can correct the LDAP configuration by performing
either of the following procedures:
    -- If the bind-dn is invalid, use the "ldap client modify" command to
correct it.
    -- If the bind credentials are invalid, use the "ldap client modify-
bind-password" command to correct them.
```

vserver services name-service ldap create

Create an LDAP configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap create` command associates an LDAP client configuration with a Vserver.

Parameters

`-vserver <Vserver Name>` - Vserver

This parameter specifies the Vserver with which you want to associate the LDAP client configuration. A data Vserver or admin Vserver can be specified.

-client-config <text> - LDAP Client Configuration

This parameter specifies the name of the LDAP client configuration, defined under the `vserver services name-service ldap client` command, that you want to associate with the Vserver. The value of the bind-as-cifs-server parameter on this LDAP client should be false, if the CIFS server of the associated data Vserver does not exist or exists in workgroup mode.

[-skip-config-validation <true>] - Skip Configuration Validation

Use this parameter to skip the LDAP configuration validation.

The LDAP client configuration, specified by the `-client-config` parameter, that you want to associate with the Vserver is validated to verify that at least one of the LDAP servers is reachable, and is providing LDAP services.

.

The validation fails if ONTAP was unable to connect to any LDAP server with the specified `-client -config` .

Examples

The following example associates the LDAP client configuration "corp" with the Vserver "vs1":

```
cluster1::> vserver services name-service ldap create -vserver vs1 -client
-config corp
```

vserver services name-service ldap delete

Delete an LDAP configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap delete` command removes the LDAP configuration, which is an LDAP client configuration's association with a Vserver.

Make sure that you remove 'ldap' from the Vserver's `-ns-switch` and `-nm-switch` parameters and test connectivity before deleting a working LDAP configuration.

Parameters

-vserver <Vserver Name> - Vserver

This parameter specifies the Vserver from which you want to disassociate the LDAP client configuration. A data Vserver or admin Vserver can be specified.

Examples

The following example disassociates the current LDAP client configuration from Vserver "vs1".

```
cluster1::> vserver services name-service ldap delete -vserver vs1
```

vserver services name-service ldap modify

Modify an LDAP configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap modify` command modifies an LDAP client configuration's association with a Vserver.

> Make sure that you remove 'ldap' from the Vserver's `-ns-switch` and `-nm-switch` configurations and test connectivity before disabling a working LDAP configuration.

Parameters

`-vserver <Vserver Name>` - Vserver

This parameter specifies the Vserver with which you want to associate the LDAP client configuration. A data Vserver or admin Vserver can be specified.

`[-client-config <text>]` - LDAP Client Configuration

This parameter specifies the name of the LDAP client configuration, defined under `vserver services name-service ldap client` command, that you want to associate with the Vserver. The value of the bind-as-cifs-server parameter on this LDAP client should be false if the CIFS server of the associated data Vserver does not exist or exists in workgroup mode.

`[-skip-config-validation <true>]` - Skip Configuration Validation

Use this parameter to skip the LDAP configuration validation.

The LDAP client configuration, specified by the `-client-config` parameter, that you want to associate with the Vserver is validated to verify that at least one of the LDAP servers is reachable, and is providing LDAP services.

.

The validation fails if ONTAP was unable to connect to any LDAP server with the specified `-client -config`.

Examples

The following example modifies the LDAP client configuration used by Vserver "vs1" to "corpnew":

```
cluster1::> vserver services name-service ldap modify -vserver vs1 -client
-config corpnew
```

vserver services name-service ldap show

Display LDAP configurations

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap show` command displays information about LDAP configurations.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

If you specify this parameter, the command displays information about the LDAP configuration on the specified Vserver. A data Vserver or admin Vserver can be specified.

[-client-config <text>] - LDAP Client Configuration

If you specify this parameter, the command displays information about LDAP configurations using the specified client.

Examples

The following example shows the LDAP configuration for Vserver "vs1":

```
cluster1::> vserver services name-service ldap show -vserver vs1
               Client
Vserver        Configuration
-------------- -------------
vs1            corp
```

vserver services name-service ldap client create

Create an LDAP client configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap client create` command creates an LDAP client configuration. A client configuration is associated with a Vserver using the `vserver services name-`

`service ldap` commands.

Parameters

`-vserver <Vserver Name>` - Vserver

This parameter specifies the Vserver for which configuration is created. A data Vserver or admin Vserver can be specified.

`-client-config <text>` - Client Configuration Name

This parameter specifies the name that you would like to use to refer to the new LDAP client configuration.

{ `-ldap-servers <text>,…` - LDAP Server List

This parameter specifies the list of LDAP servers used when making LDAP connections using this client configuration. If you specify this parameter, you cannot specify the `-servers` , `-ad-domain` or `-preferred-ad-servers` parameters. This parameter takes both FQDNs and IP addresses.

| `-servers <IP Address>,…` - (DEPRECATED)-LDAP Server List

(DEPRECATED)This parameter specifies the list of LDAP servers used when making LDAP connections using this client configuration. If you specify this parameter, you cannot specify the `-ldap-servers` , `-ad-domain` , `-preferred-ad-servers` or `-bind-as-cifs-server` parameters. This parameter is deprecated 9.1.0 and onwards. Use `-ldap-servers` instead.

| `-ad-domain <TextNoCase>` - Active Directory Domain

This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This assumes that the Active Directory schema has been extended to act as a NIS replacement. If you use this parameter, you cannot specify the `-ldap-servers` and `-servers` parameter. However, you can specify a list of preferred servers using the `-preferred-ad-servers` parameter.

`[-preferred-ad-servers <IP Address>,…]` - Preferred Active Directory Servers }

This parameter specifies a list of LDAP servers that are preferred over those that are discovered in the domain specified in the `-ad-domain` parameter.

`[-bind-as-cifs-server {true|false}]` - Bind Using the Vserver's CIFS Credentials

This parameter specifies whether LDAP binds made using this client configuration use the Vserver's CIFS server credentials. If you do not specify this parameter, and `-ad-domain` is configured, the default is `true` , otherwise the default is `false` . Note that the LDAP client always uses only sasl bind, if `-bind-as-cifs-server` is set to `true` . The `-min-bind-level` parameter is ignored in this case.

`-schema <text>` - Schema Template

This parameter specifies the name of the schema template the Vserver uses when making LDAP queries. You can view and modify the templates using the `vserver services name-service ldap client schema` commands.

`[-port <integer>]` - LDAP Server Port

This parameter specifies the port the LDAP client uses to connect to LDAP servers. Default value for port is `636` , if `-ldaps-enabled` parameter is specified as `true` . Otherwise, default value for port is `389` .

`[-query-timeout <integer>]` - Query Timeout (sec)

This parameter specifies the amount of time (in seconds) that the LDAP client waits for a query to complete. If you do not specify this parameter, the default is `3` seconds.

[-min-bind-level {anonymous|simple|sasl}] - Minimum Bind Authentication Level

This parameter specifies the lowest acceptable level of security the LDAP client uses to bind to an LDAP server. If you do not specify this parameter, the default is `sasl` bind in case `-ad-domain` is configured, `simple` bind in case `-bind-dn` is configured, otherwise `anonymous` bind. Note that regardless of the `-min-bind-level` configured, LDAP client would always start bind mechanism in the order of `sasl` , then `simple` and lastly `anonymous` . Also, if `-bind-as-cifs-server` is set, then `-min-bind-level` is ignored, and only `sasl` will be used.

[-bind-dn <ldap_dn>] - Bind DN (User)

This parameter specifies the user that binds to the LDAP servers. For Active Directory servers, specify the user in the account (DOMAIN\user) or principal (user@domain.com) form. Otherwise, specify the user in distinguished name form, like "CN=user,DC=domain,DC=com" or "CN=administrator,CN=users,DC=domain,DC=com". This parameter is ignored if `-bind-as-cifs -server` is set.

[-base-dn <ldap_dn>] - Base DN

This parameter specifies the default base DN for all searches, including user, group, and netgroup searches. For example, "DC=example,DC=com". If you do not specify this parameter, the default is the root, specified by an empty (`""`) set.

[-base-scope {base|onelevel|subtree}] - Base Search Scope

This parameter specifies the default search scope for LDAP queries. Specify `base` to search just the named entry, `onelevel` to search entries immediately below the DN, or `subtree` to search the named DN entry and the entire subtree below the DN. If you do not specify this parameter, the scope is set to `subtree` by default.

[-user-dn <ldap_dn>] - User DN (privilege: advanced)

This parameter specifies the user DN, which overrides the base DN for user lookups.

To specify multiple DNs, separate multiple DN entries with semicolons (;). If you configure multiple user or group DNs and a DN contains a semicolon, add an escape character (\) immediately before the semicolon or enclose the entire DN with quotation marks (").

[-user-scope {base|onelevel|subtree}] - User Search Scope (privilege: advanced)

This parameter specifies the user search scope. If you do not specify this parameter, the scope is set to `subtree` by default.

[-group-dn <ldap_dn>] - Group DN (privilege: advanced)

This parameter specifies the group DN, which overrides the base DN for group lookups.

To specify multiple DNs, separate multiple DN entries with semicolons (;). If you configure multiple user or group DNs and a DN contains a semicolon, add an escape character (\) immediately before the semicolon or enclose the entire DN with quotation marks (").

[-group-scope {base|onelevel|subtree}] - Group Search Scope (privilege: advanced)

This parameter specifies the group search scope. If you do not specify this parameter, the scope is set to `subtree` by default.

[-netgroup-dn <ldap_dn>] - Netgroup DN (privilege: advanced)

This parameter specifies the netgroup DN, which overrides the base DN netgroup lookups.

> To specify multiple DNs, separate multiple DN entries with semicolons (;). If you configure multiple netgroup DNs and a DN contains a semicolon, add an escape character (\) immediately before the semicolon or enclose the entire DN with quotation marks (").

[-netgroup-scope {base|onelevel|subtree}] - Netgroup Search Scope (privilege: advanced)

This parameter specifies the netgroup search scope. If you do not specify this parameter, the scope is set to `subtree` by default.

[-use-start-tls {true|false}] - Use start-tls Over LDAP Connections

This parameter specifies whether or not to use Start TLS over LDAP connections. When enabled, the communication between the Data ONTAP LDAP Client and the LDAP Server will be encrypted using Start TLS. Start TLS is a mechanism to provide secure communication by using the TLS/SSL protocols. If you do not specify this parameter, the default is `false` .

[-is-netgroup-byhost-enabled {true|false}] - Enable Netgroup-By-Host Lookup (privilege: advanced)

Use this parameter to enable or disable netgroup-by-host lookup. If your LDAP directory contains map structures equivalent to the netgroup.byhost map in NIS, enabling this feature greatly speeds up netgroup resolution queries over LDAP. By default this parameter is set to false.

[-netgroup-byhost-dn <ldap_dn>] - Netgroup-By-Host DN (privilege: advanced)

This parameter specifies the netgroup-by-host DN, which overrides the base DN for netgroup-by-host lookups.

> To specify multiple DNs, separate multiple DN entries with semicolons (;). If you configure multiple netgroup DNs and a DN contains a semicolon, add an escape character (\) immediately before the semicolon or enclose the entire DN with quotation marks (").

[-netgroup-byhost-scope {base|onelevel|subtree}] - Netgroup-By-Host Scope (privilege: advanced)

This parameter specifies the netgroup-by-host search scope for LDAP queries. If you do not specify this parameter, the scope is set to `subtree` by default.

[-session-security {none|sign|seal}] - Client Session Security

This parameter specifies the level of security to be used for LDAP communications. If you do not specify this parameter, the default is `none` .

LDAP Client Session Security can be one of the following:

- none - No Signing or Sealing.
- sign - Sign LDAP traffic.
- seal - Seal and Sign LDAP traffic.

[-referral-enabled {true|false}] - LDAP Referral Chasing

This parameter specifies whether LDAP referral is enabled or not.

[-group-membership-filter <text>] - Group Membership Filter (privilege: advanced)

This parameter specifies the custom LDAP search filter to be used when looking up group membership from an LDAP server. Examples of valid filters are "(cn=**99)", "(cn=1**)", "(|(cn=*22)(cn=*33))".

[-ldaps-enabled {true|false}] - Is LDAPS Enabled

This parameter specifies whether or not to use LDAPS over LDAP connections. If you do not specify this parameter, the value will be based on `port` . If `port` is mentioned as `636` , then the value will be `true` , otherwise the value will be `false` .

[-try-channel-binding {true|false}] - Try Channel Binding

This parameter specifies whether channel binding will be tried in case of LDAP connections to the LDAP server. If you do not specify this parameter, the default is *`true`* . Channel binding will be tried only if `-use-start-tls` or `-ldaps-enabled` is enabled along with `-session-security` set to either *`sign`* or *`seal`* .

Examples

The following example creates an LDAP client configuration named `corp` that makes anonymous binds to `ldapserver.example.com` for Vserver `vs1` :

```
cluster1::> vserver services name-service ldap client create -vserver vs1
-client-config corp -ldap-servers ldapserver.example.com
```

The following example creates an LDAP client configuration named `corp` that makes binds to `ldapserver.example.com` for Vserver `vs1` for bind-dn `diag` :

```
cluster1::> vserver services name-service ldap client create -vserver vs1
-client-config corp -ldap-servers ldapserver.example.com -bind-dn diag
   Please enter password:
   Confirm password:
```

The following example creates an LDAP client configuration with multiple user DNs.

The following commands are only available in advanced mode.

```
cluster1::*> vserver services ldap client create -vserver vs1 -client
-config corp -ldap-servers ldapserver.example.com
   -user-dn "ou=People,dc=mypc,dc=example,dc=com;
ou=People1,dc=mypc1,dc=example2,dc=com"
```

The following example creates an LDAP client configuration with multiple user DNs, one of them containing a semicolon

```
cluster1::*> vserver services ldap client create -vserver vs1 -client
-config corp -ldap-servers ldapserver.example.com
   -user-dn "ou=People,dc=mypc,dc=example,dc=com;
ou=People1,dc=mypc1,dc=example2,dc=com"
```

The following example creates an LDAP client configuration with multiple user DNs, one of them containing a semicolon and a backslash.

```
cluster1::*> vserver services ldap client create -vserver vs1 -client
-config corp -ldap-servers ldapserver.example.com
   -user-dn "ou=People\;,dc=mypc,dc=example,dc=com\\;
ou=People1,dc=mypc1,dc=example2,dc=com"
```

The following example creates an LDAP client configuration with netgroup by host DN.

```
cluster1::*>vserver services ldap client create -vserver vs1 -client
-config corp -ldap-servers ldapserver.example.com
   -netgroup-byhost-dn nisMapName="netgroup.byhost",dc=rfcbis,dc=com
```

The following example creates an LDAP client configuration with ldap-servers as list of ip addresses.

```
cluster1::*>vserver services ldap client create -vserver vs1 -client
-config corp -ldap-servers 172.16.0.100,172.16.0.101
   -netgroup-byhost-dn nisMapName="netgroup.byhost",dc=rfcbis,dc=com
```

The following example creates an LDAP client configuration with ldap-servers as list of ip addresses and hostnames.

```
cluster1::*>vserver services ldap client create -vserver vs1 -client
-config corp -ldap-servers
ldapserver.example.com,172.16.0.100,172.16.0.101 -netgroup-byhost-dn
nisMapName="netgroup.byhost",dc=rfcbis,dc=com
```

vserver services name-service ldap client delete

Delete an LDAP client configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap client delete` command deletes an LDAP client

configuration. A Vserver administrator can only delete configurations owned by the Vserver.

Parameters

[-vserver <Vserver Name>] - Vserver

This parameter specifies the name of the Vserver which owns the LDAP client you want to delete. A data Vserver or admin Vserver can be specified.

-client-config <text> - Client Configuration Name

This parameter specifies the name of the LDAP client configuration you want to delete.

Examples

The following example deletes an LDAP client configuration named `corp` owned by Vserver `vs1` :

```
cluster1::> vserver services name-service ldap client delete -vserver vs1
-client-config corp
```

vserver services name-service ldap client modify-bind-password

Modify Bind Password of an LDAP client configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The ` vserver services name-service ldap client modify-bind-password ` command modifies bind-password of a given LDAP client configuration.

Parameters

[-vserver <Vserver Name>] - Vserver

This parameter specifies the name of the Vserver which owns the LDAP client you want to modify. A data Vserver or admin Vserver can be specified.

-client-config <text> - Client Configuration Name

This parameter specifies the name of the LDAP client configuration.

Examples

The following example modifies the password for a given LDAP client configuration

```
cluster1::> vserver services name-service ldap client modify-bind-password
-client-config corp
  Please enter password:
  Confirm password:
```

vserver services name-service ldap client modify

Modify an LDAP client configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap client modify` command modifies an LDAP client configuration. A Vserver administrator can modify only configurations owned by the Vserver. Use the vserver services name-service ldap client modify-bind-password command to modify the bind password.

Parameters

`[-vserver <Vserver Name>]` - Vserver

This parameter specifies the name of the Vserver which owns the LDAP client you want to modify. A data Vserver or admin Vserver can be specified.

`-client-config <text>` - Client Configuration Name

This parameter specifies the name of the LDAP client configuration.

{ `[-ldap-servers <text>,…]` - LDAP Server List

This parameter specifies the list of LDAP servers used when making LDAP connections using this client configuration. If you specify this parameter, you cannot specify the `-servers` , `-ad-domain` or `-preferred-ad-servers` parameters.

| `[-servers <IP Address>,…]` - (DEPRECATED)-LDAP Server List

(DEPRECATED)This parameter specifies the list of LDAP servers used when making LDAP connections using this client configuration. If you specify this parameter, you cannot specify the `-ldap-servers` , `-ad-domain` , `-preferred-ad-servers` or `-bind-as-cifs-server` parameters. This parameter is deprecated 9.1.0 and onwards. Use `-ldap-servers` instead.

| `[-ad-domain <TextNoCase>]` - Active Directory Domain

This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This assumes that the Active Directory schema has been extended to act as a NIS replacement. If you use this parameter, you cannot specify the `-servers` , `-ldap-servers` parameter. However, you can specify a list of preferred servers using the `-preferred-ad-servers` parameter.

`[-preferred-ad-servers <IP Address>,…]` - Preferred Active Directory Servers }

This parameter specifies a list of LDAP servers that are preferred over those that are discovered in the domain specified in the `-ad-domain` parameter.

[-bind-as-cifs-server {true|false}] - Bind Using the Vserver's CIFS Credentials

This parameter specifies whether or not LDAP binds made using this client configuration use the Vserver's CIFS server credentials. Note that the LDAP client always uses only sasl bind, if `-bind-as-cifs-server` is set to `true` . The `-min-bind-level` parameter is ignored in this case.

[-schema <text>] - Schema Template

This parameter specifies the name of the schema template the Vserver uses when making LDAP queries. You can view and modify the templates using the `vserver services name-service ldap client schema` commands.

[-port <integer>] - LDAP Server Port

This parameter specifies the port the LDAP client uses to connect to LDAP servers. Default value for port is `636` , if `-ldaps-enabled` parameter is specified as `true` . Otherwise, default value for port is `389` .

[-query-timeout <integer>] - Query Timeout (sec)

This parameter specifies the amount of time (in seconds) that the LDAP client waits for a query to complete. If you do not specify this parameter, the default is `3` seconds.

[-min-bind-level {anonymous|simple|sasl}] - Minimum Bind Authentication Level

This parameter specifies the lowest acceptable level of security the LDAP client uses to bind to an LDAP server. Note that regardless of the `-min-bind-level` configured, LDAP client would always start bind mechanism in the order of `sasl` , then `simple` and lastly `anonymous` . Also, if `-bind-as-cifs-server` is set, then `-min-bind-level` is ignored, and only `sasl` will be used.

[-bind-dn <ldap_dn>] - Bind DN (User)

This parameter specifies the user that binds to the LDAP servers. For Active Directory servers, specify the user in the account (DOMAIN\user) or principal (user@domain.com) form. Otherwise, specify the user in distinguished name form, like "CN=user,DC=domain,DC=com" or "CN=administrator,CN=users,DC=domain,DC=com". This parameter is ignored if `-bind-as-cifs-server` is set.

[-base-dn <ldap_dn>] - Base DN

This parameter specifies the default base DN for all searches, including user, group, and netgroup searches. For example, "DC=example,DC=com". If you do not specify this parameter, the default is the root, specified by an empty (`""`) set.

[-base-scope {base|onelevel|subtree}] - Base Search Scope

This parameter specifies the default search scope for LDAP queries. Specify `base` to search just the named entry, `onelevel` to search entries immediately below the DN, or `subtree` to search the named DN entry and the entire subtree below the DN. If you do not specify this parameter, the scope is set to `subtree` by default.

[-user-dn <ldap_dn>] - User DN (privilege: advanced)

This parameter specifies the user DN, which overrides the base DN for user lookups.

To specify multiple DNs, separate multiple DN entries with semicolons (;). If you configure multiple user or group DNs and a DN contains a semicolon, add an escape character (\) immediately before the semicolon or enclose the entire DN with quotation marks (").

[-user-scope {base|onelevel|subtree}] - User Search Scope (privilege: advanced)

This parameter specifies the user search scope. If you do not specify this parameter, the scope is set to `subtree` by default.

[-group-dn <ldap_dn>] - Group DN (privilege: advanced)

This parameter specifies the group DN, which overrides the base DN for group lookups.

> To specify multiple DNs, separate multiple DN entries with semicolons (;). If you configure multiple user or group DNs and a DN contains a semicolon, add an escape character (\) immediately before the semicolon or enclose the entire DN with quotation marks (").

[-group-scope {base|onelevel|subtree}] - Group Search Scope (privilege: advanced)

This parameter specifies the group search scope. If you do not specify this parameter, the scope is set to `subtree` by default.

[-netgroup-dn <ldap_dn>] - Netgroup DN (privilege: advanced)

This parameter specifies the netgroup DN, which overrides the base DN netgroup lookups.

> To specify multiple DNs, separate multiple DN entries with semicolons (;). If you configure multiple netgroup DNs and a DN contains a semicolon, add an escape character (\) immediately before the semicolon or enclose the entire DN with quotation marks (").

[-netgroup-scope {base|onelevel|subtree}] - Netgroup Search Scope (privilege: advanced)

This parameter specifies the netgroup search scope. If you do not specify this parameter, the scope is set to `subtree` by default.

[-use-start-tls {true|false}] - Use start-tls Over LDAP Connections

This parameter specifies whether or not to use Start TLS over LDAP connections. When enabled, the communication between the Data ONTAP LDAP Client and the LDAP Server will be encrypted using Start TLS. Start TLS is a mechanism to provide secure communication by using the TLS/SSL protocols. If you do not specify this parameter, the default is `false` .

[-is-netgroup-byhost-enabled {true|false}] - Enable Netgroup-By-Host Lookup (privilege: advanced)

Use this parameter to enable or disable netgroup-by-host lookup. If your LDAP directory contains map structures equivalent to the netgroup.byhost map in NIS, enabling this feature greatly speeds up netgroup resolution over LDAP. By default this parameter is set to false.

[-netgroup-byhost-dn <ldap_dn>] - Netgroup-By-Host DN (privilege: advanced)

This parameter specifies the netgroup-by-host DN, which overrides the base DN for netgroup-by-host lookups.

> To specify multiple DNs, separate multiple DN entries with semicolons (;). If you configure multiple netgroup DNs and a DN contains a semicolon, add an escape character (\) immediately before the semicolon or enclose the entire DN with quotation marks (").

[-netgroup-byhost-scope {base|onelevel|subtree}] - Netgroup-By-Host Scope (privilege: advanced)

This parameter specifies the netgroup-by-host search scope for LDAP queries. If you do not specify this

parameter, the scope is set to `subtree` by default.

[-session-security {none|sign|seal}] - Client Session Security

This parameter specifies the level of security to be used for LDAP communications. If you do not specify this parameter, the default is `none` .

LDAP Client Session Security can be one of the following:

- none - No Signing or Sealing.
- sign - Sign LDAP traffic.
- seal - Seal and Sign LDAP traffic.

[-skip-config-validation <true>] - Skip Configuration Validation

Use this parameter to skip the LDAP client configuration validation.

The LDAP client configuration specified with the `-client-config` parameter is validated to verify that all the Vservers associated with this LDAP client configuration has at least one of the LDAP servers reachable, and is providing LDAP services.

The validation fails if ONTAP was unable to connect to any LDAP server with the specified `-client -config` .

[-referral-enabled {true|false}] - LDAP Referral Chasing

This parameter specifies whether LDAP referral is enabled or not.

[-group-membership-filter <text>] - Group Membership Filter (privilege: advanced)

This parameter specifies the custom LDAP search filter to be used when looking up group membership from an LDAP server. Examples of valid filters are "(cn=**99)", "(cn=1**)", "(|(cn=*22)(cn=*33))".

[-ldaps-enabled {true|false}] - Is LDAPS Enabled

This parameter specifies whether or not to use LDAPS over LDAP connections. If you do not specify this parameter, the value will be based on `port` . If `port` is mentioned as `636` , then the value will be `true` , otherwise the value will be `false` .

[-try-channel-binding {true|false}] - Try Channel Binding

This parameter specifies whether to use channel binding for LDAP connections to the LDAP server. If you do not specify this parameter, the default is *`true`* . Channel binding will be tried only if `-use-start-tls` or `-ldaps-enabled` is enabled along with `-session-security` set to either *`sign`* or *`seal`* .

Examples

The following example modifies an existing LDAP client configuration named `corp` owned by Vserver `vs1` to require simple binds using the administrator@example.com account:

```
cluster1::> vserver services name-service ldap client modify -client
-config corp -vserver vs1 -bind-dn administrator@example.com -min-bind
-level simple
```

The following example modifies the user DN of an existing LDAP client configuration to contain multiple DNs

separated by a semicolon.

```
cluster1::> vserver services ldap client modify -client-config corp
-vserver vs1 -bind-dn administrator@example.com
            -user-dn "ou=People,dc=mypc,dc=example,dc=in;
ou=People1,dc=mypc,dc=example2,dc=com" -min-bind-level simple
```

The following example demonstrates how you can use a semicolon as a valid character in a DN instead of a separator.

```
cluster1::> vserver services ldap client modify -client-config corp
-vserver vs1 -bind-dn administrator@example.com
            -user-dn "ou=People\;,dc=mypc,dc=example,dc=com;
ou=People1,dc=mypc,dc=example2,dc=com"
```

The following example modifies an existing LDAP client configuration with multiple user DNs, one of them containing a semicolon and a backslash.

```
cluster1::> vserver services ldap client modify -client-config corp
-vserver vs1 -bind-dn administrator@example.com
            -user-dn "ou=People\;,dc=mypc,dc=example,dc=com\\;
ou=People1,dc=mypc,dc=example2,dc=com"
```

The following example modifies an existing LDAP client configuration with netgroup by host DN.

```
cluster1::*>vserver services ldap client modify -vserver vs1 -client
-config corp
            -netgroup-byhost-dn
nisMapName="netgroup.byhost",dc=rfcbis,dc=com
```

Related Links

- vserver services name-service ldap client modify-bind-password

vserver services name-service ldap client show

Display LDAP client configurations

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap client show` command displays information about LDAP client configurations which a Vserver can be associated with. An LDAP client configuration created by a

Vserver's administrator or by the cluster administrator for the Vserver is owned by the Vserver. A cluster-wide LDAP client configuration is created by a cluster administrator by specifying the admin Vserver's name as a value to the -vserver parameter. In addition to its owned LDAP client configurations, a Vserver can be associated with such cluster-wide LDAP client configurations.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

If you specify this parameter, the command displays all LDAP client configurations that can be associated with the specified Vserver. A data Vserver or admin Vserver can be specified.

[-client-config <text>] - Client Configuration Name

If you specify this parameter, the command displays information about the LDAP client configuration you specify.

[-ldap-servers <text>,…] - LDAP Server List

If you specify this parameter, the command displays LDAP client configurations using the specified list of LDAP servers.

[-servers <IP Address>,…] - (DEPRECATED)-LDAP Server List

(DEPRECATED)-If you specify this parameter, the command displays LDAP client configurations using the specified list of LDAP servers.

[-ad-domain <TextNoCase>] - Active Directory Domain

If you specify this parameter, the command displays LDAP client configurations using the specified domain to discover their list of LDAP servers.

[-preferred-ad-servers <IP Address>,…] - Preferred Active Directory Servers

If you specify this parameter, the command displays LDAP client configurations using the specified list of preferred servers.

[-bind-as-cifs-server {true|false}] - Bind Using the Vserver's CIFS Credentials

If you specify this parameter, the command displays LDAP client configurations that bind using CIFS server credentials. If the CIFS server is in workgroup mode, the value of this parameter should be false.

[-schema <text>] - Schema Template

If you specify this parameter, the command displays LDAP client configurations using the specified schema.

[-port <integer>] - LDAP Server Port

If you specify this parameter, the command displays LDAP client configurations using the specified server port.

[-query-timeout <integer>] - Query Timeout (sec)

If you specify this parameter, the command displays LDAP client configurations using the specified query timeout (in seconds).

[-min-bind-level {anonymous|simple|sasl}] - Minimum Bind Authentication Level

If you specify this parameter, the command displays LDAP client configurations using the specified minimum bind level.

[-bind-dn <ldap_dn>] - Bind DN (User)

If you specify this parameter, the command displays LDAP client configurations using the specified bind DN.

[-base-dn <ldap_dn>] - Base DN

If you specify this parameter, the command displays LDAP client configurations using the specified base DN.

[-base-scope {base|onelevel|subtree}] - Base Search Scope

If you specify this parameter, the command displays LDAP client configurations using the specified base search scope.

[-user-dn <ldap_dn>] - User DN (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified user DN.

[-user-scope {base|onelevel|subtree}] - User Search Scope (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified user search scope.

[-group-dn <ldap_dn>] - Group DN (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified group DN.

[-group-scope {base|onelevel|subtree}] - Group Search Scope (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified group search scope.

[-netgroup-dn <ldap_dn>] - Netgroup DN (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified netgroup DN.

[-netgroup-scope {base|onelevel|subtree}] - Netgroup Search Scope (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified netgroup search scope.

[-is-owner {true|false}] - Vserver Owns Configuration

If you set this parameter to true, the command displays LDAP client configurations with the Vservers which own them.

[-use-start-tls {true|false}] - Use start-tls Over LDAP Connections

This parameter specifies whether or not to use Start TLS over LDAP connections. When enabled, the communication between the Data ONTAP LDAP Client and the LDAP Server will be encrypted using Start

TLS. Start TLS is a mechanism to provide secure communication by using the TLS/SSL protocols. If you do not specify this parameter, the default is `false` .

[-is-netgroup-byhost-enabled {true|false}] - Enable Netgroup-By-Host Lookup (privilege: advanced)

If you set this parameter to true, the command displays LDAP client configurations for which netgroup-by-host lookup is enabled.

[-netgroup-byhost-dn <ldap_dn>] - Netgroup-By-Host DN (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified netgroup-by-host DN.

[-netgroup-byhost-scope {base|onelevel|subtree}] - Netgroup-By-Host Scope (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified netgroup-by-host search scope.

[-session-security {none|sign|seal}] - Client Session Security

If this parameter is set to seal, the command displays LDAP client configurations where both signing and sealing are required for LDAP communications. If set to sign, the command displays LDAP client configurations where only signing is required for LDAP communications. If set to none, the command displays LDAP client configurations where no security is required for LDAP communications.

[-referral-enabled {true|false}] - LDAP Referral Chasing

If you specify this parameter, the command displays information about LDAP referral configurations using the specified client.

[-group-membership-filter <text>] - Group Membership Filter (privilege: advanced)

If you specify this parameter, the command displays LDAP client configurations using the specified group-membership filter.

[-ldaps-enabled {true|false}] - Is LDAPS Enabled

If you specify this parameter, the command displays LDAP client configurations using the specified value of this parameter.

[-try-channel-binding {true|false}] - Try Channel Binding

If you specify this parameter, the command displays LDAP client configurations using the specified channel binding.

Examples

The following example shows a summary of all of the LDAP client configurations available for Vserver `vs1` :

```
cluster1::> vserver services name-service ldap client show -vserver vs1
Vserver    Client        LDAP             Active Directory
Minimum
           Configuration Servers          Domain           Schema     Bind
Level
---------- ------------- ---------------- ---------------- ----------
----------
vs1        corp          ldapserver.      -                RFC-2307
anonymous
                         example.com
vs1        corpnew       172.16.0.200     -                RFC-2307
simple
```

vserver services name-service ldap client schema copy

Copy an existing LDAP schema template

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service ldap client schema copy` command creates a new LDAP schema template from an existing one. In addition to an owned LDAP schema template, a Vserver administrator can also copy a cluster-wide LDAP schema template that is owned by the admin Vserver.

Parameters

`[-vserver <Vserver Name>]` - Vserver (privilege: advanced)

This parameter specifies the Vserver for which you want to copy an existing LDAP schema template.

`-schema <text>` - Schema Template (privilege: advanced)

This parameter specifies the name of the existing schema template you want to copy.

`-new-schema-name <text>` - New Schema Template Name (privilege: advanced)

This parameter specifies the name of the schema template copy.

Examples

The following example creates a copy of the `RFC-2307` schema template and names it `corp-schema` for Vserver "vs1":

```
cluster1::> vserver services name-service ldap client schema copy -vserver
vs1 -schema RFC-2307 -new-schema-name corp-schema
```

vserver services name-service ldap client schema delete

Delete an LDAP schema template

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service ldap client schema delete` command deletes an LDAP schema template. A Vserver administrator can only delete templates owned by the Vserver.

You cannot delete the default schema templates.

Parameters

`[-vserver <Vserver Name>]` - Vserver

This parameter specifies the name of Vserver owning the LDAP schema template you want to delete.

`-schema <text>` - Schema Template

This parameter specifies the name of the schema template you want to delete.

Examples

The following example deletes a schema template named `corp-schema` owned by Vserver `vs1` :

```
cluster1::> vserver services name-service ldap client schema delete
-vserver vs1 -schema corp-schema
```

vserver services name-service ldap client schema modify

Modify an LDAP schema template

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service ldap client schema modify` command modifies an existing LDAP schema template. You cannot modify the default schema templates. Create a copy of a default schema template using the vserver services name-service ldap client schema copy command, and then modify the copy. A Vserver administrator can only modify templates owned by the Vserver.

Parameters

`[-vserver <Vserver Name>]` - Vserver

This parameter specifies the name of the Vserver owning the LDAP schema template you want to modify.

-schema <text> - Schema Template

This parameter specifies the name of the schema template you want to modify.

[-comment <text>] - Comment

This parameter specifies a comment that describes the schema template.

[-posix-account-object-class <text>] - RFC 2307 posixAccount Object Class

This parameter specifies the RFC 2307 posixAccount object class name defined by the schema.

[-posix-group-object-class <text>] - RFC 2307 posixGroup Object Class

This parameter specifies the RFC 2307 posixGroup object class name defined by the schema.

[-nis-netgroup-object-class <text>] - RFC 2307 nisNetgroup Object Class

This parameter specifies the RFC 2307 nisNetgroup object class name defined by the schema.

[-uid-attribute <text>] - RFC 2307 uid Attribute

This parameter specifies the RFC 2307 uid attribute name defined by the schema.

[-uid-number-attribute <text>] - RFC 2307 uidNumber Attribute

This parameter specifies the RFC 2307 uidNumber attribute name defined by the schema.

[-gid-number-attribute <text>] - RFC 2307 gidNumber Attribute

This parameter specifies the RFC 2307 gidNumber attribute name defined by the schema.

[-cn-group-attribute <text>] - RFC 2307 cn (for Groups) Attribute

This parameter specifies the RFC 2307 cn (for Groups) attribute name defined by the schema.

[-cn-netgroup-attribute <text>] - RFC 2307 cn (for Netgroups) Attribute

This parameter specifies the RFC 2307 cn (for Netgroups) attribute name defined by the schema.

[-user-password-attribute <text>] - RFC 2307 userPassword Attribute

This parameter specifies the RFC 2307 userPassword attribute name defined by the schema.

[-gecos-attribute <text>] - RFC 2307 gecos Attribute

This parameter specifies the RFC 2307 gecos attribute name defined by the schema.

[-home-directory-attribute <text>] - RFC 2307 homeDirectory Attribute

This parameter specifies the RFC 2307 homeDirectory attribute name defined by the schema.

[-login-shell-attribute <text>] - RFC 2307 loginShell Attribute

This parameter specifies the RFC 2307 loginShell attribute name defined by the schema.

[-member-uid-attribute <text>] - RFC 2307 memberUid Attribute

This parameter specifies the RFC 2307 memberUid attribute name defined by the schema.

[-member-nis-netgroup-attribute <text>] - RFC 2307 memberNisNetgroup Attribute

This parameter specifies the RFC 2307 memberNisNetgroup attribute name defined by the schema.

[-nis-netgroup-triple-attribute <text>] - RFC 2307 nisNetgroupTriple Attribute

This parameter specifies the RFC 2307 nisNetgroupTriple attribute name defined by the schema.

[-enable-rfc2307bis {true|false}] - Enable Support for Draft RFC 2307bis

This parameter specifies whether RFC 2307bis is enabled for the schema.

[-group-of-unique-names-object-class <text>] - RFC 2307bis groupOfUniqueNames Object Class

This parameter specifies the RFC 2307bis groupOfUniqueNames object class name defined by the schema. This parameter takes effect only when RFC 2307bis is enabled for the schema.

[-unique-member-attribute <text>] - RFC 2307bis uniqueMember Attribute

This parameter specifies the RFC 2307bis uniqueMember attribute name defined by the schema. This parameter takes effect only when RFC 2307bis is enabled for the schema.

[-windows-to-unix-object-class <text>] - Data ONTAP Name Mapping windowsToUnix Object Class

This parameter specifies the name mapping windowsToUnix object class name defined by the schema.

[-windows-account-attribute <text>] - Data ONTAP Name Mapping windowsAccount Attribute

This parameter specifies the name mapping windowsAccount attribute name defined by the schema.

[-windows-to-unix-attribute <text>] - Data ONTAP Name Mapping windowsToUnix Attribute

This parameter specifies the name mapping windowsToUnix attribute name defined by the schema.

[-windows-to-unix-no-domain-prefix {true|false}] - No Domain Prefix for windowsToUnix Name Mapping

This parameter specifies the name mapping windowsToUnixNoDomainPrefix setting defined by the schema.

[-nis-object-class <text>] - RFC 2307 nisObject Object Class

This parameter specifies the nisObject class name defined by the schema. This parameter takes effect only when netgroup.byhost is enabled for the vserver.

[-nis-mapname-attribute <text>] - RFC 2307 nisMapName Attribute

This parameter specifies the nisMapName attribute name defined by the schema. This parameter takes effect only when netgroup.byhost is enabled for the vserver.

[-nis-mapentry-attribute <text>] - RFC 2307 nisMapEntry Attribute

This parameter specifies the nisMapEntry attribute name defined by the schema. This parameter takes effect only when netgroup.byhost is enabled for the vserver.

Examples

The following example modifies the schema template called `corp-schema` owned by Vserver `vs1` to use `User` as the uid attribute name:

```
cluster1::> vserver services name-service ldap client schema modify
-vserver vs1 -schema corp-schema -uid-attribute User
```

Related Links

- vserver services name-service ldap client schema copy

vserver services name-service ldap client schema show

Display LDAP schema templates

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ldap client schema show` command shows information about LDAP schema templates which a Vserver can access. An LDAP schema template created by a Vserver's administrator or by the cluster administrator for the Vserver is owned by the Vserver. A cluster-wide LDAP schema template is created by a cluster administrator by specifying the admin Vserver's name as a value to the -vserver parameter. In addition to its owned LDAP schema templates, a Vserver can access such cluster-wide LDAP schema templates.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

If you specify this parameter, the command displays all LDAP schema templates that can be accessed by the specified Vserver.

[-schema <text>] - Schema Template

If you specify this parameter, the command displays the schema template with the specified name.

[-comment <text>] - Comment

If you specify this parameter, the command displays schema templates with the specified comment.

[-posix-account-object-class <text>] - RFC 2307 posixAccount Object Class

If you specify this parameter, the command displays schema templates with the specified posixAccount object class.

[-posix-group-object-class <text>] - RFC 2307 posixGroup Object Class

If you specify this parameter, the command displays schema templates with the specified posixGroup object class.

[-nis-netgroup-object-class <text>] - RFC 2307 nisNetgroup Object Class

If you specify this parameter, the command displays schema templates with the specified nisNetgroup object class.

[-uid-attribute <text>] - RFC 2307 uid Attribute

If you specify this parameter, the command displays schema templates with the specified uid attribute.

[-uid-number-attribute <text>] - RFC 2307 uidNumber Attribute

If you specify this parameter, the command displays schema templates with the specified uidNumber attribute.

[-gid-number-attribute <text>] - RFC 2307 gidNumber Attribute

If you specify this parameter, the command displays schema templates with the specified gidNumber attribute.

[-cn-group-attribute <text>] - RFC 2307 cn (for Groups) Attribute

If you specify this parameter, the command displays schema templates with the specified cn (for Groups) attribute.

[-cn-netgroup-attribute <text>] - RFC 2307 cn (for Netgroups) Attribute

If you specify this parameter, the command displays schema templates with the specified cn (for Netgroups) attribute.

[-user-password-attribute <text>] - RFC 2307 userPassword Attribute

If you specify this parameter, the command displays schema templates with the specified userPassword attribute.

[-gecos-attribute <text>] - RFC 2307 gecos Attribute

If you specify this parameter, the command displays schema templates with the specified gecos attribute.

[-home-directory-attribute <text>] - RFC 2307 homeDirectory Attribute

If you specify this parameter, the command displays schema templates with the specified homeDirectory attribute.

[-login-shell-attribute <text>] - RFC 2307 loginShell Attribute

If you specify this parameter, the command displays schema templates with the specified loginShell attribute.

[-member-uid-attribute <text>] - RFC 2307 memberUid Attribute

If you specify this parameter, the command displays schema templates with the specified memberUid attribute.

[-member-nis-netgroup-attribute <text>] - RFC 2307 memberNisNetgroup Attribute

If you specify this parameter, the command displays schema templates with the specified memberNisNetgroup attribute.

[-nis-netgroup-triple-attribute <text>] - RFC 2307 nisNetgroupTriple Attribute

If you specify this parameter, the command displays schema templates with the specified nisNetgroupTriple attribute.

[-enable-rfc2307bis {true|false}] - Enable Support for Draft RFC 2307bis

If you set this parameter to true, the command displays RFC 2307bis enabled LDAP schema templates.

[-group-of-unique-names-object-class <text>] - RFC 2307bis groupOfUniqueNames Object Class

If you specify this parameter, the command displays schema templates with the specified groupOfUniqueNames object class.

[-unique-member-attribute <text>] - RFC 2307bis uniqueMember Attribute

If you specify this parameter, the command displays schema templates with the specified uniqueMember attribute.

[-windows-to-unix-object-class <text>] - Data ONTAP Name Mapping windowsToUnix Object Class

If you specify this parameter, the command displays schema templates with the specified windowsToUnix object class.

[-windows-account-attribute <text>] - Data ONTAP Name Mapping windowsAccount Attribute

If you specify this parameter, the command displays schema templates with the specified windowsAccount attribute.

[-windows-to-unix-attribute <text>] - Data ONTAP Name Mapping windowsToUnix Attribute

If you specify this parameter, the command displays schema templates with the specified windowsToUnix attribute.

[-windows-to-unix-no-domain-prefix {true|false}] - No Domain Prefix for windowsToUnix Name Mapping

If you specify this parameter, the command displays schema templates with the specified windowsToUnixNoDomainPrefix setting.

[-is-owner {true|false}] - Vserver Owns Schema

If you set this parameter to true, the command displays LDAP schema templates with the Vservers which own them.

[-nis-object-class <text>] - RFC 2307 nisObject Object Class

If you specify this parameter, the command displays schema templates with the specified nisObject attribute.

[-nis-mapname-attribute <text>] - RFC 2307 nisMapName Attribute

If you specify this parameter, the command displays schema templates with the specified nisMapName attribute.

[-nis-mapentry-attribute <text>] - RFC 2307 nisMapEntry Attribute

If you specify this parameter, the command displays schema templates with the specified nisMapEntry attribute.

Examples

The following example shows a summary of all of the default LDAP schema templates defined in the cluster:

```
cluster1::> vserver services name-service ldap client schema show
Vserver Schema Template Comment
------- ---------------
-------------------------------------------------------
cluster-node3
        MS-AD-BIS       Schema based on Active Directory Identity
Management for UNIX (read-only)
cluster-node3
        AD-IDMU         Schema based on Active Directory Identity
Management for UNIX (read-only)
cluster-node3
        AD-SFU          Schema based on Active Directory Services for UNIX
(read-only)
cluster-node3
        RFC-2307        Schema based on RFC 2307 (read-only)
4 entries were displayed.
```

vserver services name-service netgroup load

Load netgroup definitions from a URI

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service netgroup load` command loads netgroup definitions from a uniform resource identifier (URI) to a specified Vserver. You can load from a netgroup file at an FTP or a HTTP location (source URI) using the respective protocol.

Before Data ONTAP saves the new netgroup definitions, it checks that the netgroup file does not have any file structure issues, does not contain any syntax errors, and all entries comply with the following rules:

- A domain name consists of one or more labels separated by periods (.).
- A hostname is a valid domain name, IPv4 address, or IPv6 address.
- Valid characters for a label are all alphanumeric characters, underscore (_), and dash (-). A label may not begin or end with a dash.
- Valid characters for a username are all ASCII printable characters with the exception of whitespace, parentheses, and comma (,).
- Valid characters for a netgroup name are all alphanumeric characters, underscore (_), and dash (-). A netgroup name may not begin with a dash.
- A single line in the netgroup file may not exceed 4096 characters.

If the file is found to contain errors, Data ONTAP will issue an error to that effect and netgroup definitions will not be loaded into the specified Vserver. After correcting the error, reload the netgroup file into the specified Vserver.

Parameters

-vserver <vserver name> - Vserver

This parameter specifies the Vserver for which you want to load netgroup definitions.

-source {(ftp|http)://(hostname|IPv4 Address|'['IPv6 Address']')…} - URI to Load from

This parameter specifies the source URI from which you want to load netgroup definitions. You can load from a URI either using the FTP or the HTTP protocol.

[-foreground {true|false}] - Load Netgroup in the Foreground

This parameter specifies whether the operation runs in the foreground. The default setting is `true` (the operation runs in foreground). When set to true, the command does not return until the operation completes.

[-skip-hostname-validation <true>] - Skip Hostname Validation (privilege: advanced)

If this parameter is specified, the hostname validation is skipped.

[-skip-file-size-check <true>] - Skip File Size Check Before Download (privilege: advanced)

If this parameter is specified, the file is downloaded without checking the file size. Use this parameter if the server does not supply the file size or does not provide an accurate value. This parameter can also be used to download a file greater than the default 5 MB size limit.

If this parameter is specified and the file is very large, the transfer may take a long time or fail due to disk space limitations.

[-skip-file-duplicate-check <true>] - Skip Netgroup File Duplicate Check (privilege: advanced)

If this parameter is specified, the netgroup file is downloaded even if the contents are same as the existing netgroup file. In this case, the existing file will be replaced.

Examples

The following example loads netgroup definitions into a Vserver named vs1 from the file netgroup1 at FTP location ftp://ftp.example.com:

```
cluster1::> vserver services name-service netgroup load -vserver vs1
-source ftp://ftp.example.com/netgroup1
```

vserver services name-service netgroup status

Display local netgroup definitions status

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service netgroup status` command displays the status of local netgroup definitions across a cluster. This enables you to verify that netgroup definitions are consistent across all nodes that back a Vserver into which netgroup definitions have been loaded.

The command displays the following information:

- Vserver name
- Node name
- Load time for netgroup definitions
- Hash value of the netgroup definitions
- Hash value of the netgroup-by-host database
- File size of the netgroup definitions file

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver (privilege: advanced)

If you specify this parameter, the command displays the netgroup status only for the specified Vserver.

[-node {<nodename>|local}] - Node (privilege: advanced)

If you specify this parameter, the command displays the netgroup status only for the specified node.

[-timestamp <MM/DD/YYYY HH:MM:SS>] - Load Time (privilege: advanced)

If you specify this parameter, the command displays the status only for the netgroup definitions that were loaded at the specified time. Specify time in the format MM/DD/YYYY HH:MM:SS. Note that the load time stamps for identical definitions are different on different nodes, because each node downloads the definitions from the URI individually.

[-hashvalue <text>] - Hash Value (privilege: advanced)

If you specify this parameter, command displays the status only for the netgroup definitions that have the specified hash value. Note that the primary purpose of the command is to verify that the definitions on all nodes have the same hash value, so querying on a specific hash value is not useful in most cases.

[-hashvalue-byhost <text>] - Hash Value Byhost (privilege: advanced)

If you specify this parameter, the command displays the status only for the netgroup definitions that have the specified hash value for netgroup-by-host database. Note that the primary purpose of the command is to verify that the definitions on all nodes have the same hash value for netgroup-by-host database.

[-filesize {<integer>[KB|MB|GB|TB|PB]}] - File Size (privilege: advanced)

If you specify this parameter, the command displays the status only for the netgroup definitions that have the specified file size. Note that the primary purpose of the command is to verify that the definitions on all nodes have the same file size, so querying on a specific file size is not useful in most cases.

Examples

The following example displays the netgroup definition status for all Vservers:

```
cluster1::*> vserver services name-service netgroup status
Vserver   Node     Load Time           Hash Value
Hash Value By-Host               File Size
--------- -------  ------------------ --------------------------------
-------------------------------- ----------
vs1
          node1    9/20/2008 16:04:55  e6cb38ec1396a280c0d2b77e3a84eda2
913a182a72aa1872495be398ebb2cd23 1.00KB
          node2    9/20/2008 16:04:53  e6cb38ec1396a280c0d2b77e3a84eda2
913a182a72aa1872495be398ebb2cd23 1.00KB
vs2
          node1    9/20/2008 16:06:26  c0d2b77e3a84eda2e6cb38ec1396a280
009321eddb45611e95d9f7f277ec0621 2.3MB
          node2    9/20/2008 16:06:27  c0d2b77e3a84eda2e6cb38ec1396a280
009321eddb45611e95d9f7f277ec0621 2.3MB
4 entries were displayed.
```

vserver services name-service netgroup file delete

Remove a local netgroup file

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service netgroup file delete` command deletes the local netgroup files for given Vservers.

Parameters

`-vserver <vserver name>` - Vserver

Use this parameter to specify the Vservers whose local netgroup file you want to delete. Separate multiple Vserver names with commas.

Examples

The following example deletes the local netgroup file for a Vserver named vs1.

```
cluster1::> vserver services netgroup file delete -vserver vs1
```

vserver services name-service netgroup file show

Display a local netgroup file

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services netgroup file show` command displays the contents of the local netgroup file for the specified Vservers. All the entries under a given netgroup, specified in the Netgroup column of the command output, list the members of that netgroup. Each netgroup file specifies netgroups, which are sets of tuples. Each member of a netgroup is either the name of another netgroup, specified in the Member Netgroup column, or a specification of a tuple as follows: (Host, User, Domain) where Host, User, and Domain are character string names for the corresponding component. Any of the components of a tuple can either be empty to specify a wildcard value or a dash (-) to specify no valid value.

Parameters

{ [-fields <fieldname>,…]

If you specify the -fields fieldname, … parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the -instance parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver

Use this parameter to display the local netgroup file contents for the Vservers you specify.

[-netgroup <text>] - Netgroup Name

If you specify this parameter, the command displays information about the netgroup you specify.

[-netgrpmemb <text>] - Member Netgroup

If you specify this parameter, the command displays information about the member netgroup you specify.

[-host <text>] - Member Host

If you specify this parameter, the command displays information about the host you specify.

[-user <text>] - Member User

If you specify this parameter, the command displays information about the user you specify.

[-domain <text>] - Member Domain

If you specify this parameter, the command displays information about the domain you specify.

Examples

The following example displays the netgroup file contents for the Vserver named vs1.

```
cluster1::> vserver services netgroup file show -vserver vs1
                     Member
Vserver    Netgroup  Netgroup    Host           User          Domain
---------- --------  ----------- -------------- ------------
-------------------
vs1
netgrp1
                     netgrp9     -              -             -
                                 h1                           d1
                                 h22                          d22
                     netgrp11    -              -             -
                     netgrp18    -              -             -
                                 h119           u4343         d34
           netgrp8
                                 '-'            u88           '-'
```

vserver services name-service nis-domain create

Create a NIS domain configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service nis-domain create` command creates a configuration for an NIS domain. You can configure only one NIS domain for a given Vserver. You can also configure more than one Vserver with the same NIS domain.

Parameters

`-vserver <Vserver Name>` - Vserver

Use this parameter to specify the Vserver on which the NIS domain configuration is created. A data Vserver or admin Vserver can be specified.

`-domain <nis domain>` - NIS Domain

Use this parameter to specify the NIS domain for which a configuration is created. Maximum Supported NIS Domain length: 64 characters.

{ `-nis-servers <text>,…` - NIS Servers

Use this parameter to specify the hostnames/IP addresses of NIS servers used by the NIS domain configuration. Separate multiple hostnames/IP addresses with commas.

| `-servers <IP Address>,…` - (DEPRECATED)-NIS Server }

This parameter has been deprecated and might be removed in a future version of ONTAP.

Use this parameter to specify the IP addresses of NIS servers used by the NIS domain configuration. Separate multiple IP addresses with commas.

Examples

The following example creates an NIS domain configuration on the Vserver named vs0. The NIS domain is named nisdomain and uses an NIS server with the IP address 192.0.2.180.

```
cluster1::> vserver services name-service nis-domain create -vserver vs0
-domain nisdomain -nis-servers 192.0.2.180
```

vserver services name-service nis-domain delete

Delete a NIS domain configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service nis-domain delete` command deletes an NIS domain configuration.

Deleting a NIS domain configuration removes it permanently.

Parameters

`-vserver <Vserver Name>` - Vserver

Use this parameter to specify the Vserver from which the NIS domain configuration is deleted. A data Vserver or admin Vserver can be specified.

`-domain <nis domain>` - NIS Domain

Use this parameter to specify the NIS domain whose configuration is deleted.

Examples

The following example deletes the configuration of an NIS domain named testnisdomain from a Vserver named vs2:

```
cluster1::> vserver services name-service nis-domain delete -vserver vs2
-domain testnisdomain
```

vserver services name-service nis-domain modify

Modify a NIS domain configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service nis-domain modify` command to modify the NIS server of

a NIS domain configuration.

To change the NIS domain, delete the NIS configuration using the vserver services name-service nis-domain delete command and then create the NIS configuration with new NIS domain using the vserver services name-service nis-domain create command. To permanently remove a configuration, use the vserver services name-service nis-domain delete command.

Parameters

-vserver <Vserver Name> - Vserver

Use this parameter to specify the Vserver whose NIS domain configuration is modified. A data Vserver or admin Vserver can be specified.

-domain <nis domain> - NIS Domain

Use this parameter to specify the NIS domain whose configuration is modified.

{ [-nis-servers <text>,…] - NIS Servers

Use this parameter to specify the hostnames/IP addresses of NIS servers used by the the NIS domain configuration. Separate multiple hostnames/IP addresses with commas.

| [-servers <IP Address>,…] - (DEPRECATED)-NIS Server }

This parameter has been deprecated and might be removed in a future version of ONTAP.

Use this parameter to specify the IP addresses of NIS servers used by the the NIS domain configuration. Separate multiple IP addresses with commas.

Examples

The following example modifies the NIS servers of a NIS domain named nisdomain on a Vserver named vs0:

```
cluster1::> vserver services name-service nis-domain modify -vserver vs0
-domain nisdomain -nis-servers 192.0.2.180
```

Related Links

- vserver services name-service nis-domain delete
- vserver services name-service nis-domain create

vserver services name-service nis-domain show-bound

Display binding status of a NIS domain configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service nis-domain show-bound` command displays binding information about NIS domain configurations.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver

If you use this parameter, the command displays binding information only about the NIS domain configurations of the specified Vservers. Use this parameter with the `-domain` parameter to display binding information only about a particular NIS domain configuration on the specified Vserver. A data Vserver or admin Vserver can be specified.

[-domain <nis domain>] - NIS Domain

If you use this parameter, the command displays binding information only about the NIS domain configurations that match the specified NIS domain name. Use this parameter with the `-vserver` parameter to display binding information only about a particular Vserver on the specified NIS domain name.

[-bound-servers <IP Address>,…] - Bound NIS Servers

If you use this parameter, the command displays NIS binding information only about the specified NIS servers.

Examples

The following example displays binding information about all NIS domain configurations:

```
cluster1::> vserver services name-service nis-domain show-bound
                                    Bound
Vserver       Domain                NIS Server
------------- -------------------- -----------------
vs1           testnisdomain1       192.0.2.180,
                                    10.0.2.15
vs2           testnisdomain2       10.0.2.17
2 entries were displayed.
```

vserver services name-service nis-domain show

Display NIS domain configurations

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service nis-domain show` command displays information about NIS domain configurations.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

Use this parameter to display information only about the NIS domain configurations of the Vservers you specify. Use this parameter with the `-domain` parameter to display information only about a particular NIS domain configuration on the Vserver you specify. A data Vserver or admin Vserver can be specified.

[-domain <nis domain>] - NIS Domain

Use this parameter to display information only about the NIS domain configurations that match the NIS domain name you specify. Use this parameter with the `-vserver` parameter to display information only about a particular NIS domain configuration on the Vserver you specify.

[-nis-servers <text>,…] - NIS Servers

Use this parameter to display information only about the NIS domain configurations that use the NIS servers at the hostnames/IP addresses you specify.

[-servers <IP Address>,…] - (DEPRECATED)-NIS Server

This parameter has been deprecated and might be removed in a future version of ONTAP.

Use this parameter to display information only about the NIS domain configurations that use the NIS servers at the IP addresses you specify.

Examples

The following example displays information about all NIS domain configurations:

```
cluster1::> vserver services name-service nis-domain show
Vserver       Domain        NIS Server
------------- ------------- ------------
vs1           nisdomain     192.0.2.180
vs2           nisdomain     10.0.2.15
vs3           testnisdomain 192.0.2.128, 192.0.2.180
3 entries were displayed.
```

vserver services name-service nis-domain group-database build

Build NIS group database

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service nis-domain group-database build` command rebuilds the NIS group.byuser DB for a given Vserver if NIS is added as source for group and an active nis-domain exists.

Parameters

`-vserver <vserver name>` - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver for which NIS group.byuser DB will be rebuilt. A data Vserver can be specified.

Examples

The following example rebuilds NIS group.byuser DB for Vserver vs0.

```
cluster1::> vserver services name-service nis-domain group-database build
-vserver vs0
```

vserver services name-service nis-domain group-database status

Display NIS group database status of the local node

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service nis-domain group-database status` command displays the status of local NIS group.byuser db across a cluster. This enables you to verify that NIS group.byuser db are consistent across all nodes.

The command displays the following information:

- Vserver name
- Node name
- Last build time of NIS group.byuser db
- Hash value of the NIS group.byuser db
- File size of the NIS group.byuser db

Parameters

{ `[-fields <fieldname>,…]`

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| `[-instance ]` }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver (privilege: advanced)

If you specify this parameter, the command displays the NIS group.byuser db status only for the specified Vserver.

[-node {<nodename>|local}] - Node (privilege: advanced)

If you specify this parameter, the command displays the NIS group.byuser db status only for the specified node.

[-timestamp <MM/DD/YYYY HH:MM:SS>] - Load Time (privilege: advanced)

If you specify this parameter, the command displays the status only for the NIS group.byuser db that were built at the specified time. Specify time in the format MM/DD/YYYY HH:MM:SS. Note that the load time stamps for identical definitions are different on different nodes, because each node extracts the db individually.

[-filesize {<integer>[KB|MB|GB|TB|PB]}] - File Size (privilege: advanced)

If you specify this parameter, the command displays the status only for the NIS group.byuser db that have the specified file size. Note that the primary purpose of the command is to verify that the definitions on all nodes have the same file size, so querying on a specific file size is not useful in most cases.

[-hashvalue <text>] - Hash Value (privilege: advanced)

If you specify this parameter, command displays the status only for the NIS group.byuser db that have the specified hash value. Note that the primary purpose of the command is to verify that the definitions on all nodes have the same hash value, so querying on a specific hash value is not useful in most cases.

Examples

The following example displays the NIS group.byuser db status for vserver vs0 :

```
cluster1::*> vserver services name-service nis-domain group-database
status -vserver vs0
Vserver   Node            Last Build Time     File Size
--------- --------------- ------------------- ----------
Hash Value
 --------------------------------
vs0
          node1           2/14/2017 11:39:56  136KB
a30b7d6d03197a7af25de72dcc4bd64f
```

vserver services name-service nis-domain netgroup-database build

Build NIS netgroup database

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service nis-domain netgroup-database build` command rebuilds the NIS netgroup.byhost database for a given Vserver if NIS is added as the source for netgroup and an active NIS domain exists.

Parameters

`-vserver <vserver name>` - Vserver Name (privilege: advanced)

Use this parameter to specify the Vserver for which the NIS netgroup.byhost database will be rebuilt. A data Vserver can be specified.

Examples

The following example rebuilds the NIS netgroup.byhost database for Vserver vs0.

```
cluster1::> vserver services name-service nis-domain netgroup-database
build -vserver vs0
```

vserver services name-service nis-domain netgroup-database show-status

Display NIS netgroup database status of the local node

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service nis-domain netgroup-database show-status` command displays the status of local NIS netgroup.byhost databases across a cluster. This enables you to verify that NIS netgroup.byhost databases are consistent across all nodes.

The command displays the following information:

- Vserver name
- Node name
- Last build time of the NIS netgroup.byhost database
- Hash value of the NIS netgroup.byhost database
- File size of the NIS netgroup.byhost database

Parameters

{ `[-fields <fieldname>,…]`

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver (privilege: advanced)

If you specify this parameter, the command displays the NIS netgroup.byhost database status only for the specified Vserver.

[-node {<nodename>|local}] - Node (privilege: advanced)

If you specify this parameter, the command displays the NIS netgroup.byhost database status only for the specified node.

[-timestamp <MM/DD/YYYY HH:MM:SS>] - Load Time (privilege: advanced)

If you specify this parameter, the command displays the status only for the NIS netgroup.byhost databases that were built at the specified time. Specify time in the format MM/DD/YYYY HH:MM:SS. Note that the load time stamps for identical definitions are different on different nodes, because each node extracts the databases individually.

[-filesize {<integer>[KB|MB|GB|TB|PB]}] - File Size (privilege: advanced)

If you specify this parameter, the command displays the status only for the NIS netgroup.byhost databases that have the specified file size. Note that the primary purpose of the command is to verify that the definitions on all nodes have the same file size, so querying on a specific file size is not useful in most cases.

[-hashvalue <text>] - Hash Value (privilege: advanced)

If you specify this parameter, the command displays the status only for the NIS netgroup.byhost databases that have the specified hash value. Note that the primary purpose of the command is to verify that the definitions on all nodes have the same hash value, so querying on a specific hash value is not useful in most cases.

Examples

The following example displays the NIS netgroup.byhost database status for vserver vs0 :

```
cluster1::*> vserver services name-service nis-domain netgroup-database
status -vserver vs0
Vserver   Node            Last Build Time     File Size
--------- --------------- ------------------- ----------
Hash Value
 --------------------------------
vs0
          node1           2/14/2019 11:39:56  136KB
a30b7d6d03197a7af25de72dcc4bd64f
```

vserver services name-service nis-domain netgroup-database config modify

Modify NIS netgroup database configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service nis-domain netgroup-database config modify` command modifies NIS netgroup.byhost database configuration of the specified Vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

Use this parameter to specify the Vserver for which the settings need to be modified.

`[-state {enabled|disabled}]` - State (privilege: advanced)

Use this parameter to enable and disable NIS netgroup.byhost databases. Default value is disabled.

`[-build-interval <[<integer>h][<integer>m][<integer>s]>]` - Build Interval (privilege: advanced)

Use this parameter to specify the NIS netgroup.byhost database build time interval. Default value is 24 hours and minumum value can be set to 5 minutes. Setting build interval below 1 hour may impact the performance.

Examples

The following example enables NIS netgroup.byhost database and sets the build interval to 24 hours for Vserver vs0:

```
cluster1::> vserver services name-service nis-domain netgroup-database
config modify -vserver vs0 -build-interval 24h -state enabled
```

vserver services name-service nis-domain netgroup-database config show

Display NIS netgroup database configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service nis-domain netgroup-database config show` command displays NIS netgroup.byhost database settings.

Parameters

`{ [-fields <fieldname>,…]`

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver (privilege: advanced)

If this parameter is specified, the command displays information only about NIS netgroup.byhost databases belonging to the specified Vservers.

[-state {enabled|disabled}] - State (privilege: advanced)

If this parameter is specified, the command displays information only about NIS netgroup.byhost databases with the specified state.

[-build-interval <[<integer>h][<integer>m][<integer>s]>] - Build Interval (privilege: advanced)

If this parameter is specified, the command displays information only about NIS netgroup.byhost databases with the specified build time interval.

Examples

The following example displays the settings for Vserver vs0:

```
cluster1::> vserver services name-service nis-domain netgroup-database
config show -vserver vs0
        Vserver: vs0
 Build Interval: 30m
          State: disabled
```

vserver services name-service ns-switch create

Create a new Name Service Switch table entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service ns-switch create` command specifies the order in which to lookup the name service sources, for a given Vserver and name service database. Each name service database contains some information regarding hosts, group, password, netgroup or namemap. Such a database comes from one or more name service sources such as files, DNS, LDAP or NIS.

Note: The ` vserver services name-service ns-switch ` command provides the functionality of the /etc/nsswitch.conf file on UNIX systems. For more information, see the UNIX man page for nsswitch.conf(5).

Parameters

-vserver <vserver name> - Vserver

Use this parameter to specify the Vserver on which to create the new name service switch entry

-database {hosts|group|passwd|netgroup|namemap} - Name Service Switch Database

Name Service Switch Database Use this parameter to specify the name service database for which the order of the source lookup is being specified. This parameter can have the following values:

- hosts
- group
- passwd
- netgroup
- namemap

-sources {files|dns|ldap|nis} - Name Service Source Order

Name Service Source Order Use this parameter to specify the name service sources and the order in which to look them up for the specified Vserver and name service database. Each name service source in the list for this parameter must be one of the following:

- files
- dns
- ldap
- nis

Separate multiple name service sources with commas.

For each database specified with the `-database` parameter, one or more sources must be specified. The valid sources for each database type are shown in the following table:

```
+----------+-------------------+
| Database |  Valid Sources    |
|----------+-------------------|
| hosts    |  files, dns       |
    | group    |  files, nis, ldap |
| passwd   |  files, nis, ldap |
    | netgroup |  files, nis, ldap |
| namemap  |  files, ldap      |
+----------+-------------------+
```

+
NOTE: If "files" is not specified as the default source for the "passwd" or "group" database, ensure that default user and group entries for the 'passwd' and 'group' respectively are present in the source configured. Default entries for "passwd" database: nobody, pcuser, root, sshd, toor, daemon, operator, bin, tty, kmem, games, news, man, smmsp, mailnull, bind, proxy, uucp, pop, www, admin, diag, autosupport. Default entries for "group" database: wheel, daemon, kmem, sys, tty, operator, mail, bin, news, man, games, ftp, staff, sshd, smmsp, mailnull, guest, bind, proxy, authpf, _pflogd, _dhcp, uucp, dialer, network, audit, www, antivirus, nogroup, nobody.

+

Examples

The following example creates name service source ordering for the hosts database on a Vserver named vs0. The order of looking up the sources is specified as files followed by DNS.

```
cluster1::> vserver services name-service ns-switch create -vserver vs0
-database hosts -sources files,dns
```

The following example creates the name service source ordering for the passwd database on a Vserver named vs1. The order of looking up the sources is specified as files, NIS and LDAP.

```
cluster1::> vserver services nameservice ns-switch create -vserver vs1
-database passwd -sources files,nis,ldap
```

vserver services name-service ns-switch delete

Remove a Name Service Switch table entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the ` vserver services name-service ns-switch delete ` command to permanently remove an existing name service switch entry.

Parameters

`-vserver <vserver name>` - Vserver

Vserver Use this parameter to specify the Vserver for which to delete the name service switch entry.

`-database {hosts|group|passwd|netgroup|namemap}` - Name Service Switch Database

Name Service Switch Database Use this parameter to specify the name service database, of the Vserver, for which the name service switch entry is to be deleted. Following are the possible values for this parameter:

- hosts
- group
- passwd
- netgroup
- name_map

Examples

The following example deletes the name service switch entry for the hosts database on a Vserver named vs0.

```
cluster1::> vserver services name-service ns-switch delete -vserver vs0
-database hosts.
```

The following example deletes the name service switch entry for the group database on a Vserver named vs1.

```
cluster1::> vserver services name-service ns-switch delete -vserver vs1
-database group.
```

vserver services name-service ns-switch modify

Change a Name Service Switch table entry

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

```
Use the ` vserver services name-service ns-switch modify ` command to
modify the order of looking up the name service sources, for an existing
name service switch entry.
```

Parameters

-vserver <vserver name> - Vserver

Vserver Use this parameter to specify the Vserver on which to modify the name service switch entry. A data Vserver or admin Vserver can be specified.

-database {hosts|group|passwd|netgroup|namemap} - Name Service Switch Database

Name Service Switch Database Use this parameter to specify the name service database, of the given Vserver,for which to modify the name service switch entry. Following are the possible values for this parameter:

- hosts
- group
- passwd
- netgroup
- namemap

[-sources {files|dns|ldap|nis}] - Name Service Source Order

Name Service Source Order Use this parameter to specify the name service sources and the order in whichlook up for the specified Vserver and name service database. Each name service source in the list for this parameter must be one of the following:

- files

- dns
- ldap
- nis

Separate multiple sources with commas.

For each database specified with the `-database` parameter, one or more sources must be specified. The valid sources for each database type are shown in the following table:

```
+----------+--------------------+
| Database |  Valid Sources     |
|----------+--------------------|
| hosts    |  files, dns        |
| group    |  files, nis, ldap  |
| passwd   |  files, nis, ldap  |
| netgroup |  files, nis, ldap  |
| namemap  |  files, ldap       |
+----------+--------------------+
```

+
NOTE: If "files" is not specified as the default source for the "passwd" or "group" database, ensure that default user and group entries for the 'passwd' and 'group' respectively are present in the source configured. Default entries for "passwd" database: nobody, pcuser, root, sshd, toor, daemon, operator, bin, tty, kmem, games, news, man, smmsp, mailnull, bind, proxy, uucp, pop, www, admin, diag, autosupport. Default entries for "group" database: wheel, daemon, kmem, sys, tty, operator, mail, bin, news, man, games, ftp, staff, sshd, smmsp, mailnull, guest, bind, proxy, authpf, _pflogd, _dhcp, uucp, dialer, network, audit, www, antivirus, nogroup, nobody.

+

Examples

The following example modifies the name service source ordering for the hosts database on a Vserver named vs0. The order of looking up the sources is changed to only DNS.

```
cluster1::> vserver services name-service ns-switch modify -vserver vs0
-database hosts -sources dns
```

The following example modifies the name service source ordering for the passwd database on a Vserver named vs1. The order of looking up the sources is changed to LDAP followed by NIS.

```
cluster1::> vserver services name-service ns-switch modify -vserver vs1
-database passwd -sources ldap,nis
```

vserver services name-service ns-switch show

Display Name Service Switch configuration

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the ` vserver services name-service ns-switch show ` command to display information about one or more name service switch entries. A name service switch entry provides information about the order of looking up the name service sources, for a Vserver and name service database.

Parameters

{ [-fields <fieldname>,…]

If you specify the -fields [fieldname], … parameter, the command only displays the fields that you specify.

| [-instance] }

If you specify the -instance parameter, the command displays detailed information about all entries.

[-vserver <vserver name>] - Vserver

Vserver Use this parameter to display only the name service switch entries for the Vserver you specify. A data Vserver or admin Vserver can be specified.

[-database {hosts|group|passwd|netgroup|namemap}] - Name Service Switch Database

Name Service Switch Database Use this parameter to display only the name service switch entries of the name service database type you specify. Following are the possible values for this parameter:

- hosts
- group
- passwd
- netgroup
- name_map

[-sources {files|dns|ldap|nis}] - Name Service Source Order

Name Service Source Order Use this parameter to display only name service switch entries with the specified name service source order. Each name service source in the list for this parameter must be one of the following:

- files
- dns
- ldap
- nis

Separate multiple sources with commas.

Examples

The following example shows the output of the ` vserver services name-service ns-switch show ` command.

```
cluster1::> ` vserver services name-service ns-switch show `

                                             Source
               Vserver         Database        Order
               --------------- ------------    ---------
               vs0             hosts           files,
                                               dns
               vs1             passwd          files,
                                               ldap, nis
               2 entries were displayed.
```

vserver services name-service unix-group adduser

Add a user to a local UNIX group

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-group adduser` command adds a user to a local UNIX group.

Parameters

`-vserver <vserver name>` - Vserver

Use this parameter to specify the Vserver location of the local UNIX group to which the user is added.

`-name <text>` - Group Name

Use this parameter to specify the local UNIX group to which to add the user.

`-username <text>` - Name of User

Use this parameter to specify the user name to add to the local UNIX group.

`[-skip-name-validation {true|false}]` - Skip Name Validation

By default, Data ONTAP validates the name to ensure it complies with the following rules:

- The name contains only these valid characters: 0 through 9, A through Z, a through z, "_", ".", and "-".
- The name does not start with the character "-".
- The name does not contain "$" except as the last character.

If the parameter is set to *`true`* , the name validation is skipped.

Examples

The following example adds a user named tsmith to a local UNIX group named sales on a Vserver named vs0:

```
cluster1::> vserver services name-service unix-group adduser -vserver vs0
-name sales -username tsmith
```

vserver services name-service unix-group create

Create a local UNIX group

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-group create` command creates a local UNIX group on a Vserver. Use a local UNIX group for Windows-to-UNIX and UNIX-to-Windows group mappings.

Parameters

`-vserver <vserver name>` - Vserver

Use this parameter to specify the Vserver on which to create the local UNIX group.

`-name <text>` - Group Name

Use this parameter to specify the name of the group to create.

`-id <integer>` - Group ID

Use this parameter to specify an ID number for the group.

`[-skip-name-validation {true|false}]` - Skip Name Validation

By default, Data ONTAP validates the name to ensure it complies with the following rules:

- The name contains only valid characters: 0 through 9, A through Z, a through z, "_", ".", and "-"
- The name does not start with "-"
- The name does not contain "$" except as the last character

If the parameter is set to *`true`* , the name validation is skipped.

Examples

The following example creates a group named sales on a Vserver named vs0. The group has the ID 94.

```
cluster1::> vserver services name-service unix-group create -vserver vs0
-name sales -id 94
```

vserver services name-service unix-group delete

Delete a local UNIX group

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-group delete` command deletes a local UNIX group from a Vserver.

Parameters

`-vserver <vserver name>` - Vserver

Use this parameter to specify the Vserver location of the local UNIX group to delete.

`-name <text>` - Group Name

Use this parameter to specify the local UNIX group to delete.

Examples

The following example deletes a local UNIX group named testgroup from a Vserver named vs0:

```
cluster1::> vserver services name-service unix-group delete -vserver vs0
-name testgroup
```

vserver services name-service unix-group deluser

Delete a user from a local UNIX group

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-group deluser` command removes a user from a local UNIX group.

Parameters

`-vserver <vserver name>` - Vserver

Use this parameter to specify the Vserver location of the local UNIX group from which the user is removed.

`-name <text>` - Group Name

Use this parameter to specify the local UNIX group from which to remove the user.

`-username <text>` - Name of User

Use this parameter to specify the user name to remove from the local UNIX group.

Examples

The following example removes a user named testuser from a local UNIX group named sales on a Vserver named vs0:

```
cluster1::> vserver services name-service unix-group deluser -vserver vs0
-name eng -username testuser
```

vserver services name-service unix-group load-from-uri

Load one or more local UNIX groups from a URI

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-group load-from-uri` command loads UNIX groups from a universal resource identifier (URI). The URI must contain group information in the UNIX /etc/group format:

group_name:*password*:*group_ID*:*comma_separated_list_of_users*

The command discards the value of the *password* field.

Parameters

-vserver <vserver> - Vserver

Use this parameter to specify the Vserver on which to locate the local UNIX groups.

-uri {(ftp|http)://(hostname|IPv4 Address|'['IPv6 Address']')…} - URI to Load From

Use this parameter to specify the URI from which the command loads group information. The URI scheme must be either ftp(s) or http(s)

[-overwrite {true|false}] - Overwrite Entries

Use this parameter with the value `true` to specify that group information loaded from the URI should overwrite existing group information. The default value is `false` , specifying that group information loaded from the URI should not overwrite existing group information.

[-skip-name-validation {true|false}] - Skip Name Validation

By default, Data ONTAP validates the name to ensure it complies with the following rules:

- The name contains only valid characters: 0 through 9, A through Z, a through z, "_", ".", and "-"
- The name does not start with "-"
- The name does not contain "$" except as the last character

If the parameter is set to *true* , the name validation is skipped.

[-foreground {true|false}] - Load Unix Groups file in the Foreground

If this parameter is set to *false* , the operation runs as a job in the background. Otherwise, the command does not return until the operation is complete. The default value is *true* .

Examples

The following example loads group information from the URI ftp://ftp.example.com/groups onto a Vserver named vs0:

```
cluster1::> vserver services name-service unix-group load-from-uri
-vserver vs0 -uri ftp://ftp.example.com/groups
```

vserver services name-service unix-group modify

Modify a local UNIX group

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

Use the `vserver services name-service unix-group modify` command to modify a local UNIX group's group ID.

Parameters

-vserver <vserver name> - Vserver

Use this parameter to specify the Vserver location of the local UNIX group to modify.

-name <text> - Group Name

Use this parameter to specify the name of the group to modify.

[-id <integer>] - Group ID

Use this parameter to specify an ID number for the group.

Examples

The following example changes a local UNIX group named sales on a Vserver named vs0 to have the group ID 100:

```
cluster1::> vserver services name-service unix-group modify -vserver vs0
-group sales -id 100
```

vserver services name-service unix-group show

Display local UNIX groups

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-group show` command displays information about local UNIX groups.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-members]

Use this parameter to display the list of users in each local UNIX group.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver

Use this parameter with the `-name` parameter to display information only about the local UNIX group you specify. Use this parameter without `-name` to display information only about the local UNIX groups that are located on the specified Vserver.

[-name <text>] - Group Name

Use this parameter with the `-vserver` parameter to display information only about the local UNIX group you specify. Use this parameter without `-vserver` to display information only about the local UNIX groups that match the name you specify.

[-id <integer>] - Group ID

Use this parameter to display information only about the local UNIX group that has the ID you specify.

[-users <text>,…] - Users

Use this parameter to display information only about the local UNIX groups that include the user names you specify.

Examples

The following example displays information about all local UNIX groups, including lists of their users:

```
cluster1::> vserver services name-service unix-group show -members
Vserver    Name        ID

vs0         dev         44
Users: admin, jdoe, tsmith

vs0         sales       12
Users: admin, guest, pjones

vs1         testgroup   13
Users: admin, root, testuser

vs1         users       100
Users: admin, jdoe, pjones, tsmith
```

vserver services name-service unix-group file show

Display local UNIX groups file

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service unix-group file show` command displays information about local UNIX groups. It displays the content as it is from the actual UNIX group file which resides in the mroot volume.

Parameters

`-vserver <vserver>` - Vserver (privilege: advanced)

If you specify this parameter, the command displays information about the local UNIX group or groups that are located on the specified Vserver.

`[-search-string <text>]` - Pattern to be searched (privilege: advanced)

If you specify this parameter and the `-vserver` parameter, the command only displays information from the UNIX group file which matches the specified parameter.

Examples

The following example displays information about all local UNIX groups belonging to a specific Vserver:

```
cluster1::> vserver services name-service unix-group file show -vserver
vs0
   Line No  File content
----------  ---------------
          1  daemon:*:1:
          2  nobody:*:65535:
          3  pcuser:*:65534:
          4  root:*:0:
```

vserver services name-service unix-group file status

Display local Unix Groups file status

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service unix-group file status` command displays the status of local UNIX group file across a cluster. This enables you to verify that UNIX group files are consistent across all nodes that back a Vserver into which UNIX group files have been loaded.

The command displays the following information:

- Vserver name
- Node name
- Load time for the UNIX group file
- Hash value of the UNIX group file
- Hash value of the UNIX group database file
- Hash value of the UNIX group byuser database file
- File size of the UNIX group file

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver (privilege: advanced)

If you specify this parameter, the command displays the UNIX group status only for the specified Vserver.

[-node {<nodename>|local}] - Node (privilege: advanced)

If you specify this parameter, the command displays the UNIX group status only for the specified node.

[-timestamp <MM/DD/YYYY HH:MM:SS>] - Load Time (privilege: advanced)

If you specify this parameter, the command displays the status only for the UNIX group file that were loaded at the specified time. Specify time in the format MM/DD/YYYY HH:MM:SS. Note that the load time stamps for identical files are different on different nodes, because each node downloads the definitions from the source URI individually.

[-hashvalue <text>] - Hash Value (privilege: advanced)

If you specify this parameter, command displays the status only for the UNIX group files that have the specified hash value. Note that the primary purpose of the command is to verify that the files on all nodes have the same hash value, so querying on a specific hash value is not useful in most cases.

[-hashvalue-db-grp <text>] - Hash Value DB (privilege: advanced)

If you specify this parameter, command displays the status only for the UNIX group files that have the specified hash value for the UNIX group database. Note that the primary purpose of the command is to verify that the files on all nodes have the same hash value, so querying on a specific hash value is not useful in most cases.

[-hashvalue-db <text>] - Hash Value byuser DB (privilege: advanced)

If you specify this parameter, the command displays the status only for the UNIX group files that have the specified hash value for the UNIX group byuser database. Note that the primary purpose of the command is to verify that the files on all nodes have the same hash value for UNIX group database.

[-filesize {<integer>[KB|MB|GB|TB|PB]}] - File Size (privilege: advanced)

If you specify this parameter, the command displays the status only for the UNIX group files that have the specified file size. Note that the primary purpose of the command is to verify that the files on all nodes have the same file size, so querying on a specific file size is not useful in most cases.

Examples

The following example displays the UNIX group file status for all Vservers:

```
cluster1::*> vserver services name-service unix-group file status
-instance
Vserver: vs1
                Node: node1
           Load Time: 8/9/2016 19:56:25
          Hash Value: 835c7f530fb76f96c3bca00e380d36b7
       Hash Value DB: e6cb38ec1396a280c0d2b77e3a84eda2
Hash Value byuser DB: 913a182a72aa1872495be398ebb2cd23
           File Size: 58B
Vserver: vs2
                Node: node1
           Load Time: 8/9/2016 20:15:40
          Hash Value: c0d2b77e3a84eda2e6cb38ec1396a280
       Hash Value DB: 009321eddb45611e95d9f7f277ec0621
Hash Value byuser DB: 659321eddb45611e95d9f7f277ec0621
           File Size: 2.3MB
2 entries were displayed.
```

vserver services name-service unix-group max-limit modify

Change Configuration Limits for UNIX-Group

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service unix-group max-limit modify` command enables you to modify maximum UNIX groups and group-members that can be configured on the system. This allows you to set certain limits to prevent performance issues due to service configurations using excessive resources.

Parameters

`[-limit <integer>]` - System Limit (privilege: advanced)

This parameter specifies the maximum limit that you want to set for unix-group. The default setting for the limit is 32768. The supported range of values for this parameter is 0 to 65536.

Examples

The following example modifies the system-wide limit of the total number of UNIX groups and members that can be configured on the cluster.

```
vserver services name-service unix-group max-limit modify -limit 33792
```

vserver services name-service unix-group max-limit show

Display Configuration Limits for UNIX-Group

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service unix-group max-limit show` command displays information on UNIX group limits that are configurable with vserver services name-service unix-group max-limit modify command. The output will show the following:

- Limit: The configured limit on the total number of UNIX groups and group members configurable.
- Current Count: Total number of current entries for UNIX groups and group members.

Examples

The following example shows the limits and total number of current entries for UNIX group configuration:

```
cluster1::> vserver services name-service unix-group max-limit show
  (vserver services name-service unix-group max-limit show)
Limit          Current Count
-------------- --------------
400            3
```

Related Links

- vserver services name-service unix-group max-limit modify

vserver services name-service unix-user create

Create a local UNIX user

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-user create` command creates a local UNIX user on a Vserver. You can use local UNIX users for Windows-to-UNIX and UNIX-to-Windows name mappings.

Parameters

`-vserver <vserver name>` - Vserver

This parameter specifies the Vserver on which you want to create the local unix user.

`-user <text>` - User Name

This parameter specifies the user account that you want to create.

`-id <integer>` - User ID

This parameter specifies an ID number for the user.

`-primary-gid <integer>` - Primary Group ID

This parameter specifies the ID number of the user's primary group.

`[-full-name <text>]` - User's Full Name

This parameter specifies the user's full name.

`[-skip-name-validation {true|false}]` - Skip Name Validation

By default, Data ONTAP validates the name to ensure it complies with the following rules:

- The name contains only valid characters: 0 through 9, A through Z, a through z, "_", ".", and "-"
- The name does not start with "-"
- The name does not contain "$" except as the last character

If the parameter is set to *`true`* , the name validation is skipped.

Examples

The following example creates a local UNIX user named tsmith on a Vserver named vs0. The user has the ID 4219 and the primary group ID 100. The user's full name is Tom Smith.

```
vs1::> vserver services name-service unix-user create -vserver vs0 -user
tsmith -id 4219 -primary-gid 100 -full-name "Tom Smith"
```

vserver services name-service unix-user delete

Delete a local UNIX user

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-user delete` command deletes a local UNIX user from a Vserver.

Parameters

`-vserver <vserver name>` - Vserver

This parameter specifies the Vserver on which the local UNIX user is located.

`-user <text>` - User Name

This parameter specifies the user that you want to delete.

Examples

The following example deletes a local UNIX user named testuser from a Vserver named vs0:

```
vs1::> vserver services name-service unix-user delete -vserver vs0 -user
testuser
```

vserver services name-service unix-user load-from-uri

Load one or more local UNIX users from a URI

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-user load-from-uri` command loads one or more UNIX users from a universal resource identifier (URI). The URI must contain user information in the UNIX /etc/passwd format: *`user_name`*:*`password`*:*`user_ID`*:*`group_ID`*:*`full_name`*:*`home_directory`*:*`shell`*. The command discards the value of the *`password`* field and of the fields after the *`full_name`* field (*`home_directory`* and *`shell`*).

Parameters

`-vserver <vserver>` - Vserver

This specifies the Vserver on which the local UNIX user or users are to be located.

`-uri {(ftp|http)://(hostname|IPv4 Address|'['IPv6 Address']')…}` - URI to Load From

This specifies the URI from which user information is to be loaded. The URI scheme must be either ftp(s) or http(s).

`[-overwrite {true|false}]` - Overwrite Entries

This optionally specifies whether user information from the URI overwrites existing user information. The default setting is `false` .

`[-skip-name-validation {true|false}]` - Skip Name Validation

By default, Data ONTAP validates the name to ensure it complies with the following rules:

- The name contains only valid characters: 0 through 9, A through Z, a through z, "_", ".", and "-"
- The name does not start with "-"
- The name does not contain "$" except as the last character

If the parameter is set to *`true`* , the name validation is skipped.

`[-foreground {true|false}]` - Load Unix Users file in the Foreground

If this parameter is set to *`false`* , the operation runs as a job in the background. Otherwise, the command does not return until the operation is complete. The default value is *`true`* .

Examples

The following example loads user information from the URI ftp://ftp.example.com/users onto a Vserver named vs0:

```
node::> vserver services name-service unix-user load-from-uri -vserver vs0
-uri ftp://ftp.example.com/users
```

vserver services name-service unix-user modify

Modify a local UNIX user

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-user modify` command modifies a local UNIX user's ID, primary group ID, or full name.

Parameters

-vserver <vserver name> - Vserver

This parameter specifies the Vserver on which the local UNIX user is located.

-user <text> - User Name

This parameter specifies the user account that you want to modify.

[-id <integer>] - User ID

This optional parameter specifies an ID number for the user.

[-primary-gid <integer>] - Primary Group ID

This optional parameter specifies the ID number of the user's primary group.

[-full-name <text>] - User's Full Name

This optional parameter specifies the user's full name.

Examples

The following example modifies the local UNIX user named pjones on a Vserver named vs0. The user's primary group ID is changed to 100 and the user's full name is Peter Jones.

```
vs1::> vserver services name-service unix-user modify -vserver vs0 -user
pjones -primary-gid 100 -full-name "Peter Jones"
```

vserver services name-service unix-user show

Display local UNIX users

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services name-service unix-user show` command displays information about local UNIX users. The command output depends on the parameter or parameters specified with the command. If you do not specify any parameters, the command displays the following information about all local UNIX users:

- Vserver name
- User name
- User ID
- Primary group ID
- Full name

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields` parameter, the command only displays the fields that you specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all entries.

[-vserver <vserver name>] - Vserver

If you specify this parameter and the `-user` parameter, the command displays information only about the specified local UNIX user. If you specify this parameter by itself, the command displays information only about the local UNIX user or users that are located on the specified Vserver.

[-user <text>] - User Name

If you specify this parameter and the `-vserver` parameter, the command displays information only about the specified local UNIX user. If you specify this parameter by itself, the command displays information only about the local UNIX user or users that have the specified name.

[-id <integer>] - User ID

If you specify this parameter, the command displays information only about the local UNIX user that has the specified ID.

[-primary-gid <integer>] - Primary Group ID

If you specify this parameter, the command displays information only about the local UNIX user or users that have the specified primary group ID.

[-full-name <text>] - User's Full Name

If you specify this parameter, the command displays information only about the local UNIX user or users that match the specified name.

Examples

The following example displays information about all local UNIX users:

```
vs1::> vserver services name-service unix-user show
     User       User   Group  Full
Vserver    Name       ID     ID     Name
---------- ---------- ------ ------ ----------------
vs0        admin      100    100    administrator
vs0        guest      1000   100    guest
vs0        jdoe       4673   100    Jane Doe
vs0        monitor    2000   100    monitor
vs0        pjones     4236   100    Peter Jones
vs0        root       10     100    root
vs0        tsmith     3289   100    Tom Smith
```

vserver services name-service unix-user file show

Display local UNIX users file

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service unix-user file show` command displays information about local UNIX users. It displays the content as it is from the actual UNIX user file which resides in the mroot volume.

Parameters

`-vserver <vserver>` - Vserver (privilege: advanced)

If you specify this parameter, the command displays information about the local UNIX user or users that are located on the specified Vserver.

`[-search-string <text>]` - Pattern to be searched (privilege: advanced)

If you specify this parameter and the `-vserver` parameter, the command only displays information from the UNIX user file which matches the specified parameter.

Examples

The following example displays information about all local UNIX users belonging to a specific Vserver:

```
cluster1::> vserver services name-service unix-user file show -vserver vs0
   Line No  File content
----------  ----------------
         1  nobody:*:65535:65535::::::
         2  pcuser:*:65534:65534::::::
         3  root:*:0:1::::::
```

vserver services name-service unix-user file status

Display local Unix Users file status

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

The `vserver services name-service unix-user file status` command displays the status of local UNIX user file across a cluster. This enables you to verify that UNIX user files are consistent across all nodes that back a Vserver into which UNIX user files have been loaded.

The command displays the following information:

- Vserver name
- Node name
- Load time for the UNIX user file
- Hash value of the UNIX user file

- Hash value of the UNIX user database file
- File size of the UNIX user file

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver (privilege: advanced)

If you specify this parameter, the command displays the UNIX user status only for the specified Vserver.

[-node {<nodename>|local}] - Node (privilege: advanced)

If you specify this parameter, the command displays the UNIX user status only for the specified node.

[-timestamp <MM/DD/YYYY HH:MM:SS>] - Load Time (privilege: advanced)

If you specify this parameter, the command displays the status only for the UNIX user file that were loaded at the specified time. Specify time in the format MM/DD/YYYY HH:MM:SS. Note that the load time stamps for identical files are different on different nodes, because each node downloads the definitions from the source URI individually.

[-hashvalue <text>] - Hash Value (privilege: advanced)

If you specify this parameter, command displays the status only for the UNIX user files that have the specified hash value. Note that the primary purpose of the command is to verify that the files on all nodes have the same hash value, so querying on a specific hash value is not useful in most cases.

[-hashvalue-db <text>] - Hash Value DB (privilege: advanced)

If you specify this parameter, the command displays the status only for the UNIX user files that have the specified hash value for the UNIX user database. Note that the primary purpose of the command is to verify that the files on all nodes have the same hash value for UNIX user database.

[-filesize {<integer>[KB|MB|GB|TB|PB]}] - File Size (privilege: advanced)

If you specify this parameter, the command displays the status only for the UNIX user files that have the specified file size. Note that the primary purpose of the command is to verify that the files on all nodes have the same file size, so querying on a specific file size is not useful in most cases.

Examples

The following example displays the UNIX user file status for all Vservers:

```
cluster1::*> vserver services name-service unix-user file status
Vserver   Node     Load Time           Hash Value
Hash Value DB                    File Size
--------- -------  ------------------ --------------------------------
-------------------------------- ----------
vs1
          node1    5/20/2016 16:04:55  e6cb38ec1396a280c0d2b77e3a84eda2
913a182a72aa1872495be398ebb2cd23 1.00KB
          node2    5/20/2016 16:04:53  e6cb38ec1396a280c0d2b77e3a84eda2
913a182a72aa1872495be398ebb2cd23 1.00KB
vs2
          node1    5/20/2016 16:06:26  c0d2b77e3a84eda2e6cb38ec1396a280
009321eddb45611e95d9f7f277ec0621 2.3MB
          node2    5/20/2016 16:06:27  c0d2b77e3a84eda2e6cb38ec1396a280
009321eddb45611e95d9f7f277ec0621 2.3MB
4 entries were displayed.
```

vserver services name-service unix-user max-limit modify

Change Configuration Limits for UNIX-User

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service unix-user max-limit modify` command enables you to modify maximum UNIX users that can be configured on the system. This allows you to set certain limits to prevent performance issues due to service configurations using excessive resources.

Parameters

`[-limit <integer>]` - System Limit (privilege: advanced)

This parameter specifies the maximum limit that you want to set for unix-user. The default setting for the limit is 32768. The supported range of values for this parameter is 0 to 65536.

Examples

The following example modifies the system-wide limit of the total number of UNIX users that can be configured on the cluster.

```
vserver services name-service unix-user max-limit modify -limit 33792
```

vserver services name-service unix-user max-limit show

Display Configuration Limits for UNIX-User

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service unix-user max-limit show` command displays information on UNIX user limits that are configurable with vserver services name-service unix-user max-limit modify command. The output will show the following:

- Limit: The configured limit on the total number of UNIX users configurable.
- Current Count: Total number of current entries for UNIX users configuration.

Examples

The following example shows the limits and total number of current entries for UNIX user configuration:

```
cluster1::> vserver services name-service unix-user max-limit show
  (vserver services name-service unix-user max-limit show)
Limit          Current Count
-------------- --------------
400            3
```

Related Links

- vserver services name-service unix-user max-limit modify

vserver services name-service ypbind start

Start ypbind

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service ypbind start` starts the ypbind. NIS creation will fail if ypbind is stopped. This command starts ypbind on all the nodes in a cluster and is presistent across node reboots.

Examples

The following example starts ypbind:

```
vs1::> vserver services name-service ypbind start
```

vserver services name-service ypbind status

Current ypbind status

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service ypbind status` displays whether the ypbind is running or stopped.

Examples

The following example displays ypbind status:

```
vs1::> vserver services name-service ypbind status
      Status: Running
```

vserver services name-service ypbind stop

Stop ypbind

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

The `vserver services name-service ypbind stop` stops the ypbind. Command fails if NIS entries are present. This command stops ypbind on all the nodes in a cluster and is persistent across node reboots.

Examples

The following example stops ypbind:

```
vs1::> vserver services name-service ypbind stop
```

vserver services ndmp generate-password

Generates NDMP password for a user

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

This command is used to generate NDMP password for a given user in the specified Vserver context. The generated NDMP password is based on the user's login password. For this reason regenerate it whenever the user's login password changes. This command fails if a user does not exist for the Vserver.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

Specify the Vserver context for which password is to be generated.

[-user <text>] - User

Specify the user name for which the NDMP password needs to be generated.

[-password <text>] - Password

The generated NDMP password string that is used for authentication.

Examples

The following example shows the usage this command to generate NDMP password for a user belonging to a specific Vserver:

```
cluster1::> vserver services ndmp generate-password -vserver vserver1
-user user1
Vserver: vserver1
    User: user1
Password: a9cCCUp32yjGmBiD
```

vserver services ndmp kill-all

Kill all NDMP sessions

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

This command terminates all NDMP sessions on a particular Vserver in the cluster.

Parameters

-vserver <vserver name> - Vserver

Specifies the Vserver name in which all NDMP sessions that are to be terminated are running.

Examples

The following example shows how all NDMP sessions on the Vserver named vserver1 can be terminated:

```
cluster1::> vserver services ndmp kill-all -vserver vserver1
```

vserver services ndmp kill

Kill the specified NDMP session

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

This command terminates a specific NDMP session on a particular Vserver in the cluster.

Parameters

<text> - Session Identifier

Session ID of the NDMP session. A session-id is a string used to identify a particular NDMP session.

Examples

The following example shows how a specific NDMP session on the Vserver named vserver1 can be terminated:

```
cluster1::> vserver services ndmp kill 1000:8002 -vserver vserver1
```

vserver services ndmp modify

Modify NDMP Properties

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

This command is used to change NDMP options on Vservers.

One or more of the options specified in the parameters section can be modified for a specific Vserver, by this command. A short description of each of the options is provided in the parameters section.

Parameters

-vserver <Vserver Name> - Vserver

This parameter specifies the name of the Vserver.

[-ignore-ctime-enabled {true|false}] - Ignore Ctime

This option, when *true* , allows user to exclude files with ctime changed from storage system' incremental dumps since other processes like virus scanning often alter the ctime of files. When this option is *false* , backup on the Vserver will include all files with a change or modified time later then the last dump in the previous level dump. The default value is *false* . This option is persistent across reboots.

Most WIN32 APIs are often unaware of the "last changed time", ctime, they often incorrectly set a later time for files, causing these files to be included in the Vserver’s incremental dumps, making the incremental dump very large. This is partially defying the purpose of having incremental dumps, since one uses

incremental dumps to speed up the backup by only dumping files that were truly changed since the last backup.

The `-option-value` for this parameter should be true/false.

[-offset-map-enable {true|false}] - Enable Offset Map

This option is used to enable or disable generation of the inode offset map during NDMP based dump backups. The offset map is required to perform Enhanced Direct Access Restore (DAR) on the backup data. Enhanced DAR provides support for directory DAR and DAR of files with NT streams. The default value for this option is *true* . This option is persistent across reboots.

The `-option-value` for this parameter should be true/false.

[-tcpnodelay {true|false}] - Enable TCP Nodelay

Enables/Disables the TCPNODELAY configuration parameter for the socket between the Vserver and the DMA. When set to true, the Nagle algorithm is disabled and small packets are sent immediately rather than held and bundled with other small packets. This optimizes the system for response time rather than throughput.

This option becomes active when the next NDMP session starts. Existing sessions are unaffected. The default value for this option is *false* . This option is persistent across reboots.

The `-option-value` for this parameter should be true/false.

[-tcpwinsize <integer>] - TCP Window Size

This option can be used to change the TCP buffer size of the NDMP data connection.The minimum and maximum values are 8192(8K) and 7,631,441(7.2M), respectively. The default value for this option is 32768(32K).

This option is persistent across reboots.

The `-option-value` for this parameter should be a number between 8192(8K) and 7,631,441(7.2M).

[-data-port-range <text>] - Data Port Range

This option allows administrators to specify a port range on which the NDMP server can listen for data connections.

The format of this option is *start_port - end_port* start_port, end_port can have values between [1024-65535]; start_port must be lesser than or equal to end_port. If a valid range is specified, NDMP uses a port within that range to listen for data connections. A listen request fails if no ports in the specified range are free.

This option is modifiable only from the admin Vserver context and the said option is applicable for all the data Vservers and the admin Vserver. For example, if the value of the above option is set with 2000-3000, the same value will be applicable throughout the cluster. The value *all* implies that any available port can be used to listen for data connections. The default value for this option is *all* . This option is persistent across reboots.

The `-option-value` for this option should be in the format {<start_port>-<end port> | all }- where start_port, end_port can have values between [1024-65535]; start_port must be lesser than or equal to end_port.

[-backup-log-enable {true|false}] - Enable Backup Log

Backup logging captures important events during dump/restore and records them in /mroot/etc/log/backup on the root volume. The option allows users to enable or disable this feature. The default value for this option is *true* . This option is persistent across reboots.

The -option-value for this parameter should be true/false.

[-per-qtree-exclude-enable {true|false}] - Enable per Qtree Exclusion

If this option is *true* , users can specify exclude list on a per qtree basis to be excluded from backup. This exclude list will override any values already present due to 'EXCLUDE' environment variable . The user can specify the exclusion list through a .exclude_list file which resides at the root of the qtree. The exclusion list can be a list of files or files that match a specified pattern. The default value for this option is *false* . This option is persistent across reboots.

The -option-value for this parameter should be true/false.

[-authtype <NDMP Authentication types>,…] - Authentication Type

Allows the administrator to choose the authentication method. NDMP supports three authentication types: challenge, plaintext and plaintext_sso. The plaintext_sso authentication type is mutually exclusive with the other authentication types. By setting the authentication type as plaintext_sso, the actual password for the user can be used to authenticate instead of having to generate an NDMP specific password. The default of this option is *challenge* . This option is persistent across reboots.

The -option-value for this parameter can be {challenge | plaintext | plaintext_sso | challenge, plaintext | plaintext, challenge}.

[-debug-enable {true|false}] - Enable Debug (privilege: advanced)

This option enables debug logging for NDMP. Debug messages will be logged to the ndmpd log file /mroot/etc/log/mlog/ndmpd.log . The default value for this option is *false* .This option is persistent across reboots.

The -option-value for this parameter should be true/false.

[-debug-filter <text>] - Debug Filter (privilege: advanced)

This option controls the NDMP modules for which debug logging is to be enabled. option-value can take five values for this option : all, none, normal, backend or "filter-expression".

all enables debug logging for all modules.

none disables debug logging for all modules. It is equivalent to *modify -vserver vserver_name -debug-enable false* .

normal is a shortcut option that enables debug logging for all modules except verbose and io_loop. The equivalent filter string is all-verbose-io_loop.

backend is a short cut option that enables debug logging for all modules except verbose, io_loop, ndmps and ndmpd. The equivalent filter string is all-verbose-io_loop-ndmps-ndmpp.

(filter-expression) is a combination of one or more modules for which debug logs needs to be enabled. Multiple module names can be combined using following operators :

- - to remove the given module from the list of specified modules in the filter string. For example the filter

all-ndmpp will enable debug logging for all modules but not ndmpp.

- ^ to add the given module or modules to the list of modules specified in the filter string. For example the filter ndmpp^mover^data will enable debug logging for ndmpp, mover and data.

The possible module names and a brief description is given below:-

```
+--------------+-------------------------------------+
| Modules      | Description                         |
+--------------+-------------------------------------+
| verbose      | verbose message                     |
| io           | I/O process loop                    |
| io_loop      | I/O process loop verbose messages   |
| ndmps        | NDMP service                        |
| ndmpp        | NDMP Protocol                       |
| rpc          | General RPC service                 |
| fdc_rpc      | RPC to FC driver service            |
| auth         | Authentication                      |
| mover        | NDMP MOVER (tape I/O)               |
| data         | NDMP DATA (backup/restore)          |
| scsi         | NDMP SCSI (robot/tape ops)          |
| bkup_rpc     | RPC to Backup service client        |
| bkup_rpc_s   | RPC to Backup service server        |
| conf         | Debug configure/reconfigure         |
| dblade       | Dblade specific messages            |
| timer        | NDMP server timeout messages        |
| vldb         | VLDB service                        |
| smf          | SMF Gateway messages                |
| common       | NDMP common state                   |
| ext          | NDMP extensions messages            |
| ndmprpc      | NDMP Mhost RPC server               |
+--------------+-------------------------------------+
```

+
The default value for this option is *none* . This option is persistent across reboots.

+
The `-option-value` for this parameter can be {all | none | normal | backend |'filter-expression'}.

[-dump-logical-find <text>] - Enable Logical Find for Dump (privilege: advanced)

This option specifies whether to follow inode-file walk or tree walk for phase I of the dump. Choosing inode-file walk or tree walk affects the performance of the dump. This option can take following values:

If *default* is specified, then level 0 and incremental volume as well as qtree dumps will use inode walk. All the subtree dumps will use tree walk.

If *always* is specified, all dumps will follow treewalk.

A *comma-separated* list of values in any combination from the following list:

- vol_baseline: Level 0 full volume backup will follow treewalk.
- vol_incr: Incremental full volume backup will follow treewalk.
- qtree_baseline: Level 0 qtree backup will follow treewalk.
- qtree_incr: Incremental qtree backup will follow treewalk.

The default value for this option is *default* . This option is persistent across reboots.

The `-option-value` for this parameter could be {default | always | 'vol_baseline' | 'vol_baseline,qtree_baseline' | …}.

[-abort-on-disk-error {true|false}] - Enable Abort on Disk Error (privilege: advanced)

If this option is *true* , dump will abort the backup operation on detection of irrecoverable data blocks in user files. If this option is *false* , dump will proceed with backup operation - even if irrecoverable data blocks in user files are detected. On detection of irrecoverable data blocks, dump will send a log message to DMA and also log an entry in /mroot/etc/log/backup file. The default value for this option is *false* . This option is persistent across reboots.

The `-option-value` for this parameter should be true/false.

[-fh-dir-retry-interval <integer>] - FH Throttle Value for Dir (privilege: advanced)

NDMP protocol sends back file history information for all directories in phase 3 of dump to DMA. In the presence of slow DMA or high latency networks, the amount of file history being generated exceeds the amount being consumed by the DMA. To handle a slow reader, a flow control mechanism is now introduced where file history generation is throttled when a DMA is slow in consuming them. The value for this option indicates how frequently should the file history be resent if it was throttled. The default value is 250 milliseconds. This option is persistent across reboots.

The `-option-value` for this parameter should be a number.

[-fh-node-retry-interval <integer>] - FH Throttle Value for Node (privilege: advanced)

NDMP protocol sends back file history information for all files in phase 4 of dump to DMA. In the presence of slow DMA or high latency networks, the amount of file history being generated exceeds the amount being consumed by the DMA. To handle slow reader conditions, a flow control mechanism is now introduced where file history generation is throttled when a DMA is slow in consuming them. The value for this option indicates how frequently should the file history be resent if it was throttled. The default value is 250 milliseconds. This option is persistent across reboots.

The `-option-value` for this parameter should be a number.

[-restore-vm-cache-size <integer>] - Restore VM File Cache Size (privilege: advanced)

This option mandates the number of WAFL buffers pinned in memory by various meta-files used by logical restore. The minimum and maximum values are 4 and 1024, respectively. The default value for this option is 64. This option is persistent across reboots.

Depending on the value of this option, various meta-files are assigned a number of WAFL buffers that need to be pinned in memory.

```
+-----------------+---------------------------------+
| Meta-filename   |     Number of WAFL buffers to   |
|                 |      be pinned in memory        |
+-----------------+---------------------------------+
| dumpmap         | ndmpd.restore.vm_cache_size     |
| filemap         | ndmpd.restore.vm_cache_size     |
| aclfile_map     | ndmpd.restore.vm_cache_size     |
| inomap          | ndmpd.restore.vm_cache_size / 2 |
| basemap         | ndmpd.restore.vm_cache_size / 2 |
| flipmap         | ndmpd.restore.vm_cache_size / 2 |
| revmap          | ndmpd.restore.vm_cache_size / 2 |
| clrimap         | ndmpd.restore.vm_cache_size / 4 |
| mfp_for_inotab  | ndmpd.restore.vm_cache_size / 4 |
| map             | ndmpd.restore.vm_cache_size / 4 |
| offsetfile_map  | ndmpd.restore.vm_cache_size / 4 |
+-----------------+---------------------------------+
```

+
The `-option-value` for this parameter should be a number between 4 and 1024.

[-enable {true|false}] - Enable NDMP on Vserver

When the option is set to *true* , the NDMP daemon handles requests, and when set to *false* , the NDMP daemon does not handle requests. Enabling and disabling the option is equivalent to executing the following commands: *vserver services ndmp on* and *vserver services ndmp off* respectively. This option is persistent across reboots. The default value of this option is *false* .

The `-option-value` for this parameter is either true or false.

[-preferred-interface-role {undef|cluster|data|node-mgmt|intercluster|cluster-mgmt}] - Preferred Interface Role

This option allows the user to specify the preferred Logical Interface (LIF) role while establishing an NDMP data connection channel. The NDMP data server or the NDMP mover establishes a data channel from the node that owns the volume or the tape device respectively. This option is used on the node that owns the volume or the tape device. The order of IP addresses that are used to establish the data connection depends on the order of LIF roles specified in this option.

The default value for this option for the admin Vserver is *intercluster, cluster-mgmt, node-mgmt*

The default value for this option for a data Vserver is *intercluster, data* .

[-secondary-debug-filter <text>] - Secondary Debug Filter (privilege: advanced)

This option allows control on NDMP debug logging. This option takes a comma separated tag=value pairs. The supported tag is *IPADDR* which can be used to specify Vserver IP addresses for which NDMP debugging is required. If this option is set and the option `debug-enable` is set to true, then the debug-filter option is applicable to sessions whose control connection IP addresses match the IP addresses that are listed in the option. If this option is not set, the debug filter is applicable to all Vserver sessions. By default, this option does not have a value set.

[-is-secure-control-connection-enabled {true|false}] - Is Secure Control Connection Enabled

This option enables NDMP service to accept control connections over secure sockets on TCP port 30000. This option is persistent across reboots. The default value of this option is *false* .

Examples

The following example show how to enable NDMP on a Vserver and set authorization type to plaintext :

```
cluster1::> vserver services ndmp modify -vserver vs1 -enable true
-authtype plaintext
cluster1::>
```

vserver services ndmp off

Disable NDMP service

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

This command is used to disable NDMP service on a specific Vserver.

Parameters

-vserver <Vserver Name> - Vserver

This parameter specifies the name of the Vserver.

Examples

The following example disables NDMP on a specific Vserver:

```
cluster1::> vserver services ndmp off -vserver vs1
```

vserver services ndmp on

Enable NDMP service

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

This command is used to enable NDMP service on a specific Vserver.

Parameters

`-vserver <Vserver Name>` - Vserver

This parameter specifies the name of the Vserver.

Examples

The following example enables NDMP service on a specific Vserver:

```
cluster1::> vserver services ndmp on -vserver vs1
```

vserver services ndmp probe

Display list of NDMP sessions

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The system services ndmp probe command displays diagnostic information about NDMP sessions belonging to a specific Vserver in the cluster. The following fields are displayed for each of the sessions:

- Vserver
- Session identifier
- NDMP version
- Session authorized
- Data state
- Data operation
- Data server halt reason
- Data server connect type
- Data server connect address
- Data server connect port
- Data bytes processed
- Mover state
- Mover mode
- Mover pause reason
- Mover halt reason
- Mover record size
- Mover record number
- Mover bytes moved
- Mover seek position
- Mover bytes left to read

- Mover window offset
- Mover window length
- Mover position
- Mover SetRecordSize flag
- Mover SetWindow flag
- Mover connect type
- Mover connect address
- Mover connect port
- Effective host
- NDMP client address
- NDMP client port
- SCSI device ID
- SCSI hostadapter
- SCSI target ID
- SCSI LUN ID
- Tape device
- Tape mode
- Node
- Is Secure Control Connection
- Data Backup Mode
- Data Path
- NDMP Source Address

Parameters

[-vserver <vserver name>] - Vserver

This parameter Specifies the Vserver context in which NDMP sessions are running.

[-session-id <text>] - Session Identifier

If this parameter is specified, the command displays information about a specific NDMP session. A session-id is a string used to identify a particular NDMP session.

[-ndmp-version <integer>] - NDMP Version

This parameter refers to the NDMP protocol version being used in the session.

[-session-authorized {true|false}] - Session Authorized

This parameter indicates whether an NDMP session is authenticated or not.

[-data-state <component state>] - Data State

This parameter identifies the current state of the data server’s state machine.

[-data-operation <data operation>] - Data Operation

This parameter identifies the data server's current operation.

[-data-halt-reason <halt reason>] - Data Server Halt Reason

This parameter identifies the event that caused the data server state machine to enter the HALTED state.

[-data-con-addr-type <address type>] - Data Server Connect Type

This parameter specifies the type of data connection established by the data server. The data connection can be established locally within a given system or between remote networked systems.

[-data-con-addr <text>] - Data Server Connect Address

This parameter specifies the connection endpoint information for the data server's data connection.

[-data-con-port <integer>] - Data Server Connect Port

This parameter specifies the TCP/IP port that the data server will use when establishing a data connection.

[-data-bytes-processed <integer>] - Data Bytes Processed

This parameter represents the cumulative number of data stream bytes transferred between the backup or recovery method and the data connection during the current data operation.

[-mover-state <component state>] - Mover State

This parameter identifies the current state of the NDMP tape server's mover state machine.

[-mover-mode <mover mode>] - Mover Mode

This parameter identifies the direction of the mover data transfer.

[-mover-pause-reason <pause reason>] - Mover Pause Reason

This parameter identifies the event that caused the mover state machine to enter the PAUSED state.

[-mover-halt-reason <halt reason>] - Mover Halt Reason

This parameter field identifies the event that caused the mover state machine to enter the HALTED state.

[-mover-record-size <integer>] - Mover Record Size

This parameter represents the current mover record size in bytes.

[-mover-record-num <integer>] - Mover Record Number

This parameter represents the last tape record processed by the mover.

[-mover-bytes-moved <integer>] - Mover Bytes Moved

This parameter represents the cumulative number of data stream bytes written to the data connection or the number of data stream bytes read from the data connection and written to the tape subsystem, depending on the mode of mover operation.

[-mover-seek-position <integer>] - Mover Seek Position

This parameter represents the data stream offset of the first byte the DMA requested the mover to transfer to the data connection during a mover read operation.

[-mover-bytes-left-to-read <integer>] - Mover Bytes Left to Read

This parameter represents the number of data bytes remaining to be transferred to the data connection to satisfy the current NDMP_MOVER_READ request.

[-mover-window-offset <integer>] - Mover Window Offset

This parameter represents the absolute offset of the first byte of the mover window within the overall data stream.

[-mover-window-length <integer>] - Mover Window Length

This parameter represents the length of the current mover window in bytes.

[-mover-position <integer>] - Mover Position

This parameter can be used to list only those sessions, whose mover position matches a specific value. Mover-position should be an integer.

[-mover-setrecordsize-flag {true|false}] - Mover SetRecordSize Flag

This parameter is used by the DMA to establish the record size used for mover-initiated tape read and write operations.

[-mover-setwindow-flag {true|false}] - Mover SetWindow Flag

This flag represents whether a mover window has been set or not. A mover window represents the portion of the overall backup stream that is accessible to the mover without intervening DMA tape manipulation.

[-mover-con-addr-type <address type>] - Mover Connect Type

This parameter specifies the type of data connection established by the mover. The data connection can be established locally within a given system or between remote networked systems.

[-mover-con-addr <text>] - Mover Connect Address

This parameter specifies the endpoint address or addresses that the mover will use when establishing a data connection.

[-mover-con-port <integer>] - Mover Connect Port

This parameter specifies the TCP/IP port that the mover will use when establishing a data connection.

[-eff-host <host type>] - Effective Host

This parameter indicates the host context in which the NDMP session runs. The valid values are: PRIMARY or PARTNER.

[-client-addr <text>] - NDMP Client Address

This parameter specifies the client's IP address.

[-client-port <integer>] - NDMP Client Port

This parameter specifies the client's port number.

[-spt-device-id <text>] - SCSI Device ID

This parameter specifies the SCSI device ID.

[-spt-ha <integer>] - SCSI Host Adapter

This parameter specifies the SCSI host adapter.

[-spt-scsi-id <integer>] - SCSI Target ID

This parameter specifies the SCSI target.

[-spt-scsi-lun <integer>] - SCSI LUN ID

This parameter specifies the SCSI LUN ID.

[-tape-device <text>] - Tape Device

This parameter specifies the name to identify the tape device.

[-tape-mode <mover mode>] - Tape Mode

This parameter specifies the mode in which tapes are opened.

[-node {<nodename>|local}] - Node

If this parameter is specified, the command displays information about the sessions running on the specified node only. Node should be a valid node name.

[-is-secure-control-connection {true|false}] - Is Secure Control Connection

This parameter specifies whether the control connection is secure or not.

[-data-backup-mode <text>] - Data Backup Mode

This parameter specifies whether the mode of data backup is Dump or SMTape.

[-data-path <text>] - Data Path

This parameter specifies the path of data being backed up.

[-source-addr <text>] - NDMP Source Address

This parameter specifies the control connection IP address of the NDMP session.

Examples

The following example displays diagnostic information about all the sessions in the cluster:

```
cluster1::> vserver services ndmp probe
Vserver Name: vserver1
         Session Identifier: 1000:7445
               NDMP Version: 4
         Session Authorized: true
                 Data State: IDLE
             Data Operation: NOACTION
    Data Server Halt Reason: NA
  ....
   ...
Vserver Name: vserver2
         Session Identifier: 1000:7446
               NDMP Version: 4
         Session Authorized: true
                 Data State: IDLE
             Data Operation: NOACTION
    Data Server Halt Reason: NA
  ....
   ...
```

The following example displays diagnostic information of sessions associated with Vserver vserver1 only:

```
cluster1::> vserver services ndmp probe -vserver vserver1
Vserver Name: vserver1
         Session Identifier: 1000:7445
               NDMP Version: 4
         Session Authorized: true
                 Data State: IDLE
             Data Operation: NOACTION
    Data Server Halt Reason: NA
  ....
   ...
  ....
   ...
```

Related Links

- system services ndmp probe

vserver services ndmp show

Display NDMP Properties

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

This command is used to display NDMP options on Vservers.

A combination of parameters can be optionally specified so as to list only a subset of Vservers where specific values of NDMP options are met. A short description of each of the options is provided in the parameters section.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

If this parameter is specified, the command displays NDMP options for that Vserver alone.

[-maxversion <integer>] - NDMP Version

If this parameter is specified, the command displays NDMP options for Vservers where the highest NDMP protocol version supported matches the specified input value. The only supported value is 4.

[-ignore-ctime-enabled {true|false}] - Ignore Ctime

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `ignore-ctime-enabled` matches the specified input value.

This option, when *`true`* , allows user to exclude files with ctime changed from storage system' incremental dumps since other processes like virus scanning often alter the ctime of files. When this option is *`false`* , backup on the Vserver will include all files with a change or modified time later then the last dump in the previous level dump. The default value is *`false`* . This option is persistent across reboots.

Most WIN32 APIs are often unaware of the "last changed time", ctime, they often incorrectly set a later time for files, causing these files to be included in the Vserver’s incremental dumps, making the incremental dump very large. This is partially defying the purpose of having incremental dumps, since one uses incremental dumps to speed up the backup by only dumping files that were truly changed since the last backup.

The possible value for this parameter is either true or false.

[-offset-map-enable {true|false}] - Enable Offset Map

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `offset-map-enable` matches the specified input value.

This option is used to enable or disable generation of the inode offset map during NDMP based dump backups. The offset map is required to perform Enhanced Direct Access Restore (DAR) on the backup data. Enhanced DAR provides support for directory DAR and DAR of files with NT streams. The default value for this option is *`true`* . This option is persistent across reboots.

The possible value for this parameter is either true or false.

[-tcpnodelay {true|false}] - Enable TCP Nodelay

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `tcpnodelay` matches the specified input value.

This parameter Enables/Disables the TCPNODELAY configuration parameter for the socket between the Vserver and the DMA. When set to true, the Nagle algorithm is disabled and small packets are sent immediately rather than held and bundled with other small packets. This optimizes the system for response time rather than throughput.

This option becomes active when the next NDMP session starts. Existing sessions are unaffected. The default value for this option is *false* . This option is persistent across reboots.

The possible value for this parameter is either true or false.

[-tcpwinsize <integer>] - TCP Window Size

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `tcpwinsize` matches the specified input value.

This option shows the TCP buffer size of the NDMP data connection.The minimum and maximum values are 8192(8K) and 262,144(256K), respectively. The default value for this option is 32768(32K).

This option is persistent across reboots.

The possible value for this parameter is a number between 8192(8K) and 262,144(256K).

[-data-port-range <text>] - Data Port Range

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `data-port-range` matches the specified input value.

This option shows the port range on which the NDMP server can listen for data connections.

The format of this option is *start_port - end_port* start_port, end_port can have values between [1024-65535]; start_port must be lesser than or equal to end_port. If a valid range is specified, NDMP uses a port within that range to listen for data connections. A listen request fails if no ports in the specified range are free.

This option is modifiable only from the admin Vserver context and the said option is applicable for all the data Vservers and the admin Vserver. For example, if the value of the above option is set with 2000-3000, the same value will be applicable throughout the cluster. The value *all* implies that any available port can be used to listen for data connections. The default value for this option is *all* . This option is persistent across reboots.

The value for this option is displayed in the format {<start_port>-<end port> | all }- where start_port, end_port can have values between [1024-65535]; start_port must be lesser than or equal to end_port.

[-backup-log-enable {true|false}] - Enable Backup Log

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `>backup-log-enable` matches the specified input value.

Backup logging captures important events during dump/restore and records them in /mroot/etc/log/backup on the root volume. The default value for this option is *true* . This option is persistent across reboots.

The possible value for this parameter is true/false.

[-per-qtree-exclude-enable {true|false}] - Enable per Qtree Exclusion

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `per-qtree-exclude-enable` matches the specified input value.

If this option is *true* , users can specify exclude list on a per qtree basis to be excluded from backup. This exclude list will override any values already present due to 'EXCLUDE' environment variable . The user can specify the exclusion list through a .exclude_list file which resides at the root of the qtree. The exclusion list can be a list of files or files that match a specified pattern. The default value for this option is *false* . This option is persistent across reboots.

The possible value for this parameter is either true or false.

[-authtype <NDMP Authentication types>,…] - Authentication Type

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `authtype` matches the specified input value.

Allows the administrator to choose the authentication method. NDMP supports three authentication types: challenge, plaintext and plaintext_sso. The plaintext_sso authentication type is mutually exclusive with the other authentication types. By setting the authentication type as plaintext_sso, the actual password for the user can be used to authenticate instead of having to generate an NDMP specific password. The default of this option is *challenge* . This option is persistent across reboots.

The possible value for this parameter can be {challenge | plaintext | plaintext_sso | challenge, plaintext | plaintext, challenge}.

[-debug-enable {true|false}] - Enable Debug (privilege: advanced)

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `debug-enable` matches the specified input value.

This option enables debug logging for NDMP. Debug messages will be logged to the ndmpd log file /mroot/etc/log/mlog/ndmpd.log . The default value for this option is *false* .This option is persistent across reboots.

The possible value for this parameter is either true or false.

[-debug-filter <text>] - Debug Filter (privilege: advanced)

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `debug-filter` matches the specified input value.

This option controls the NDMP modules for which debug logging is to be enabled. option-value can take five values for this option : all, none, normal, backend or "filter-expression".

all enables debug logging for all modules.

none disables debug logging for all modules. It is equivalent to *modify -vserver vserver_name -debug-enable false* .

normal is a shortcut option that enables debug logging for all modules except verbose and io_loop. The equivalent filter string is all-verbose-io_loop.

backend is a short cut option that enables debug logging for all modules except verbose, io_loop, ndmps and ndmpd. The equivalent filter string is all-verbose-io_loop-ndmps-ndmpp.

(filter-expression) is a combination of one or more modules for which debug logs needs to be enabled. Multiple module names can be combined using following operators :

- - to remove the given module from the list of specified modules in the filter string. For example the filter all-ndmpp will enable debug logging for all modules but not ndmpp.
- ^ to add the given module or modules to the list of modules specified in the filter string. For example the filter ndmpp^moverdata will enable debug logging for ndmpp, mover and data.

The possible module names and a brief description is given below:-

```
+--------------+--------------------------------------+
| Modules      | Description                          |
+--------------+--------------------------------------+
| verbose      | verbose message                      |
| io           | I/O process loop                     |
| io_loop      | I/O process loop verbose messages    |
| ndmps        | NDMP service                         |
| ndmpp        | NDMP Protocol                        |
| rpc          | General RPC service                  |
| fdc_rpc      | RPC to FC driver service             |
| auth         | Authentication                       |
| mover        | NDMP MOVER (tape I/O)                |
| data         | NDMP DATA (backup/restore)           |
| scsi         | NDMP SCSI (robot/tape ops)           |
| bkup_rpc     | RPC to Backup service client         |
| bkup_rpc_s   | RPC to Backup service server         |
| conf         | Debug configure/reconfigure          |
| dblade       | Dblade specific messages             |
| timer        | NDMP server timeout messages         |
| vldb         | VLDB service                         |
| smf          | SMF Gateway messages                 |
| common       | NDMP common state                    |
| ext          | NDMP extensions messages             |
| ndmprpc      | NDMP Mhost RPC server                |
+--------------+--------------------------------------+
```

+
The default value for this option is *none* . This option is persistent across reboots.

+
The possible value for this parameter can be {all | none | normal | backend |'filter-expression'}.

[-dump-logical-find <text>] - Enable Logical Find for Dump (privilege: advanced)

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `dump-logical-find` matches the specified input value.

This option specifies whether to follow inode-file walk or tree walk for phase I of the dump. Choosing inode-

file walk or tree walk affects the performance of the dump. This option can take following values:

If *default* is specified, then level 0 and incremental volume as well as qtree dumps will use inode walk. All the subtree dumps will use tree walk.

If *always* is specified, all dumps will follow treewalk.

A *comma-separated* list of values in any combination from the following list:

- vol_baseline: Level 0 full volume backup will follow treewalk.
- vol_incr: Incremental full volume backup will follow treewalk.
- qtree_baseline: Level 0 qtree backup will follow treewalk.
- qtree_incr: Incremental qtree backup will follow treewalk.

The default value for this option is *default* . This option is persistent across reboots.

The possible value for this parameter could be {default | always | 'vol_baseline' | 'vol_baseline,qtree_baseline' | …}.

[-abort-on-disk-error {true|false}] - Enable Abort on Disk Error (privilege: advanced)

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `abort-on-disk-error` matches the specified input value.

If this option is *true* , dump will abort the backup operation on detection of irrecoverable data blocks in user files. If this option is *false* , dump will proceed with backup operation - even if irrecoverable data blocks in user files are detected. On detection of irrecoverable data blocks, dump will send a log message to DMA and also log an entry in /mroot/etc/log/backup file. The default value for this option is *false* . This option is persistent across reboots.

The value for this parameter is either true or false.

[-fh-dir-retry-interval <integer>] - FH Throttle Value for Dir (privilege: advanced)

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `fh-dir-retry-interval` matches the specified input value.

NDMP protocol sends back file history information for all directories in phase 3 of dump to DMA. In the presence of slow DMA or high latency networks, the amount of file history being generated exceeds the amount being consumed by the DMA. To handle a slow reader, a flow control mechanism is now introduced where file history generation is throttled when a DMA is slow in consuming them. The value for this option indicates how frequently should the file history be resent if it was throttled. The default value is 250 milliseconds. This option is persistent across reboots.

The value for this parameter is a number.

[-fh-node-retry-interval <integer>] - FH Throttle Value for Node (privilege: advanced)

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `fh-node-retry-interval` matches the specified input value.

NDMP protocol sends back file history information for all files in phase 4 of dump to DMA. In the presence of slow DMA or high latency networks, the amount of file history being generated exceeds the amount being consumed by the DMA. To handle slow reader conditions, a flow control mechanism is now introduced where file history generation is throttled when a DMA is slow in consuming them. The value for this option

indicates how frequently should the file history be resent if it was throttled. The default value is 250 milliseconds. This option is persistent across reboots.

The value for this parameter is a number.

[-restore-vm-cache-size <integer>] - Restore VM File Cache Size (privilege: advanced)

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `restore-vm-cache-size` matches the specified input value.

This option mandates the number of WAFL buffers pinned in memory by various meta-files used by logical restore. The minimum and maximum values are 4 and 1024, respectively. The default value for this option is 64. This option is persistent across reboots.

Depending on the value of this option, various meta-files are assigned a number of WAFL buffers that need to be pinned in memory.

```
+-----------------+---------------------------------+
| Meta-filename   |     Number of WAFL buffers to   |
|                 |      be pinned in memory        |
+-----------------+---------------------------------+
| dumpmap         | ndmpd.restore.vm_cache_size     |
| filemap         | ndmpd.restore.vm_cache_size     |
| aclfile_map     | ndmpd.restore.vm_cache_size     |
| inomap          | ndmpd.restore.vm_cache_size / 2 |
| basemap         | ndmpd.restore.vm_cache_size / 2 |
| flipmap         | ndmpd.restore.vm_cache_size / 2 |
| revmap          | ndmpd.restore.vm_cache_size / 2 |
| clrimap         | ndmpd.restore.vm_cache_size / 4 |
| mfp_for_inotab  | ndmpd.restore.vm_cache_size / 4 |
| map             | ndmpd.restore.vm_cache_size / 4 |
| offsetfile_map  | ndmpd.restore.vm_cache_size / 4 |
+-----------------+---------------------------------+
```

+
The possible value for this parameter is a number between 4 and 1024.

[-enable {true|false}] - Enable NDMP on Vserver

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `enable` matches the specified input value.

When the option is set to *`true`* , the NDMP daemon handles requests, and when set to *`false`* , the NDMP daemon does not handle requests. Enabling and disabling the option is equivalent to executing the following commands: *`vserver services ndmp on`* and *`vserver services ndmp off`* respectively. This option is persistent across reboots. The default value of this option is *`false`* .

The value for this parameter is either true or false.

[-preferred-interface-role {undef|cluster|data|node-mgmt|intercluster|cluster-mgmt}] - Preferred Interface Role

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `preferred-interface-role` matches the specified input value.

This option allows the user to specify the preferred Logical Interface (LIF) role while establishing an NDMP data connection channel. The NDMP data server or the NDMP mover establishes a data channel from the node that owns the volume or the tape device respectively. This option is used on the node that owns the volume or the tape device. The order of IP addresses that are used to establish the data connection depends on the order of LIF roles specified in this option.

The default value for this option for the admin Vserver is *intercluster, cluster-mgmt, node-mgmt*

The default value for this option for a data Vserver is *intercluster, data* .

[-secondary-debug-filter <text>] - Secondary Debug Filter (privilege: advanced)

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `secondary-debug-filter` matches the specified input value.

This option allows control on NDMP debug logging. This option takes a comma separated tag=value pairs. The supported tag is *IPADDR* which can be used to specify Vserver IP addresses for which NDMP debugging is required. If this option is set and the option `debug-enable` is set to true, then the debug-filter option is applicable to sessions whose control connection IP addresses match the IP addresses that are listed in the option. If this option is not set, the debug filter is applicable to all Vserver sessions. By default, this option does not have a value set.

[-is-secure-control-connection-enabled {true|false}] - Is Secure Control Connection Enabled

If this parameter is specified, the command displays NDMP options for Vservers, where the value for `is-secure-control-connection-enabled` matches the specified input value.

This option enables NDMP service to accept control connections over secure sockets on TCP port 30000. This option is persistent across reboots. The default value of this option is *false* .

Examples

The following example displays NDMP options for the Vserver(s).

```
cluster1::> vserver services ndmp show

VServer       Enabled   Authentication type
------------- --------- -------------------
cluster       true      plaintext
vs1           true      plaintext
vs2           true      plaintext
3 entries were displayed.

cluster1::>
```

The following example displays detailed NDMP options for a Vserver.

```
cluster1::*> vserver services ndmp show -vserver vs1 -instance
Vserver: vs1
                         NDMP Version: 4
                         Ignore Ctime: false
                   Enable Offset Map: true
                  Enable TCP Nodelay: false
                     TCP Window Size: 32768
                     Data Port Range: all
                   Enable Backup Log: true
          Enable per Qtree Exclusion: false
                 Authentication Type: plaintext
                         Enable Debug: false
                         Debug Filter: none
        Enable Logical Find for Dump: default
          Enable Abort on Disk Error: false
           FH Throttle Value for Dir: 250
          FH Throttle Value for Node: 250
          Restore VM File Cache Size: 64
 Enable Logging of VM Stats for Dump: false
              Enable NDMP on Vserver: true
            Preferred Interface Role: intercluster, data
              Secondary Debug Filter: -
Is Secure Control Connection Enabled: false
cluster1::*>
```

vserver services ndmp status

Display list of NDMP sessions

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services ndmp status` command lists NDMP sessions belonging to a specific Vserver in the cluster. By default it lists the following details about the active sessions:

- Vserver Name
- Session ID

A combination of parameters can be optionally supplied so as to list only those sessions which match specific conditions. A short description of each of the parameter is provided in the parameters section.

Parameters

{ [-fields <fieldname>,…]

This optional parameter specifies which all additional fields to display. Any combination of the following fields are valid:

- ndmp-version
- session-authorized
- data-state
- data-operation
- data-halt-reason
- data-con-addr-type
- data-con-addr
- data-con-port
- data-bytes-processed
- mover-state
- mover-mode
- mover-pause-reason
- mover-halt-reason
- mover-record-size
- mover-record-num
- mover-bytes-moved
- mover-seek-position
- mover-bytes-left-to-read
- mover-window-offset
- mover-window-length
- mover-position
- mover-setrecordsize-flag
- mover-setwindow-flag
- mover-con-addr-type
- mover-con-addr
- mover-con-port
- eff-host
- client-addr
- client-port
- spt-device-id
- spt-ha
- spt-scsi-id
- spt-scsi-lun

- tape-device
- tape-modes
- node
- is-secure-control-connection
- data-backup-mode
- data-path
- source-addr

| [-instance] }

If this parameter is specified, the command displays detailed information about all the active sessions.

[-vserver <vserver name>] - Vserver

Specifies the Vserver context in which NDMP sessions are running.

[-session-id <text>] - Session Identifier

If this parameter is specified, the command displays information about specific NDMP session. A session-id is a string used to identify a particular NDMP session.

[-ndmp-version <integer>] - NDMP Version

This parameter refers to the NDMP protocol version being used in the session.

[-session-authorized {true|false}] - Session Authorized

This field indicates whether an NDMP session is authenticated or not.

[-data-state <component state>] - Data State

This field identifies the current state of the data server's state machine.

[-data-operation <data operation>] - Data Operation

This field identifies the data server's current operation.

[-data-halt-reason <halt reason>] - Data Server Halt Reason

This field identifies the event that caused the data server state machine to enter the HALTED state.

[-data-con-addr-type <address type>] - Data Server Connect Type

This field specifies the type of data connection established by the data server. The data connection can be established locally within a given system or between remote networked systems.

[-data-con-addr <text>] - Data Server Connect Address

This specifies the connection endpoint information for the data server's data connection.

[-data-con-port <integer>] - Data Server Connect Port

This specifies the TCP/IP port that the data server will use when establishing a data connection.

[-data-bytes-processed <integer>] - Data Bytes Processed

This field represents the cumulative number of data stream bytes transferred between the backup or recovery method and the data connection during the current data operation.

[-mover-state <component state>] - Mover State

This parameter identifies the current state of the NDMP tape server's mover state machine.

[-mover-mode <mover mode>] - Mover Mode

This parameter identifies the direction of the mover data transfer.

[-mover-pause-reason <pause reason>] - Mover Pause Reason

This parameter identifies the event that caused the mover state machine to enter the PAUSED state.

[-mover-halt-reason <halt reason>] - Mover Halt Reason

This integer field identifies the event that caused the mover state machine to enter the HALTED state.

[-mover-record-size <integer>] - Mover Record Size

This field represents the current mover record size in bytes.

[-mover-record-num <integer>] - Mover Record Number

This field represents the last tape record processed by the mover.

[-mover-bytes-moved <integer>] - Mover Bytes Moved

This field represents the cumulative number of data stream bytes written to the data connection or the number of data stream bytes read from the data connection and written to the tape subsystem, depending on the mode of mover operation.

[-mover-seek-position <integer>] - Mover Seek Position

This field represents the data stream offset of the first byte the DMA requested the mover to transfer to the data connection during a mover read operation.

[-mover-bytes-left-to-read <integer>] - Mover Bytes Left to Read

This field represents the number of data bytes remaining to be transferred to the data connection to satisfy the current NDMP_MOVER_READ request.

[-mover-window-offset <integer>] - Mover Window Offset

This field represents the absolute offset of the first byte of the mover window within the overall data stream.

[-mover-window-length <integer>] - Mover Window Length

This field represents the length of the current mover window in bytes.

[-mover-position <integer>] - Mover Position

This parameter can be used to list only those sessions, whose mover position matches a specific value. Mover-position should be an integer.

[-mover-setrecordsize-flag {true|false}] - Mover SetRecordSize Flag

This field is used by the DMA to establish the record size used for mover-initiated tape read and write operations.

[-mover-setwindow-flag {true|false}] - Mover SetWindow Flag

This flag represents whether a mover window has been set or not. A mover window represents the portion of the overall backup stream that is accessible to the mover without intervening DMA tape manipulation.

[-mover-con-addr-type <address type>] - Mover Connect Type

This field specifies the type of data connection established by the mover. The data connection can be established locally within a given system or between remote networked systems.

[-mover-con-addr <text>] - Mover Connect Address

This specifies the endpoint address or addresses that the mover will use when establishing a data connection.

[-mover-con-port <integer>] - Mover Connect Port

This specifies the TCP/IP port that the mover will use when establishing a data connection.

[-eff-host <host type>] - Effective Host

This field indicates the host context in which the NDMP session runs. The valid values are: PRIMARY or PARTNER.

[-client-addr <text>] - NDMP Client Address

This parameter specifies the client's IP address.

[-client-port <integer>] - NDMP Client Port

This parameter specifies the client's port number.

[-spt-device-id <text>] - SCSI Device ID

This parameter specifies the SCSI device ID.

[-spt-ha <integer>] - SCSI Host Adapter

This parameter specifies the SCSI host adapter.

[-spt-scsi-id <integer>] - SCSI Target ID

This parameter specifies the SCSI target.

[-spt-scsi-lun <integer>] - SCSI LUN ID

This parameter specifies the SCSI LUN ID.

[-tape-device <text>] - Tape Device

This parameter specifies the name to identify the tape device.

[-tape-mode <mover mode>] - Tape Mode

This parameter specifies the mode in which tapes are opened.

[-node {<nodename>|local}] - Node

If this parameter is specified, the command displays information about the sessions running on the specified node only. Node should be a valid node name.

[-is-secure-control-connection {true|false}] - Is Secure Control Connection

This parameter specifies whether the control connection is secure or not.

[-data-backup-mode <text>] - Data Backup Mode

This parameter specifies whether the mode of data backup is Dump or SMTape.

[-data-path <text>] - Data Path

This parameter specifies the path of data being backed up.

[-source-addr <text>] - NDMP Source Address

This parameter specifies the control connection IP address of the NDMP session.

Examples

The following example displays all the NDMP sessions on the cluster:

```
cluster1::> vserver services ndmp status
                       Session
     Vserver             Id
------------------   ------------
          vserver1   1000:7445
          vserver2   1000:7446
          vserver2   1000:7447
3 entries were displayed.
```

The following example shows how to display only the sessions running belonging to Vserver vserver2:

```
cluster1::> vserver services ndmp status -vserver vserver2
                       Session
     Vserver             Id
------------------   ------------
          vserver2   1000:7446
          vserver2   1000:7447
2 entries were displayed.
```

vserver services ndmp extensions modify

Modify NDMP extension status

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

This command is used to enable/disable an NDMP extension in the Vserver-aware NDMP mode.

Parameters

[-is-extension-0x2050-enabled {true|false}] - Is Extension 0x2050 Enabled (privilege: advanced)

If this parameter is specified, the command can be used to modify the status of the extension in the Vserver-aware mode.

Examples

The following example shows how to enable NDMP extenion 0x2050 in the Vserver-aware NDMP mode of operation:

```
cluster1::> vserver services ndmp extension modify -is-extension-0x2050
-enabled true
    cluster1::>
```

vserver services ndmp extensions show

Display NDMP extension status

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

This command displays whether an NDMP extension is enabled in the Vserver-aware NDMP mode or not.

Examples

The following example shows how to check the status of NDMP extension 0x2050 in a cluster :

```
cluster1::> vserver services ndmp extension show
Is Extension 0x2050 Enabled: true
cluster1::>
```

vserver services ndmp log start

Start logging for the specified NDMP session

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

This command is used to start logging on an active NDMP session on a vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

This parameter specifies the name of the Vserver.

`-session-id <text>` - Session Identifier (privilege: advanced)

This parameter specifies the NDMP session-id on which logging needs to be started.

-filter <text> - Level Filter (privilege: advanced)

Use this parameter to specify the filter for a particular session ID. This parameter controls the NDMP modules for which logging is to be enabled. This parameter can take five values. They are as follow : *all* , *none* , *normal* , *backend* or *"filter-expression"* . The default value for this is *none* .

- *all* turns on logging for all modules.
- *none* disables logging for all modules.
- *normal* is a short cut parameter that enables logging for all modules except *verbose* and *io_loop* . The equivalent filter string is *all-verbose-io_loop*
- *backend* is a short cut parameter that enables logging for all modules except *verbose* , *io_loop* , *ndmps* and *ndmpd* . The equivalent filter string is *all-verbose-io_loop-ndmps-ndmpp*
- *(filter-expression)* is a combination of one or more modules for which logs needs to be enabled. Multiple module names can be combined using following operators :
- *-* to remove the given module from the list of specified modules in the filter string. For example the filter *all-ndmpp* will enable logging for all modules but not *ndmpp* .
- *^* to add the given module or modules to the list of modules specified in the filter string. For example the filter *ndmpp^mover^data* will enable logging for *ndmpp* , *mover* and *data* .

The possible module names and a brief description is given below:

```
                    +--------------+--------------------------------------+
                    | Modules      | Description                          |
                    +--------------+--------------------------------------+
                    | verbose      | verbose message                      |
                    | io           | I/O process loop                     |
                    | io_loop      | I/O process loop verbose messages    |
                    | ndmps        | NDMP service                         |
                    | ndmpp        | NDMP Protocol                        |
                    | rpc          | General RPC service                  |
                    | fdc_rpc      | RPC to FC driver service             |
                    | auth         | Authentication                       |
                    | mover        | NDMP MOVER (tape I/O)                |
                    | data         | NDMP DATA (backup/restore)           |
                    | scsi         | NDMP SCSI (robot/tape ops)           |
                    | bkup_rpc     | RPC to Backup service client         |
                    | bkup_rpc_s   | RPC to Backup service server         |
                    | cleaner      | Backup/Mover session cleaner         |
                    | conf         | Debug configure/reconfigure          |
                    | dblade       | Dblade specific messages             |
                    | timer        | NDMP server timeout messages         |
                    | vldb         | VLDB service                         |
                    | smf          | SMF Gateway messages                 |
                    | vol          | VOL OPS service                      |
                    | sv           | SnapVault NDMP extension             |
                    | common       | NDMP common state                    |
                    | ext          | NDMP extensions messages             |
                    | sm           | SnapMirror NDMP extension            |
                    | ndmprpc      | NDMP Mhost RPC server                |
                    +--------------+--------------------------------------+
```

Examples

The following example shows how to start logging on a specific NDMP session 1000:35512, running on vserver cluster1-01 with filter all.

```
cluster1::*> vserver services ndmp log start -vserver cluster1-01 -session
-id 1000:35512 -filter all
```

vserver services ndmp log stop

Stop logging for the specified NDMP session

Availability: This command is available to *cluster* and *Vserver* administrators at the *advanced* privilege level.

Description

This command is used to stop logging on an active NDMP session on a vserver.

Parameters

`-vserver <vserver name>` - Vserver (privilege: advanced)

This parameter specifies the name of the Vserver.

`-session-id <text>` - Session Identifier (privilege: advanced)

This parameter specifies the NDMP session-id on which logging needs to be stopped.

Examples

The following example shows how to stop logging on a specific NDMP session 1000:35512 , running on vserver cluster1-01.

```
cluster1::*> vserver services ndmp log stop -vserver cluster1-01 -session
-id 1000:35512
```

vserver services ndmp restartable-backup delete

Delete an NDMP restartable backup context

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services ndmp restartable-backup delete` command deletes an NDMP restartable backup context. The `-force` flag can be used to forcibly destroy a NDMP restartable backup context.

Parameters

`-vserver <Vserver Name>` - Vserver

This parameter specifies the name of the Vserver for which NDMP restartable backup context is to be deleted.

`-context-id <UUID>` - Context Identifier

This parameter specifies the NDMP restartable backup context ID which needs to be deleted.

`[-force <true>]` - Force Delete (privilege: advanced)

If this parameter is specified, the context is deleted even if there are internal errors.

Examples

The following example shows how to delete an NDMP restartable backup context:

```
cluster1::> vserver services ndmp restartable-backup delete -vserver
cluster1-01 -context-id 0f8f5c44-d540-11e5-8c45-005056963504
    cluster1::>
```

vserver services ndmp restartable-backup show

Display NDMP restartable backup contexts

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `vserver services ndmp restartable-backup show` command lists the NDMP restartbale backup contexts present in the cluster. By default it lists the following details about the context:

- Vserver Name
- Context Identifier
- Is Cleanup Pending?

A combination of parameters can be optionally supplied so as to list only those contexts which match specific conditions. A short description of each of the parameter is provided in the parameters section.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

If this parameter is specified, the command displays NDMP restartable backup contexts that match the specified Vserver.

[-context-id <UUID>] - Context Identifier

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for `-context-id` matches the specified input value.

This parameter specifies the UUID of NDMP restartable backup contexts.

[-volume <volume name>] - Volume Name

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for volume matches the specified input value.

This parameter specifies the volume path information

[-is-cleanup-pending {true|false}] - Is Cleanup Pending?

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for `-is-cleanup-pending` matches the specified input value.

This parameter indicates whether the context is being deleted.

[-engine-type <text>] - Backup Engine Type

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for engine-type matches the specified input value.

This parameter specifies the backup engine type.

[-auto-snapshot {true|false}] - Is Snapshot Copy Auto-created?

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for auto-snapshot matches the specified input value.

This parameter indicates if the Snapshot copy was created by DUMP engine.

[-no-acls {true|false}] - Is NO_ACLS Set? (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for no-acls matches the specified input value.

This parameter specifies if NO_ACLS environment variable is set.

[-dump-path <text>] - Dump Path

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for dumppath matches the specified input value.

This parameter represents the correspoding local volume path which is being backed up.

[-backup-level <integer>] - Incremental Backup Level ID

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for backup-level matches the specified input value.

This parameter specifies the backup level.

[-dump-date <integer>] - Dump Date (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for dumpdate matches the specified input value.

This parameter specifies the dumpdate value in epoch.

[-base-date <integer>] - Base Date (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for basedate matches the specified input value.

This parameter specifies the basedate value in epoch.

[-update-dump-dates {true|false}] - Dump Dates Require Update? (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for update-dumpdates matches the specified input value.

This parameter indicates if dumpdates needs to be updated.

[-dump-name <text>] - Dump Name

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for dumpname matches the specified input value.

This parameter indicates the name for the dump instance.

[-all-non-qtree {true|false}] - Is NON_QUOTA_QTREE Set? (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for all-non-qtree matches the specified input value.

This parameter indicates if NON_QUOTA_TREE environment variable is set.

[-print-options <integer>] - Backup Log Level (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for print-options matches the specified input value.

This parameter specifies the logging level during dump.

[-last-update <integer>] - Context Last Updated Time

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for last-update matches the specified input value.

This parameter specifies the last time(in epoch) when the context was modified.

[-has-offset-map {true|false}] - Has Offset Map?

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for has-offset-map matches the specified input value.

This parameter indicates if offset map is present in the backup image.

[-offset-verify {true|false}] - Offset Verify

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for offset-verify matches the specified input value.

This parameter indicates if offset map is successfully verified during backup.

[-ndmp-env-keys <text>,…] - NDMP Environment Keys (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for ndmpenvkeys matches the specified input value.

This parameter represents the list of NDMP environment variables set during backup.

[-ndmp-env-values <text>,…] - NDMP Environment Values (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for ndmpenvvalues matches the specified input value.

This parameter represents the values set for the NDMP environment variables.

[-ndmp-env-count <integer>] - Count of NDMP Environment Variables (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for

ndmpenvcount matches the specified input value.

This parameter represents the number of NDMP enviroment variables set during backup.

[-is-restartable {true|false}] - Is Context Restartable?

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for is-restartable matches the specified input value.

This parameter indicates if the NDMP restartable backup context is restartable.

[-is-busy {true|false}] - Is Context Busy?

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for is-busy matches the specified input value.

This parameter indicates if the NDMP restartable backup context is busy.

[-multi-subtree {true|false}] - Is MULTI_SUBTREE_NAMES Set? (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for multi-subtree matches the specified input value.

This parameter indicates if the NDMP environment variable MULTI_SUBTREE_NAMES is set.

[-logical-find {true|false}] - Is LOGICAL_FIND Set? (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for logical-find matches the specified input value.

This parameter indicates if the NDMP environment variable LOGICAL_FIND is set.

[-exclude-list <text>] - Is EXCLUDE Set? (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for exclude-list matches the specified input value.

This parameter represents the value of the the NDMP environment variable EXCLUDE.

[-restart-pass <integer>] - Restart Pass

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for restart-pass matches the specified input value.

This parameter specifies the dump phase from which to restart.

[-backup-results <integer>] - Status of Backup

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for backup-results matches the specified input value.

This parameter specifies the status of the backup.

[-snap-name <text>] - Snapshot Copy Name

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for snap-name matches the specified input value.

This parameter specifies the name of the Snapshot copy.

[-is-dp-vol {true|false}] - Is DP Volume? (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for is-dp-vol matches the specified input value.

This parameter indicates if the volume specified in the NDMP restartable context is of type DP.

[-context-status <integer>] - State of the Context

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for context-status matches the specified input value.

This parameter specifies the state of the NDMP restartable context.

[-is-fg-vol {true|false}] - Is FlexGroup Volume?

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for is-fg-vol matches the specified input value.

This parameter indicates if the volume specified in the NDMP restartable context is a FlexGroup volume or not.

[-is-64bit-atime-backup {true|false}] - Is 64bit Atime Backup? (privilege: advanced)

If this parameter is specified, the command displays NDMP restartable backup contexts where the value for is-64bit-atime-backup matches the specified input value.

This parameter indicates if the backup specified in the NDMP restartable context is a 64bit atime backup or not.

Examples

The following example displays all the NDMP restartable contexts on the cluster:

```
cluster1::> vserver services ndmp restartable-backup show
Vserver     Context Identifier                  Is Cleanup Pending?
----------- ----------------------------------- ---------------
vserver1    53a6760e-d245-11e5-a33b-005056bb2685 false
vserver2    68902360-d245-11e5-a33b-005056bb2685 true
vserver2    d7b74e0d-d24c-11e5-a33b-005056bb2685 false
3 entries were displayed.
```

The following example shows how to display only the contexts belonging to Vserver vserver2:

```
cluster1::> vserver services ndmp restartable-backup show -vserver
vserver2
Vserver     Context Identifier                  Is Cleanup Pending?
----------- ----------------------------------- ---------------
vserver2    68902360-d245-11e5-a33b-005056bb2685 true
vserver2    d7b74e0d-d24c-11e5-a33b-005056bb2685 false
2 entries were displayed.
```

vserver services web modify

Modify the configuration of web services

Availability: This command is available to *cluster* administrators at the *admin* privilege level.

Description

This command modifies the availability of the web services on Vservers. Only the services that are installed on every node in the cluster can be configured on Vservers whose type is not 'node'. Enabled services must include authorization configuration in the `vserver services web access` command for the services to be externally available.

Parameters

`-vserver <Vserver Name>` - Vserver

Identifies a Vserver for hosting a specific web service.

`-name <text>` - Service Name

Identifies the name of the web service.

`[-enabled {true|false}]` - Enabled

Defines the availability of a service on the Vserver. Disabled services are not accessible through the Vserver's network interfaces. This parameter's default value is dependent on the service. In general, services that provide commonly used features are enabled by default.

`[-ssl-only {true|false}]` - SSL Only

Defines the encryption enforcement policy for a service on the Vserver. Services for which this parameter is set to true support SSL only and cannot be used over unencrypted HTTP. The default for this value is 'false'.

Examples

The following command sets access to the web port to SSL only:

```
cluster1::> vserver services web modify -vserver vs1 -name portal -ssl
-only true
```

vserver services web show

Display the current configuration of web services

Availability: This command is available to *cluster* administrators at the *admin* privilege level.

Description

This command displays the availability of the web services on Vservers. Only the services that are installed on every node in the cluster can be configured on Vservers whose type is not 'node'. Enabled services must include authorization configuration in the `vserver services web access` command for the services to be

externally available.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

Identifies a Vserver for hosting a specific web service.

[-name <text>] - Service Name

Identifies the name of the web service.

[-type <vserver type>] - Type of Vserver

Identifies the type of Vserver on which the service is hosted.

[-version <text>] - Version of Web Service

Defines the version number of the service in the format of major.minor.patch.

[-description <text>] - Description of Web Service

Provides a short description of the web service.

[-long-description <text>] - Long Description of Web Service

Provides a long description of the web service.

[-requires <requirement>,…] - Service Requirements

Defines the list of requirements that must be met for the service to be successfully executed. Requirements are defined as a service name, a comparison operator (<⇒), and a version number.

[-default-roles <text>,…] - Default Authorized Roles

Defines the roles that are automatically granted access to the service in the vserver services web access show configuration.

[-enabled {true|false}] - Enabled

Defines the availability of a service on the Vserver. Disabled services are not accessible through the Vserver's network interfaces. This parameter's default value is dependent on the service. In general, services that provide commonly used features are enabled by default.

[-ssl-only {true|false}] - SSL Only

Defines the encryption enforcement policy for a service on the Vserver. Services for which this parameter is set to true support SSL only and cannot be used over unencrypted HTTP. The default for this value is 'false'.

Examples

This example displays the availability of the web services on the Vservers.

```
cluster1::vserver services web> show
Vserver         Type     Service Name     Description
Enabled
--------------- -------- ---------------- ------------------------------
-------
cluster1        admin    cem              OBSOLETE
true
cluster1        admin    ontapi           Remote Administrative API
true
cluster1        admin    portal           Data ONTAP Web Services
true
                                          Portal
n6070-8         node     cem              OBSOLETE
true
n6070-8         node     ontapi           Remote Administrative API
true
n6070-8         node     portal           Data ONTAP Web Services
true
                                          Portal
n6070-8         node     spi              Service Processor
false
                                          Infrastructure
n6070-8         node     supdiag          Support Diagnostics
true
                                          Support
n6070-9         node     cem              OBSOLETE
true
n6070-9         node     ontapi           Remote Administrative API
true
n6070-9         node     portal           Data ONTAP Web Services
true
                                          Portal
n6070-9         node     spi              Service Processor
false
                                          Infrastructure
n6070-9         node     supdiag          Support Diagnostics
false
                                          Support
13 entries were displayed.
```

Related Links

- vserver services web access show

vserver services web access create

Authorize a new role for web service access

Availability: This command is available to *cluster* administrators at the *admin* privilege level.

Description

This command authorizes roles to access the Vserver's web services. For the user to access services that require authentication, the user's roles, as defined by security login show , must be included in this configuration.

Node Vserver services are authorized with the data Vserver's roles.

Parameters

`-vserver <Vserver Name>` - Vserver

Identifies a Vserver for hosting a specific web service.

`-name <text>` - Service Name

Identifies the name of the web service.

`-role <text>` - Role Name

Identifies the new role to be authorized for this service.

Examples

The following example authorizes the role *`auditor`* - created previously - for the web service:

```
cluster1::> vserver services web access create -name ontapi -role auditor
```

Related Links

- security login show

vserver services web access delete

Remove role authorization for web service access

Availability: This command is available to *cluster* administrators at the *admin* privilege level.

Description

This command removes the authorization of a role from the Vserver's web services. A service for which no

roles are defined has a single role of 'none' automatically displayed in this configuration.

Node Vserver services are authorized with the data Vserver's roles.

Parameters

-vserver <Vserver Name> - Vserver

Identifies a Vserver for hosting a specific web service.

-name <text> - Service Name

Identifies the name of the web service.

-role <text> - Role Name

Identifies the role whose authorization is to be removed. You cannot remove the authorization of the role 'none'. Use vserver services web access create to authorize access for the role.

Examples

The following example removes authorization for the role *auditor* for the web service:

```
cluster1::> vserver services web access delete -name ontapi -role auditor
```

Related Links

- vserver services web access create

vserver services web access show

Display web service authorization for user roles

Availability: This command is available to *cluster* administrators at the *admin* privilege level.

Description

This command displays the roles that are authorized to access the Vserver's web services. For the user to access services that require authentication, the user's roles, as defined by security login show , must be included in this configuration.

Node Vserver services are authorized with the data Vserver's roles.

Parameters

{ [-fields <fieldname>,…]

If you specify the `-fields <fieldname>, …` parameter, the command output also includes the specified field or fields. You can use '-fields ?' to display the fields to specify.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <Vserver Name>] - Vserver

Identifies a Vserver for hosting a specific web service.

[-name <text>] - Service Name

Identifies the name of the web service.

[-role <text>] - Role Name

Identifies a role assigned for accessing the service. A service without any authorizations has a role of 'none' assigned to it automatically.

[-type <vserver type>] - Type of Vserver

Identifies the type of Vserver on which the service is hosted.

Examples

The following example displays the roles that are authorized to access the web services.

```
cluster1::vserver services web access> show
Vserver         Type     Service Name     Role
--------------- -------- ---------------- ----------------
cluster1        admin    cem              none
cluster1        admin    ontapi           readonly
cluster1        admin    portal           none
cluster1        admin    spi              none
cluster1        admin    supdiag          none
vs0             cluster  ontapi           admin
6 entries were displayed.

cluster1::vserver services web access>
```

Related Links

- security login show

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