安装Tieb破碎 锤1.4

ONTAP MetroCluster

NetApp
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目录

安装Tieb破碎 锤1.4

安装MetroCluster Tieb破碎 机1.4依赖关系

根据您的主机Linux操作系统、在安装或升级Tieb破碎 机软件之前安装MySQL或MariaDB服务器。

步骤

1. 安装JDK。
2. 安装 MySQL 或 MariaDB 服务器：

如果 Linux 主机为	那么 …
Red Hat Enterprise Linux 7/CentOS 7.	在Red Hat Enterprise Linux 7或CentOS 7上安装MySQL Server 5.5.30或更高版本以及5.6.x版本
Red Hat Enterprise Linux 8	在Red Hat Enterprise Linux 8上安装MariaDB服务器

安装JDK

在安装或升级Tieb破碎 机软件之前、您必须在主机系统上安装JDK。Tieb破碎 机1.4及更早版本支持JDK 1.0.0。(JRE 8)。

步骤

1. 以"root"用户身份登录。

```
login as: root
root@mcctb's password:
Last login: Fri Jan  8 21:33:00 2017 from host.domain.com
```

2. 安装JDK 1.0.0：

```
yum install java-1.8.0-openjdk.x86_64
```

```
[root@mcctb ~]# yum install java-1.8.0-openjdk.x86_64
Loaded plugins: fastestmirror, langpacks
Loading mirror speeds from cached hostfile
... shortened....
Dependencies Resolved

=================================================================================
Package                Arch   Version                  Repository    Size
=================================================================================
Installing:
 java-1.8.0-openjdk  x86_64  1:1.8.0.144-0.b01.el7_4 updates      238 k
 ..
 ..
Transaction Summary
=================================================================================
Install  1 Package  (+ 4 Dependent packages)

Total download size: 34 M
Is this ok [y/d/N]: y

Installed:
java-1.8.0-openjdk.x86_64 1:1.8.0.144-0.b01.el7_4
Complete!
```

在Red Hat Enterprise Linux 7或CentOS 7上安装MySQL Server 5.5.30或更高版本以及5.6.x版本

在安装或升级 Tiebreaker 软件之前，必须在主机系统上安装 MySQL Server 5.5.30 或更高版本以及 5.6.x 版本。 对于Red Hat Enterprise Linux 8、 安装MariaDB服务器。

步骤

1. 以 root 用户身份登录。

```
login as: root
root@mcctb's password:
Last login: Fri Jan  8 21:33:00 2016 from host.domain.com
```

2. 将 MySQL 存储库添加到主机系统：

` 根@mcctb ~ ]# yum localinstall https://dev.mysql.com/get/mysql57-community-release-el6-11.noarch.rpm`

```
Loaded plugins: product-id, refresh-packagekit, security, subscription-
manager
Setting up Local Package Process
Examining /var/tmp/yum-root-LLUw0r/mysql-community-release-el6-
5.noarch.rpm: mysql-community-release-el6-5.noarch
Marking /var/tmp/yum-root-LLUw0r/mysql-community-release-el6-
5.noarch.rpm to be installed
Resolving Dependencies
--> Running transaction check
---> Package mysql-community-release.noarch 0:el6-5 will be installed
--> Finished Dependency Resolution
Dependencies Resolved
=============================================================================
========
Package               Arch   Version
                                     Repository
Size
=============================================================================
========
Installing:
mysql-community-release
                       noarch el6-5 /mysql-community-release-el6-
5.noarch 4.3 k
Transaction Summary
=============================================================================
========
Install       1 Package(s)
Total size: 4.3 k
Installed size: 4.3 k
Is this ok [y/N]: y
Downloading Packages:
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : mysql-community-release-el6-5.noarch
1/1
  Verifying  : mysql-community-release-el6-5.noarch
1/1
Installed:
  mysql-community-release.noarch 0:el6-5
Complete!
```

3. 禁用MySQL 57存储库：

` 根@mcctb ~ ]# yam-config-manager -disable mysql57-community`

4. 启用MySQL 56存储库：

` 根@mcctb ~ ]# yam-config-manager -enable mysql56-community`

5. 启用存储库：

` 根@mcctb ~ ]# yum repolist enabled | grep "mysql.**-community.**"`

```
mysql-connectors-community           MySQL Connectors Community
21
mysql-tools-community                MySQL Tools Community
35
mysql56-community                    MySQL 5.6 Community Server
231
```

6. 安装 MySQL 社区服务器：

` 根@mcctb ~ ]# yum install mysql-commune-server`

```
Loaded plugins: product-id, refresh-packagekit, security, subscription-
manager
This system is not registered to Red Hat Subscription Management. You
can use subscription-manager
to register.
Setting up Install Process
Resolving Dependencies
--> Running transaction check
 .....Output truncated.....
---> Package mysql-community-libs-compat.x86_64 0:5.6.29-2.el6 will be
obsoleting
--> Finished Dependency Resolution
Dependencies Resolved
=================================================================================
Package                          Arch   Version       Repository
Size
=================================================================================
Installing:
 mysql-community-client         x86_64  5.6.29-2.el6  mysql56-community
18  M
     replacing  mysql.x86_64 5.1.71-1.el6
 mysql-community-libs           x86_64  5.6.29-2.el6  mysql56-community
1.9 M
```

```
     replacing  mysql-libs.x86_64 5.1.71-1.el6
 mysql-community-libs-compat    x86_64  5.6.29-2.el6  mysql56-community
1.6 M
     replacing  mysql-libs.x86_64 5.1.71-1.el6
 mysql-community-server         x86_64  5.6.29-2.el6  mysql56-community
53  M
     replacing  mysql-server.x86_64 5.1.71-1.el6
Installing for dependencies:
mysql-community-common          x86_64  5.6.29-2.el6  mysql56-community
308 k

Transaction Summary
=================================================================================
=======
Install       5 Package(s)
Total download size: 74 M
Is this ok [y/N]: y
Downloading Packages:
(1/5): mysql-community-client-5.6.29-2.el6.x86_64.rpm       |  18 MB
00:28
(2/5): mysql-community-common-5.6.29-2.el6.x86_64.rpm       | 308 kB
00:01
(3/5): mysql-community-libs-5.6.29-2.el6.x86_64.rpm         | 1.9 MB
00:05
(4/5): mysql-community-libs-compat-5.6.29-2.el6.x86_64.rpm  | 1.6 MB
00:05
(5/5): mysql-community-server-5.6.29-2.el6.x86_64.rpm       |  53 MB
03:42
 ---------------------------------------------------------------------------
--------
Total                                               289 kB/s |  74 MB
04:24
warning: rpmts_HdrFromFdno: Header V3 DSA/SHA1 Signature, key ID
<key_id> NOKEY
Retrieving key from file:/etc/pki/rpm-gpg/RPM-GPG-KEY-mysql
Importing GPG key 0x5072E1F5:
 Userid : MySQL Release Engineering <mysql-build@oss.oracle.com>
Package: mysql-community-release-el6-5.noarch
         (@/mysql-community-release-el6-5.noarch)
 From   : file:/etc/pki/rpm-gpg/RPM-GPG-KEY-mysql
Is this ok [y/N]: y
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : mysql-community-common-5.6.29-2.el6.x86_64
```

```
....Output truncated....
1.el6.x86_64
7/8
  Verifying  : mysql-5.1.71-1.el6.x86_64
8/8
Installed:
  mysql-community-client.x86_64 0:5.6.29-2.el6
  mysql-community-libs.x86_64 0:5.6.29-2.el6
  mysql-community-libs-compat.x86_64 0:5.6.29-2.el6
  mysql-community-server.x86_64 0:5.6.29-2.el6

Dependency Installed:
  mysql-community-common.x86_64 0:5.6.29-2.el6

Replaced:
  mysql.x86_64 0:5.1.71-1.el6 mysql-libs.x86_64 0:5.1.71-1.el6
  mysql-server.x86_64 0:5.1.71-1.el6
Complete!
```

7. 启动 MySQL 服务器：

` 根@mcctb ~ ]# service mysqld start`

```
Initializing MySQL database:  2016-04-05 19:44:38 0 [Warning] TIMESTAMP
with implicit DEFAULT value is deprecated. Please use
--explicit_defaults_for_timestamp server option (see documentation
for more details).
2016-04-05 19:44:38 0 [Note] /usr/sbin/mysqld (mysqld 5.6.29)
        starting as process 2487 ...
2016-04-05 19:44:38 2487 [Note] InnoDB: Using atomics to ref count
        buffer pool pages
2016-04-05 19:44:38 2487 [Note] InnoDB: The InnoDB memory heap is
disabled
....Output truncated....
2016-04-05 19:44:42 2509 [Note] InnoDB: Shutdown completed; log sequence
       number 1625987

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER!
To do so, start the server, then issue the following commands:

  /usr/bin/mysqladmin -u root password 'new-password'
  /usr/bin/mysqladmin -u root -h mcctb password 'new-password'

Alternatively, you can run:
  /usr/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.
.....Output truncated.....
WARNING: Default config file /etc/my.cnf exists on the system
This file will be read by default by the MySQL server
If you do not want to use this, either remove it, or use the
--defaults-file argument to mysqld_safe when starting the server

                                                           [  OK  ]
Starting mysqld:                                           [  OK  ]
```

8. 确认 MySQL 服务器正在运行：

` 根@mcctb ~ ]# service mysqld status`

```
mysqld (pid  2739) is running...
```

9. 配置安全性和密码设置：

` 根@mcctb ~ ]# mysql_secure 安装`

```
NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MySQL
       SERVERS IN PRODUCTION USE!  PLEASE READ EACH STEP CAREFULLY!

 In order to log into MySQL to secure it, we'll need the current
 password for the root user.  If you've just installed MySQL, and
 you haven't set the root password yet, the password will be blank,
 so you should just press enter here.

 Enter current password for root (enter for none):   <== on default
install
                                                          hit enter here
 OK, successfully used password, moving on...

 Setting the root password ensures that nobody can log into the MySQL
 root user without the proper authorization.

 Set root password? [Y/n] y
 New password:
 Re-enter new password:
 Password updated successfully!
 Reloading privilege tables..
  ... Success!

 By default, a MySQL installation has an anonymous user, allowing anyone
 to log into MySQL without having to have a user account created for
 them.  This is intended only for testing, and to make the installation
 go a bit smoother.  You should remove them before moving into a
 production environment.

 Remove anonymous users? [Y/n] y
  ... Success!

 Normally, root should only be allowed to connect from 'localhost'.
This
 ensures that someone cannot guess at the root password from the
network.

 Disallow root login remotely? [Y/n] y
  ... Success!

 By default, MySQL comes with a database named 'test' that anyone can
 access.  This is also intended only for testing, and should be removed
 before moving into a production environment.

 Remove test database and access to it? [Y/n] y
  - Dropping test database...
 ERROR 1008 (HY000) at line 1: Can't drop database 'test';
```

```
database doesn't exist
 ... Failed!  Not critical, keep moving...
 - Removing privileges on test database...
 ... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n] y
 ... Success!

All done!  If you've completed all of the above steps, your MySQL
installation should now be secure.

Thanks for using MySQL!

Cleaning up...
```

10. 验证 MySQL 登录是否正常工作：

` 根@mcctb ~ ]# mysql -u root – p`

```
Enter password: <configured_password>
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 17
Server version: 5.6.29 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input
statement.
mysql>
```

当MySQL登录按预期运行时、输出将在结束 `mysql>` 提示符。

启用**MySQL**自动启动设置

您应验证是否已为MySQL守护进程启用自动启动功能。如果 MetroCluster Tiebreaker 软件所在的系统重新启动，则打开 MySQL 守护进程会自动重新启动 MySQL 。如果 MySQL 守护进程未运行， Tiebreaker 软件将继续运行，但无法重新启动，并且无法更改配置。

步骤

1. 验证是否已启用 MySQL 在启动时自动启动：

   ` 根@mcctb ~ ]# systemctl list-unit-files mysqld.service`

   ```
   UNIT FILE           State
   ------------------ ----------
   mysqld.service      enabled
   ```

   如果在启动时未启用 MySQL 自动启动，请参见 MySQL 文档为您的安装启用自动启动功能。

在Red Hat Enterprise Linux 8上安装MariaDB服务器

在安装或升级 Tiebreaker 软件之前，必须在主机系统上安装 MariaDB 服务器。 对于Red Hat Enterprise Linux 7或CentOS 7、 安装MySQL Server。

开始之前

主机系统必须运行在 Red Hat Enterprise Linux （ RHEL ） 8 上。

步骤

1. 以登录身份 `root` 用户。

   ```
   login as: root
   root@mcctb's password:
   Last login: Fri Jan  8 21:33:00 2017 from host.domain.com
   ```

2. 安装MariaDB服务器：

   ` 根@mcctb ~ ]# yum install MariaDB-server.x86_64`

   ```
   [root@mcctb ~]# yum install mariadb-server.x86_64
   Loaded plugins: fastestmirror, langpacks
    ...
    ...

   ================================================================================
    Package                      Arch   Version         Repository
   Size
   ================================================================================
   Installing:
   mariadb-server               x86_64   1:5.5.56-2.el7   base
   11 M
   ```

```
Installing for dependencies:

Transaction Summary
================================================================================
Install  1 Package  (+8 Dependent packages)
Upgrade             ( 1 Dependent package)

Total download size: 22 M
Is this ok [y/d/N]: y

Downloading packages:
No Presto metadata available for base warning:
/var/cache/yum/x86_64/7/base/packages/mariadb-libs-5.5.56-
2.el7.x86_64.rpm:
Header V3 RSA/SHA256 Signature,
key ID f4a80eb5: NOKEY] 1.4 MB/s | 3.3 MB  00:00:13 ETA
Public key for mariadb-libs-5.5.56-2.el7.x86_64.rpm is not installed
(1/10): mariadb-libs-5.5.56-2.el7.x86_64.rpm  | 757 kB  00:00:01
..
..
(10/10): perl-Net-Daemon-0.48-5.el7.noarch.rpm|  51 kB  00:00:01
--------------------------------------------------------------------------------
Installed:
  mariadb-server.x86_64 1:5.5.56-2.el7

Dependency Installed:
mariadb.x86_64 1:5.5.56-2.el7
perl-Compress-Raw-Bzip2.x86_64 0:2.061-3.el7
perl-Compress-Raw-Zlib.x86_64 1:2.061-4.el7
perl-DBD-MySQL.x86_64 0:4.023-5.el7
perl-DBI.x86_64 0:1.627-4.el7
perl-IO-Compress.noarch 0:2.061-2.el7
perl-Net-Daemon.noarch 0:0.48-5.el7
perl-PlRPC.noarch 0:0.2020-14.el7

Dependency Updated:
  mariadb-libs.x86_64 1:5.5.56-2.el7
Complete!
```

3. 启动 MariaDB 服务器：

   ` 根@mcctb ~ ]# systemctl start MariaDB`

4. 验证MariaDB服务器是否已启动：

` 根@mcctb ~ ]# systemctl status MariaDB`

```
[root@mcctb ~]# systemctl status mariadb
mariadb.service - MariaDB database server
...
Nov 08 21:28:59 mcctb systemd[1]: Starting MariaDB database server...
...
Nov 08 21:29:01 mcctb systemd[1]: Started MariaDB database server.
```

5. 配置安全性和密码设置：

> 当系统提示您输入root密码时、请将其留空、然后按Enter继续配置安全和密码设置。

` 根@mcctb ~ ]# mysql_secure 安装`

```
root@localhost systemd]# mysql_secure_installation

 NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB
      SERVERS IN PRODUCTION USE!  PLEASE READ EACH STEP CAREFULLY!

In order to log into MariaDB to secure it, we'll need the current
password for the root user.  If you've just installed MariaDB, and
you haven't set the root password yet, the password will be blank,
so you should just press enter here.

Enter current password for root (enter for none):
OK, successfully used password, moving on...

Setting the root password ensures that nobody can log into the MariaDB
root user without the proper authorisation.

Set root password? [Y/n] y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
 ... Success!


By default, a MariaDB installation has an anonymous user, allowing
anyone
to log into MariaDB without having to have a user account created for
them.  This is intended only for testing, and to make the installation
go a bit smoother.  You should remove them before moving into a
production environment.
```

```
Remove anonymous users? [Y/n] y
 ... Success!

Normally, root should only be allowed to connect from 'localhost'.  This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] y
 ... Success!

By default, MariaDB comes with a database named 'test' that anyone can
access.  This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n] y
 - Dropping test database...
  ... Success!
 - Removing privileges on test database...
   ... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n]

  ... Success!

Cleaning up...

All done!  If you've completed all of the above steps, your MariaDB
installation should now be secure.

Thanks for using MariaDB!
```

为**MariaDB**服务器启用自动启动设置

您应验证是否已为MariaDB服务器启用自动启动功能。如果不启用自动启动功能，并且 MetroCluster Tiebreaker 软件所在的系统必须重新启动，则 Tiebreaker 软件将继续运行，但无法重新启动 MariaDB 服务，也无法更改配置。

步骤

1. 启用自动启动服务：

   ` 根@mcctb ~ ]# systemctl enable mariadb.service`

2. 验证启动时 MariaDB 是否已启用自动启动：

` 根@mcctb ~ ]# systemctl list-unit-files mariadb.service`

```
UNIT FILE           State
------------------- ----------
mariadb.service     enabled
```

安装或升级到Tieb破碎 机1.4

在主机Linux操作系统上全新安装或升级到Tieb破碎 机1.4、以监控MetroCluster配置。

关于此任务

- 存储系统必须运行受支持的ONTAP版本。请参见 "软件要求" 表以了解更多详细信息。
- 您必须已使用安装OpenJDK `yum install java-x.x.x-openjdk` 命令：TiebreAKER 1.4及更早版本支持JDK 1.8.0 (JRE 8)。

步骤

1. 下载MetroCluster Tieb破碎 机软件。

   "MetroCluster Tieb破碎 机(下载)—NetApp 支持站点"

2. 以 root 用户身份登录到主机。
3. 【安装- Tiebreaker】安装或升级Tiebreaker软件：

   根据您是执行新安装还是升级现有安装、选择正确的操作步骤。

执行新安装

a. 通过运行来安装Tieb破碎 机软件：

```
rpm -ivh NetApp-MetroCluster-Tiebreaker-Software-1.4-1.x86_64.rpm
```

成功安装时，系统将显示以下输出：

```
Verifying...
################################# [100%]
Preparing...
################################# [100%]
Updating / installing...
   1:NetApp-MetroCluster-Tiebreaker-
So################################# [100%]
Post installation start Fri Apr  5 02:28:09 EDT 2024
Enter MetroCluster Tiebreaker user password:

Please enter mysql root password when prompted
Enter password:
Synchronizing state of netapp-metrocluster-tiebreaker-
software.service with SysV service script with
/usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable netapp-
metrocluster-tiebreaker-software
Created symlink /etc/systemd/system/multi-
user.target.wants/netapp-metrocluster-tiebreaker-software.service
→ /etc/systemd/system/netapp-metrocluster-tiebreaker-
software.service.
Attempting to start NetApp MetroCluster Tiebreaker software
services
Started NetApp MetroCluster Tiebreaker software services
Enabled autostart of NetApp MetroCluster Tiebreaker software
daemon during boot
Created symbolic link for NetApp MetroCluster Tiebreaker software
CLI
Post installation end Fri Apr  5 02:28:22 EDT 2024
Successfully installed NetApp MetroCluster Tiebreaker software
version 1.4.
```

升级现有安装

a. 升级Tiebreaker软件。

```
[root@mcctb ~]# rpm -Uvh NetApp-MetroCluster-Tiebreaker-Software-
1.4-1.x86_64.rpm
```

成功升级后，系统将显示以下输出：

```
Verifying...
################################# [100%]
Preparing...
################################# [100%]
Upgrading NetApp MetroCluster Tiebreaker software....
Stopping NetApp MetroCluster Tiebreaker software services before
upgrade.
Updating / installing...
   1:NetApp-MetroCluster-Tiebreaker-
So################################# [ 50%]
Post installation start Mon Apr  8 06:29:51 EDT 2024
Synchronizing state of netapp-metrocluster-tiebreaker-
software.service with SysV service script with
/usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable netapp-
metrocluster-tiebreaker-software
Attempting to start NetApp MetroCluster Tiebreaker software
services
Started NetApp MetroCluster Tiebreaker software services
Enabled autostart of NetApp MetroCluster Tiebreaker software
daemon during boot
Created symbolic link for NetApp MetroCluster Tiebreaker software
CLI
Post upgrade end Mon Apr  8 06:29:51 EDT 2024
Successfully upgraded NetApp MetroCluster Tiebreaker software to
version 1.4.
Cleaning up / removing...
   2:NetApp-MetroCluster-Tiebreaker-
So################################# [100%]
```

> 如果输入的 MySQL root 密码不正确， Tiebreaker 软件会指示已成功安装该密码，但会显示 Access Denied 消息。要解决问题描述问题，您必须使用 `rpm -e` 命令卸载 Tiebreaker 软件，然后使用正确的 MySQL root 密码重新安装该软件。

4. 通过打开从Tiebreaker主机到每个节点管理LIF和集群管理LIF的SSH连接、检查Tiebreaker与MetroCluster软件的连接。

相关信息

"NetApp 支持"