



About role-based access control

SnapManager Oracle

NetApp

February 12, 2024

This PDF was generated from https://docs.netapp.com/us-en/snapmanager-oracle/unix-administration/task_enabling_role_based_access_control.html on February 12, 2024. Always check docs.netapp.com for the latest.

Table of Contents

- About role-based access control 1
 - Enabling role-based access control 2
 - Setting role-based access control capabilities and roles 2

About role-based access control

Role-based access control (RBAC) lets you control who has access to SnapManager operations. RBAC allows administrators to manage groups of users by defining roles and assigning users to those roles. You might want to use SnapManager RBAC in environments where RBAC is already in place.

RBAC includes the following components:

- **Resources:** Volumes and LUNs that hold the datafiles that make up your database.
- **Capabilities:** Types of operations that can be performed on a resource.
- **Users:** People to whom you grant capabilities.
- **Roles:** A set of resources and capabilities allowed on resources. You assign a specific role to a user who should perform those capabilities.

You enable RBAC in SnapDrive. You can then configure specific capabilities per role in the Operations Manager Web graphical user interface or command-line interface. RBAC checks occur in the DataFabric Manager server.

The following table lists some roles and their typical tasks, as set in Operations Manager.

Role	Typical tasks
Oracle database administrator	<ul style="list-style-type: none">• Creating, maintaining, and monitoring an Oracle database that resides on a host• Scheduling and creating database backups• Ensuring that backups are valid and can be restored• Cloning databases
Server administrator	<ul style="list-style-type: none">• Setting up storage systems and aggregates• Monitoring volumes for free space• Provisioning storage on requests from users• Configuring and monitoring disaster recovery mirroring
Storage architect	<ul style="list-style-type: none">• Making architectural decisions on storage• Planning storage capacity growth• Planning disaster recovery strategies• Delegating capabilities to members of the team

If RBAC is in use (meaning that Operations Manager is installed and RBAC is enabled in SnapDrive), the storage administrator needs to assign RBAC permissions on all of the volumes and storage systems for the database files.

Enabling role-based access control

SnapManager role-based access control (RBAC) is enabled using SnapDrive. Upon installation of SnapDrive, RBAC is disabled by default. After you enable RBAC in SnapDrive, SnapManager then performs operations with RBAC enabled.

The snapdrive.config file in SnapDrive sets many options, one of which enables RBAC.

The SnapDrive documentation contains details about SnapDrive.

1. Open the snapdrive.conf file in an editor.
2. Enable RBAC by changing the value of the rbac-method parameter from native to dfm.

The default value for this parameter is native, which disables RBAC.

[Documentation on the NetApp Support Site: mysupport.netapp.com](https://mysupport.netapp.com)

Setting role-based access control capabilities and roles

After you enable role-based access control (RBAC) for SnapManager using SnapDrive, you can add RBAC capabilities and users to roles to perform SnapManager operations.

You must create a group in the Data Fabric Manager server and add the group to both primary and secondary storage systems. Run the following commands:

- dfm group create smo_grp
- dfm group add smo_grpprimary_storage_system
- dfm group add smo_grpsecondary_storage_system

You can use either the Operations Manager web interface or the Data Fabric Manager server command-line interface (CLI) to modify RBAC capabilities and roles.

The table lists the RBAC capabilities required to perform SnapManager operations:

SnapManager operations	RBAC capabilities required when data protection is not enabled	RBAC capabilities required when data protection is enabled
Profile create or profile update	SD.Storage.Read (smo_grp)	SD.Storage.Read (SMO_profile dataset)

SnapManager operations	RBAC capabilities required when data protection is not enabled	RBAC capabilities required when data protection is enabled
Profile protection	DFM.Database.Write (smo_grp) SD.Storage.Read (smo_grp) SD.Config.Read (smo_grp) SD.Config.Write (smo_grp) SD.Config.Delete (smo_grp) GlobalDataProtection	None
Backup create	SD.Storage.Read (smo_grp) SD.Snapshot.Write (smo_grp) SD.Snapshot.Read (smo_grp) SD.Snapshot.Delete (smo_grp)	SD.Storage.Read (SMO_profile dataset) SD.Snapshot.Write (SMO_profile dataset) SD.Snapshot.Read (SMO_profile dataset) SD.Snapshot.Delete (SMO_profile dataset)
Backup create (with DBverify)	SD.Storage.Read (smo_grp) SD.Snapshot.Write (smo_grp) SD.Snapshot.Read (smo_grp) SD.Snapshot.Delete (smo_grp) SD.SnapShot.Clone (smo_grp)	SD.Storage.Read (SMO_profile dataset) SD.Snapshot.Write (SMO_profile dataset) SD.Snapshot.Read (SMO_profile dataset) SD.Snapshot.Delete (SMO_profile dataset) SD.SnapShot.Clone (SMO_profile dataset)

SnapManager operations	RBAC capabilities required when data protection is not enabled	RBAC capabilities required when data protection is enabled
Backup create (with RMAN)	SD.Storage.Read (smo_grp) SD.Snapshot.Write (smo_grp) SD.Snapshot.Read (smo_grp) SD.Snapshot.Delete (smo_grp) SD.SnapShot.Clone (smo_grp)	SD.Storage.Read (SMO_profile dataset) SD.Snapshot.Write (SMO_profile dataset) SD.Snapshot.Read (SMO_profile dataset) SD.Snapshot.Delete (SMO_profile dataset) SD.SnapShot.Clone (SMO_profile dataset)
Backup restore	SD.Storage.Read (smo_grp) SD.Snapshot.Write (smo_grp) SD.Snapshot.Read (smo_grp) SD.Snapshot.Delete (smo_grp) SD.SnapShot.Clone (smo_grp) SD.Snapshot.Restore (smo_grp)	SD.Storage.Read (SMO_profile dataset) SD.Snapshot.Write (SMO_profile dataset) SD.Snapshot.Read (SMO_profile dataset) SD.Snapshot.Delete (SMO_profile dataset) SD.SnapShot.Clone (SMO_profile dataset) SD.Snapshot.Restore (SMO_profile dataset)
Backup delete	SD.Snapshot.Delete (smo_grp)	SD.Snapshot.Delete (SMO_profile dataset)
Backup verify	SD.Storage.Read (smo_grp) SD.Snapshot.Read (smo_grp) SD.Snapshot.Clone (smo_grp)	SD.Storage.Read (SMO_profile dataset) SD.Snapshot.Read (SMO_profile dataset) SD.Snapshot.Clone (SMO_profile dataset)

SnapManager operations	RBAC capabilities required when data protection is not enabled	RBAC capabilities required when data protection is enabled
Backup mount	SD.Storage.Read (smo_grp) SD.Snapshot.Read (smo_grp) SD.Snapshot.Clone (smo_grp)	SD.Storage.Read (SMO_profile dataset) SD.Snapshot.Read (SMO_profile dataset) SD.Snapshot.Clone (SMO_profile dataset)
Backup unmount	SD.Snapshot.Clone (smo_grp)	SD.Snapshot.Clone (SMO_profile dataset)
Clone create	SD.Storage.Read (smo_grp) SD.Snapshot.Read (smo_grp) SD.SnapShot.Clone (smo_grp)	SD.Storage.Read (SMO_profile dataset) SD.Snapshot.Read (SMO_profile dataset) SD.SnapShot.Clone (SMO_profile dataset)
Clone delete	SD.Snapshot.Clone (smo_grp)	SD.Snapshot.Clone (SMO_profile dataset)
Clone split	SD.Storage.Read (smo_grp) SD.Snapshot.Read (smo_grp) SD.SnapShot.Clone (smo_grp) SD.Snapshot.Delete (smo_grp) SD.Storage.Write (smo_grp)	SD.Storage.Read (SMO_profile dataset) SD.Snapshot.Read (SMO_profile dataset) SD.SnapShot.Clone (SMO_profile dataset) SD.Snapshot.Delete (SMO_profile dataset) SD.Storage.Write (SMO_profile dataset)

For details about defining RBAC capabilities, see the *OnCommand Unified Manager Operations Manager Administration Guide*.

1. Access the Operations Manager console.
2. From the Setup menu, select **Roles**.
3. Select an existing role or create a new one.
4. To assign operations to your database storage resources, click **Add capabilities**.
5. On the Edit Role Settings page, to save your changes to the role, click **Update**.

Related information

OnCommand Unified Manager Operations Manager Administration Guide:

mysupport.netapp.com/documentation/productsatoz/index.html

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.