



Managing Storage Efficiency Policies

Active IQ Unified Manager 9.9

NetApp
April 05, 2024

Table of Contents

- Managing Storage Efficiency Policies 1
 - Guidelines for creating a custom Storage Efficiency Policy 2
 - Creating and editing Storage Efficiency Policies 2

Managing Storage Efficiency Policies

A Storage Efficiency Policy (SEP) enables you to define the storage efficiency characteristics of a workload. You can assign an SEP to a workload when initially creating the workload, or afterwards by editing the workload.

Storage efficiency includes using technologies, such as thin provisioning, deduplication, and data compression that increase storage utilization and decrease storage costs. While creating SEPs, you can use these space-saving technologies either individually or together to achieve maximum storage efficiency. When you associate the policies with your storage workloads, the specified policy settings are assigned to them. Unified Manager enables you to assign system-defined and user-defined SEPs to optimize storage resources in your data center.

Unified Manager provides two system-defined SEPs: High and Low. These SEPs are applicable to most of the storage workloads in a data center, however, you can create your own policies if the system-defined SEPs do not meet your requirements.

You cannot modify an SEP that is system-defined or that is currently assigned to a workload. You cannot delete an SEP that is assigned to a workload, or if it is the only available SEP.

The Storage Efficiency Policies page lists the available SEPs and enables you to add, edit, and delete customized SEPs. This page displays the following information:

Field	Description
Name	Name of the SEP.
Type	Whether the policy is system-defined or user-defined.
Space Reserve	Whether the volume is thin-provisioned or thick-provisioned.
Deduplication	Whether deduplication is enabled on the workload: <ul style="list-style-type: none">• Inline: Deduplication occurs while being written on the workload• Background: Deduplication occurs in the workload• Disable: Deduplication is disabled on the workload

Field	Description
Compression	<p>Whether data compression is enabled on the workload:</p> <ul style="list-style-type: none"> • Inline: Data compression occurs while being written on the workload • Background: Data compression occurs in the workload • Disable: Data compression is disabled on the workload
Workloads	Number of storage workloads that have been assigned the SEP

Guidelines for creating a custom Storage Efficiency Policy

If the existing SEPs do not meet policy requirements for your storage workloads, you can create a custom SEP. However, it is recommended that you attempt to use the system-defined SEPs for your storage workloads, and only create custom SEPs if necessary.

You can view the SEP assigned to workloads in the All Workloads page and in the Volume / Health details page. You can view the cluster-level data reduction ratio based on these storage efficiencies in the Capacity panel on the Dashboard and in the Capacity: All Clusters view.

Creating and editing Storage Efficiency Policies

When the system-defined Storage Efficiency Policies do not match your workload requirements, you can create your own Storage Efficiency Policies that are optimized for your workloads.

Before you begin

- You must have the Application Administrator role.
- The Storage Efficiency Policy name must be unique, and you cannot use the following reserved keywords:

High, Low, Unassigned, Learning, Idle, Default, and None.

About this task

You create and edit custom Storage Efficiency Policies from the Storage Efficiency Policies page by defining the storage efficiency characteristics you require for the applications that will access storage.



You cannot modify a Storage Efficiency Policy if it is currently assigned to a workload.

Steps

1. In the left navigation pane under **Settings**, select **Policies > Storage Efficiency**.
2. In the **Storage Efficiency Policies** page, click the appropriate button depending on whether you want to create a new Storage Efficiency Policy or if you want to edit an existing Storage Efficiency Policy.

To...	Follow these steps...
Create a new Storage Efficiency Policy	Click Add
Edit an existing Storage Efficiency Policy	Select an existing Storage Efficiency Policy and click Edit

The page to add or edit a Storage Efficiency Policy is displayed.

1. Customize the Storage Efficiency Policy by specifying the storage efficiency characteristics, and then click **Submit** to save the Storage Efficiency Policy.

After you finish

You can apply the new or changed Storage Efficiency Policy to workloads (LUNs, NFS File Shares, CIFS Shares) from the Workloads page or when provisioning a new workload.

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.