



Set up the cluster with the ONTAP CLI

ONTAP 9

aherbin, netapp-lenida
May 05, 2021

This PDF was generated from https://docs.netapp.com/us-en/ontap/software_setup/concept_set_up_the_cluster.html on May 18, 2021. Always check docs.netapp.com for the latest.

Table of Contents

- Set up the cluster with the ONTAP CLI 1
 - Cluster setup worksheets 1
 - System defaults 1
 - Cluster information 1
 - Feature license keys 1
 - Admin storage virtual machine (SVM) 2
 - Node information (for each node in the cluster) 3
 - NTP server information 4

Set up the cluster with the ONTAP CLI

Setting up the cluster involves gathering the information needed to configure setting up each node, creating the cluster on the first node, and joining any remaining nodes to the cluster.

Get started by gathering all the relevant information in the cluster setup worksheets.

Cluster setup worksheets

The cluster setup worksheet enables you to record the values that you need during the cluster setup process. If a default value is provided, you can use that value or else enter your own.

System defaults

The system defaults are the default values for the private cluster network. It is best to use these default values. However, if they do not meet your requirements, you can use the table to record your own values.



For clusters configured to use network switches, each cluster switch must use the 9000 MTU size.

Types of information	Your values
Private cluster network ports	
Cluster network netmask	
Cluster interface IP addresses (for each cluster network port on each node)	
The IP addresses for each node must be on the same subnet.	

Cluster information

Types of information	Your values
Cluster name	
The name must begin with a letter, and it must be fewer than 44 characters. The name can include the following special characters: · - _	

Feature license keys

You can find license keys for your initial or add-on software orders at the NetApp Support Site under **My Support > Software Licenses**.

Types of information	Your values
Feature license keys	

Admin storage virtual machine (SVM)

Types of information	Your values
<p>Cluster administrator password</p> <p>The password for the admin account that the cluster requires before granting cluster administrator access to the console or through a secure protocol.</p> <div>  <p>For security purposes, recording passwords in this worksheet is not recommended.</p> </div> <p>The default rules for passwords are as follows:</p> <ul style="list-style-type: none"> • A password must be at least eight characters long. • A password must contain at least one letter and one number. 	
<p>Cluster management interface port</p> <p>The physical port that is connected to the data network and enables the cluster administrator to manage the cluster.</p>	
<p>Cluster management interface IP address</p> <p>A unique IPv4 or IPv6 address for the cluster management interface. The cluster administrator uses this address to access the admin SVM and manage the cluster. Typically, this address should be on the data network.</p> <p>You can obtain this IP address from the administrator responsible for assigning IP addresses in your organization.</p> <p>Example: 192.0.2.66</p>	
<p>Cluster management interface netmask (IPv4)</p> <p>The subnet mask that defines the range of valid IPv4 addresses on the cluster management network.</p> <p>Example: 255.255.255.0</p>	

Types of information	Your values
<p>Cluster management interface netmask length (IPv6)</p> <p>If the cluster management interface uses an IPv6 address, then this value represents the prefix length that defines the range of valid IPv6 addresses on the cluster management network.</p> <p>Example: 64</p>	
<p>Cluster management interface default gateway</p> <p>The IP address for the router on the cluster management network.</p>	
<p>DNS domain name</p> <p>The name of your network's DNS domain.</p> <p>The domain name must consist of alphanumeric characters. To enter multiple DNS domain names, separate each name with either a comma or a space.</p>	
<p>Name server IP addresses</p> <p>The IP addresses of the DNS name servers. Separate each address with either a comma or a space.</p>	

Node information (for each node in the cluster)

Types of information	Your values
<p>Physical location of the controller (optional)</p> <p>A description of the physical location of the controller. Use a description that identifies where to find this node in the cluster (for example, "Lab 5, Row 7, Rack B").</p>	
<p>Node management interface port</p> <p>The physical port that is connected to the node management network and enables the cluster administrator to manage the node.</p>	

Types of information	Your values
<p>Node management interface IP address</p> <p>A unique IPv4 or IPv6 address for the node management interface on the management network. If you defined the node management interface port to be a data port, then this IP address should be a unique IP address on the data network.</p> <p>You can obtain this IP address from the administrator responsible for assigning IP addresses in your organization.</p> <p>Example: 192.0.2.66</p>	
<p>Node management interface netmask (IPv4)</p> <p>The subnet mask that defines the range of valid IP addresses on the node management network.</p> <p>If you defined the node management interface port to be a data port, then the netmask should be the subnet mask for the data network.</p> <p>Example: 255.255.255.0</p>	
<p>Node management interface netmask length (IPv6)</p> <p>If the node management interface uses an IPv6 address, then this value represents the prefix length that defines the range of valid IPv6 addresses on the node management network.</p> <p>Example: 64</p>	
<p>Node management interface default gateway</p> <p>The IP address for the router on the node management network.</p>	

NTP server information

Types of information	Your values
<p>NTP server addresses</p> <p>The IP addresses of the Network Time Protocol (NTP) servers at your site. These servers are used to synchronize the time across the cluster.</p>	

Copyright Information

Copyright © 2021 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.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

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.