



# Monitor the reachability of network ports

## ONTAP System Manager

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December 09, 2020

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# Table of Contents

Monitor the reachability of network ports..... 1

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Reachability monitoring is built into ONTAP. Use this monitoring to identify when the physical network topology does not match the ONTAP configuration. In some cases, ONTAP can repair port reachability. In other cases, additional steps are required.

## About this task

Use these commands to verify, diagnose, and repair network misconfigurations that stem from the ONTAP configuration not matching either the physical cabling or the network switch configuration.

## Step

1. View port reachability:

```
network port reachability show
```

2. Use the following decision tree and table to determine the next step, if any.

[Repair reachability decision tree]

Reachability-status	Description
ok	<p>The port has layer 2 reachability to its assigned broadcast domain. If the reachability-status is "ok", but there are "unexpected ports", consider merging one or more broadcast domains. For more information, see the following <i>Unexpected ports</i> row.</p> <p>If the reachability-status is "ok", but there are "unreachable ports", consider splitting one or more broadcast domains. For more information, see the following <i>Unreachable ports</i> row.</p> <p>If the reachability-status is "ok", and there are no unexpected or unreachable ports, your configuration is correct.</p>

Reachability-status	Description
Unexpected ports	<p>The port has layer 2 reachability to its assigned broadcast domain; however, it also has layer 2 reachability to at least one other broadcast domain.</p> <p>Examine the physical connectivity and switch configuration to determine if it is incorrect or if the port's assigned broadcast domain needs to be merged with one or more broadcast domains.</p> <p>For more information, see <a href="#">Merge broadcast domains</a>.</p>
Unreachable ports	<p>If a single broadcast domain has become partitioned into two different reachability sets, you can split a broadcast domain to synchronize the ONTAP configuration with the physical network topology.</p> <p>Typically, the list of unreachable ports defines the set of ports that should be split into another broadcast domain after you have verified that the physical and switch configuration is accurate.</p> <p>For more information, see <a href="#">Split broadcast domains</a>.</p>
misconfigured-reachability	<p>The port does not have layer 2 reachability to its assigned broadcast domain; however, the port does have layer 2 reachability to a different broadcast domain.</p> <p>You can repair the port reachability. When you run the following command, the system will assign the port to the broadcast domain to which it has reachability:</p> <pre>network port reachability repair -node -port</pre> <p>For more information, see <a href="#">Repair port reachability</a>.</p>
no-reachability	<p>The port does not have layer 2 reachability to any existing broadcast domain.</p> <p>You can repair the port reachability. When you run the following command, the system will assign the port to a new automatically created broadcast domain in the Default IPspace:</p> <pre>network port reachability repair -node -port</pre> <p>For more information, see <a href="#">Repair port reachability</a>.</p>

Reachability-status	Description
multi-domain-reachability	<p>The port has layer 2 reachability to its assigned broadcast domain; however, it also has layer 2 reachability to at least one other broadcast domain.</p> <p>Examine the physical connectivity and switch configuration to determine if it is incorrect or if the port's assigned broadcast domain needs to be merged with one or more broadcast domains.</p> <p>For more information, see <a href="#">Merge broadcast domains</a> or <a href="#">Repair port reachability</a>.</p>
unknown	<p>If the reachability-status is "unknown", then wait a few minutes and try the command again.</p>

After you repair a port, you need to check for and resolve displaced LIFs and VLANs. If the port was part of an interface group, you also need to understand what happened to that interface group. For more information, see [Repair port reachability](#).

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