Oracle® SD-WAN

Active Bandwidth Testing

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My Oracle Support

My Oracle Support (https://support.oracle.com) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with My Oracle Support registration.

Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select 2 for New Service Request.

2. Select 3 for Hardware, Networking, and Solaris Operating System Support.

3. Select one of the following options:

    - For technical issues such as creating a new Service Request (SR), select 1.

    - For non-technical issues such as registration or assistance with My Oracle Support, select 2.

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability

- Significant reduction in system capacity or traffic handling capability

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- Loss of the system's ability to perform automatic system reconfiguration

- Inability to restart a processor or the system

- Corruption of system databases that requires service affecting corrective actions

- Loss of access for maintenance or recovery operations

- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, http://docs.oracle.com. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at http://www.adobe.com.

1. Access the Oracle Help Center site at http://docs.oracle.com.

2. Click Industries.

3. Click the Oracle Communications link.

   Under the SD-WAN header, select a product.

4. Select the Release Number.

   A list of the entire documentation set for the selected product and release appears.

5. To download a file to your location, right-click the PDF link, select Save target as (or similar command based on your browser), and save to a local folder.

Active Bandwidth Testing

Oracle Talari Appliances have the ability to conduct bandwidth tests on Paths to determine how much bandwidth is available for use. This has multiple benefits, including learning how much bandwidth is available when it is not known, verifying that the amount of available bandwidth matches expectations, and identifying changes in bandwidth availability over time.

Testing can be manually initiated by a user or scheduled to occur periodically from the **Diagnose - Path Bandwidth** page of the web UI. If the Auto Learn option is selected under **WAN Link - Basic Settings** in the Talari Configuration Editor, bandwidth testing will be automatically conducted to determine and set the Permitted Rate of that WAN Link.

The bandwidth test is conducted by sending a sequence of packets down the path for 20 milliseconds. The difference in time between receiving the first packet and receiving the last packet is measured and used to calculate the bandwidth. This process runs 10 times and the data is averaged to provide the final test result. The minimum and maximum measured bandwidth is also displayed in the historical test data, which the user can view under **Diagnose - Path Bandwidth** in the web UI. The results of bandwidth testing will reflect the smallest link along the path between sites. The benefit of this test methodology is that a WAN Link does not have to be "out of service" for the bandwidth test to execute.

Bandwidth Auto Learning

For WAN Links with the Auto Learn option enabled, the initial Permitted Rate of that WAN Link will be set to the manually configured Physical Rate, which is set in the Talari Configuration Editor. A bandwidth test is conducted once the Conduit comes up and the result of the test is used to set the Permitted Rate for that WAN Link. Bandwidth Auto Learn will not set the Permitted Rate above what the user has manually configured as the Physical Rate. If the Physical Rate was inaccurately configured to be lower than the actual bandwidth of the WAN Link, then the user will need to update the configuration in order to use this feature optimally.

Bandwidth Testing Considerations

In certain cases, the WAN network may impact the reported test results and when this occurs, the bandwidth test may report inaccurate results. Typical WAN issues that can cause inaccurate test results include WAN buffering, which can skew the calculation used by the receiving Talari Appliance.

The bandwidth test must be performed from a site with lower bandwidth to a site with higher bandwidth. Running a test from a site with higher bandwidth to a site with lower will result in invalid test results. If Auto Learn is enabled and invalid test results occur, the bandwidth test will run every 5 minutes, even if the test was only scheduled to run a single time. To prevent bandwidth tests from automatically running in this state, the configuration should have Auto Learn unchecked for the site with higher bandwidth.

Note: In a future software release, Talari will provide an option to extend the duration of time the test runs beyond today's 20 milliseconds. This will be a user configurable value. For more information concerning the future direction of this feature, please contact your Talari representative.