

# Oracle® SD-WAN Edge 8.0 P1

## Release Notes



Original Publication Date:

Nov 1, 2019

ORACLE



Copyright © 2019, 2007 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

**U.S. GOVERNMENT END USERS:** Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group. Windows® 7 and Windows® XP are trademarks or registered trademarks of Microsoft Corporation.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

# Table of Contents

About This Document .....	4
<b>Audience</b> .....	4
<b>References</b> .....	4
<b>About This Product</b> .....	4
<b>Talari Appliances</b> .....	4
<b>Capacity by Appliance Model</b> .....	5
<b>Supported Combinations</b> .....	6
<b>Supported Web Browsers</b> .....	6
<b>Enhancements/Features in APN 8.0 GA P1</b> .....	7
<b>Resolved Issues in APN 8.0 GA P1</b> .....	7
<b>Known Issues in APN 8.0 GA P1</b> .....	9
<b>3rd Party Issues Affecting APN 8.0 GA P1</b> .....	11
<b>Enhancements/Features in Previous Releases</b> .....	13
<b>Enhancements/Features in APN 8.0 GA</b> .....	13
<b>Enhancements/Features in APN 7.3 GA P7</b> .....	13
<b>Resolved Issues in Previous Releases</b> .....	13
<b>Resolved Issues in APN 8.0 GA</b> .....	13
<b>Resolved Issues in APN 7.3 GA P7</b> .....	14

## About This Document

Talari APN release notes inform customers of added features, resolved issues, requirements for use, and known issues in the latest Talari APN releases.

## 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
- 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.

## References

The following documents are available:

- *Talari Glossary*
- *Talari Appliance Quick Start Guide*
- *Talari APN 8.0 GA New Features Guide*
- *Talari APN 8.0 GA Configuration File Reference*
- *Talari Aware 8.0 GA P1 Release Notes*
- *Cloud Connect 1.0 Release Notes*

# About This Product

## Talari Appliances

APN 8.0 GA P1 supports Talari Appliances functioning as Network Control Nodes (NCNs) or Client Nodes.

The following Talari Appliances are compatible with APN 8.0 GA P1:

- Talari Physical Appliances: E50, T860, E100, E500, T3010, E1000, T5000, T5200
- Talari Virtual Appliances: VT800, VT800-128, CT800, CT800-128

**Note:** The E50 Appliance only functions as a Client Node.

## Capacity by Appliance Model

The following table details the supported network scale for each Talari Appliance model when running APN 8.0 GA P1.

Model	Max Static Conduits	Max Dynamic Conduits	Max WAN Ingress Paths	Max WAN Egress Paths	Max Flows (TCP Term off)	Max Flows (TCP Term on)	Max Public WAN Links	Max Private WAN Links
E50	8	4	36	36	32,000	500	3	32
T860	32	16	216	216	64,000	8,000	8	32
E100	32	16	216	216	64,000	8,000	8	32
E500	32	16	216	216	64,000	16,000	8	32
T3010	128	32	576	576	256,000	16,000	8	32
E1000	200	32	1,000	1,000	256,000	16,000	8	32
T5000	256	32	1,152	1,152	512,000	16,000	8	32
T5200	550	32	5,500	5,500	512,000	16,000	8	32
VT800	32	16	216	216	64,000	8,000	8	32
VT800-128	128	32	576	576	256,000	16,000	8	32
CT800	16	8	120	120	64,000	5,000	8	32
CT800-128	128	32	576	576	256,000	16,000	8	32

Table 1: Network Scale by Talari Appliance Model

## Supported Combinations

APN 8.0 GA P1 is supported in combination with the following level(s) of Talari Aware:

- Aware 8.0 GA P1

To deploy this level of APN on your network, each Talari Appliance must be running a supported level of Talari OS. If an OS update is required, see the *Talari OS Partition Update Guide* for instructions.

The following versions of Talari OS support APN 8.0 GA P1:

Talari Appliance Model	Talari OS	
	OS 4.6	OS 5.1
E50	--	YES
T860	--	YES
E100	--	YES
E500	--	YES
T3010	--	YES
E1000	--	YES
T5000	--	YES
T5200	--	YES
VT800	--	YES
VT800-128	--	YES
CT800	--	YES
CT800-128	--	YES

## Supported Web Browsers

The Talari Web Console is supported in latest versions of the following web browsers:

- Microsoft IE9 – IE11
- Mozilla Firefox
- Google Chrome

Supported browsers must have cookies enabled.

Supported browsers must have JavaScript installed and enabled.



## Enhancements/Features in APN 8.0 GA P1

The following issues have been enhanced or added since APN 8.0 GA:

ID	Issue Description
19119	The licensing requirement for virtual Talari appliances (VT800, VT800-128, CT800, and CT800-128) has been removed.

## Resolved Issues in APN 8.0 GA P1

The following issues have been fixed since APN 8.0 GA:

ID	Issue Description
19176	For APN sites with more than 64 conduits configured, making a major configuration update such as adding or removing a service, adding or removing a WAN link, or changing IPsec settings may result in a service impacting memory dump.
19123	When Internet or Intranet IPsec packets are received on the Talari appliance with a source MAC address which does not match the MAC address for the WAN link's gateway, it may cause a service impacting memory dump.
19103	<p>A service impacting memory dump may occur during the configuration change process if the prior configuration had a port forwarding Dynamic NAT policy (Port Restricted mode) for Internet Service and the Internet service uses multiple WAN Links in Load Balance Mode. Additionally, there must be an existing connection matching the port forwarding rule which was initiated inside-to-outside prior to the configuration change.</p> <p>The following configuration changes could trigger the service impacting memory dump:</p> <ul style="list-style-type: none"> <li>• Adding or removing WAN links used for Internet Load Balancing</li> <li>• Changing the Internet service mode from Load Balance to Primary/Secondary</li> <li>• Updating the port forwarding Dynamic NAT policy</li> </ul>
19027	During the first minute of dynamic conduit creation, <b>Monitor &gt; Flows</b> will incorrectly display the service type as Cloud for flows on the new dynamic conduit.
19020	In certain situations, paths may go from bad to good without observing the configured probation time.
19008	Inclusion of the \$ symbol in the SNMP user password could cause the SNMP daemon to restart continuously.

ID	Issue Description
18989	Rarely, when an application using domain name as one of the match criteria is enabled and the cached DNS entry expires, it may cause a service impacting memory dump.
18978	Pings initiated from the Talari ( <b>Troubleshoot &gt; Ping</b> ) may not work as expected if Cloud Services are enabled and the source Virtual IP Address matches the outside IP for the Cloud Service NAT rule.
18971	When a conduit goes to dead and recovers, some ongoing flows with duplication enabled may have duplicate packets delivered to hosts. The duplicate packets are delivered for approximately 2 seconds before clearing without intervention.
18895	An Internet service with multiple WAN links set to load balance will not use a dead WAN link for traffic even though "Ignore WAN Link Status" is enabled.
18878	When performing an SNMP walk for route service type, the output is incorrect for routes other than discard, passthrough, and internet.
18850	If more than one NAT rule is created for a site, editing the priority value does not affect the order as expected.
18839	If IPsec is enabled on a conduit via a Conduit Default Set, adding/removing a site or changing a site's name may cause a service impacting memory dump.
18832	When using the APN Configuration Editor in Internet Explorer, importing a configuration from a file does not work.
18823	Activating a configuration update which includes changes to rules or classes may cause a service impacting memory dump if there are WAN Egress conduit management control packets waiting in the conduit scheduler. This is an extremely uncommon circumstance.
18810	On appliances connected to large, busy networks, snmpwalk may cause a service impacting memory dump.
18805	If a Cloud Service is connected to a Cloud Gateway behind a NAT device and the NAT for the Cloud Gateway is changed to use an external port other than the one(s) specified in the APN configuration after the Cloud Conduit is established, the APN appliance will learn the wrong external port, and will not be able to re-establish the Cloud Conduit again if the conduit goes down for any reason.  The workaround is to restart the APN service.

ID	Issue Description
18789	When an Internet service with multiple WAN links set to load balance is enabled and one of the WAN links used for the service is removed, viewing the Internet Load Balancing Flows table may cause a service impacting memory dump.
18659	When adding a new interface to a site in the Basic View of Configuration editor, the Add button is enabled after selecting an interface even though other required fields have not been filled.
18558	When Service Chaining is enabled, the port used for Service Chaining will always be up even if the physical port is down. This will impact HA and port state reflection behavior if the port is also used for those features.
17852	When an HA pair are directly connected and Primary Reclaim is not enabled, if the Primary goes down and then comes back up it may automatically become active without any prompting, even though the Secondary has taken over as the active appliance. It can take a few seconds for the port to initialize and this is why the primary takes control. Once the port is up, the standby will return to its standby state.

## Known Issues in APN 8.0 GA P1

The following issues are known to exist in APN 8.0 GA P1:

ID	Issue Description	Workaround	Targeted Fix
18618	Ports configured to fail to wire may stay in the hardware bypass state when the Talari service is enabled, resulting in traffic being forwarded through the appliance without being processed by the Talari service.  Stopping and restarting the Talari service will clear this condition.	See Issue Description	TBD
18502	Service Chaining with Palo Alto does not work as expected. Contact <a href="mailto:support@talari.com">support@talari.com</a> for a workaround.	See Issue Description	TBD
18406	On a T5200 appliance, the APN_misc.log may show messages about orphaned WAN Ingress buffers for a specific conduit. These messages could show for up to 30 minutes but should then clear up.	None	TBD
18329	In certain rare circumstances, an E100 may become unresponsive and require a reboot before resuming normal function.	None	TBD

ID	Issue Description	Workaround	Targeted Fix
18256	If the OS partition goes over 63% during an OS upgrade, it will trigger a warning. After the upgrade completes, the the old OS file will be removed. This may trigger a Hard Disk Usage Error which is then resolved without requiring any action from the user.	None	TBD
18253	Occasionally, the Munin graphs do not show as much data as expected.	None	TBD
18124	SNMPv3 may restart continually on Talari appliances running OS 5.0 or earlier.	None	TBD
18122	On a dynamic conduit, if a rule puts large data backups into class 1, users may observe queueing of 50+ seconds and a significant number of bytes pending for that class.	None	TBD
18109	<p>When configuring WAN link usage for a conduit under <b>Connections &gt; [Site] &gt; Conduits &gt; [Conduit Name] &gt; Remote Site &gt; WAN Links</b> for a site with one or more MPLS WAN links, it is possible to get into a state where 'Use' is checked for an MPLS WAN Link but is not checked for its component queues. The MPLS paths are not created in this case.</p> <p>To correct this state:</p> <ol style="list-style-type: none"> <li>1. Deselect the MPLS WAN Link 'Use' checkbox.</li> <li>2. Click Apply.</li> <li>3. Select the MPLS WAN Link 'Use' checkbox.</li> <li>4. Click Apply. They should now be in sync.</li> </ol>	See Issue Description	TBD
17921	In rare circumstances, the E100 appliance may lock up due to a Linux kernel issue.	None	TBD
17825	On the E1000 with 10G Fiber Expansion Card, the UI allows the user to turn autonegotiation on or off for the fiber links (ports 9 and 10) under <b>Configuration &gt; Local Network Settings</b> . This setting is ignored because the user cannot enable autonegotiation for the fiber links and set the speed.	None	TBD

ID	Issue Description	Workaround	Targeted Fix
17201	During the Change Management process there is a small chance that, after the new configuration finishes staging and the users clicks "OK" to move to the Activation screen, the application will immediate start the activation process without waiting for the user to click "OK" or Cancel.	None	TBD
17191	When making major configuration changes to Firewall and QoS Rules simultaneously, there is a small possibility of causing a service impacting memory dump on a client device. The workaround is to restart the Talari service.	See Issue Description	TBD
16555	In very rare cases the database files on the appliance may become corrupted, preventing MySQL from starting. As a result, most functionality on the appliance will not work.	None	TBD
16173	When enabling or disabling a path or conduit, an invalid path or conduit may sometimes be shown in the list.	None	TBD
15794	When performing an OS Update (upload of OS package or installation of the uploaded OS), if the Web Console times out or the user navigates away from the page, the resulting underlying system state causes the OS Version for the Backup partition to be reported as "-1". The workaround is to reboot the appliance and try the OS upload or install operation again.	See Issue Description	TBD

## 3rd Party Issues Affecting APN 8.0 GA P1

The following 3rd party issues are known to affect 8.0 GA P1:

ID	Issue Description	Workaround	Targeted Fix
14734	Opening configuration files containing a very large number of sites into the APN Configuration Editor using Internet Explorer (IE) may take anywhere from 10-30 seconds to load. As a workaround, use Chrome or Firefox.	See Issue Description	None
12610	When using Chrome, the Regenerate HTTPS Certificates page is displayed a second time after the initial count down completes. The workaround is to use another browser.	See Issue Description	None

ID	Issue Description	Workaround	Targeted Fix
11268	In certain conditions where an SNMP-polled Cisco device learns multiple EIGRP routes with the same network ID but different lengths (e.g., 10.26.16.0/20 and 10.26.16.0/24), the router will only insert the first route from its routing table into the SNMP table. Cisco IOS devices list the longest match first (/24), whereas Cisco Nexus devices list the shortest match first (/20). As a result, a Talari Appliance polling for routes will only receive one of the routes and which one it receives depends on the device being polled. This could cause connectivity issues.	None	None
8664	On T3010 and T5000 appliances, holding the red "X" button on the front of the unit for less than 10 seconds will not power down the unit. Holding the button for more than 4 seconds but less than 10 will cause a "Power Off" message to be displayed but the unit will not shut down. In order to clear the "Power Off" message and re-display the management IP address, re-apply the existing management interface settings under <b>Manage Appliance -&gt; Ethernet Interface Settings -&gt; Management Interface</b> . Also note that shutting the unit down using the power button does not perform a graceful shutdown.	See Issue Description	None
8127	When using Chrome, under <b>Manage Appliance -&gt; Users / Authentication</b> , certain fields in the RADIUS section (if RADIUS is enabled) or the TACACS+ section (if TACACS+ is enabled) may be incorrectly filled with login credentials saved by Chrome for the Site. This is an auto-fill issue in Chrome. Workaround is to use another browser or to replace incorrect auto-fill information with correct information before attempting to apply changes to the RADIUS or TACACS+ settings.	See Issue Description	None
7179	When console cable is plugged in to a Talari Appliance and attached out to some external device (e.g. a terminal server), noise on the console cable may interrupt appliance boot sequence. Workaround is to unplug console cable from appliance, to unplug console cable from external device, or to connect to appliance locally and restart interrupted boot sequence from command line. Issue is tied to Linux boot loader and is not within the APN Software product itself. Issue is being documented here for customer awareness.	See Issue Description	None

## Enhancements/Features in Previous Releases

### Enhancements/Features in APN 8.0 GA

The following issues have been enhanced or added since APN 7.3 GA P7:

ID	Issue Description
16569	Old log files are now compressed to permit longer retention.
16551	APN 8.0 GA introduces Cloud Connect, which allows customers to connect to participating Cloud Connect providers from the enterprise APNs via Cloud Conduits.

### Enhancements/Features in APN 7.3 GA P7

The following issues have been enhanced or added since APN 7.3 GA P6:

ID	Issue Description
18505	An audit warning will be displayed in the Configuration Editor for any conduit which has "Unlink Classes from Default Set" checked under <b>Connections &gt; [Site] &gt; Conduits &gt; [Conduit] &gt; Local Site &gt; Basic Settings</b> .

## Resolved Issues in Previous Releases

### Resolved Issues in APN 8.0 GA

The following issues have been fixed since APN 7.3 GA P7:

ID	Issue Description
18668	A major configuration update on large network may cause a service impacting memory dump.
18614	If an intranet IPsec tunnel uses a Talari appliance's LAN facing virtual IP as the source endpoint, it may cause service impacting memory dump.
18506	Reverting an appliance to factory defaults may not clear the Service Chaining VM and configurations associated with Service Chaining.
18166	When logged in as a RADIUS or TACACS+ administrative user, the user is required to enter the current password when trying to change the password for a local user on the <b>Manage Appliance &gt; Users/Authentication</b> screen. By convention, an administrative user shouldn't be prompted for the user's current password unless they are changing their own password.

ID	Issue Description
18009	When the probing interval time for an application is 60 seconds, the probing loss may show up as 100% if the probe starts at the same time as statistics are written to the database.
16802	Restarting the Talari service may cause a non-service impacting memory dump.
16567	The Configuration Editor will accept a network address for an Access Interface IP, rather than a host address.

## Resolved Issues in APN 7.3 GA P7

The following issues have been fixed since APN 7.3 GA P6:

ID	Issue Description
18597	On the T5200 and T5000v2, some flows may see extra delay between packets. If a real-time flow such as a voice call is impacted by this issue, call quality will be degraded.
18594	When upgrading from APN 7.3 GA P6 to a later release, certain appliance models may reboot. The software update still succeeds and the service comes back up, but the operation takes longer than without the reboot.
18525	After doing a major configuration update (such as adding or removing a service or WAN link), if a site has dynamic routing enabled and the imported routes have path eligibility enabled, a path state change may cause a service impacting memory dump.
18509	The “Interfaces” dropdown menu on the <b>Troubleshoot &gt; Packet Capture</b> screen may not be populated.
18490	When there are more than 4000 route hits on an appliance, it may cause memory leak. This may cause the appliance to reboot unexpectedly.
18450	Some platforms could experience frequent reboots due to the Linux kernel falsely detecting a fault and triggering a reboot.
18423	On the <b>Statistics &gt; WAN &gt; Routes</b> screen, the Hit Count column does not sort in correct numerical order.
18382	When installing software on an appliance with RADIUS or TACACS+ enabled, an attempted login by the user 'jigar' may be visible in the logs and on the server.
17619	Several columns on the <b>Statistics &gt; Appliance Interfaces &gt; ARP</b> screen do not sort as expected when clicking on the column header.



