



AOE Services Management
System Release AOE20.02
Release Notes

Document Number: 6AOE2002-40A
October 2020



release notes

Revision History

| Revision | Date | Description |
|----------|--------------|---|
| A | October 2020 | This document supports AOE20.02. All changes for this revision are denoted by <i>(6AOE2002-40A, October 2020)</i> . |

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901 Explorer Boulevard
P.O. Box 140000
Huntsville, AL 35814-4000
United States
(256) 963-8000

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Hazard Classifications

The following hazard classifications are used in this document:



DANGER

DANGER indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.



WARNING

WARNING indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.



CAUTION

CAUTION indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury. CAUTION can also be used to alert against unsafe practices associated with events that could lead to personal injury.

NOTICE

Notice call-outs indicate a potentially hazardous situation not related to personal injury, such as messages related to property damage only.

NOTE

Notes inform the user of additional, but essential, information or features.

Icons

The following icons are used throughout the ADTRAN document suite:

-  jobAid
-  installation guide
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-  application guide
-  reference guide
-  diagnostic guide
-  safety and regulatory
-  engineering guide
-  release notes
-  upgrade guide
-  user guide

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AOE Services Management

AOE20.02

Scope of this Guide

The AOE20.02 Release Notes provide new features and enhancements added to the AOE Services Management System between AOE20.01 and AOE20.02. The AOE Services Management System includes the AOE Server, the AOE Web Client, the AOE Traditional Client, and the Automated Interfaces software product.

NOTE

The AOE Server and AOE Traditional Client were formerly named Total Access EMS. The Automated Interfaces software product was formerly named TL1 Northbound Gateway and more recently OSS Gateway.

This System Release is intended for use with the following 64-bit operating systems:

- RedHat Enterprise Linux 6.x
- RedHat Enterprise Linux 7.x
- CentOS 6.x
- CentOS 7.x

NOTE

AOE20.02 does not currently support RedHat Enterprise Linux 8.x or CentOS 8.x.

Existing systems running AOE20.01 may be updated to AOE20.02. The official release version is AOE 20.02.00.112. Updater files are available via the AOE User Group (www.adtran.com/aoegroup).

Related Documentation

Refer to [Table 1](#) for additional information for this product.

Documentation is available for viewing and download directly from the ADTRAN Support Community website.

Go to: adtran.com > **Support** > **Support Community**

Registration is required.

Table 1. Related Documentation

| Title | Part Number |
|---|-----------------|
| <i>Advanced Operational Environment (AOE) Installation Guide</i> | 64150AOE2001-19 |
| <i>AOE/AOE Traditional Client/Automated Interfaces Administrative Reference Guide</i> | 64150AOE2001-30 |
| <i>Advanced Operational Environment (AOE) User Guide</i> | 64150AOE2001-31 |
| <i>Automated Interfaces Command Reference Guide</i> | 64150ANG2001-35 |
| <i>Advanced Operational Environment (AOE) Traditional Client (EMS) User Guide</i> | 64150EMS1701-31 |
| <i>Advanced Operational Environment (AOE) Quick Start User Guide</i> | 6AOEQKST-31 |
| <i>Advanced Operational Environment (AOE) Business Services Application Guide</i> | 6AOEBZSSRV-49 |
| <i>Advanced Operational Environment (AOE) ONE Application Guide</i> | 6AOEONE-49 |
| <i>Advanced Operational Environment (AOE) Residential Ethernet Application Guide</i> | 6AOERESETH-49 |
| <i>Advanced Operational Environment (AOE) Services Import Application Guide</i> | 6AOESERVICE-49 |
| <i>Advanced Operational Environment (AOE) Software Management Application Guide</i> | 6AOEUPGRADE-49 |

Browser Requirements

The following browser requirements have been provided for this release.

- This release is intended for use with the following browsers:
 - ◆ Mozilla Firefox 32 or greater
 - ◆ Internet Explorer 9 or greater; Internet Explorer 11 recommended
 - ◆ Google Chrome Version 37 or greater
- When using the Flash-based GUI, Adobe Flash Player 21.0.0.216 or greater is required. ADTRAN recommends using a screen resolution of XGA+ (1152x864) or better. (CN-36820)
- Pop-ups must be enabled in the web browser to view the Show Detail screens.

Mozilla Firefox

- In order to use the Network Device Access feature in Mozilla Firefox, a configuration parameter must be changed from its default value. This is not required if a signed CA certificate is installed on the server. Refer to “Appendix B” on page B-1 for information on how to change this parameter in the Mozilla Firefox browser. (6AOE9-40A, December 2014)
- In order to view and use the Topology View in Mozilla Firefox, several parameters must be changed from their default values. Refer to “Appendix B” on page B-1 for information on how to change these parameters in the Mozilla Firefox browser. (6AOE9-40A, December 2014)
- The Skype plugin for Firefox may slow communication between AOE and the network element when using the Telnet Cut-Through feature. ADTRAN recommends disabling the Skype plugin. (6AOE91-40A, March 2015) (CN-24772)

Internet Explorer

NOTE

The non-Flash-based GUI does not support Internet Explorer.

- ADTRAN recommends that compatibility mode be disabled. Certain AOE features will not work with this setting. (6AOE9-40A, December 2014)
- Internet Explorer version 10 or greater is required to utilize the Topology View. (6AOE9-40A, December 2014)
- Internet Explorer version 10 or greater is required to utilize the Network Device Access feature. (6AOE9-40A, December 2014)

Google Chrome

- When using the Flash-based GUI, only one Adobe Flash Player should be enabled. Verify the flash player version and status by entering **chrome://plugins** in the address bar then selecting Details to see the detailed view. (6AOE9-40A, December 2014)

System Components

Table 2 lists the available AOE Services Management packages.

Table 2. AOE Services Management Part Numbers

| Part Number | Description |
|-------------|---|
| 4150000G1 | Services Management Kit for New Install |
| 4150100G1 | Services Management Kit for Maintenance Install |
| 4150800G1 | AOE Services Management Package |
| 4150800G10 | AOE Services Management Replacement |

The system releases detailed in Table 3 and Table 4 are supported by AOE20.02.

Table 3. System Releases Compatible with AOE20.02

| System | Supported Release(s) |
|----------------|---|
| TA5K | 5.0, 5.1, 6.0.x, 7.x, 8.0, 8.2.x, 8.3, 8.3.1, 8.5, 8.7.x, 9.0, 9.3, 9.5.x, 9.7, 9.9, 10.x, 11.x |
| FTTP ONT | A3.09.00.SA - A3.11.A*, 7.1, 7.2, 7.3, 7.4, 8.0, 8.3, 8.3.1, 8.5, 8.7.x, 9.0, 9.3, 9.5.x, 9.7, 10.x, 11.x |
| CE | 3.x, 4.x, 5.x, 6.x, 7.x |
| ONE | 3.5, 3.6, 4.0, 4.1, 4.5, 4.7, 4.8, 5.x |
| OSP/Mini-DSLAM | 3.x, 4.x, 5.0, 5.2, 8.3.2**, 9.0, 9.3, 9.5, 9.7, 9.9, 10.x, 11.x |

* FTTP ONT Release A3.10.00.SA is required to use Service Activator and the ONT features supported by AOE Release B08SP2 and greater.

** Limited support of OSP 8.3.2 is available for use with AOE9.0.

Table 4. Legacy System Releases Supported by AOE20.02

| System | Supported Release(s) |
|---------------------------------|---|
| Rural DSLAM | 1.5.1 |
| Combined DSLAM | 3.0 |
| Total Access 3000 HDX | 1.2 |
| Total Access 3000 General DSLAM | 5.x |
| ERDSL TA1124 | 1.1.3 |
| ERDSL TA1148 | 1.1 |
| TA11xx/TA12xx | 2.x |
| TA1124/TA1224 | 3.0 |
| TA1148/TA1248 | 3.0 |
| TA1100F/TA1200F | 1.4 |
| TA1124P | A00.2 |
| OPTI-6100 | 1.0G, 3.1.4, 3.1.5.x, 3.2, 3.3, 4.2.1 (limited), 5.1, 5.2T, 5.3 |

Overall System Notes

The following operational information has been provided for this release.

- LLDP must be enabled on the network elements in order for Service Activator and the Network Device Manager (NDM) to provision and display ERPS rings correctly. LLDP support is available in ONE SR 2.5 or greater. LLDP is enabled by default on the ETOS-10 module in ONE SR 4.1 and the ETOS-1 module in ONE SR 4.5. The TA5K Switch Modules have added LLDP support as of TA5K SR 8.0. (6AOE8-40A, September 2013) (CN-18840)
- As of AOE9.0, Perl must be installed to any RedHat Enterprise Linux 6.x and CentOS 6.x system due to a MySQL database requirement. Perl is included in the RHEL 6.x and CentOS 6.x desktop installs. (6AOE9-40A, December 2014) (CN-26559)

NOTE

Upon upgrading to AOE 19.02, the default SFTP server ciphers are updated to exclude insecure options. This could cause SFTP transfers on any equipment not running the more secure ciphers to fail.

In order to re-enable the less secure security algorithms and allow your SFTP transfers to function normally, please edit the highlighted line of the `/opt/dorado/adtranapps/firefly/user.conf` file as shown below:

```
com.adtran.firefly.sftp {
    sftp-server {
        EnableSFTP = true
        SFTP_PortNumber = 1222
        SFTP_Username = emsadmin
        SFTP_Password = password
        targetDirectory = owareapps/ems_support/TFTPTransferFiles
        Enable_Weak_Security = true
    }
}
```

A stop/start of AOE is required for the property to take effect.

- During a failed login in the non-Flash-based GUI, AOE displays the message "Login rejected" in AOE20.02 instead of "invalid username or password". (6AOE2002-40A, October 2020)

NOTE

The Upgrader and Installer will attempt to install Python 3.6 if there is Internet Access. Both scripts will show error messages (i.e. ERROR: setup-ius.sh download failed. Please check the internet or site connectivity or yum access, Error encountered when installing Python 3.6. Please run the mns-install-python36.sh script at `/opt/dorado/owareapps/scripts/` to install the Python3.6) if this Installation fails. This message is informational only and will not have any negative impact in using AOE 20.02. (6AOE2002-40A, October 2020)

New Product Support

No new products supported for this release.

System Feature Enhancements

This section contains a summary of system feature enhancements as related to AOE20.02.

General Functionality

Added enhancement to automated service import for subscriber ID with technology

(6AOE2002-40A, October 2020)

AOE has enhanced the automated service import function with respect to subscriber ID. Setting the new property `importTechnologyInSubscriberID = true` will allow a subscriber ID to import with the technology (ADSL, VDSL, RPOTS, GPON, AE). For example, the IP address 10.50.54.121, Shelf 1, GPON card 13, PON 2, ONT 5 will be `IP_ADDRESS_TECHNOLOGY_SHELF_SLOT_PON_ONT` (i.e. 10.50.54.121_GPON_1_13_2_5) and IP address 10.50.54.121, Shelf 1, VDSL card 1, PORT 2 will be `IP_ADDRESS_TECHNOLOGY_SHELF_SLOT_PORT` (i.e. 10.50.54.121_VDSL_1_1_2). By default the `importTechnologyInSubscriberID` property is false.

Added support to configure alarm severity on GPON and AE

(6AOE2002-40A, October 2020)

AOE has added support to configure alarm severity on GPON and AE cards through the AOE Three Panel forms. Availability of “Card Alarm Provisioning” menu in the Three Panel forms is dependent on the card (GPON/AE Configurable alarms) support of the feature. Alarms configured in this fashion will match the Network Element severity.

Added new AOE GUI beside flash GUI for network management

(6AOE2002-40A, October 2020)

AOE has a new GUI for network management since Flash support is ending in December 2020. Most features of the Flash GUI have been ported to the new GUI with minimal change of work flow. Some screens were not Flash dependent and did not need to be converted, such as, Show Details, Service Manager, and Device Console.

NOTE

The Topology Feature has been retired and cannot be used in the new GUI.

Added Single Sign-On hook support in AOE

(6AOE2002-40A, October 2020)

AOE has added Single Sign-On hook support, which is another authentication method like RADIUS and TACACS+ servers, that enables AOE users to securely authenticate with the service provider (for example, PingOne) application. The SSO method implemented uses one set of credentials that utilizes a token exchange. The SSO authentication method is used in AOE based on the property `aaa.authentication.sso.enable=true`. By default, this property is false. Also there is another property `owareuser.propertiesaaa.authentication.sso.issuers` used to identify that the token is coming from an authorized server only. The Issuers property can have multiple issuers listed which can be given with a comma separation, such as, `issuer1, issuer2`, etc. For any other issuer that is not listed, the request token will be rejected by AOE.

Automated Interface Features

There are no features for this release.

Carrier Ethernet Features

There are no features for this release.

FTTP and xDSL Features

Added support to configure EVC Map description with subscriberID based on configurable property update through AOE SA and XML GW

(6AOE2002-40A, October 2020)

AOE has added support to configure the EVC-map description with the subscriberID based on the `evcmapDescriptionWithSubscriberID` property flag in the `owareuser.properties` file. This property is only supported in AOE Service Activator and XML GW for DATA, VIDEO, RF-VIDEO, and VOICE (SIP/MGCP) services on xDSL, RPOTS, Active Ethernet, and GPON equipment. By default the configurable property in `owareuser.properties` file will be false.

General Server Features

There are no features for this release.

AOE General Functionality

This section contains a summary of system notes, fixes, and errata for AOE General Functionality as related to AOE20.02. AOE General Functionality includes the following:

- About AOE/Licensing
- Change Password
- Logout
- Online Help
- Port Status Legend

System Notes

- Selections made using the device check boxes in the Network Device Manager window remain after a port has been added to a feature in the workspace. To quickly clear all the device check boxes, toggle the box displayed immediately to the left of the NDM title bar. The first click selects all the check boxes, then the second click clears all the check boxes. (6AOE6-40A, November 2012)
- The X11 environment must be installed on the Linux server in order to view the AOE Show Details forms. (6AOE6-40A, November 2012) (CN-8567)
- The ADSL device template, defaultProfile, can be edited and saved under the same name thus making it different from the expected DEFVAL profile on the hardware. (6AOE6-40A, November 2012)
- The NetVanta devices support the EZ-Provisioning feature and when enabled, provisioning changes made from the EMS Three Panels are only saved to the running config and not the startup config. (6AOE6-40A, November 2012) (CN-10228)
- An SNMP issue is preventing the NetVanta 8044M > Provisioning > Loopback > System Loopback Mac, Facility Loopback, and Terminal Loopback forms from provisioning the loopbacks. A firmware change is required to resolve this issue. (6AOE62-40A, February 2013) (CN-14945)
- User interaction with the Show Detail forms does not refresh the user's session timer and the session may timeout if working exclusively in the Show Detail forms. Interactions with the rest of the AOE web user interface prevents the user timeout from expiring and auto-logging the user out of the AOE session. (6AOE8-40A, September 2013) (CN-15267)
- Beginning in AOE8.0, the EVC Management form loads the MEN port information from the database. This information is persisted to the database on an SCA parse, a resync, or a discovery. After the upgrade from AOE6.x to AOE8.0, the EVC Management form will not display the MEN ports until a resync or SCA parse has been performed. The EVC Management form is available in the NDM by selecting the network element then selecting Manage EVC from the right-click menu. (6AOE8-40A, September 2013) (CN-17821)
- Using the AOE Scheduler, operations scheduled to run "every 15 minutes" will be run at :00, :15, :30, :45 minutes of each hour. (6AOE81-40A, January 2014) (CN-11633)
- The option to force a switchover between redundant TA5004 SCM modules is not currently available in the AOE or Traditional Client GUIs. (6AOE83-40A, May 2014) (CN-21687)
- When the user selects an empty file while scheduling the Services Import operation, the report option is not displayed for that task in the Reports window. However, the status of the scheduled task is shown as successful. (6AOE83-40A, May 2014) (CN-23887)

- The following scenarios apply when importing custom data and video services using the Services Import feature.
 - ◆ If the number of flows in the custom service is 1, then the service is imported as either data or video with 1 flow based on the EVC type (IGMP or non-IGMP).
 - ◆ If the number of flows in the custom service is more than 1 and at least one of the flows is assigned with an IGMP EVC, then the service is imported as combo (data and video) with the appropriate number of flows.
 - ◆ If the number of flows in the custom service is more than 1 and all of the flows are assigned with either Non-IGMP or IGMP EVCs, then the service is imported as either data or video with the appropriate number of flows.

If the EVC type is IGMP, then the service is imported as video. If the EVC type is non-IGMP, then the service is imported as data. (6AOE83-40A, May 2014) (CN-23349)

- After importing custom services, the flows are displayed in a random order. When attempting to modify the EVC parameter of the required flows, verify the EVC map parameters before modifying. (6AOE83-40A, May 2014) (CN-23343)
- The Traditional Client Event Templates trap forwarding mechanism is not supported on Linux servers. Enable the NBSnmpGateway.config file in the <installdir>/owareapps/lib directory to forward all traps. (6AOE85-40A, August 2014)
- Setting the IP Address to all zeros (0.0.0.0) on the GPON > PON Port-x > ONT > Provisioning > Management IP Device Console form disables the Management IP. (6AOE9-40A, December 2014) (CN-27092)
- The AOE device discovery attempts to collect an SCA file as part of the discovery process. AOE waits 15 minutes, 3 collection attempts with a 5 minute wait time, before the SCA collection times out. The discovery process can appear to hang if AOE is waiting to collect an SCA file. (6AOE91-40A, March 2015)
- The Total Access 5000 SCM has an AUC filename basepath folder limitation of 40 characters for auto upgrades for Total Access 5000 releases prior to Total Access 5000 System Release 9.0. The default location, TFTPTransferFiles/System Releases, is within the 40 character limitation. Total Access 5000 System Release 9.0 and forward will have a limitation of 80 characters. (6AOE92-40A, June 2015) (CN-31220)
- While upgrading or downgrading the software on an entire TA5K network, it is recommended to separately upgrade the parent nodes and the subtended nodes. With Auto Reboot option selected, if the parent node reboots, it could disrupt the upgrades on all in-band managed subtended nodes. (6AOE101-40A, March 2016) (CN-35187)
- Device Console on grey GPON ONT shows up all the configuration information of its associated PON instead of showing Alert Window. Where as grey AE ONT shows up Alert Window with "ONT Not Available" message. (6AOE101-40A, March 2016) (CN-35460)
- ONT Upgrade and TA500x Software upgrade on same shelf should not be started at same time. One of the upgrade will result in failure as TA5k System Controller cannot handle two upgrades in parallel. (6AOE101-40A, March 2016)
- In the Northbound SNMP Gateway, trap forwarding to other destinations is not supported to forward SNMPv1 traps from NE as SNMPv2 traps. (6AOE2001-40A, June 2020)
- In the Event Template Manager, the Forward Host mechanism is not supported to forward SNMPv2 traps. (6AOE2001-40A, June 2020)
- The AOE Licenses Expiration Date in the About AOE/Licensing tab shows the key that will expire the earliest (when applicable). (6AOE2002-40A, October 2020) (CN-66318)

Fixes

There are no fixes for this release.

Errata

- TA5K topology may take a long time to load for large networks. (6AOE6-40A, November 2012) (CN-4090)
- TA5K Resync does not update database topology with a newly added node. If the added node is being inserted into an ERPS ring then VLAN duplication checks for that new node will not be functional. If the new node is elsewhere in the TA5K topology then it will function normally. To update the network, delete the nodes in the network, then rediscover the network. (6AOE6-40A, November 2012) (CN-8599)
- The Assurance > Reports form is not displaying stored alarm information from the selected alarm log file. (6AOE6-40A, November 2012) (CN-4602)
- Cannot perform SCA save or restore on NetVanta 14xx-S devices. The SCA wizard displays a message that the NetVanta 14xx-S devices are not supported. (6AOE6-40A, November 2012) (CN-8318)
- The NetVanta 14xx-S devices are not displayed in the Physical View. The Physical View displays a message that these devices are "Unidentified by EMS". (6AOE6-40A, November 2012) (CN-8319)
- The View Topology window is not displaying the full topology for an OSP host and OSP client configuration. (6AOE61-40A, December 2012) (CN-12740)
- After creating an EVC in the CLI and connecting a gigabit-ethernet port to it, the port is not shown correctly in the EMS. (6AOE61-40A, December 2012) (CN-10818)
- The SW Upgrade screen continues to poll after an upgrade is complete. This may cause the AOE web client to hang. This situation may be avoided by closing the SW Upgrade screen after all of the selected NE upgrades are triggered. (6AOE81-40A, January 2014) (CN-21001, CN-3673, CN-6874)
- The backplane status information is not currently supported so the GPON Device Console > Service View tab displays "No Backplane Status Found". (6AOE83-40A, May 2014) (CN-22000)
- Copy and paste functions in the Network Device Access Telnet do not work with Internet Explorer or Firefox browsers. Chrome does support the copy and paste functionality. (6AOE85-40A, August 2014) (CN-24726)
- Ethernet Map Status information is not being displayed on the TA1148V DMT OSP (P/N 1179950F1) Show Detail forms at the VLAN level. The information is available on the Show Detail forms at the port level. (6AOE85-40A, August 2014) (CN-24831)
- The upstream and downstream SRA rates are swapped on the TA1148V PM Show Detail form for the VDSL interfaces. (6AOE85-40A, August 2014) (CN-25409)
- Attempting to create a New MultiProtection Group throws an exception. The New MultiProtection Group form can be found by selecting TA5K > OTOS > right-click Open Device Console > Provisioning > Protection Groups > New MultiProtection Group. (6AOE9-40A, December 2014) (CN-27213)
- Attempting to create a New Protection Group with a Protection Type of OTN throws an exception. The New Protection Pair form can be found by selecting TA5K > OTOS > right-click Open Device Console > Provisioning > Protection Groups > New Protection Group. (6AOE9-40A, December 2014) (CN-27848)

- Selecting any option in the Protection Pair Type dropdown box results in an additional New Protection Pair section to be added to the form. Attempting to delete a Protection Pair group returns an error. The New Protection Pair form can be found by selecting TA5K > OTOS > right-click Open Device Console > Provisioning > Protection Groups > New MultiProtection Group > New Protection Pair. (6AOE9-40A, December 2014) (CN-27856)
- NCTE auto-discovery fails if the NetVanta TID name is greater than 20 characters. As a workaround, use TIDs less than 20 characters in length. This issue will be addressed in a future network element release. (6AOE9-40A, December 2014) (CN-27764, CN-28041)
- When the user tries to launch the AOE Online help from an IE 10 browser, multiple popup windows are opened. (6AOE91-40A, March 2015) (CN-29952)
- On the Historical Alarms screen, date based filters are not working properly. (6AOE91-40A, March 2015) (CN-29415)
- The following GPON Device Console forms are not working as expected: Card Level Status, Backplane Status, ONT Port xDSL Port/EVC Status, PON level EVC Status. (6AOE91-40A, March 2015) (CN-29817)
- A blank pop-up message is displayed after clicking Apply on the TA5K > 24-port ActiveEthernet > GE Port > POTS Port Provisioning Device Console form. (6AOE91-40A, March 2015) (CN-29818)
- The ETOS > Provisioning > ERPS and ETOS > Test screens on the device console are not available for standalone ETOS modules. (6AOE91-40A, March 2015) (CN-29854)
- The GPON module > PON port > ONT > Provisioning device console has missing data validations when creating an EVC-map. (6AOE91-40A, March 2015) (CN-28352)
- The OLT Rx Power and OLT Tx Power fields on the GPON module > PON port > ONT device console displays the correct value but the decimal is missing. (6AOE91-40A, March 2015) (CN-29160)
- The AOE SHDSL link statistics 24-hour bucket chart and graph incorrectly display the 15-minute bucket information. (6AOE92-40A, June 2015) (CN-30709)
- SHDSL ports are grayed out in the Network Device Manager when the description for the port is not configured. (6AOE92-40A, June 2015) (CN-30734)
- AOE Network Device Manager does not always display the alias name of the SHDSL EFM group. (6AOE92-40A, June 2015) (CN-30779)
- ANFP provisioning is not supported on the AOE SHDSL Show Details screen. (6AOE92-40A, June 2015) (CN-30977)
- Setting the Upstream Power Backoff Mode to Custom may cause the labels on the VDSL Port Provisioning Three Panel screen to overlap. The workaround is to select another Three Panel screen after setting the mode and then go back to the VDSL Port Provisioning screen. (6AOE10-40A, November 2015) (CN-31063, CN-31318)
- The AOE Traditional Client Managed Object Manager (MOM) slot view does not display the Total Access 5004 fan module. (6AOE10-40A, November 2015) (CN-31489)
- AOE show details does not allow user to create the EVC(s) with more than 9 MEN Ports. (6AOE1601-40A, May 2016) (CN-37784)
- The string “constructor” should not be used for any AOE user group, user name, or template name. Using this exact string can result in the crash of the AOE UI. Use of the string “constructor” as part of name such as “service_constructor” will not result in errors. (6AOE1601-40A, May 2016) (CN-37713)

- In the Traditional Client, the EZ-Ethernet screen does not create an EVC on the OSP when the OSP is a parent node. The workaround is to create the EVC separately using the EVC Provisioning screen under the VLAN Three Panel and then use the created EVC on the EZ-Ethernet screen as an uplink. (6AOE1602-40A, September 2016) (CN-39269)
- The SM Network Port Status screen does not refresh and displays the previous SM port status when an SFP is not plugged into the port. (6AOE1602-40A, September 2016) (CN-39247)
- AOE incorrectly provides AUC files for selection when the ONT equipment type is selected for a Software Upgrade task. AUC files for ONTs are only applicable to Software Auto-Upgrade tasks. (6AOE1702-40A, September 2017) (CN-39284)
- Some upgrade paths of CentOS 7 can result in an incompatibility with the Java fonts utilized in the Show Detail screens. If this occurs, please contact ADTRAN Product Support for instructions for the known work around. (6AOE1901-40A, February 2019) (CN-50642)
- The Configuration > Product Information form on the EMS Three Panel/Show Detail screen is not displaying correctly for the SM200 (P/N 1187045F1) card. The following fields show no values: Name, Number, CLEI, Build Revision, and Boot Build Revision. (6AOE1902-40A, January 2020) (CN-57714)
- An AOE user will fail to login if the RADIUS Authentication server is not configured with the vendor information in a specific order. To login as an AOE user successfully with RADIUS Authentication, the admin needs to configure the ADTRAN information last or remove the other vendor information in the configuration setup. (6AOE1902-40A, January 2020) (CN-56309)
- In SW Auto-Upgrade, when a task is created with a child location first and another task is created with the parent location, AOE gives an Invalid Location Request Information message. (6AOE2001-40A, June 2020) (CN-63608)
- The **Managed Object** field of the **Event Details** window is reporting `slot (unexpected value)` for alarms generated by Total Access 1x48A products. (6AOE2001-40A, June 2020) (CN-63977)
- AOE is unable to view the performance stats in **Show Detail** form of EFM-groups that are configured on the Combo V2 (1187120L1). (6AOE2001-40A, June 2020) (CN-63997)
- AOE throws an exception and is unable to export the switch performance data on some Network Elements in the **Show detail > Performance Monitoring > EFM Group/EFM Link > selected attributes > Show Table** page. (6AOE2001-40A, June 2020) (CN-60056)
- The Ethernet OAM (802.1ag) test on the SM card **Show Detail** shows an incorrect exception and does not show the correct status for the configured MEP ID under the Domain. (6AOE2001-40A, June 2020) (CN-57754)
- The Feature Usage Statistics Email will be sent to all users regardless of the provided value in the `sendFeatureUsageStatsTo` property if there is a trailing space after the value. (6AOE2002-40A, October 2020) (CN-66276)

Non-Flash-Based GUI as of AOE20.02

- The AOE tab field does not change on logout. The last tab the user was logged into when the browser logs out is displayed on the browser tab. (6AOE2002-40A, October 2020) (CN-66275)
- OOS-UAS and UP is showing as a valid state in Port Status legend. (6AOE2002-40A, October 2020) (CN-66598)

- The logout confirmation dialogue box can be different sizes. (6AOE2002-40A, October 2020) (CN-66965)
- Failing to send an email shows the message “Error Unknown SMTP host: smtp.adtran.com” instead of “Couldn't send email. Check your email settings”. (6AOE2002-40A, October 2020) (CN-67810)
- When a user is idle for 30 minutes, then the session timeout can navigate to login page without a popup alert message. A user will logout after 30 minutes in new GUI even though the inactive time is configured more 30 minutes in the Administrator Settings > User Groups > Group Information setting. (6AOE2002-40A, October 2020) (CN-65261)
- The AOE Feature Statistics usage email does not function with the non-Flash GUI and will not display accurate statistics. (6AOE2002-40A, October 2020) (CN-68471)

Administrative

This section contains a summary of system notes, fixes, and errata for Administrative as related to AOE20.02. Administrative includes the following:

- Administrator Settings
- AOE Client
- Event Template Manager
- Licenses/Keys
- User Action Log
- User Action Log Archive

System Notes

There are no system notes for this release.

Fixes

There are no fixes for this release.

Errata

There are no Flash-based GUI errata for this release.

Non-Flash-Based GUI as of AOE20.02

There are no non-Flash-based GUI errata for this release.

AOE Server

This section contains a summary of system notes, fixes, and errata for AOE Server as related to AOE20.02.

System Notes

- The chap8.keystore file may not be generated when installing or updating AOE on a Linux server. Without the chap8.keystore file, AOE does not start properly. If the chap8.keystore file is not generated, a “Failed to load keystore type JKS with path” error message is logged to the Appserver.log file. Contact ADTRAN Product Support for assistance should this situation occur. (6AOE9-40B, March 2015) (CN-20824, CN-28645)
- The REST device discovery configuration which was user customizable in adtranapps/firefly/firefly.conf has been moved to adtranapps/firefly/user.conf. The existing firefly.conf will be migrated to the user.conf file automatically when upgrading from AOE 9.x to AOE 10.0. (6AOE10-40A, November 2015) (CN-32023)
- In order to accommodate larger ONT image sizes, AOE has been updated to change the default number of simultaneous ONTs upgraded per OLT from 32 to 16. If the ONTUpgrade.MaxONTBatchPerOLT property is already defined in owareuser.properties, it will not be changed. For deployments with ONTs with smaller images, this can be changed to improve upgrade times. (6AOE1701-40A, June 2017) (CN-43359)
- The date sorting function in historical alarms does not function properly on records more than 500,000. To fix the issue, change the setting Max Alarm Log Backups to 15 in the Administrative > Administrator Settings > Alarm Processing menu in the AOE GUI. Remove the alarm logs file 16-20 from the <install_dir>/owareapps/redcell/Log. No stop/start is required in AOE. (6AOE2002-40A, October 2020) (CN-63744)

Fixes

- Fixed an issue by allowing to connect OrientDB Web interface/console only from localhost. (6AOE2002-40A, October 2020) (CN-66465)

Event Template Changes

Changes to the eventtemplates.txt file between AOE20.01 and AOE20.02 are listed in [“Appendix A, Event Template Changes”](#). The eventtemplates.txt file is located in the <installdir>/owareapps/redcell/core/setup directory.

Reports Plus Schema Changes

There are no changes for this release.

Script Changes

- Fixed an issue where AOE would show the System as DOWN on startup when Orient DB failed to start correctly due to limited permissions in/on the tmp directory by modifying the tmp directory to use <install_dir>/tmp directory for Orient DB start. (6AOE2002-40A, October 2020) (CN-65981)

Third Party Software Changes

AOE20.02 utilizes the third party software packages detailed at the following link. (Note: These packages may not change every release.)

[Third Party Software Packages](#)

User Customizable Property File Changes

- Added an option for the automated service import to import the subscriber ID with the technology using `importTechnologyInSubscriberID` property in the `owareuser.properties` file. (6AOE2002-40A, October 2020)
- Added an option for configuring EVC-map description with the subscriber ID using `evcmapDescriptionWithSubscriberID` property in the `owareuser.properties` file. (6AOE2002-40A, October 2020)
- Added an option for MNS job agent service using `EnableMNSJobAgentService` property in the `owareuser.properties` file. (6AOE2002-40A, October 2020)
- Added an option to use AOE username and password for MNS job agent script using `MNS_Username` and `MNS_Password` property in the `owareuser.properties` file. (6AOE2002-40A, October 2020)
- Added an option to use SSO hook using `aaa.authentication.sso.enable` and `aaa.authentication.sso.issuers` property in the `owareuser.properties` file. (6AOE2002-40A, October 2020)

Errata

- The port range used by the JBoss process between the server and an installed Traditional Client is 1024-65535. These ports must be open if utilizing a firewall between the server and an installed Traditional Client. (6AOE6-40A, November 2012) (CN-12806)
- B07SP2 systems with Domain Level Security (DLS) enabled will not display Network Elements after upgrading to the B08 or AOE6.0 releases. The corrupted DLS information must be removed from the database and DLS reconfigured to resolve the issue. Disabling DLS allows users to view the Network Elements until the database procedure can be performed. Post B07SP2 release DLS is only supported through the Traditional Client (legacy EMS Thick Client); it is not supported in the AOE GUI at this time. Contact ADTRAN Product Support for assistance with this procedure. (6AOE62-40B, July 2013) (CN-15079)
- A *.wal file is created in `<installdir>/adtran3rd/orientdb/databases/AOEGraphDB` to restore storage data automatically after a non-soft shutdown of OrientDB. The *.wal files cannot be purged so ADTRAN recommends storing these files on a dedicated partition. A path redirect variable can be configured during database startup. For assistance with this procedure, contact ADTRAN Product Support. (6AOE91-40A, March 2015) (CN-26839)
- ADTRAN is investigating an intermittent issue which causes ActiveMQ to shutdown and restart. An unexpected increase in CPU usage has also been observed when the issue occurs. (6AOE91-40A, March 2015) (CN-29470)
- The Y1731 data receiver cannot persist Y1731 data to the MySQL database if MySQL is configured with non-default account credentials. (6AOE92-40A, June 2015) (CN-31207)

- The AOE server failover does not start the Y1731 process on the primary server when property `y1731.startDataReceiver` equals true. The workaround is to manually start the Y1731 process after the failover. (6AOE92-40A, June 2015) (CN-31219)
- The scripted device discovery using the `discovery.sh` should be configured to run no more than 4 discoveries in parallel. Modify the `MAX_ACTIVE_PROCESS` property in the script to specify the number of parallel discoveries. (6AOE92-40A, June 2015) (CN-31201)
- The Service Manager does not give a validation message when attempting to add or replace an operation of RF-VIDEO service for xDSL and AE equipment. (6AOE1803-40A, November 2018) (CN-45901)
- The Y.1731 password parameter does not work and fails when using a password other than **admin**. (6AOE2001-40A, June 2020) (CN-63341)
- In AOE, the SFTP server does not start correctly with a port number of 22 since this port is in conflict with built-in SSH. (6AOE2001-40A, June 2020) (CN-63782)
- The AOE updater does not abort the upgrade process if the upgrade fails. If a server runs out of space in the middle of an upgrade, the update will be corrupted, but will show finished with errors in the logs. (6AOE2002-40A, October 2020) (CN-65338)

Asset Management

This section contains a summary of system notes, fixes, and errata for Asset Management as related to AOE20.02. Asset Management includes the following:

- Discovery
- InventoryManager
- Scheduler
- SW Auto-Upgrade
- SW Upgrade

System Notes

There are no system notes for this release.

Fixes

- Fixed an issue where an incorrect error message was shown in the report stating that TFTP and SFTP servers were down when a SW upgrade with the “scheduled” reboot type failed. (6AOE2002-40A, October 2020) (CN-64127)

Errata

There are no Flash-based GUI errata for this release.

Non-Flash-Based GUI as of AOE20.02

- If filters are applied in Inventory Manager dashboard widgets and you click maximize to go to full screen, the filters are not retained. (6AOE2002-40A, October 2020) (CN-64322)
- The summary number of selected Network Elements is missing at the bottom of Scheduler -> Schedule - New Task for the Resync NE Task. (6AOE2002-40A, October 2020) (CN-65386)
- Missing the Select All box in the Asset Management > Scheduler > New Schedule task. The Network Elements must be selected manually. (6AOE2002-40A, October 2020) (CN-65389)
- The schedule task completion confirmation message via popup window is missing. (6AOE2002-40A, October 2020) (CN-65392)
- Discovery Screen Values are auto filled with the previous IP address information after selecting yes to start a new discovery after the initial Network Element discovery completes. (6AOE2002-40A, October 2020) (CN-66525)
- Maximizing columns in Inventory Manager will cause the single column to lock and no other columns to be visible. Refresh Inventory Manager to view the other columns with default sizing. (6AOE2002-40A, October 2020) (CN-66613)
- Discovery is accepting leading and trailing spaces in the IP address field and showing the message: The value must be a valid IP address. Remove leading and trailing spaces to when discovering Network Elements. (6AOE2002-40A, October 2020) (CN-66815)

- No validation is shown when the delete is selected in SW auto-upgrade without checking any of the Software Auto Upgrade task check boxes. (6AOE2002-40A, October 2020) (CN-66880)
- The Repeat option check box in Service Import is incorrectly disabled and will not allow for repeat imports. (6AOE2002-40A, October 2020) (CN-67826)
- No informative pop-up validation is present after a Service Import process is scheduled. (6AOE2002-40A, October 2020) (CN-67856)
- The service Import scheduler list shows the frequency column as unknown when the Run Task Now option is selected. (6AOE2002-40A, October 2020) (CN-67822)

Automated Interfaces and Bulk PM Tool

This section contains a summary of system notes, fixes, and errata for Automated Interfaces and Bulk PM Tool as related to AOE20.02.

System Notes

- The RTRV-CRS-T0 command with the form CT0-rack-shelf-slot-group-ALL does not return CRVs assigned to Active Ethernet POTS ports. Query the individual CRV with the AID form CT0-rack-shelf-slot-group-crv. (6AOE6-40A, November 2012) (CN-925)
- VDSL2 ANFP Mode is not supported in the Automated Interfaces. Provision this feature via the Total Access EMS GUI or the device CLI. (6AOE6-40A, November 2012) (CN-1293)
- NetVanta 14xx-S devices are not currently supported by the Automated Interfaces. (6AOE6-40A, November 2012) (CN-8430)
- When provisioning Data, Video, and SIP Voice services on an ONT via the TL1 Automated Interface, the TL1 Tie-in feature must be used so these services can later be managed in the AOE GUI. The STA-AOE-SYNC and STP-AOE-SYNC commands define the start and end of a TL1 Tie-in session. For command usage information, refer to the *Automated Interfaces Command Reference Guide* (P/N 64150ANG82-35). (6AOE81-40A, January 2014) (CN-18851)
- Multi-tenant ONT service activation is not supported when using the TL1 Tie-in feature. (6AOE85-40A, August 2014) (CN-18991)
- Prior to AOE9.0, "IPTV + RF Video Only" combo services are grouped in database while activating the service. For these services created in previous AOE releases, List Services window shows only RF Video service type. When deleting RF Video, both services are deleted from AOE and the device. (6AOE92-40A, June 2015) (CN-30772)
- During the Suspend/Resume operation through the OSS APIs, AOE does not validate the previous state of the service when it is already in a Suspended/Resumed state, but instead, returns a Success message. (6AOE1602-40A, September 2016) (CN-38806)

Fixes

TL1 Automated Interface

There are no fixes for this release.

XML Automated Interface

There are no fixes for this release.

Errata

- An error is returned when using DIRN=IN with the ED-AUTH command for 802.1x TL1 provisioning. DIRN=IN is not supported. (6AOE83-40A, May 2014) (CN-21994)
- TL1 tie-in requires both bonding information and xDSL parameters for a voice only service in a bonded VDSL scenario. (6AOE83-40A, May 2014) (CN-22059)

- When the smType via XML is given an interfaceNumber greater than the supported number of interfaces on the Switch Module, an error should be returned with "operation failure." Instead, a "SUCCESS" SOAP message is being returned. (6AOE831-40A, June 2014) (CN-23261)
- ADSL profiles cannot be provisioned to an OSP using the ED-VDSL2 command when the egress traffic shaper is enabled in the profile. Disable the shaper in order to push the profile using the ED-VDSL2 command. (6AOE9-40A, December 2014) (CN-26077)
- The XML ForceUpdate request does not remove existing ONT ports. This includes all port types including VEIP. (6AOE92-40A, June 2015) (CN-30944)
- The order of the NV8424 node deletion should be bottom to top in the NE stack otherwise the EVCs will not get removed properly on the top nodes of the stack and when rediscovered causes provisioning failure if using the same s-tag. (6AOE10-40A, November 2015) (CN-33690)
- The OSS gateway returns an "Invalid UNI" message while modifying a UNI with a service template having read-only tweak-ability . (6AOE1602-40A, September 2016) (CN-39134)
- The XML retrieveEquipment operation fails when attempting to retrieve information for the 1187501G1. (6AOE2001-40A, June 2020) (CN-62827)
- The XML retrieveEquipment operation fails for 2-port GPON cards due to SNMP queries the card does not support. (6AOE2002-40A, October 2020) (CN-68116)

Device Consoles/Show Detail/Traditional Client Three Panel

This section contains a summary of system notes, fixes, and errata for Device Consoles/Show Detail/Traditional Client Three Panel as related to AOE20.02.

System Notes

There are no system notes for this release.

Fixes

- The SM40 product description is updated correctly as TA5000 SM40 4-10G. (6AOE2002-40A, October 2020) (CN-66832)

Errata

There are no Flash-based GUI errata for this release.

Non-Flash-Based GUI as of AOE20.02

There are no non-Flash-based GUI errata for this release.

Home

This section contains a summary of system notes, fixes, and errata for Home as related to AOE20.02. Home includes the following:

- Dashboard
- Inventory Window
- Login
- NDM - View Network
- Right-Click Menu
- Topology View

System Notes

- If Internet Explorer is the browser of choice, then Internet Explorer version 10 or greater is required to utilize the new topology view. (6AOE81-40A, January 2014) (CN-18652)
- In order to view and use the new Topology View in Mozilla Firefox, several parameters must be changed from their default values. Refer to "[Appendix B](#)" on page B-1 for information on how to change these parameters in the Mozilla Firefox browser. (6AOE83-40A, May 2014)

Fixes

There are no fixes for this release.

Errata

- Existing network elements are not added to the topology database after the upgrade to AOE8.3. Resyncing the network elements resolves the issue. (6AOE81-40A, January 2014) (CN-20917)

Non-Flash-Based GUI as of AOE20.02

- The Select All button is missing in Network Device Manager. The work around is to select the Network Elements individually. (6AOE2002-40A, October 2020) (CN-62980)
- Refresh in View Network shows incorrect pagination. In NDM, going to another page and hitting refresh in NDM takes the user back to page 1, but the arrows and pagination on the bottom reflect the previous page location. Refresh the browser to reset to the correct pagination. (6AOE2002-40A, October 2020) (CN-63552)
- The Dashboard quadrant width can vary depending on window size on MacOS Chrome browsers. (6AOE2002-40A, October 2020) (CN-65141)
- AOE shows the Logged in name as the username instead of the First Name and Last Name of the user when configured. (6AOE2002-40A, October 2020) (CN-65834)
- Location Manager, Refresh, and Port Status Legend icons do not have a tool tip available. (6AOE2002-40A, October 2020) (CN-66520)
- The NDM scrollbar is resetting to the top of the NDM menu on some user operations on the port/ONT. An example would be doing a list services on a port/ONT, the scrollbar will move to the top of the NDM menu. (6AOE2002-40A, October 2020) (CN-67119)

- In NDM, the NEs list disappears after performing a Resync operation on a shelf or network. The work around is to perform the refresh in the NDM to display all the NEs. (6AOE2002-40A, October 2020) (CN-68437)
- The equipment's SCA module provision status does not show the OOS status properly and only shows correctly for IS modules during the SCA process. (6AOE2002-40A, October 2020) (CN-68495)

Service Assurance

This section contains a summary of system notes, fixes, and errata for Service Assurance as related to AOE20.02. Service Assurance includes the following:

- Alarms
- CapacityManager
- Historical Alarms
- ServiceCheck
- ServiceMonitor

System Notes

- In order for CapacityManager and ServiceMonitor to display accurate data, the AOE server time and the TA5K clock must be in sync. The TA5K packages the PM statistics at midnight. If AOE performs a bulkpm collection before the TA5K's clock has passed midnight, then the server will not be able to collect PM data for that day. This will result in PM data in AOE that is over a day behind. (6AOE62-40A, February 2013) (CN-14838, CN-14901)

Fixes

There are no fixes for this release.

Errata

- ATM-port PM statistics are not currently available for the 1179950F1 TA1148V DMT OSP on the ServiceCheck PM Data tab. These statistics are available via the NDM right-click Show Detail option. (6AOE85-40A, August 2014) (CN-25544)
- AOE ServiceCheck will not execute on a VDSL port that is trained to the DMT Standard of 993.5 (VDSL Vectoring). (6AOE1701-40A, June 2017) (CN-43417)

Non-Flash-Based GUI as of AOE20.02

- The full interface name can be cut off in Capacity Monitor when trying to attach the monitor. The interfaces go by numerical card order starting at slot 1 and port 1. (6AOE2002-40A, October 2020) (CN-67012)
- Multiple duplicate tabs can be opened when attaching a monitor to a single Network Element. Only one tab is necessary to attach a monitor and opening multiple is not recommended. (6AOE2002-40A, October 2020) (CN-67014)
- Unable to see View Alerts information in Capacity Monitor Dashboard. Go to Service Assurance > Capacity Manager to view the alert information. (6AOE2002-40A, October 2020) (CN-67031)
- The View and Clear Alert ability is missing from the Service Monitor on the Dashboard. To clear and view alerts, go to the Service Monitor Tab in Service Assurance. (6AOE2002-40A, October 2020) (CN-67180)
- Capacity and Service Monitor shows "Start" Type instead of "Stat" Type. (6AOE2002-40A, October 2020) (CN-67263)

- After Filter creation in Alarm's Filter Manager feature, the created filter form remains in edit mode. (6AOE2002-40A, October 2020) (CN-67606)
- The Run Task Now option is visible in Service Monitors when the Monitor Type is EFM_GROUP_RATE. (6AOE2002-40A, October 2020) (CN-67792)
- The close button can be off the screen for the Location Manager and Alarm Filter Manager. Pressing the Esc button or clicking anywhere on the base AOE screen will close Location Manager or Alarm Filter Manager. (6AOE2002-40A, October 2020) (CN-67906)

Services

This section contains a summary of system notes, fixes, and errata for Services as related to AOE20.02. Services includes the following:

- Ethernet Access Services
- ServiceActivator
- ServiceDesigner
- Service Import

NOTE

With the functionality and support which has been incorporated in to ServiceDesigner and ServiceActivator, Ethernet Access Services can be optionally used. Beginning with the AOE9.x releases support was added with the addition of Ethernet Transport Templates and Business Ethernet Template in ServiceDesigner to provide support and functionality to consolidate Ethernet Access Services in to ServiceDesigner.

System Notes

- NetVanta 8044M ERPS ring networks are currently not supported. An EVC can only be connected to the MEN port that is the subtended host listener. (6AOE6-40A, November 2012) (CN-11897)
- ONE Services supports stand-alone NV8044 and NV8044M applications. ETOS support has been moved from ONE Services to Service Designer and Service Activator. STOS support has been withdrawn from ONE Services due to the discontinuance of the STOS product. (6AOE6-40A, November 2012)
- Ethernet Access Services does not currently support the NetVanta 8044M. (6AOE6-40A, November 2012) (CN-12281)
- Changing of subscriber port in an MDU deployment will require deleting that subscriber and reactivating on the new port. (6AOE8-40A, September 2013) (CN-18989)
- The minimum active links should match when creating services with multiple service templates. When creating two service templates, ensure both reference the same number of Min Active Links. (6AOE8-40A, September 2013) (CN-19143)
- AOE expects the unicast video profile to be similar to the data EVC map profile. So for any subscriber, when a data service is “added” to a split VLAN video service, the EVC map parameters for the existing unicast EVC map will not be changed on the network element. (6AOE8-40A, September 2013) (CN-19166)
- CE 5.2 or greater is required to suspend a service created between two NetVanta devices. (6AOE81-40A, January 2014) (CN-14488)
- Auto EVC Provisioning is not supported for the GPON MDU VDSL2 ports. (6AOE81-40A, January 2014) (CN-20940)
- For SIP over OMCI GPON applications, Codec Preference Prio 1, Codec Preference Prio 2, and Codec Preference Prio 3 assigned in the Codec Profile must be different. (6AOE83-40A, May 2014)

- For EVCMAP profiles, subscriber profiles are created when IGMP Processing is set to Proxy or DHCP Relay (processing) is set to Snoop. When IGMP Processing is set to Proxy, the subscriber profile created on the NV8424 is named VIDEO. If DHCP Processing is set to Snoop, then the EVC-map profile name is used as the subscriber profile name. To avoid conflicts, the user cannot use an EVC-map name of VIDEO when DHCP Processing is set to Snoop. (6AOE9-40A, December 2014) (CN-26274)
- IGMP Processing - Proxy is a higher priority than DHCP Processing - Snoop. When both options are selected in an EVCMAP profile, then the VIDEO subscriber profile is created on the NV8424. If the VIDEO subscriber profile already exists, then the EVCs used in the service activation are appended to that existing subscriber profile. (6AOE9-40A, December 2014) (CN-26250)
- The auto assignment S-Tag formula uses the following port offsets when the user selects the NV8424RA ports:
 - ◆ 10 GigE ports: port number + 100
 - ◆ GigE port: actual port number(6AOE9-40A, December 2014) (CN-26299)
- When two templates with different PON modes are selected for activation, then the priority for PON Mode is given based on the first selected template. (6AOE91-40A, March 2015) (CN-18508)
- The TID and SysName on a device must be set the same in order to use the file based Services Import feature. The import process will fail if the TID and System Name are different. (6AOE91-40A, March 2015) (CN-29585)
- An existing voice dialing profile on the network element is not automatically updated when changes are made to the Dial Plan Profile in AOE Service Designer. If changes are required, either update the dialing profile via CLI or delete the dialing profile via the CLI and create a new voice entry with ServiceActivator. (6AOE91-40A, March 2015) (CN-29744)
- In contrast to Residential Services (GPON and ActiveEthernet), EVCs (data flows and custom flows) on the NetVanta 8424 are deleted. (6AOE91-40A, March 2015) (CN-29577, CN-29623, CN-29624)
- When using Service Designer and Service Activator with Combo Cards, the default dialing plan profile named DEFAULT_DP is assumed to be the profile for that SIP service. If the DEFAULT_DP dialing profile is removed from the network element or is empty, AOE will report an error that no dial plans exist when attempting an activation. (6AOE91-40A, March 2015) (CN-29997)
- VOIP profiles in Service Designer with the same profile name but different case are treated as duplicate profile names. In the case of Service Import, the first profile name imported will be saved and any subsequent names with a different case will be treated as a duplicate. (6AOE92-40A, June 2015) (CN-30225)
- Use of AutoProv profile with wider scope would conflict with services provisioned on ONTs outside of AOE when pushing default templates upon receiving activation traps. It is recommended to limit Auto Provisioning Templates to specific ONTs which are intended to be managed in AOE by adding Part Number and/or Location in the AutoProv profile when there is a potential for ONTs that were managed/established outside of AOE. (6AOE10-40A, November 2015) (CN-32671)
- AOE does not restrict the use of special characters for Part number field in AutoProv profile and as such should not be used. Additionally, special characters are not a part of standard part numbers. (6AOE10-40A, November 2015) (CN-32771)

- The GPON-fed 508VP VDSL2 MDU network element only supports OMCI-based VoIP configuration. VoIP FILE config method is not supported. User may experience unexpected failure if they perform VoIP FILE config. (6AOE1601-40A, May 2016) (CN-36977)
- AOE Service Activator requires a SIP trunk name of T01 to be used. If it does not exist on the network element, AOE will create with the name T01. If the network element has a SIP trunk with any other name provisioned, service activation will fail. (6AOE1601-40A, May 2016) (CN-37934)
- Once a service template has been used in service activation, do not reduce the number of flows associated with that service template. Doing so will cause previously activated services to become un-editable. (6AOE1601-40A, May 2016) (CN-37593)
- The Subscriber ID for NV8424 should not include backslashes (\), double quotes ("), or other special characters (>, <, #, %, ^, ?, or '). (6AOE1802-40A, June 2018) (CN-45947)

Fixes

- Fixed an issue where AOE would fail to provision xDSL and RPOTS FXS ports when provisioning SIP voice service with SR11.0.x through AOE Service Activator and XML GW. The default SIP trunk will be used on NE while creating a voice user on xDSL and RPOTS FXS port during AOE service provisioning on SR11.0.x. AOE service provisioning module will validate the requested SIP trunk with default SIP trunk on NE to provision successfully; otherwise, will not provision and recommend to use default SIP trunk from AOE during SIP voice provisioning with SR11.0.x. (6AOE2002-40A, October 2020) (CN-65405)
- Fixed an issue by utilizing the Trunk Profile name associated with the SIP profile, when the Trunk Profile name is null due to prior AOE20.01 release with the service Modify or Import operation on xDSL/ RPOTS for SIP voice service. (6AOE2002-40A, October 2020) (CN-68268)

Errata

- In rare occasions, POTS ports (FXS) have been seen to be put in service when no services were actually provisioned for those ports. The work-around is to manually adjust the settings on the specific ports. (6AOE61-40A, December 2012) (CN-13716)
- An error is returned when the Network Ingress Match field is enabled in a template that is pushed to equipment that does not support this parameter. (6AOE8-40A, September 2013) (CN-19019)
- Advanced shaping options for ONT multi-tenancy is not currently supported. (6AOE83-40A, May 2014) (CN-23974)
- Deleting a service from AOE will delete any other service which matches the same bridge group name. Duplicate bridge group names only occur when a Service Import brings in a service with the same bridge group name. (6AOE85-40A, August 2014) (CN-26026)
- When a user edits an existing Services Import schedule, the wizard does not display the target device shelf/port information. (6AOE91-40A, March 2015) (CN-27923)
- The user cannot save an Auto Provisioning Setup template if the total number of characters used by all of the e-mail addresses in the e-mail recipient list is more than 255. (6AOE91-40A, March 2015) (CN-28726)

- In AOE-GUI SA screen for Ethernet Transport, IPv6 parameter fields are shown as required though they are not marked required in the Service Template which will result in errors when attempting to modifications. (6AOE92-40A, June 2015) (CN-30852)
- The mySQL ReportsPlus MGCPCALLAGENTPROFILE table has "secondary" misspelled. (6AOE92-40A, June 2015) (CN-30893)
- XML GW doesn't perform duplicate extension check while adding new voice line(s) using activateService operation. (6AOE92-40A, June 2015) (CN-31229)
- The MGCP Voice Service Activation using file mode does not validate duplicate endpoints and the MGCP user will not be created. (6AOE92-40A, June 2015) (CN-31365)
- The autofailover replication of files in the <installdir>/owareapps/ems_support/TFTPTransferFiles directories can run slower than expected on a subset of servers. The time to replicate files depends on several factors such as server specifications and network latency. If users encounter this issue in their network, ADTRAN recommends increasing the interval of the autofailover.sh cronjob. (6AOE92-40A, June 2015) (CN-29638)
- Residential Ethernet service activation will not display to proper error message if the device is set to POTS mode and the service activation is not able to complete. (6AOE92-40A, June 2015) (CN-31317)
- Imported Static IP enabled services allow user to change UNI selection but doesn't allow/show Static IP grid selection in activation GUI. (6AOE10-40A, November 2015) (CN-31878)
- AOE may raise more Service Re-Flow Alarms than expected if Service Ref-Flow operation fails for a "stacked" NV8424 configuration. This is specific to the use of stacking with the NV8424. (6AOE10-40A, November 2015) (CN-33649)
- ADSL Upstream & Downstream "Min. Tx rate" fields will not be displayed in Service Pre-activation and Service Edit Screens. (6AOE1601-40A, May 2016) (CN-37177)
- Automatic Service Import does not import MAC OUI entries. This does not impact the service on the device but does limit visibility of the parameters in AOE. (6AOE1602-40A, September 2016) (CN-39233)
- When provisioning CPOTS/GR303 VOICE services on ONTs, AOE does not update the ONT POTs service mode on network element to fxs signaling. This should have a minimal impact as this is the default mode. (6AOE1803-40A, November 2018) (CN-49945)
- Service Activation fails when activating a service template that has MDU enabled and bridge selected as the UNI port. (6AOE1901-40A, February 2019) (CN-51886)
- The retrieve operation is failing for the IPTV video service when an ONT port is provisioned with a combo service (IPTV & RFOverlay) and the RF Video (RFOverlay) service is deleted from the ONT port. (6AOE1901-40A, February 2019) (CN-50055)
- AOE service activation displays an incorrect validation message when provisioning REST data/video services on the NV8424. There are two workaround options. The first is to create an EVC on the NV8424 using AOE Business Ethernet ST and then provision AOE REST services. The second is to create a data/video REST service template with "Auto Assign EVC" selected and then provision the template on the NV8424. (6AOE2001-40A, June 2020) (CN-64004)
- The MGCP profile fails to create on the NE when provisioning an MGCP service on xDSL/RPOTS with the Service Import Master template. (6AOE2001-40A, June 2020) (CN-62766)
- EFM-bonded groups on VDSL cards are imported with the wrong service template when the bonding group ID matches the port number of another service with a shaper on the same card. (6AOE2001-40A, June 2020) (CN-62536)

- Provisioning fails on ATM ports using downstream shapers due to AOE sending the shaper information before turning on the port. (6AOE2001-40A, June 2020) (CN-62453)
- AOE is not displaying a validation message during SIP voice provisioning when the SIP identity (Registration String) for the SIP voice users are unique for GPON, AE, and xDSL. (6AOE2001-40A, June 2020) (CN-60765)
- In AOE service designer, the custom dynamic flow incorrectly accepts characters outside of a-z, A-Z, 0-9 and _ . (6AOE2001-40A, June 2020) (CN-58826)
- When an ONT template includes both Ethernet and POTS, adding/modifying a VoIP user incorrectly edits the MAX MAC configuration on the NE for Ethernet ports. (6AOE2001-40A, June 2020) (CN-58106)
- AOE incorrectly shows the Tx range as -6.0 to 9.0 and Rx range as -10.0 to 6.0 on the 1116VXP and 1148VXP. The correct Tx range is -12.0 to 4.0 and correct Rx range is -12.0 to 0.5. (6AOE2001-40A, June 2020) (CN-55308)
- When multiple services are provisioned to a subscriber and one type of service is deleted (voice, video, data), then part of the provisioning can be tied to the generic instance. The Service template that was incorrectly tied to a generic instance will not be able to be deleted even if no customers are actively deployed on that template. (6AOE2002-40A, October 2020) (CN-64582)

Non-Flash-Based GUI as of AOE20.02

- No validation or error message is being shown when provisioning a voice bonded group service with the 1st port as with a POTS port and 2nd port without a POTS port. (6AOE2002-40A, October 2020) (CN-60764)
- No validation message is shown for invalid values in the Upstream/Downstream/Minimum Active Links parameters of EFM-Group component profile. (6AOE2002-40A, October 2020) (CN-66751)
- No validation message is shown for invalid values in the Management S-Tag/Management S-Tag Pri/IPv6 Link Local/IPv6 GUA/Host IPv6 Address parameters of Subtended Host component profile. (6AOE2002-40A, October 2020) (CN-66782)
- If multiple bonded groups have the same bonded group name, only one service will be imported via Service Import and services with duplicate names will not be imported into AOE. (6AOE2002-40A, October 2020) (CN-67357)
- Selections from Network Device Manager - View Network tab do not carry over to the Service Activator Tab. The selection must be checked again in the Service Activator window. (6AOE2002-40A, October 2020) (CN-63346)
- Component profiles no longer auto-populate if a component profile is available and must be manually selected. (6AOE2002-40A, October 2020) (CN-63919)
- The EFM-group profile increment/decrement values are incorrectly capped at 100. The work around is to manually type in a number above 100. (6AOE2002-40A, October 2020) (CN-65262)
- The Business EVC-map Component Profile can incorrectly show fields as toggled on and disabled. The work around is to manually toggle a field to the off position when using the radial buttons. (6AOE2002-40A, October 2020) (CN-65328)
- Creating a Template in Service Designer is no longer dynamically updated in Service Activator Templates by minimizing and expanding the templates in Service Activator. The Service Activator page must now be refreshed to show the newly created Service Designer template. (6AOE2002-40A, October 2020) (CN-65394)

- Selecting List Services > “Delete All” does not show the services deleted or the subscriber ID in the summary box after services are deleted. (6AOE2002-40A, October 2020) (CN-65824)
- The tab is going to top of a Template when an open and close action is performed on any Manage Profile/New Profile operation. (6AOE2002-40A, October 2020) (CN-66205)
- The Min Active Links in the VDSL section of the Residential Service Template is blank instead of 1. (6AOE2002-40A, October 2020) (CN-66247)
- The MasterTemplate folder is created in Service Designer on the creation of the first Template via Service Designer. If a user performs only an Import, then a REST/BEST/EST template must be created to be able to access any of the templates in the MasterTemplate folder. (6AOE2002-40A, October 2020) (CN-66255)
- The Flash and non-Flash GUIs are not showing a validation message when selecting a derived CTAG in the Residential Service Template in Service Designer and the Residential Service Template and CTAG profile technologies do not match. (6AOE2002-40A, October 2020) (CN-66385)
- The Default Advanced Downstream Shaper in Service Designer > Video and Data accordion is nested and requires a user to select the + icon to add the first Downstream Shaper. (6AOE2002-40A, October 2020) (CN-66387)
- Listing Services for RF Video shows “Rfvideo” instead of “RF Video”. (6AOE2002-40A, October 2020) (CN-66453)
- The Static IP Address Flow designator and Static IP address count numbers are missing on the Service Activate screen. (6AOE2002-40A, October 2020) (CN-66638)
- Component Profiles are allowing the space character to be used in the Service Designer parameter fields when the space character is not a valid provisioning option. (6AOE2002-40A, October 2020) (CN-66871)
- The validation message shows “Device Model is not present in Service Template” instead of “Please select only NV8XX/NV8044/NV8044M/NV8424 Ethernet and ETOS-GigE ports when trying to provision invalid equipment types in Service Activator using a Business Ethernet Service Template”. (6AOE2002-40A, October 2020) (CN-66939)
- The Ethernet UNI Queue Allocation in the MDU profile is not updating correctly with changes made in selected P-bit to Queue profile. (6AOE2002-40A, October 2020) (CN-67121)
- The valid ranges in the Upstream Bandwidth help field in Video and Data accordion of the Residential Service Template incorrectly shows the value must be greater than 64 instead of greater than 63. (6AOE2002-40A, October 2020) (CN-67193)
- A new component profile must be manually selected instead of auto-populating for some component profiles in a service template when no component profile is selected and a new component profile is created in Service Designer via the New Profile button. (6AOE2002-40A, October 2020) (CN-67596)
- The Subtended Host profile property Management S-Tag Pri Options has a typo in the parameter. (6AOE2002-40A, October 2020) (CN-67713)
- RTP Frame Packetization will accept values other than 10, 20, or 30 in Media Profile. Only 10, 20, and 30 are valid values. (6AOE2002-40A, October 2020) (CN-67821)
- Making a template/profile in Service Activator and then immediately copying the template/profile without closing the newly made template/profile will copy the default template/profile instead of the newly created template/profile. The workaround is to close the template/profile on first creation, then open the template/profile and then copy the template/profile. (6AOE2002-40A, October 2020) (CN-67957)

- The SIP Trunk profile Grammar Require 100rel default value is enabled in the non-Flash GUI. (6AOE2002-40A, October 2020) (CN-67973)
- Service Activator will not show the validation when a static IP address is selected and then no static IP is provisioned. The services will deploy in a failed state. The work around is to not add a static IP address if no static IP address is provisioned. (6AOE2002-40A, October 2020) (CN-68035)
- The template and selected equipment is still selected and the Next button is enabled after provisioning a service via Service Activator and it is not possible to advance again without toggling the template or equipment. The workaround is to un-select either the template or the equipment and re-select the template or equipment. (6AOE2002-40A, October 2020) (CN-68065)
- Services are not updating in the List Services tab when multiple List Services tabs are opened on the same equipment and a change is performed in one of the tabs. The work around is to close duplicate tabs and perform any necessary operations in a single List Services tab. (6AOE2002-40A, October 2020) (CN-68076)
- Cannot expand Residential Ethernet Service Templates to edit MasterTemplates unless a non-MasterTemplate Service Template is made in Service Designer. The workaround is to make a Residential Ethernet Service Template to expand the MasterTemplate dropdown in Service Designer. (6AOE2002-40A, October 2020) (CN-68105)
- Not all the selected port information can be seen in the summary of the BEST service pre-activation screen for Equipment Chose field when multiple ports are chosen at once. (6AOE2002-40A, October 2020) (CN-68169)
- There is no out of range validation when using the EFM-group Upstream and Downstream rate fields in Service Activator. (6AOE2002-40A, October 2020) (CN-68195)
- Service Templates created using the ADSL technology type in the non-Flash GUI do not show ADSL checked using the Flash GUI in Service Designer. The work around is to check the ADSL technology box the in Flash GUI to see both correctly in the non-Flash GUI and Flash GUI. Note: The Service Template with ADSL technology (any combination) can be used to provision ADSL correctly in Service Activator. This is a graphical checkbox missing in the Flash GUI when provisioned from the non-Flash GUI. (6AOE2002-40A, October 2020) (CN-68430)

Feature Release Summaries

This section covers a brief summary of the main features provided over the current and past system releases (back to AOE6.0).

AOE20.02

- Added enhancement to add the technology to the subscriber ID on service import
- Added support to configure alarm severity on GPON and AE
- Added support to configure EVC-map description with subscriber ID based on configurable property update through AOE SA and XML GW
- Added new non-Flash based AOE GUI for Network Management
- Added Single Sign-On hook support in AOE

AOE20.01

- Added support to Show Part Number from the Network Element
- Added support to edit equipment name in AOE GUI
- Added support for the voice CTag during SIP/MGCP service provisioning through AOE SA and XML GW
- Added support for the latest stable MariaDB 10.3.18v in AOE
- Added support of filter alarms in the AOE's Northbound SNMP GW
- Added enhancement for AOE license
- Added support to provide the MAC Address and status information for GPON and AE equipment through the XML GW
- Enhanced AOE dbSync script result to skip unsupported TL1 GW devices
- Added Multiple SIP trunks configuration support during SIP voice service provisioning for GPON, AE, RPOTS and Combo Modules through AOE SA and XML GW
- Enhanced the brownfield Service Import function with minimal master service templates
- Added support to upgrade multiple hardware revisions for a single ONT Part number using SW Auto-Upgrade
- Added support for Total Access 5000 SM40 Switch Module (P/N 1187041F1)
- Added support to reset VDSL port configuration with the default value
- Added support for Total Access 5000 Combo OLT (P/N 1187518F1)
- Added support to ignore SRA feature parameter check for VDSL equipment

AOE19.02

- Added FlowType option support to ED-EVC TL1 command for EVC sync in AOE
- Added a new reboot ONT permission in AOE to separate the reboot card and reboot ONT permission setting used in AOE GUI, Three Panel, and Device Console
- Added support to show inactive ONT software version information in AOE Inventory Manager
- Added support for the option of zero static IP addresses during provisioning in AOE SA and XML GW
- Added support to record reboot and upgrade operation events in the AOE User Action Log
- Added support to show C-Tag information in the MAC Address table of Device Console
- Added support to stop fallback to TFTP when SFTP fails
- Added support for SM200
- Enhanced XML validation response message for ONT operations (deleteONT, rebootONT, retrieveEquipment, getConfiguredServicesonEquipment, and retrieveService) in AOE XML GW
- Enhanced AOE by migrating from MySQL to MariaDB Database
- Added properties to support 621x ONT upgrades
- Enhanced XML to support provisioning bonded efm-groups to AOE's database only using the isSaveToDatabaseOnly property

AOE19.01

- Added PLAR support for SIP voice services in Total Access 5000 RPOTS and VDSL Combo Access Modules.
- Added MATCHUNTAGGED option support to ENT-VLANPORT-ETH and RTRV-VLANPORT-ETH TL1 commands.
- Added support for dual TA5004 192-Port SLV with 192-Port OSP VRM.
- Added support for per port ATM VCL retrieval and deletion through AOE Show Details/EMS Three Panel.
- Added support to skip ONT software upgrade for specified part numbers.

AOE18.03

- Added External Ring Generator inventory support
- Added 1116VXP support
- Added 1148VXP-DMT support
- Added support to delete dynamic MACs on xDSL using AOE web form and EMS Three Panel
- Added support for new PSD mask units for VDSL2 component profiles
- Added support for new Auto Shift SRA for VDSL2 component profiles in AOE and EMS Three Panel

AOE18.02

- General availability support for Board-Level Vectoring
- Added DLV status reporting support
- Added support for PON Redundancy to prevent ONT serial number duplication
- Support Subscriber MAC table reporting for EFM bonding groups
- Added support in Inventory Manager to display VDSL port provisioning status
- Added support for Node Migration under Total Access 5000 network
- Added Circuit ID in Service Activator and XML GW for xDSL, RPOTS, 1108VP, and 508VP
- Added support of POTS On-Hook/Off-Hook Status Indicators

AOE18.01

- Added AOE support to allow voice service activation against the TA5000 Voice Gateway module in any node; previously this was restricted in AOE to just the COT, Node 1 system.
- Added Event Template support to the AOE GUI which was previously only supported in the legacy EMS client.
- Added xDSL Super-Vectoring 35B provisioning options within profiles
- Added support for Super-Vectoring OSP Host (P/N 1179912F2) and Client (P/N 1179910F2) in AOE and TL1 Gateway
- Added Vectoring Status menu in Show Details for the Vectoring Resource Module to provide a graphical summary for vectoring capable slots.
- Added capability to report DMT Uplink EFM Group status information for DMT-fed OSP DSLAMs
- Added AOE support for provisioning inheritance between applicable OSP DSLAM network elements
- Enhanced the retrieveNE XML command to provide support for NetVanta 8xx network elements

AOE17.02

- Added support for the TA5K 24-Port CPOTS Line Module (P/N 1187160F1)
- Enhancements in Service Manager
- Added support for MGCP voice within Service Import for xDSL and RPOTS modules
- Added support for showing the vectoring fallback status for an access module slot and attempting to clear the fallback state
- Added support for AOE Provisioning Inheritance for the TA5000 48-Port RPOTS (P/N 1187151F1) module when replacing a 24-Port RPOTS (P/N 1187150L1) with a 48-Port module

AOE17.01

- Support for the following products was added in AOE17.01.
 - ◆ 1148VXP Host (P/N 1179916F1)
 - ◆ 1148VXP Client (P/N 1179918F1)
 - ◆ OSP 384-Port Vectoring Resource Module (P/N 1179938F1)
 - ◆ TA5K 48-Port VDSL2 Splitter Module (P/N 1187431F1)
 - ◆ TA5K 24-Port VDSL2 Span Power Splitter Module (P/N 1187439F1)
- Added support for Vectoring Fallback alarm
- Added the ability to block VDSL provisioning on vectoring systems when the requested profile has a service mode of VDSL2 and is not set for downstream adapt at runtime
- Added NetVanta 8424 uplink men-port provisioning support for LAG groups on a NetVanta 8424 root node
- Added support for multiple file destination overrides based on a configuration file and the target network element (Multiple TFTP Override)
- SD/SA Support for ONT Bridge Group provisioning allowing the selection of specific ONT Ethernet ports to be a part of the ONT Bridge Group
- Show Details support for Vectoring Status that provides a graphical summary
- TL1GW Support within an existing command to delete all evc-maps for a specific interface with DLT-VLANPORT-ETH command
- XML Support for Replace ONT Serial Number API command
- XML Support for forceUpdate API command when used with the NetVanta 8424

AOE16.03

- Added support for ServiceActivator/ServiceDesigner/ServiceImport and XML OSSGW for FTTN (TA5K and OSP) products for 802.1x
- Enhanced Show Detail screens by allowing READ-Only access through permissions administration
- Added XML OSSGW support for new command “createEVC” as a part of the ManageServiceProvisioningHttp web service
- Linux OS Support: Removed CentOS/RedHat 5.x support

AOE16.02

- Support for the following products was added in AOE16.02
 - ◆ TA5K 384-Port SLV Module (P/N 1187194F1)
 - ◆ TA5K Bridging SCM F3 Series (P/N 1187011F3)
 - ◆ TA5K Bridging SCM F3 Series INTL (P/N 1188011F3)
- Added support for RPOTS modules with SD/SA/OSSGW (XML and TL1)
 - ◆ TA5K 48-Port RPOTS Access Module (P/N 1187151F1)
- Support within ServiceDesigner to allow MAC Limit setting of disabled (value of 0)
- Support added to ServiceMonitor and CapacityManager to allow email of the graph reports
- Consolidated Reboot Card options within the Administrative Permissions window
- XML GW support to Add (Discover) / Remove (Delete) Network Elements
- XML GW support and creation for Explicit S-Tag
- Support for OSP aggregation of NetVanta 868 with TL1 GW

AOE16.01

- Support for the following products was added in AOE16.01
 - ◆ 1448A ADSL2+ OSP (P/N 1179655G1)
- Enhanced the deleteNE script to provided better details on the results and status of the script.
- Service Template Usage script added to provide mapping of existing subscribers to current AOE templates.
- Support added to allow control of which groups are emailed the Feature Usage Stats notifications
- Support added to allow only one interface to provision/ edit/ delete on a given port when multiple interfaces (XMLGW/AutoProv/AOEGUI/TL1tie-in/Service Import etc.)
- Support added to report NetVanta interface and Ifindex fields properly in Bulk PM CSV file when the NetVanta is using FIXED IfIndex mode
- Support for BulkPM retrieval of Switch Module network interface port stats on the OSP 3rd, 4th, and VX products
- Support for GPON ONT Ethernet UNI 64-bit counters. This requires a minimum release of TA5K / ONT 9.7.
- Support for ONT inventory reporting through the countEquipment script
- Support for provisioning VoIP services on the 508VP GPON MDU through SD/SA and XML API
- Support to provision the slot IGMP Host Proxy IP address through SD/SA for FTTP and xDSL modules
- TL1 GW API enhancement for ED-NTU-LAN command to update the NetVanta UNI ports description in the AOE database with the values used during provisioning
- TL1 GW API support to automatically delete a device from AOE whenever a user deletes the bridge group using the DLT-BRIDGE TL1 command
- Updated the IGMPEVC table in ReportsPlus with a new column for the "hostip"
- Upgraded the jdk library from jdk1.7 to jdk1.8 for improved security and vulnerability measures
- XML API to reboot a given ONT

AOE10.1

- Support for the following products was added in AOE10.1.
 - ◆ 1148VX-DMT Host (P/N 1179934F1)
 - ◆ 1148VX-DMT Host (P/N 1179934F1C)
 - ◆ Total Access 5000 NG-PON2 4x10/10GigE OLT (P/N 1187514F1)
- Support for provisioning transport LAG using Service Designer and Service Activator
- Support for 1:128 split on PGON (128 ONTs per PON)
- Support for selective deletion of dynamic MAC addresses in GPON and Active Ethernet Device Consoles
- Support for enhanced software upgrade reporting for TA5K, TA5006, TA5004 and OSP TA1x48s
- Script for exporting and importing service templates
- Support for launching device consoles from search results on network view or from port level of a card that supports device consoles
- BIP Error collection script for GPON OLT modules
- XML API 'retrieveEVC' to return EVC Names based on s-tag
- XML API to delete ONT provisioning on a given PON (deleteOnt)
- XML API to provision and manage link aggregation groups
- Enhancement to retrieveEquipment XML API to include ONT part number in the response
- Enhanced SCA restore to support Base Config storage option
- Provisioning Inheritance for FTTP and xDSL

AOE10.0

- Support for the following products was completed in AOE10.0.
 - ◆ Total Access 5000 Non-Vectoring
 - TA5K 48-Port VDSL2 Combo Access Module (P/N 1187130F2)
 - TA5K 48-Port VDSL2 Overlay Module (P/N 1187133F2)
- Support for the following products was added in AOE10.0.
 - ◆ Total Access 5000 Vectoring
 - TA5K 48-Port VDSL2 Combo Access Module (P/N 1187130F1)
 - TA5K 48-Port VDSL2 Overlay Module (P/N 1187133F1)
 - ◆ Total Access 5004 Vectoring
 - TA5004 192-Port VDSL2 Vectoring Module (P/N 1187190F1)
 - ◆ OSP Vectoring
 - 1148VX Client (4th Generation) (P/N 1179930F1/F1C)
 - 1148VX Host (4th Generation) (P/N 1179932F1/F1C)
 - Vectoring Resource Module (P/N 1179937F1)
- Support for multiple Auto Prov templates distinguished based on location and ONT part number
- Support for node number in Service Designer formula profile
- Fully Qualified Domain Name (FQDN), DNS and Secondary Server support for VoIP service activation
- Support for System Level Vectoring and 100M service provisioning in Service Designer, Service Activator and XML GW
- Updates to Enhanced TScan to report additional parameters Bridge Tap Location and Bridge Tap Length
- NetVanta 8424 Discovery and Reflow Enhancements
- XML Gateway enhancements for Ethernet Transport provisioning
- Introduced a Beta feature called Service Manager for supporting bulk service migration and delete operations

AOE9.2

- New products for which support added -
 - ◆ TA5K Combo V2 48P NO VECT Module (P/N 1187130F2)
 - ◆ TA5K VDSL2 48P NO VECT Module (P/N 1187133F2)
 - ◆ TA5K 32-PORT EFM E.SHDSL MLT Module (P/N 1187182F1)
- Support added to Automatic Service Import process to import SIP and MGCP services provisioned over OMCI
- Scale improvements for ONT Auto Upgrade and supported added for SCR functions in ONT upgrade
- Support added in Service Designer, Service Activator and XML API allow provisioning of Max Mac Limit per port on ONT.
- Support also added for provisioning "match MAC OUI" to enable delivery of data and video services on the same ONT port.
- Support added in GPON Device Console General Provisioning form for provisioning Upstream FEC for GPON. This is restricted to specific GPON OLT modules (1187502F2, 1187503F2).
- Support added for bulk discovery network elements using a command line script that takes a text file as input. The text file will contain comma separate contents to enable network element discovery.
- EVC creation between SM and EFM-Group via the XML Gateway.

AOE9.1

- Enhancements to Service Import to support FTTP based data, video and TDM voice services using the automated import process.
- Enhancements to ONT Auto Upgrade process for speed and performance
- Support for Active Ethernet Device Consoles
- Support for provisioning Ethernet Over Copper services using Service Activator, Service Designer, and XML OSSGW
- Enhancements to NCTE auto-discovery and auto-configuration. The software upgrade workflow of AOE was modified to make use of Auto Config if enabled on the products.
- Support for service provisioning on stacked NV8424
- Support for device consoles for MARS-2, MARS-2P, MARS-4P, MARS-4B, and MARS-4PB.
- Support for viewing historical alarms
- Support for Read Only User Group
- Additional configurable parameters for RADIUS based AAA. Option for enabling / disabling admin user authentication using RADIUS, option for enabling / disabling user authorization using RADIUS.

AOE9.0

- TA5K 4 Degree Mini-Amplified Reconfigurable Optical Add/Drop Multiplexer (ROADM) with Boost Amplifier (MARS-4B, P/N 1174513G1)
- TA5K 4 Degree Mini-Amplified Reconfigurable Optical Add/Drop Multiplexer (ROADM) with Pre and Boost Amplifier (MARS-4PB, P/N 1174512G1)
- TA5K 4-Port GPON OLT, 2nd Generation (P/N 1187502F2)
- TA5K Switch Module5 2-10G/2-1G (P/N 1187031F1) (Support is Beta)
- NetVanta 8424RA 10G Multi-service Edge Switch (P/N 1174820F1)
- Support for DSCP range provisioning for specific GPON OLTs
- ELAN service provisioning on GPON (SA/SD/XML)
- Auto Discovery and Configuration of NetVanta NCTE Devices
- ONE Device Console Updates
- Device Consoles Upgraded to EXT JS. This is an internal UI architecture change but a little easier navigation between main AOE application and device consoles.
- Allow trap host to be configured on the device during device discovery
- XML API to search for equipment information using ONT Serial Number
- RHEL and CentOS 6.x OS Support

AOE8.5

- TA5K 48-Port VDSL2 Combo Module (P/N 1187130F1)
- TA5K 48-Port VDSL2 Overlay Module (P/N 1187133F1)
- TA1148V OSP (P/N 1179932F1)
- TA1148V DMT OSP (P/N 1179950F1)
- TA1148V Client (P/N 1179540F1)
- SIP over OMCI service provisioning support for Active Ethernet using SD/SA and XML GW
- Support for enabling Downstream QoS on GPON using SD/SA, XML GW and TL1 GW
- PON LOS Threshold Alarm Support
- User Activity Logging
- Network Device Access Support using telnet or ssh from AOE
- IPv6 NTP Support from TL1 GW
- Last release supporting Windows installations as an AOE Server

AOE8.3/8.3.1

- TA5K 24-Port Active Ethernet Single Slot Access Module (P/N 1187562F1)
- TA5K GPON 8-Port Access Module (P/N 1187503F2)
- Advanced Shaping, per flow policing support in SD/SA
- Auto Provisioning for Active Ethernet
- MGCP Voice service provisioning support in SD/SA
- SD/SA Support for SIP over OMCI service provisioning
- Updates to xDSL Service Check to support VDSL2 ports on TA1108VP MDU ONT
- Device Consoles for GPON
- Service Import enhancements for xDSL based services

AOE8.1

- Support for TA1108VP GPON MDU ONT (P/N 1179870F1)
- TA5K ONE ETOS-10 (P/N 1174130F2)
- TA5004 MSM (P/N 1187016F1)
- TA5004 System
- SD/SA support for TA1108VP GPON MDU ONT
- SD/SA support for GPON upstream DBA provisioning
- ONT auto provisioning support via SD/SA
- ELAN & Flex Ports support in SD/SA for Business Ethernet services

AOE8.0

- TA5K SM40 (P/N 1187040F1)
- TA5K GPON Octal OLT (P/N 1187503F1)
- TA5K ONE ETOS-10 (P/N 1174130F2) (Limited Support)
- TA5K ONE OPBA-18 (P/N 1174402G1)
- TA5K ONE DCM-B20 (P/N 1174451G1)
- TA5K ONE DCM-B100 (P/N 1174455G1)
- TA5K ONE DCM-B120 (P/N 1174456G1)
- A la Carte service provisioning support
- Service Designer / Service Activator Support for ONT Multi Tenancy
- Formula based calculation of s-tag and c-tag values for auto assigning EVC and c-tag respectively in Service Designer / Service Activator
- Ability to select unused ONT serial number from list on Service Activator GUI
- Basic support for activating services on a Residential Gateway using Service Designer / Service Activator (support for VEIP as a UNI)
- forceUpdate option added for XML Gateway based service activation to allow overriding existing services on a given subscriber port
- Display ONT Powering Status in the NDM
- ONT Replacement Tool
- Carrier Ethernet Service provisioning on MEN ports using SD/SA
- Asymmetric ELINE Services Support for SD/SA
- SD/SA support for EoX (EoCu, EoF and EoTDM)
- Updates to TL1 Automated Interfaces for Carrier Ethernet Provisioning
- Enhanced NDM search capabilities based on IP Address, System Name, Circuit ID, ONT Serial Number, Bonding Group, GR303 Description and Subscriber ID
- Linux auto failover support

AOE6.2

- Ability to change password added to the Help menu
- Support for Administrative Settings in AOE
- FTTP Service Edits enhanced to make them not service impacting
- ONT Auto Upgrade process streamlined
- Support for viewing PM statistics at PON level for GPON OLTs
- Support for provisioning ETOS redundancy
- Support for provisioning shapers on NV8xx
- Support for Y1731 on NV8xx and NV8044M
- Support for provisioning dynamic bandwidth allocation (DBA) related parameters in Service Designer and Service Activator
- Support for DBA oversubscription PM statistics

AOE6.1

- NetVanta 838 SHDSL EFM (P/N 1172633G4)
- NetVanta 868 EFM 8-Port VDSL2 NCTE (AC Powered) (P/N 1172868F1)
- NetVanta 868 EFM 8-Port VDSL2 NCTE (DC Powered) (P/N 1172868F2)
- NetVanta 868 EFM 8-Port VDSL2 NCTE (VDSL over ISDN, AC Powered) (P/N 1172868F3)
- NetVanta 868 EFM 8-Port VDSL2 NCTE (VDSL over ISDN, DC Powered) (P/N 1172868F4)
- NetVanta 868 EFM 8-Port VDSL2 NCTE (AC Powered, Nordic) (P/N 1172868F5)
- Support for 64:1 split PON on GPON OLT
- SHDSL repeater, EFM Link Explorer and EFM Group Explorer views. Ability to run TScan, Loop Locator, Power Control activation, view status and PM statistics
- Support for GPON Per UNI shaping in TL1 Gateway
- Service Activation via XML Gateway

AOE6.0

- Support for 1x48V host and client
- 1174120F1 TA5K OTN Transport Optical Switch (OTOS) Discovery Support
- 1174211G1 TA5K Quad 10G OTN Transponder Discovery Support
- 1174501G1 2 Degree Mini Amplified ROADM System (MARS-2) Provisioning and Status
- Service Designer / Service Activator support for residential xDSL based services
- Service Import feature added for importing residential FTTP and DSL services
- Added support for Business Ethernet services in Service Designer and Service Activator



Appendix A

Event Template Changes

[Table A-1](#) lists the changes to the eventtemplates.txt file between AOE20.01 and AOE20.02.

Table A-1. Event Template Changes, Release AOE20.01 to AOE20.02

| Event | Sys Object ID | Event Identifier | Field Changed |
|-----------------------------|---------------|------------------|---------------|
| No Changes for this Release | | | |



Appendix B

Using Mozilla Firefox with AOE

In order to properly view and use some AOE features in Mozilla Firefox, several parameters must be changed from their default values. Refer to [Table B-1](#) for a list of features, parameters, and settings.

NOTE

Use the **bolded text** in the parameter in [Table B-1](#) to quickly search for the desired parameter.

Table B-1. Required Mozilla Firefox Settings

| AOE Feature | Parameter | Setting |
|--------------------------|---|---------|
| Topology | network. websocket .allowInsecureFromHTTPS | true |
| | network.http.send SecureX SiteReferrer | true |
| | security. mixed_content .block_active_content | false |
| | security. mixed_content .block_display_content | true |
| Network Device Access | network. websocket .allowInsecureFromHTTPS | true* |

* This is not required if a signed CA certificate is installed on the server.

Complete the following steps to modify these parameters.

1. Open a Firefox browser window. In the Address field, type **about:config** and press enter, then click the **I'll be careful, I promise!** button. The About Config screen is displayed as shown in [Figure B-1](#).

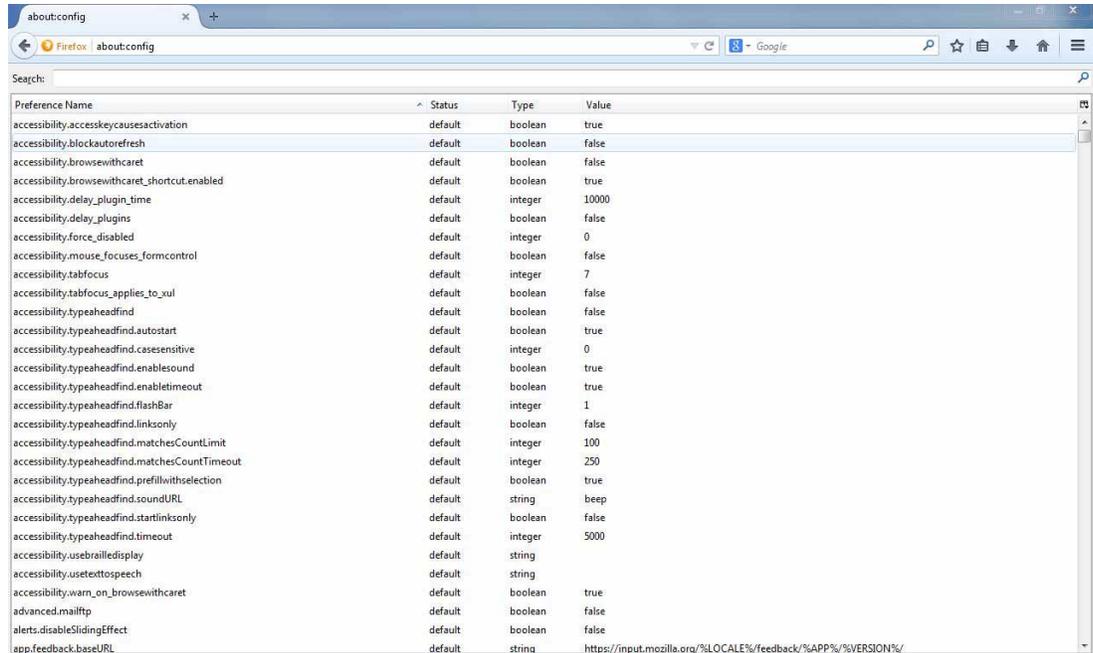


Figure B-1. About Config Screen

2. Search for the desired parameter listed in [Table B-1](#).

NOTE

Use the **bolded text** in the parameter in [Table B-1](#) to quickly search for the desired parameter.

3. Double click the desired parameter to toggle the Value to the setting listed in [Table B-1](#).
4. Repeat steps 2 and 3 for each of the parameter changes listed in [Table B-1](#) for the desired feature.
5. Once all parameters are set as shown in [Table B-1](#) for the desired feature, the feature should function properly.



Appendix C

AOE Accepted Security Protocols

AOE supports the following security cipher suites for HTTPS using TLSv1.1 and TLSv1.2.

- TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256
- TLS_RSA_WITH_AES_128_CBC_SHA256
- TLS_ECDH_RSA_WITH_AES_128_CBC_SHA256
- TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA
- TLS_RSA_WITH_AES_128_CBC_SHA
- TLS_ECDH_RSA_WITH_AES_128_CBC_SHA
- TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
- TLS_RSA_WITH_AES_128_GCM_SHA256
- TLS_ECDH_RSA_WITH_AES_128_GCM_SHA256



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