Alcatel-Lucent Enterprise Series Branch Office Controller Out-Of-Memory Advisory

Confidentiality Level: Alcatel-Lucent Enterprise Customers & Partners only | Rev.1 (June 21, 2016)

PRODUCTS COVERED
All Alcatel-Lucent 4300 Series Branch Office Controllers including OAW 4306, OAW 4306-US, OAW 4306-IL, OAW 4306-4, OAW 4306-4-US, OAW 4306-4-IL, OAW4306G, OAW 4306G-US, OAW 4306G-IL, OAW 4306G-4, OAW 4306G-4-US, OAW 4306G-4-IL

SUMMARY
Customers may experience out-of-memory (OOM) issues with OAW 4300 Series Branch Office Controllers running versions of OAW-OS 6.4.x. While it is Alcatel-Lucent Enterprise's goal to maintain controller platforms in customer environments and provide a smooth transition to next-generation platforms, current processing and memory demands of new features implemented in OAW-OS in the 6.x release have challenged the performance and memory footprint of the second-generation 600 Series platform. Although the OAW- 4300 Series is no longer available for sale, Aruba will continue to support the platform through OAW-OS 6.4.x releases, with an end of support date of October 2019.

CALL TO ACTION
For customers using the 4306 and 4306G Series controllers and experiencing OOM issues, Aruba recommends the following:

1. Please follow the list of best practices below to minimize low-memory errors:
a.   Remove unnecessary files from flash before the upgrade
b.   Reboot the controller before the upgrade to reclaim stale memory held by OAW-OS apps.
c.   Reboot twice after the upgrade to release kernel cache as the free memory available doesn't consider cache held by kernel.
d.   Disable packet capture (to avoid packet capture files being stored in /tmp)
e.   Avoid unnecessary periodic backups (tar flash, tar log tech-support etc)

If OOM issues are still regularly encountered after implementing the recommendations above, proceed to Option 2 below.

2.   Install OAW-OS 6.4.3.10 or 6.4.4.9 on 4300 Series controllers. OAW-OS 6.4.3.10 and 6.4.4.9 has several modifications to provide more free memory in the 4300 Series controllers, protecting against traffic bursts that may cause an OOM issue. However, it should be noted that several capabilities are no longer supported in OAW-OS 6.4.3.10 and 6.4.4.9, including phone home, reducing the number of supported VLANs to 64 (from 128) and WMS scaling changes. If phone home or more than 64 VLANs are required, then this option is not valid and proceed to Option 3 below.

3.   Install OAW-OS 6.3.1.22 on 4300 Series controllers. This should be regarded as the "conservative" release for 4300 platforms in the event there are regular OOM reboots. Note, however, that OAW-OS 6.3.1.22 does not support several access point and controller platforms, including OAW-AP-20x, OAW-AP-21x, OAW- AP-27x, OAW-AP-32x and 4005, 4010, 4024, 4030, 4205 and 4240XM controllers. Additionally, several features were introduced in OAW-OS 6.4.x, including ClientMatch, UCC enhancements, AirGroup enhancements, branch office features and several platform features. If support is required for these platforms and/or features, then OAW-OS 6.3.1.22 is not a valid option and proceed to Option 4 below.

4.   In the event the above three options do not remove regular OOM reboots, or if there is a feature gap created by the recommended OAW-OS software (OAW-OS 6.3.1.22 or 6.4.3.10 or 6.4.4.9), then Aruba's

recommendation is to replace the 4300 Series controller with a third-generation 4005 or 4010 controller platform. The OAW-4005 supports 16 APs and 1K client devices, while the OAW-4010 supports 32 APs and 2K clients (vs 16 AP and 512 clients in 650). In addition, the 4005 and 4010 provide additional performance and scaling over the 4300G platform. Most importantly, the 4005 and 4010 have been designed to support advanced capabilities delivered in recent (and future) OAW-OS software. Please contact your Alcatel-Lucent Enterprise representative for more details on how to upgrade to OAW-40xx platforms.

Additional Information
Alcatel-Lucent Enterprise is committed to communicating code revision, feature and function recommendations to ensure optimal network operation and high customer satisfaction. Please feel free to contact the Alcatel-Lucent Enterprise Technical Assistance Center (TAC) team if you need further clarifications regarding this bulletin. The Alcatel-Lucent Enterprise technical support e-mail is ebg_global_supportcenter@al-enterprise.com. The Alcatel-Lucent Enterprise TAC team will facilitate further product related discussions with the Product Management team for customers that desire to do so.