Release Notes for Cisco Broadband Access Center 3.6

Revised: June 30 2011, OL-24047-01

These release notes describe new software features, bug fixes, and documentation for Cisco Broadband Access Center (Cisco BAC), Release 3.6.

Introduction

Cisco Broadband Access Center, referred to as Cisco BAC through out this document, automates the tasks of provisioning and managing customer premises equipment (CPE) in a broadband service provider network. The product provides a simple and easy way to deploy high-speed data, voice technology, and home networking devices.

With the high-performance capabilities of Cisco BAC, you can scale the product to suit networks of virtually any size, even those with millions of CPE. It also offers high availability, made possible by the product's distributed architecture and centralized management.

Cisco BAC supports provisioning and managing of CPE by using the Broadband Forum's CPE WAN Management Protocol (CWMP), a standard defined in the TR-069 specification. Cisco BAC integrates the capabilities defined in TR-069 to increase operator efficiency and reduce network-management problems.

Cisco BAC supports devices based on the TR-069, TR-098, TR-104, and TR-106 standards. These devices include Ethernet and ADSL gateway devices, wireless gateways, VoIP ATAs, and other devices compliant with CWMP.

This release supports mass scale provisioning and managing of Femtocell Access Point (FAP) devices that function as a mini 3G cell tower in customer premises and backhaul via customer's internet connection. For details about the features supported in Cisco BAC 3.6, *see* New Features in Cisco BAC 3.6 section.

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System Components

Cisco BAC comprises:

- A Regional Distribution Unit (RDU), which is software that you install on your server. The RDU is the primary server in a Cisco BAC deployment. Through its extensible architecture, the RDU supports the addition of new technologies and services.
- The Device Provisioning Engine (DPE), which is software that you install on your server. The DPE server handles all device interactions for the RDU.
- An administrator user interface through which you can monitor and manage Cisco BAC.
- A Java provisioning application programming interface (API), which you use to integrate Cisco BAC into an existing operations support-system environment. You can use the provisioning API to register devices in Cisco BAC, assign device configuration policies, execute CWMP operations on the device, and configure the entire Cisco BAC provisioning system.
- Cisco Network Registrar extensions (CNR extensions), are the links between Cisco BAC and Cisco Network Registrar. You should install this component on all Cisco Network Registrar servers in your Cisco BAC environment. If you are deploying Cisco BAC in a failover environment, ensure that you install the extensions on the fail-over servers also.
- Cisco Access Registrar extensions (CAR extensions), are the links between Cisco BAC and Cisco Access Registrar. You should install this component on all Cisco Access Registrar servers in your Cisco BAC environment. If you are deploying Cisco BAC in a failover environment, ensure that you install the extensions on the fail-over servers also

System Requirements

You must have the Solaris 10 operating system installed on your system to use the Cisco BAC software. For information on installation, see the *Installation Guide for Cisco Broadband Access Center*, Release 3.6, which is available at: http://cisco.com/en/US/products/sw/netmgtsw/ps529/prod_installation_guides_list.html.

Licensing Requirements

You require a valid license key to successfully provision devices that use Cisco BAC. These licenses are specific to the:

- CWMP technology
- DPE component

Note If you have not yet received your licenses, contact your Cisco representative.

New Features in Cisco BAC 3.6

The new features of the Cisco BAC 3.6 are as follows:

Connection Request via Leased Query

This release of Cisco BAC supports performing connection request using lease query. In this method Cisco BAC discovers the latest IPsec address of the HNB from Cisco Network Registrar DHCP server by performing lease query. It forms the Connection request URL by using the discovered IPsec address, connection request path and connection request port. Cisco BAC sends the connection request to SeGW and then through IPSec tunnel to the HNB.

Femto Authorization Service (FAS)

This release supports RADIUS based authentication and authorization for Femto devices. This service is run on the Cisco BAC DPE and uses the Cisco Access Registrar RADIUS Server. HNB registration results in the HNB-GW (ASR5000) performing a RADIUS Access-Request. The RADIUS requests are handled by a Cisco Access Registrar RADIUS server. A Cisco BAC CAR extension relays the requests to a Cisco BAC DPE. The DPE performs the authentication, authorization. If these operations are successful, the RADIUS Access-Accept contains the whitelist assigned to the HNB.

Note Acronym, for FAP in luh is HNB and FGW is HNB-GW.

System Hardening

This Cisco BAC release has undergone comprehensive security testing. The objective of this security testing was to identify and eliminate any security vulnerabilities pertaining to Cisco BAC and its supporting software and hardware. This release was also tested for protocol robustness, which was tested for application stamina when exposed to Denial of Service attacks and protocol irregularities.

For information on the System Hardening, see http://cisco.com/en/US/docs/net_mgmt/broadband_access_center/3.6/release/notes/BAC36-HardeningGuidelines.pdf

Limitations and Restrictions

This section describes limitations and restrictions you might encounter when using Cisco BAC 3.6.

Backward Compatibility Issues

There is a backward compatibility issue in Cisco BAC. Certain combinations of RDU and DPE lead to connection request failure. These combinations are listed below.

- Cisco BAC 3.5.1 DPE with Cisco BAC 3.5.2 RDU
- Cisco BAC 3.5.1 DPE with Cisco BAC 3.5.2 patches RDU (3.5.2.1 etc)
- Cisco BAC 3.5.1 DPE with Cisco BAC 3.6 RDU.

You would need DPE with Cisco BAC version 3.5.2 or its patches to be able to work smoothly with Cisco BAC 3.6 RDU.

Caveats

For information on the complete list of Cisco BAC bugs, see the *BAC36_BugList.html* file in the *Documentation/* subdirectory of the Cisco BAC CD-ROM or electronic distribution.

Note To obtain more information about known problems, access the Cisco Software Bug Toolkit at http://www.cisco.com/pcgi-bin/Support/Bugtool/home.pl. (You will be prompted to log into cisco.com).

Resolved Problems

Table 1 lists the bugs resolved in this Cisco BAC release.

Table 1 Resolved Software Problems

Bug ID	Description
CSCth24120	While performing connection request without any authentication, there was no log information or diagnostic message for connection request.
CSCtl57995	Since the new parameter input field in the Admin UI was limited to 256 characters, the user was not able to add parameters having characters more than 256. The character limit of the group parameter is now increased to 1024 character.
CSCtn55963	While deleting some files from Admin UI and running the verifyDb on the RDU database, verify database was giving the error message "SOME POTENTIAL OPTIMIZATIONS WERE DETECTED".
CSCtn55995	Since the OptimizeDb tool did not always remove the corrupted records in database, after you ran the verifyDb, the optimizeDb reported an error message "SOME POTENTIAL OPTIMIZATIONS WERE DETECTED" repeatedly.

Known Problems

Table 2 lists major software issues open in this Cisco BAC release, with possible workarounds.

Table 2 Known Software Problems

Bug ID	Description	Resolution
CSCsy74948	DPE allows to provision an interface even if status is up and not running.	Make sure that the interface status is up and running, before the interface is configured to be provisioning enabled. Check if the interface is up and running before you provision them using the DPE CLI to handle the CWMP requests. If DPE is running on Solaris OS, then the interfaces should be in the up and running state before the interface is configured to be provisioning enabled. If that is not the case, then the interface won't be handling the CWMP requests even though the DPE CLI will allow to provision the interface.
CSCta46063	Statistics service may not close transaction. The RDU fails to authenticate any users or is unable to process batches, especially reliable batches.	You must restart the RDU process.
CSCtc80013	The Admin UI does not limit number of lines when viewing diagnostic log. This can cause IE to crash if there are many MBs of data. The number of lines must be limited in the Admin UI	If the diagnostic log is large, view it from command prompt by using commands like "*tail*".
CSCte84617	DPE intermittent outage. Due to heavy load, DPE's CPU reaches high and DPE goes unresponsive. This happens when a huge number of devices try to communicate to DPE simultaneously.	Currently, there is no workaround for this issue.
CSCte90206	Cisco BAC does not trigger 3G upgrade while using the match condition. When a match string set for operator value in the firmware file contains a comma, Cisco BAC automatically splits into comma separated list. When you try to download firmware files by setting match value contains comma in the firmware template. This problem will not occur when you do not use comma for match values in the firmware template.	Instead of using comma (,) for match values, give individual value and set matchall attribute for operator field.
CSCtk62470	Cisco BAC allows to delete custom property even if it is used in device.	Before deleting a custom property ensure that the particular custom property is not being referenced.
CSCtk83527	The date format of FC-AP-FIRST-TIME-UP, FC-GPS-LOCKED and FC-FEMTO-PROV-STATUS-CHANGED-ON is yyyy-MM-dd HH:mm:ss z. When the FAP acquires GPS lock and the lock time is updated in the RDU. it is updated in this time format yyyy-MM-dd HH:mm:ss z.	Currently, there is no workaround for this issue.

Related Documentation

Note We sometimes update the printed and electronic documentation after original publication. Therefore, you should also review the documentation on http://www.cisco.com for any updates.

Table 3 describes the product documentation that is available.

Table 3 Product Documentation

Document Title	Available Formats
Release Notes for Cisco Broadband Access Center, Release 3.6. (This guide).	• PDF on the product CD-ROM. • On Cisco.com at this URL: http://cisco.com/en/US/products/sw/netmgtsw/ps529/prod_release_notes_list.html • On Software download page.
Installation Guide for Cisco Broadband Access Center, Release 3.6	• PDF on the product CD-ROM. • On Cisco.com at this URL: http://cisco.com/en/US/products/sw/netmgtsw/ps529/prod_installation_guides_list.html • On Software download page.
Cisco Broadband Access Center Administrator's Guide, Release 3.6	• PDF on the product CD-ROM • On Cisco.com at this URL: http://cisco.com/en/US/products/sw/netmgtsw/ps529/prod_maintenance_guides_list.html • On Software download page.
Integration Developer's Guide for Cisco Broadband Access Center, Release 3.6	• PDF on the product CD-ROM • On Cisco.com at this URL: http://cisco.com/en/US/products/sw/netmgtsw/ps529/prod_command_reference_list.html • On Software download page.
Cisco Broadband Access Center DPE CLI Reference, Release 3.6.	• PDF on the product CD-ROM • On Cisco.com at this URL: http://cisco.com/en/US/products/sw/netmgtsw/ps529/prod_command_reference_list.html • On Software download page.
Cisco Broadband Access Center 3.6 Third Party and Open Source Copyrights	On Cisco.com at this URL: http://www.cisco.com/en/US/products/sw/netmgtsw/ps529/products_licensing_information_listing.html

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.

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