ECG BroadWorks Briefing

With special guest, Scott Hoffpauir BroadSoft co-founder and now at True North Advisory





ECG Makes The Network Work.

RFI, RFP Selecting software Configure software Remediate integration Acceptance Testing Compliance Certification Training & Operations
Voice & Data
Networks





ECG Panelists

Sherwin
CrownBrian Tate
ChlebounJon
ChlebounMark
LindseyECG SMTS
VPECG SMTS
VPECG SMTS
VPECG SMTS
VP











Special Guest

Scott Hoffpauir *True North Advisory*

BroadSoft Co-Founder





Top News in the world of BroadWorks



Top Business News: BroadWorks

- **Scott Hoffpauir** article. *More later in the webinar.*
- NoJitter reports: **AT&T Collaborate** End of Life
- Peter Radizesci: Long-term deals signed -- but still skeptical on BroadWorks' Future



Top Business News: BroadWorks-based services

- Verizon One Talk recognized by Frost & Sullivan
- Vonage Business Growth
- TPx launch of Webex for BroadWorks
- Evolve IP integration with Microsoft Teams
- **Cox Communications** growth
- Fourteen IP network expansion into Europe
- Cloud Communication Concepts (C3) network expansion across US



BroadWorks Integrations Announced

- Alpaca from ECG now includes R23 support, Bulk Provisioning, Web Self-Care, and public sector compliance features
- Verint System "Verba" Call Recording for Financial Sector Compliance.
 Numonix also added call recording support.
- Uboss, Total-View, Imagicle, and Netaxis new business support tools
- Kakapo Systems mobile app integrating BroadWorks and Salesforce
- **TekVizion** new automated regression testing for Webex for BroadWorks
- Yealink expanding support. Snom adds features.



BroadWorks Feature & Support Changes

- Cisco discussing new R25 features
- Application Server Subscription Management efficiency improvements
- Subscription Troubleshooting
- Voicemail protections favoring mobile devices



Scott Hoffpauir "The Rise & Fall of BroadWorks"





The Rise and Fall of BroadWorks

True North Advisory 3 days ago · 3 min read





By Scott Hoffpauir, Managing Partner

A fews weeks ago someone asked me to help them with replacing a BroadWorks platform. My initial reaction was — wait... what? Naturally, I thought BroadWorks would be like the Pyramids of Giza and continue to be the wonder of the unified communications world. Apparently this version of history isn't going to happen. Technology moves quickly and BroadWorks



Brian TateWhat are the *New Cisco Tools*for BroadWorks?



The Cisco Catalog of 42 Support Tools

Access List Checker	Cisco UCS Advanced TCO/ROI Advisor R3	MIB Locator	Special File Access
This tool compares an SRC/DST IP+Port and checks to see if there is a matching entry in a Cisco IOS/NXOS access list.	Is a very flexible tool that includes the ability to model the transition of an existing datacenter to a new UCS	A Management Information Base (MIB) is a collection of objects in a virtual database that allows Network Managers using	The SFA tool is used to download files that have been published with Special File Publish (SFP).
Bug Search Tool	Collaboration Solutions Analyzer	My Devices	Support Case Manager
Tool for research and troubleshooting related to software bugs.	Suite of tools to assist you in the day to day operations of your Collaboration infrastructure. It simplifies the most	My Devices is an application that allows users to build and manage lists of their devices – down to serial number	Support Case Manager allows you to create and manage support cases with the TAC.
Cisco IOS to NXOS Configuration	Device Coverage Checker	My Notifications	Support Case Uploader
Convert a Cisco IOS config to Cisco NX-OS config.	Check Cisco service contract coverage for a device or group of devices. Input a serial number to see results, or upload	My Notifications allows you to create customized notification alerts sent to you via email or RSS feed on critical	The Support Case Uploader tool (formerly English Breakfast) is a Web Application that allows users to upload files to
Cisco TelePresence Interoperability	Diagnostic Signatures Lookup Tool	Packet Capture Config Generator and	UCS Sizing tool
The Cisco TelePresence Interoperability Database describes the software releases that were tested for interoperability	This tool makes it easier to find the "most relevant" Smart Call Home Diagnostic Signatures (DS) to automate debug	This tool is designed to aid in collection and analysis of network packet captures taken on IOS, IOS-XE and ASA devices.	Helps users determine optimal UCS hardware configurations for their Enterprise Applications (e.g.: VDI-VSI, Hadoop,
Cisco CLI Analyzer	Dialed Number Analyzer for CUBE	Product Upgrade Tool	Voice Debug Lookup
The Cisco CLI Analyzer (formerly ASA CLI Analyzer) is a smart SSH client with internal TAC tools and knowledge	This tool validates Dial-Plan configurations of CUBEs (Cisco Unified Border Elements) and simulates CUBE call routing	Request Hardware upgrades, software on media or software that is not available in the Software Center, and physical	Provides the most useful debug and show commands used to resolve a given type of voice-related problem.
Cisco Power Calculator	Download Software	Product Approval Status	Voice Codec Bandwidth Calculator
Cisco Power Calculator enables you to calculate the power supply requirements for a specific Power over Ethernet (PoE)	Get the latest updates, patches and releases of Cisco Software.	The Product Approvals Database is a repository of information regarding the homologation status for given Cisco	Provides information on how to calculate the bandwidth required for packet voice calls. Bandwidth calculation is an
Cisco Software Checker	DSP Calculator	Product License Registration	Wireless Debug Analyzer
Use the Cisco Software Checker to search for Cisco Security Advisories that apply to specific Cisco IOS, IOS XE, NX-OS	Estimate digital signal processor (DSP) resources needed for Voice Over IP (VoIP) calls on integrated service routers	Register your Product Authorization Key (PAK) or Software Serial Number or select from a list of your product licenses	Parses debug logs file for AireOS (WLC 5500/2500/8500/7500/WISM1-2/vWLC) and makes it easier to troubleshooting issues
Cisco Commerce Workspace	Firewall Configuration Conversion Tool	Service Order RMA Tool	Wireless Config Analyzer
Integrated workspace to register deals, quote, configure, price, and order products, software, and services.	This tool can Convert and Optimize the following Vendor Firewalls Configurations to Cisco ASA, FWSM, ASASM Firewall	Provides tools and resources to streamline your service and parts logistics inquiries.	This is a cloud port of the Wireless Lan Config Analyzer (WLCCA windows application Main features: It can apply
Cisco UCS Power Calculator	IP Subnet Calculator	SIP Profile Tester for CUBE and SIP	WLC Config Converter
Calculate power estimates for all shipping UCS B-Series and C-Series servers.	Provides a fast & easy to calculate IP subnetting, supernetting (Classless Inter-Domain Routing [CIDR]), and Variable	Simulates the IOS behavior of sip-profiles. This tool test sip-profile configuration and its corresponding result on	Provides easy config migration between various wireless platforms.One tool can perform following operations: AireOS to
Cisco Unified Computing System TCO-ROI	IPSec Overhead Calculator	SNMP Object Navigator	
Models the transition of an existing datacenter (rack &/or blade servers) to Cisco UCS B-Series blade servers or	This tool calculates the overhead for IPSec and other common encapsulation protocols based on the input packet size and	SNMP Object Navigator can help you locate MIBs, understand how a MIB works, and give you instructions on how to use	
Cisco Feature Navigator	Log Advisor	Software Research	
Feature Navigator allows you to quickly find the right Cisco IOS, IOS XE, IOS XR and CatOS software release for the	Log Advisor takes a scenario-based approach to guide you to the relevant step-by-step action plan and available tools	View Cisco suggested software for supported products. In addition to the new filtering capabilities you are now	



The Lesser Tools...for now

Dialed Number Analyzer for CUBE

- ...https://cway.cisco.com/dna-cube/
- ...simulator that is a bit like BroadWorks CLI's VTR/VTRI tools
- ...upload a configuration first, then either provide caller/callee or paste in the SIP message

IP Subnet Calculator (IPC)



- ...https://cway.cisco.com/subnet-calculator/
- ...OLD: only supports IPv4, but does support CIDR/VLSM

Voice Codec Bandwidth Calculator (VCBC)

- ...https://cway.cisco.com/vc-calculator/
- ...OLD: only older codecs supported, but it takes into account media (Ethernet, HDLC, etc.)



Helpful General Tools

Download Software (DS)

...https://software.cisco.com/download/home/286322586

Did you know that the BW Software Manager, while incrementing its version number, also goes by a Release Independent (RI) designation??

Release Notes are still not found where you would expect...Documentation repository link to follow...

Collaboration Solutions Analyzer (CSA): SRV Checker

- ...more info: https://cway.cisco.com/docs/tools/CollaborationSolutionsAnalyzer/csa.srvchecker.about.html
- ...limited usefulness, since it does **not** yet support all records used by Webex for BroadWorks



More Helpful General Tools

Support Case Manager (SCM)

- ...https://mycase.cloudapps.cisco.com/case
- https://www.cisco.com/c/en/us/support/web/tac/tac-customer-file-uploads.html
- ...the **primary** place to manage your trouble ticket (aka Support Request or SR)

Did you know that the SCU tool (Support Case Uploader) for attaching files to SRs was formerly called "English Breakfast???

My Devices (MD)

- ...<u>https://cway.cisco.com/mydevices/devices</u> <u>https://cway.cisco.com/mydevices/cases</u>
- ...great/alternate place to see all your support requests, in a different presentation than SCM

My Notifications

- ...https://cway.cisco.com/mynotifications
- ...the place to go to set-up and manage email / RSS subscriptions to any/all of the following:
 - product announcements,
 - field notices,
 - security advisories,

- updates to software versions,
- known bug reports



My Notifications (sample)

My Notifications Alert - BroadWorks Test - 18-Mar-2021 13:38 GMT



mynotifications@c... > To: btate@e-c-group.com



My Notifications adrada CISCO Feedback | Sign In | Unsubscribe Software Updates - BroadWorks Product Name: BroadWorks Software Type: **Application Patches** Release Version: 23.0.2021.03 Alert Type: New File File Name: AP.ns.23.0.1075.ap377109.Linux-x86 64.zip File Description: bwRestore.pl may fail because of file permissions File Release Date: 17-Mar-2021 Alert Type: New File File Name: AP.platform.23.0.1075.ap378425.Linux-x86_64.zip File Description: Network Server synch routing profile list paging support File Release Date: 17-Mar-2021 Alert Type: New File AP.as.23.0.1075.ap378425.Linux-x86_64.zip File Name: File Description: Network Server synch routing profile list paging support File Release Date: 17-Mar-2021 Alert Type: New File AP.as.23.0.1075.ap377109.Linux-x86_64.zip File Name: File Description: bwRestore.pl may fail because of file permissions File Release Date: 17-Mar-2021 New File Alert Type: File Name: APven 23.0.1075 an378574 Linux-v86, 64 zin

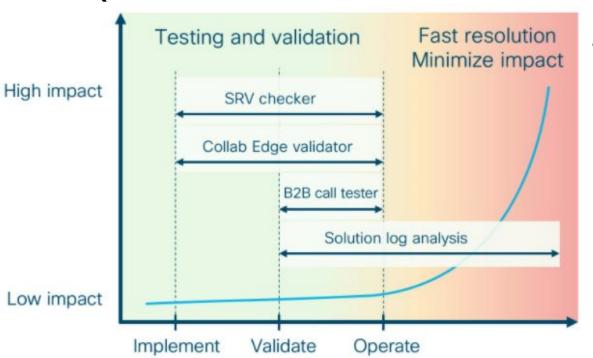


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Tool for research and troubleshooting related to software bugs.	Suite of tools to assist you in the day to day operations of your Collaboration infrastructure. It simplifies the most	My Devices is an application that allows users to build and manage lists of their devices – down to serial number	Support Case Manager allows you to create and manage support cases with the TAC.
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CSA (Collaboration Solutions Analyzer)



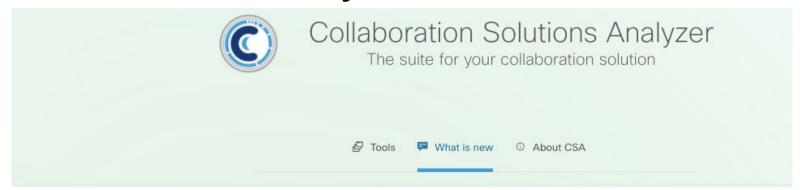
Cisco's four sub-tools:

- 1. SRV checker
- CollabEdge validator
- 3. B2B call tester
- 4. Log analysis

Log Visualization
Data Correlation
Automatic Issue Detection



"Cisco's tool suite for your collaboration solution."



Latest features

Jan 2021 🌘

Added support for CMS 3 release, BroadWorks, Expressway full system snapshot CSA can parse CMS 3 log bundle, BroadWorks product logs and Expressway full system snapshot.

Added ability to download ladder diagram in Log analysis

Log analysis

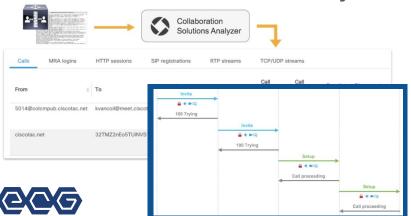
Ladder diagrams in the log analysis detailed view can be now downloaded.



CSA: Log Analysis

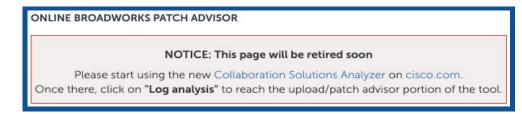
How to use it... *Call Analysis* Style

- 1. Obtian an **XSLog** file...
- 2. Upload it.
- 3. Click □ or select file & Run Analysis

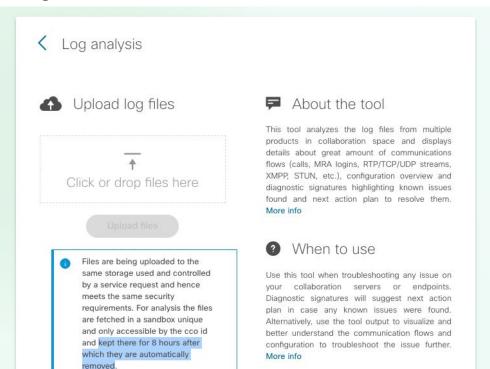


How to use it... **Patch Advisor** Style

- 1. Obtain a **Tech-Support** output...
- 2. Upload it.
- Click ► or select file & Run Analysis



CSA: Log Analysis - **Software Level Advisor**



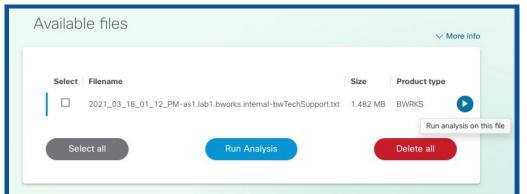
Drag & Drop!

Files only accessible by your login user (CCO ID).

Only kept for 8 hours.

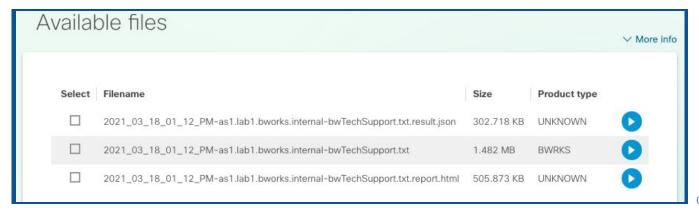


CSA: Log Analysis - **Software Level Advisor**



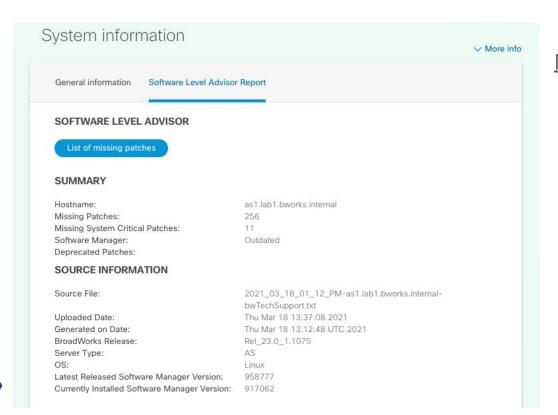
Click or select file & Run Analysis

Generated files cannot be downloaded/accessed, nor individually deleted...





CSA: Log Analysis - **Software Level Advisor**



Missing (vs. Online Patch Advisor):

- A way to download directly software file(s).
- A way to create custom patch bundle

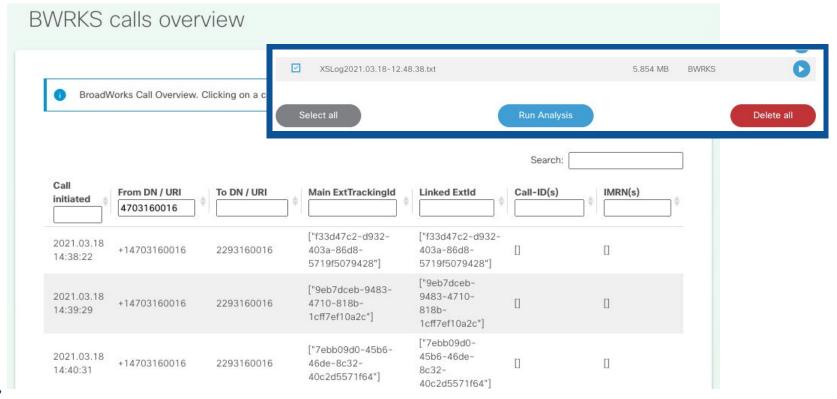
Click **List of missing patches** for detailed report (HTML), similar to legacy OPA.



Where are the Ladder Diagrams for BroadWorks?



CSA: Log Analysis - **BWRKS calls overview**





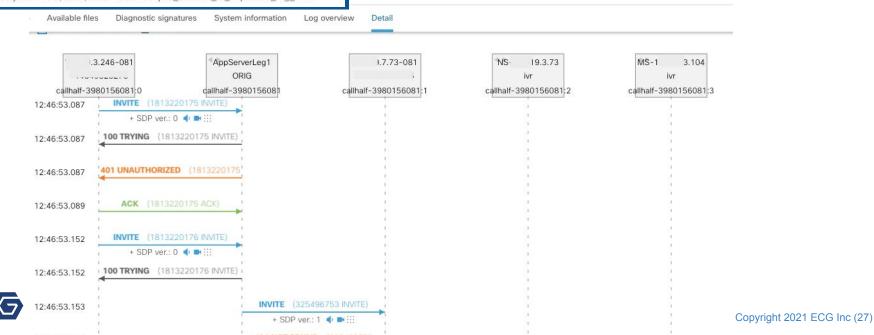
CSA: Log Analysis - **BWRKS calls overview**

Wrong file format

XSLog2021.03.09-04.42.25.txt.gz is not a XSLog file. Please make sure that you have uploaded a proper XSLogYYYY.MM.DD-HH.MM.SS.txt file or an archive file. For more information about the tool supported features, please refer here: https://cisco.jiveon.com/docs/DOC-1568481#jive_content_id_Expected_log_files

Tools Catalog /
Cisco TAC Tool

There are still some file type & size restrictions.



Highlighted Tool: CSA

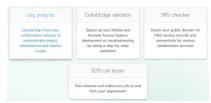
Collaboration Solutions Analyzer (CSA): Log Analysis

- ...<u>https://cway.cisco.com/csa/</u> Then click on Log analysis
- ...more info: https://cway.cisco.com/docs/tools/CollaborationSolutionsAnalyzer/csa.callengine.about.html
- ...not new--it is an existing tool, with added support for BroadWorks as of January 2021
- ...requires sign-in (SSO) to Cisco support account, but not contract/support number
- ...used by TAC (& customers) as the replacement for **Online Patch Advisor** (*via Tech-Support parsing*), in terms of a parser for BroadWorks Tech-Support output
- ...not to be confused with another tool by the name Log Advisor
- ...also can analyze BroadWorks logging, create **ladder diagrams**, and export file snippets (PCAP, log)

Note: When you export a PCAP from the CSA, after it has analyzed your XSLog file, it does not populate IP address information, and it uses dummy Ethernet MAC addresses.

Note: When you export the PCAP file, it uses the .pcap format (as opposed to .pcapng or .trace).





Finally, Non-Tools (Helpful Bookmarks!)

BroadWorks Documentation

https://www.cisco.com/c/en/us/support/unified-communications/broadworks/series.html#~tab-documents

Cisco TAC Connect Bot

- ...https://tacconnect.cisco.com
- ...more info (PDF & videos): https://www.cisco.com/c/en/us/support/services/tac-connect-bot/index.html
- ...web browser interface, or also through the...

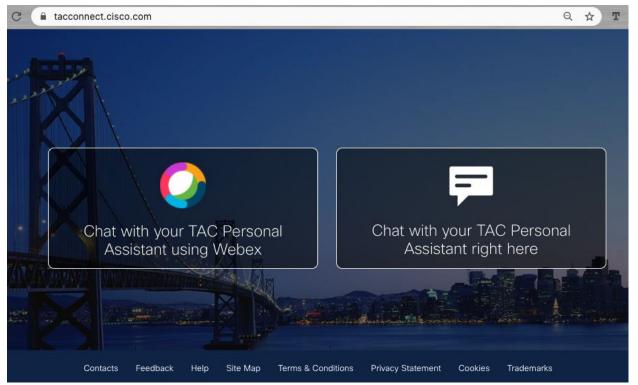
Webex Desktop Client - Bot

- ...replacement for Webex Meetings app
- ...notifications for subscribed articles
- ...SR/ticket updates/escalations



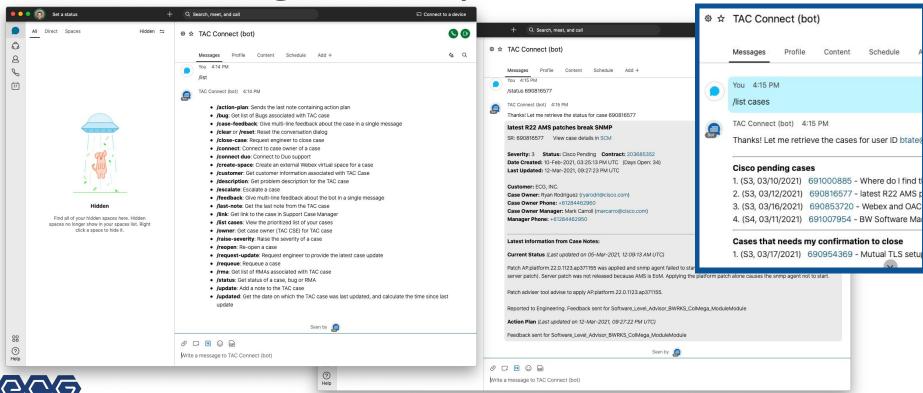


Bot Usage Examples - Options



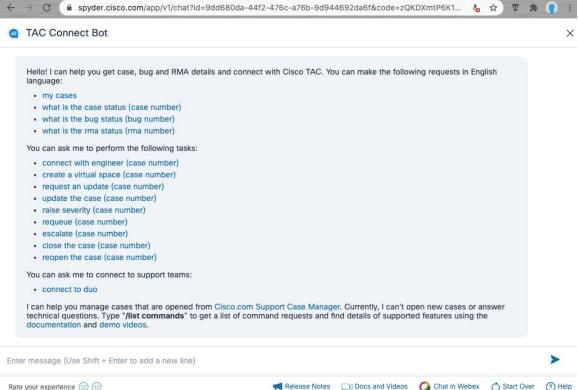


Bot Usage Examples - Webex Client





Bot Usage Examples - Web Interface





Sherwin Crown Secure Device Onboarding Using Activation Codes



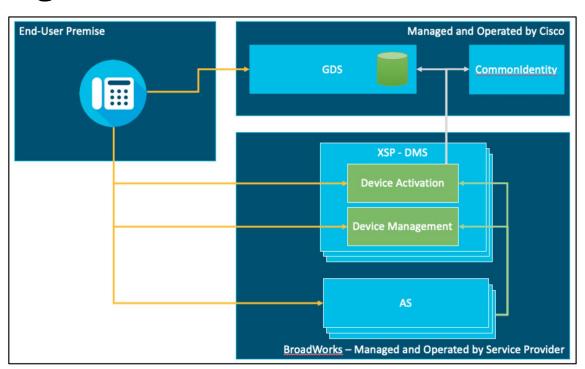
Device Activation

Cisco Document "Cisco BroadWorks Secure Onboarding Using Activation Codes Solution Guide"

- Currently only intended for the Cisco IP Multiplatform Phones (MPP)
- Feature released in R24 and patched into R22 & R23.
- The goal is to simplify the workflow of provisioning devices to Cisco BroadWorks users.
- This feature allows for a device to be associated with a user without having to provision the MAC address of the device.
- Cisco Account needed for integration.
 - ClientID, Client Secret and a Refresh Token



High Level View



Cisco Operated:

- Common Identity Platform (CIP)

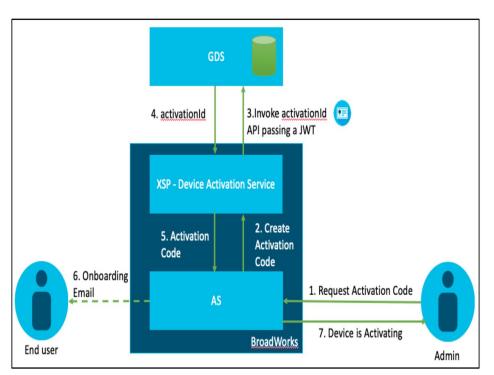
 Used for authentication
- Global Discovery Service (GDS)
 - Handles redirection to the Service Provider's Network (XSPs)

Service Provider Operated:

- XSP
 - Device Management Service (DMS)
 - Device Activation Service (DAS)
- Application Server (AS)
 - Device Profile Provisioning



Activation Code Generation Flow



Activation Codes

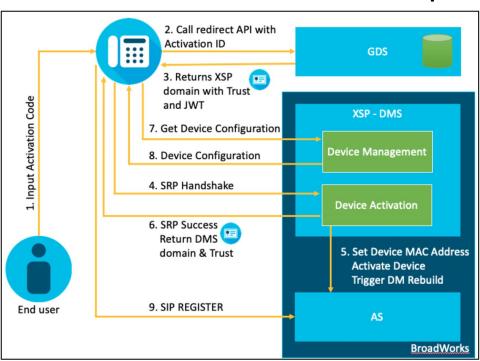
- 16 digit time-bounded code that allows the device to be associated with a user.
- First 8 is the activation ID
- Last 8 is the one-time password
- Only the first 8 is sent to the GDS by DAS

ActivationID

- Generated by the GDS
- DAS generates an Activation Code with ID
- DAS maps code to the user ID/ device key and then returns the activation code to the AS



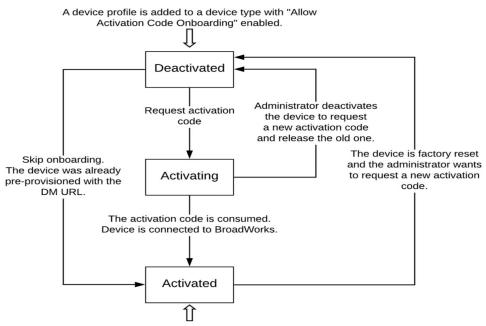
Activation Code Consumption Flow



- End user manually inputs Activation Code into Cisco MPP device.
- MPP queries GDS with activation code.
- Secure Remote Password (SRP)
 - Allows the DAS to validate the authenticity of the device during onboarding.
 - Uses the 8 digit key used to generate the activation code.
- DAS extracts the MAC address from device and completes provisioning on the AS.
- Device is redirected and provisioned using the DMS.



Device Activation States



"Allow Activation Code Onboarding" is enabled on a device type with existing device profiles.



Continue the Conversation

Mark R Lindsey, mark@ecg.co, +1-229-316-0013 Schedule a chat: https://ecg.co/lindsey/meeting

Brian Tate, btate@ecg.co, +1-229-316-0016

Trevor Wolford, twolford@ecg.co, +1-229-316-0435 Account Manager







