



Call Management System (CMS)
R19.2.X
Release Notes
Issue 9.1
September 2, 2024

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1. Purpose

The release notes provide summary information about the GA version of the Call Management System (CMS) R19.2.X software release.

The release notes include important information about known issues, and any last minute information that is not incorporated into the standard documentation, as well as a high level description of the release content.

For details about the features included in CMS R19.2.X, please see the product documentation posted at <http://support.avaya.com>.

The following table provides acquisition information for the CMS R 19.2.X software:

Product	Software Acquisition	Required Patch or PSN
Call Management System R19.2.0.8	Version 9.0 of this document provides information on CMS 19.2.0.8 Service Pack load “gj.a” All software upgrades from versions older than CMS 19.1.0.0 to 19.2.0.8 must perform a CUE upgrade. Software upgrade from CMS 19.1.0.0 or 19.1.0.1 or newer to CMS 19.2.0.8 can perform base load upgrades to 19.2.0.6 and then to 19.2.0.8. If customers are running a pre-19.1.0.x CMS on one of the supported physical servers (Dell R630, Dell R730, HPE 380 G9, and HPE DL20 G9) an A1S design and order is required to upgrade to CMS 19.2.0.8 If customers have a virtual deployment of CMS, the CMS R19.2.0.6 OVA file can be acquired from PLDS and base load upgraded to 19.2.0.8. This includes CMS deployments on the Avaya Solutions Platform (ASP) servers.	PSN006189u only required in case of system entering emergency mode after upgrade.
	CMS Supervisor Web – Included with CMS Software acquired as noted above. IMPORTANT: CMS requires update of the Admin Sync package (provided by Avaya Professional Services) when installing 19.2.0.1 or newer. Please see Section 13. If your CMS already applied the Admin-Sync update, you are not required to update Admin-Sync again when going to 19.2.0.8.	

	CMS Supervisor PC Client– The following CMS Supervisor PC Client, Terminal Emulator and Network Reporting releases are available: CMS Supervisor PC Client QA.17 CMS Terminal Emulator QA.17 CMS Network Reporting QA.17	None
	CMS Linux RPM Updates: No special RPM updates are required at the time of GA of any 19.2.x versions.	None

2. Document Change History

Issue Number	Date	Comment
1.0	22 March 2021	Initial Version for CMS 19.2.x
1.1	14 May 2021	Web Client Patch available for Designer Report Migration. PC Client NC.03 version with bug fixes.
2.0	28 June 2021	Announcement of 19.2.0.1 (aka Service Pack 1). Bug fixes are documented in the appropriate sections of this document.
3.0	25 October 2021	Announcement of 19.2.0.2 (aka Service Pack 2) Bug fixes are documented in the appropriate sections of this document.
3.1	29 October 2021	Required patch for CMS web client in 19.2.0.2 only. See PSN005915u for details.
4.0	28 March 2022	Announcement of 19.2.0.3 (aka Service Pack 3) Bug fixes are documented in the appropriate sections of this document.
4.1	31 March 2022	Specify use of Admin Sync version 6.5.25
4.2	14 April 2022	Specify use of Admin Sync version 6.5.26
4.3	8 August 2022	Specify use of Admin Sync version 6.5.29
5.0	27 September 2022	Announcement of 19.2.0.4 (aka Service Pack 4) Bug fixes are documented in the appropriate sections of this document.
6.0	17 April 2023	Announcement of 19.2.0.5 (aka Service Pack 5) Bug fixes are documented in the appropriate sections of this document.
7.0	25 September 2023	Announcement of 19.2.0.6 (aka Service Pack 6)

		Bug fixes are documented in the appropriate sections of this document.
7.1	27 September 2023	Updated web client fixes list.
8.0	27 March 2024	Announcement of 19.2.0.7 (aka Service Pack 7) Bug fixes are documented in the appropriate sections of this document.
9.0	23 August 2024	Announcement of 19.2.0.8 (aka Service Pack 8) Bug fixes are documented in the appropriate sections of this document.
9.1	2 September 2004	Include CMS-8857 in released fixes.

3. CMS 19.2.0.8 Information

3.1. 19.2.0.8 New Functionality

CMS 19.2.0.8 introduces the following new functionality:

- Tomcat update to 9.0.93
- RHEL rpm updates
- QA17 Clients

3.2. 19.2.0.8 Bug Fixes

CMS Server fixes

Jira	Customer Reference	Summary
CMS-8879	PEA 1-A7ULNTP SR# 1-22113358292	Inconsistent extype in agex table for aux code 10 - 99

Web Client fixes

Jira	Customer Reference	Summary
CMS-8857		SQL Injection - types input field is susceptible

4. CMS 19.2.0.7 Information

4.1. 19.2.0.7 New Functionality

CMS 19.2.0.7 introduces the following new functionality:

- Tomcat update to 9.0.86
- RHEL rpm updates

Jira	Customer Reference	Summary
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CMS-8329	SR 1-19411486042 SR 1-2013485797	Initial issue is a customer issue with development of CLint interface. To make debugging easier 2 enhancements are delivered: 1. do not continue when there are window errors in CLint. 2. toolsbin/count_rtclint is created to count real time CLint license usage on demand.
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4.2. 19.2.0.7 Bug Fixes

CMS Server fixes

Jira	Customer Reference	Summary
CMS-8389	PEA 1-9BYK2NK SR# 1-20311791321	EWT is null although calls taken and EWTAUDIT messages sent

Web Client fixes

Jira	Customer Reference	Summary
CMS-8154	PEA 1-98UINWK SR# 1-20114461692	historical>agent>login/logout(skill) report not showing AM/PM after login times
CMS-8435		Web client not handling 'IS NULL' in a report Select statement
CMS-5947	PEA 1-81K5DQZ SR# 1-17501631521	CMS Web reports Export Data: Implement Include Labels and Headers

4.3. Known Issues with 19.2.0.7

- The PC client cannot create users with a dash (-) in the username. It can accept logins with dash (-).
- Configuring LDAP fails when FIPS mode is On. The workaround is to configure LDAP before enabling FIPS or turn off FIPS before configuring LDAP. Once the LDAP configuration screen of cmsadm menu has been completed, FIPS can be enabled, and LDAP works as expected.

5. CMS 19.2.0.6 Information

5.1. 19.2.0.6 New Functionality

CMS 19.2.0.6 introduces the following new functionality:

- Tomcat update to 9.0.80
- RHEL rpm updates

5.2. 19.2.0.6 Bug Fixes

CMS Server fixes

Jira	Customer Reference	Summary
N/A		

Web Client fixes

Jira	Customer Reference	Summary
N/A		

5.3. Known Issues with 19.2.0.6

The PC client cannot create users with a dash (-) in the username. It can accept logins with dash (-).

6. CMS 19.2.0.5 Information

6.1. 19.2.0.5 New Functionality

CMS 19.2.0.5 introduces the following new functionality:

- Tomcat update to 9.0.73
- RHEL rpm updates

6.2. 19.2.0.5 Bug Fixes

CMS Server fixes

Jira	Customer Reference	Summary
CMS-7143	INC4440071	LOGON/LOGOFF Agent Time inconsistency

Web Client fixes

Jira	Customer Reference	Summary
CMS-7121	PEA 1-8VWQX6E SR# 1-19298886362	Times not formatted correctly for locales using 24hr times in historical interval reports
CMS-7097	PEA 1-8URJVIY SR# 1-19260263802	Thresholds not retaining correct value when changed on web client
CMS-7083	PEA 1-8U5O8LP SR# 1-19232773492	Non English date ranges return data for only one date in cms web reports
CMS-7060	PEA 1-8SMXF8N SR# 1-19120790452	Web client reporting cannot handle more than one of certain constructs within a where clause
CMS-7059	PEA 1-8SMXF8N SR# 1-19120790452	Web client creates malformed query to server when LIKE is used in a report query

6.3. *Known Issues with 19.2.0.5*

The PC client cannot create users with a dash (-) in the username. It can accept logins with dash (-).

7. CMS 19.2.0.4 Information

7.1. *19.2.0.4 New Functionality*

CMS 19.2.0.4 introduces the following new functionality:

- Allow period(.), dash(-) and underscore (_) in user id.
- Tomcat update to 9.0.64
- Enhanced security in LDAP configuration

7.2. *19.2.0.4 Bug Fixes*

CMS Server fixes

Jira	Customer Reference	Summary
CMS-6243		Calls that appear in ECH where SPLIT1, SPLIT2, SPLIT3 items are not pegging as expected (RONA).
CMS-6177	PEA 1-8KZVKS0 / SR# 1-18681800132	Slow performance since upgrade from 18.1.0.3 to 19.2.0.x

Web Client fixes

Jira	Customer Reference	Summary
CMS-6314	PEA 1-8NGQRVB	LDAP login failure is not displayed on cmsweb
CMS-6237	PEA 1-8MI1S9I / SR# 1-18765912832	Web client search results unclear, reports don't open
CMS-6231	PEA 1-8LCQWJO / SR# 1-18667125052	Migrated web client integrated reports fail to run and result in a server error rather than the report displaying data.
CMS-5973	PEA 1-87IUCCR / SR# 1-17859346712	CMS Web Admin screen for Maintenance backup becomes stuck on Estimating space for backup
CMS-4494	PEA 1-87IUCCR / SR# 1-17859346712	CMS Web backup hangs / cannot be cancelled from cmsweb once it started

7.3. *Known Issues with 19.2.0.4*

The PC client cannot create users with a dash (-) in the username. It can accept logins with dash (-).

8. CMS 19.2.0.3 Information

8.1. 19.2.0.3 New Functionality

CMS 19.2.0.3 introduces the following new functionality:

- Web Client Report Data Export (See the 'CMS Report Data Export White Paper' on support.avaya.com for details.)
- Thresholds
 - Fields
 - Tables
- Accessibility improvements
- Pre Login Banner (See the 'Application notes for CMS Enterprise Login' on support.avaya.com for details.)
- Login authentication via personal certificate (See the 'Application notes for CMS Enterprise Login' on support.avaya.com for details.)
- Runtime Reports Alternate Row Styling (see section 8.1.1 below)
- Third Party software updates

8.1.1. Runtime Reports Alternate Row Styling

There is a new menu available on tables in reports at runtime. This allows the user toggle Alternate Row styling and switch between Sizing Columns and Auto size columns.

- Sizing Columns - to fit the page width
- Auto size columns – automatically sizes columns and provides a way to see a horizontal scrollbar



8.2. 19.2.0.3 Bug Fixes

CMS Server fixes

- INT8 Column Expansions Required In MSPLIT, WSPLIT - I_AuxTime, I_ACWTime

Web Client fixes

- Oldest call waiting is showing as a number rather than a formatted time for web Realtime > Split/Skill > Split/Skill Report
- Web Designer reports were not reopening after being saved in the Web Layout Editor
- Historical interval reports displaying interval start-end times in mismatched formats
- Web Supervisor report inputs preventing some valid characters from being used

- Fixes to existing report export data options (See the 'CMS Report Data Export White Paper' on support.avaya.com for details.)
- Web client unable to run reports with field IN (list) in a query
- Web client not honoring the Show Headers flag in report tables
- improvements for how CMS handles systems with large numbers of users and entities (e.g. VDNs) including in the user permissions screens

8.3. *Known Issues with 19.2.0.3*

- If the Agent String Values in the CMS Dictionary are changed from the defaults Thresholds may not be available in all cases.
- Although thresholds are available for Data fields on a report (in addition to table cells), setting and editing of the thresholds for data fields must be done using the thresholds button at the top of the report (there is no menu available over the data item)
- Thresholds for times are in seconds rather than time format
- Backup / Restore / load Pseudo-ACD data not working correctly from web client
- Migrated reports don't honor font information
- Migrated reports don't make full use of screen real estate

9. CMS 19.2.0.2 Information

9.1. *19.2.0.2 New Functionality*

CMS 19.2.0.2 introduces the following new functionality:

- CMS Web Client
 - Supports Drill Down for all report types.
 - See section 3.3 for known issues.
 - Supports Thresholds.
 - See section 3.3 for known issues.
 - Displays the last login and IP address of the last login for the user.

Note that if the last login was from the PC Supervisor client, the Web Client will display 'localhost' as the IP address for the last login.
 - Supports password authentication with Microsoft Azure, providing Multi-factor Authentication and Single-Sign On.

For details, please see the 'Application Notes CMS Enterprise Login' document posted in support.avaya.com.
- Improvements have been made to the Web Client for Data export. See the section below called 'Web Client Fixes' for details.
- CMS PC Supervisor version NC.06 now supports operation on Windows 11.

9.2. 19.2.0.2 Bug Fixes

CMS Server fixes

- Real Time VDN calls incorrectly pegged as calls waiting in the following scenario where the agent calls another Communication Manager: Agent places caller on hold, makes an outgoing call to another Communication Manager, places the outbound call on hold, reconnects to the caller, then completes the transfer, and goes into ACW.
- VDN report showing some ACD calls incorrectly as abandoned.
- For the web client, CMS now allows more than 32,000 rows (up to 1 million rows) of data to be returned on complex queries. Response time may be very slow depending on the full amount of data returned. For example: response time may exceed 10 minutes for 1 million rows of data. Customers still need to remove defunct user IDs from the CMS system to reduce query complexity.

Web Client fixes

- Data Export:
 - See the 'CMS Report Data Export White Paper' on support.avaya.com for details.
 - Data Export now provides labels and headers in the export file
 - Dates and times are now formatted in the export file.
- Designer Reports with a where clause having 'DATA_FIELD = [input reference]' inside parentheses failed to migrate.
- Migrated Designer Reports where the inputs have duplicate names results in an error when the report is executed.
- Provide an error when user enters an ACD number that does not exist.
- User not able to login when running in Safari on MacOS.
- Integrated Designer Report failed to combine the data correctly if there were multiple rows of data and the query included calculations before all the index columns in the query.
- Report fails if user has access to ACD2 , but not access to ACD1.
- The web client blocked use of some special characters during report input that were allowed by the PC Client.
- Web Client users were able to see reports in the menu when the user did not have permission for the report. The report would not display data and users were never able to see data for which they did not have permissions. Users will no longer be able to see or open reports for which they do not have permission.

PSN005812u has been updated to reflect continued Web Client improvements and available patches and contains information about the Admin Sync update.

This PSN will continue to be used to announce further web client bug fixes or enhancements.

9.3. Known Issues with 19.2.0.2

As of 29 October 2021, a patch has been made available for a new user login issue with the Web Client. See PSN005915u for details. In summary, when a new user is created and no password is assigned to the user, that user can login from the web client and will not be

prompted to set a password. The PC Client and ASCII interface logins are NOT impacted. Therefore, this patch is only necessary for customers using the web client.

The following are known issues with Thresholds in the Web Client:

- Thresholds must be entered as seconds. For example, 1 minute 30 seconds is entered at 90 seconds.
- Rotated tables (where the headings are shown down the left side of the table instead of across the top) do not yet have working thresholds. Thresholds can be set for rotated tables, but the thresholds will not display.
- Thresholds are only available for tables. No other fields outside tables will support Thresholds.
- There are a small number of cases where a column that should allow thresholds is not currently offering the ability to set a threshold.
- Reports with an input of 'Agent Group' do not yet support thresholds.
- Thresholds are not currently as finely grained as the PC client. For example, the "Integrated > Split/Skill > Comparison Report" on the PC client sets the thresholds on a per skill basis whereas the web client sets the same threshold value for all Skills.

The following are known issues with Drill Down in the Web Client:

- Drill down to an agent is currently showing 'Real Time Agent Information' twice in the drop-down menu. The second one should not be present and will open the wrong report if selected. Users should select the first option of 'Real Time Agent Information' from the drop-down menu.

The following are other known issues with the web client:

- Font settings on Designer Report are not honored during migration.
- Days and times are now in localized format in report tables. However, the days, months and AM/PM are not localized in the reports.

10. CMS 19.2.0.1 Information

Patches released for CMS 19.2.0.0 are no longer required with 19.2.0.1 Service Pack. See Appendix A for more information.

10.1. 19.2.0.1 New Functionality

- Two Web Client functions lacking from the initial 19.2.0.0 version of CMS are now available with CMS 19.2.0.1 Service Pack:
 - Printing is now supported from the Web Client.
 - Data Export is now supported from the Web Client.
- Migrated Designer Reports will now preserve the custom column width after Migration. The PC Supervisor client allows Designer Reports to be created with customized column width. Prior to 19.2.0.1 service pack, when Designer Reports were migrated to the non-Flash Web Client format, the custom column width was ignored, and all columns were created with the same uniform width.

With 19.2.0.1, custom column widths will be preserved during Designer Report Migration.

If customers have already migrated Designer Reports and are satisfied with the column width, no further action is required.

If customers would like to see the customized column width, the Designer Report must be migrated again after upgrade to 19.2.0.1.

- Tivoli Storage Manager Client version 8.1.12 is now supported.

10.2. 19.2.0.1 Bug Fixes

CMS Server fixes

- AWS deployments had a false error in the elog indicating 'unable to find correct RAID Card'. This false error has been removed.
- Calls Waiting was incorrectly pegged in the specific scenario where an agent is on an ACD incoming call, places the caller on hold, makes an outgoing call to a different Communication Manager, puts the outgoing call on hold, reconnects to the incoming call, then transfers the incoming call to the outgoing call, hangs up and goes into ACW or Available.

Web Client fixes

- The ACD report drop down menu was showing ACD numbers twice.
- Report input drop down menu now displays the last 8 values entered by the user.
- Real Time->Other->Mult-ACD report had an extra column.
- Updated several localized strings in the User Interface

11. CMS R19.2.0.0 Functionality

The CMS R19.2.0.0 release provides the following platform and feature support:

11.1. CMS R19.2.0.0 CMS Platform Support

CMS R19.2.0.0 has the same platform support as CMS R19.0.0.0 and CMS R19.1.0.0 which is the following platforms:

- Solutions Platform 130, this includes new sales and upgrades to existing Avaya Solutions Platform deployments.
- Virtualized deployment on VMware, this includes new sales and upgrades to existing VMware deployments.
- Virtualized deployments in Amazon Web Services (AWS), this includes new sales and upgrades to existing AWS deployments. Please see section 6 for details.
- Support **upgrades ONLY** on the following servers: Dell R630, Dell R730, HPE DL20 G9, HPE and HPE DL380 G9.
 - No other hardware platforms are supported
 - Customers on older hardware platforms running the Solaris operating system can no longer upgrade on existing hardware. A platform upgrade is required.

All software upgrades to CMS 19.2.0.0 from versions of CMS older than CMS R19.1.0.0 must perform a CUE upgrade. Software upgrades from 19.1.0.0 or 19.1.0.1 to 19.2.0.0 perform a Base Load upgrade.

11.2. *New CMS Features in R19.2.0.0*

This release contains several security related enhancements as well as other improvements.

- Support for VMware ESXI 7.
- No remote 'root' login. Login as the 'root' ID is possible at the console. All remote access attempts to login directly as 'root' will be blocked. Users must login as any other ID, then 'su' to 'root'.
- CMS User ID length can now be up to 31 characters. The same restrictions apply as in the past for Login IDs (alphanumeric only, no special characters).
- Web Client users will be restricted to only one login instance. When a user logs in via the Web Client, if an active Web Client login already exists, the user will be prompted to close the other login session. This login restriction ONLY applies for the Web Client.
- Several mvdn database table values were expanded to accommodate more data. When monthly archiving was run, the old database values could be overrun due to too much data, thus causing monthly archive to fail.
- Force password change for the 'cmssvc' login ID. The 'cmssvc' login ID is mostly used by Avaya Services Engineers. When deploying or upgrading CMS, if the cmssvc password has not be changed from the default, the user will be forced to enter a new password.

For additional details, please see the CMS product documents on <http://support.avaya.com>.

11.3. *Web Client New Features in 19.2.0.0*

This release provides the first availability of Web Client reports without the use of Flash. Administration via the web client never required Flash, thus there are no changes to Administration functions via the Web Client.

With 19.2 all *Standard* reports (Real Time, Historical and Integrated) are available without use of Flash.

The following features are not yet available for *Standard* reports in the Web Client:

- Printing
- Data Export
- Thresholds
- Drill Down

As of May 14, 2021, a patch is available for CMS 19.2.0.0 to allow Designer Report migration to the new non-Flash format.

When upgrading to CMS 19.2.0.1, the patch is no longer required. CMS 19.2.0.1 includes all the functionality discussed below in the patch.

NOTE: the patch AND 19.2.0.1 require an update to the Admin Sync package. See section 13 for details.

The CMS patch provides:

- Designer Report Migration
 - Along with the capability to track which Designer reports have been migrated and when
 - NOTE: that a copy of the report is created during migration and inputs and data queries are preserved.
- NEW Designer report folder hierarchy. The capability to create 3 levels of sub folders to store Designer Reports.
- Capability to Upload reports (similar to the PC Supervisor Client functionality)
- Capability to Copy reports (similar to the PC Supervisor Client functionality)

The following bug fixes are provided in the patch:

- When searching for an item using the browse feature on a report input, the search is no longer case sensitive.
- After completing the password change for a user, the 'successful' message was not removed from the screen.
- For historical reports, if users had a default refresh rate of more than 18 seconds, the 'ok' button was greyed out.
- Dictionary names now properly display in report headings.
- Eliminate false error message when modifying 'Split/Skill Profile' and 'VDN Call Profile' reports.
- In several places, the user was asked the same question twice or the same message displayed twice. These duplicated questions and messages have been removed.
- Calls waiting appear to be 'spiking' when running Integrated->Split/Skill->Comparison Report.

PSN005812u contains details on how to acquire and install the patch.

This PSN will continue to be used to announce further web client bug fixes or enhancements.

The ability to use Report Designer, Report Wizard and Scheduler from the Web Client will be planned for a future release of CMS. In the meantime, new or modified reports must be created using the PC Supervisor Client and migrated to the Web Client format (when report migration is available).

11.3.1. To Enable Flash Reports in the Web Client for 19.2.X

While CMS 19.2 provides Standard reports without the use of Flash, some customers may want to make the older Flash based reports available for use.

A 'Flash Reports' tab can be enabled in the web client by making the following changes:
set the variable *EnableFlashReports*=1 in /opt/cmsweb/data/system.properties file.

The 'root' user is required to change this file. After edit
Perform 'cmsweb stop' and 'cmsweb start'

Enabling the older Flash-Based reports can be useful if customers are using the Avaya
Alternative Access Utility (with an embedded Flash player).

This information is also detailed in PSN0057812u.

11.3.2. Known Issues with the Web Client in 19.2.0.0

The following are known issues at the time of initial GA of 19.2.0.0.

- Standard reports with charts are not all displaying properly. For example, some chart labels do not display, and some charts may be blank.
- Integrated Reports with averages may display NaN if no calls data is available.

Resolving these issues is a top priority. Please watch **PSN005812** for details on patch availability to resolve these known issues.

11.4. *Bugs Fixed in R19.2.0.0*

CMS Server fixes

The following bug fixes are included in CMS 19.2.0.0

- If agents logout and in within a second, sometimes the logout time was greater than the login time.
- Interactive PC Supervisor scripts failed to run when one script was run immediately after another.
- When the default port is changed from Post 22, for PC Supervisor, automatic scripting was not recognizing the different port.
- For calls that are direct agent queued, the value for queue time in the call history record was wrong.

PC Client fixes

CMS 19.2 PC Supervisor Client is backward compatible.

The following bug fixes are available with version NC.05:

- In the User Permissions menu, the "VDN Access" and "Vector Access" menu items were not available for Pseudo ACDs. This has been corrected.
- In the Change Agent Skills form, an error when handling list and range combinations of zero prefixed agent IDs resulted in incorrect Agent IDs being sent to the ACD (e.g., Agent ID '000712345' would be processed as '0000712345'). This has been corrected.

The following bug fixes are available with version NC.02:

- When multiple scripts are run very quickly in succession, processing of the script will stop.
- Some header and titles in Russian are not displaying correctly.
- Supervisor Change Agent Skills Template did not allow the supported total of 256 characters to be entered.

- Automatic script was configured to use a different port than the default port 22, and the script login failed. Automatic scripting now recognizes SSH port settings correctly.
- In some cases, automatic login failed during password reset.

12. Deployment Notes

This section contains information related to CMS R19.2.0.0 deployment in virtual environments.

CMS R19.2 now supports deployment in VMware ESXi 7.0 and continues to support VMware ESXi 6.5 and 6.7.

ESXi 5.5 and 6.0 are no longer supported, and customers use these versions of VMware at their own risk.

12.1. OVA file(s)

Two separate OVA files are provided. One OVA file specifically for use with AWS, and the other OVA file for use with VMware deployments.

For AWS ova ONLY, login as user '*cms*' with password '*avayaaws318*' then '*su*' to '*root*' to configure the system. Once logged in, the password for user '*cms*' can be changed. See the document Deploying Avaya Call Management System on Amazon Web Services for additional information.

12.2. VM Tools

With CMS R19.1 and later, open-vm-tools version 10336 replaces VMware installed VM tools. RedHat Linux 7.x installs open-vm-tools. The open-vm-tools version may be updated in future base load upgrades. VMware supports and recommends the use of open-vm-tools. For further information, refer to VMware documentation.

13. CMS Connectors

Admin Sync is an Avaya Professional Services offer and is used for CMS High Availability. Admin Sync ensures all Designer Reports are synchronized between the Primary and Secondary CMS systems. CMS R19.2.0.0 and later should have the Admin-Sync version 6.5.29 (or newer) installed.

Other CMS Connection Information

CMS Connectors are add-on interfaces that provide extra functionality on top of the standard CMS platform. Some examples are: CMS high availability and survivability support, historical data unloads, real time and historical Workforce Management, and real-time data feeds to both Avaya provided solutions (POM, ADW) and third-party servers.

As an example, two common CMS connectors that customers purchase are HA Admin Sync and ECH Handler. For a full list of the available CMS connectors, go to <https://support.avaya.com> and search for “CMS Connectors Overview”.

These connectors are usually implemented and supported by Avaya Professional Services but also may be installed by business partners. The most common connectors are available directly via A1S for ordering, WebLM for licensing, and PLDS for downloading. Look under the “APS CMS Connectors” application in PLDS.

When the CMS software is upgraded, the connectors need to be upgraded as well in order to maintain compatibility. This is typically only required for upgrades/migrations to new major release numbers (i.e. CMS R18 to CMS R19) and not for service pack releases (CMS19.1.0.0 to CMS 19.1.0.1).

When installing any CMS patch and any CMS Connector applications, please refer to the release notes for the various connectors and use the version specified.

There is a CMS Investigation Tool available on PLDS (Download ID: ACMS0000000000) that can assist the customer with identifying which connectors are installed on the current CMS release.

14. Software Download Information

For installation and upgrade implementation options, please consult your Account team or Sales team.

Please be sure to use the latest CMS documents for instructions on installing and upgrading to CMS R19.2.0.x. Always go to <http://support.avaya.com>, to obtain a current copy of the documents for each product release.

Appendix A: Patch Installation Instructions

19.2.0.2

For 19.2.0.2 a patch is available that is necessary only for customers using the Web Client. See PSN005915u for instructions and details.

Also see the earlier section of this document called “Known Issues for 19.2.0.2” for a short summary of the issue.

19.2.0.3

Patch available on support.avaya.com

1. Download cmsweb-R19.2.0.3ge.j.bin to / on the CMS system.
Checksum is: 883c14a45c883f4e2bf3546caec9da6b
2. Verify the md5 checksum for the downloaded files. Execute the following:
Prompt> cd /
Prompt> md5sum cmsweb-R19.2.0.3ge.j.bin
Compare the output of this command to the above noted checksum that applies for each of the downloaded files.
If the numbers do not match, there was a problem with the download, try download again.
3. Chmod on the downloaded files to make each executable
Prompt> chmod 744 cmsweb-R19.2.0.3ge.j.bin
4. Stop the web client
Prompt> cmsweb stop
5. Install the patch files
Prompt> ./ cmsweb-R19.2.0.3ge.j.bin
6. Start the web client
Prompt> cmsweb start

Appendix B: Linux RPMs included in CMS R19.2.0.8

acl-2.2.51-15.el7.x86_64	adobe-mappings-cmap-20171205-3.el7.noarch	adobe-mappings-cmap-deprecated-20171205-3.el7.noarch	adobe-mappings-pdf-20180407-1.el7.noarch
aic94xx-firmware-30-6.el7.noarch	alsa-firmware-1.0.28-2.el7.noarch	alsa-lib-1.1.8-1.el7.x86_64	alsa-tools-firmware-1.1.0-1.el7.x86_64
apr-1.4.8-7.el7.x86_64	at-3.1.13-25.el7_9.x86_64	audispd-plugins-2.8.5-4.el7.x86_64	audit-2.8.5-4.el7.x86_64
audit-libs-2.8.5-4.el7.x86_64	authconfig-6.2.8-30.el7.x86_64	autogen-libopts-5.18-5.el7.x86_64	avahi-glib-0.6.31-20.el7.x86_64
avahi-libs-0.6.31-20.el7.x86_64	basesystem-10.0-7.el7.noarch	bash-4.2.46-35.el7_9.x86_64	bc-1.06.95-13.el7.x86_64
bind-export-libs-9.11.4-26.P2.el7_9.16.x86_64	bind-libs-9.11.4-26.P2.el7_9.16.x86_64	bind-libs-lite-9.11.4-26.P2.el7_9.16.x86_64	bind-license-9.11.4-26.P2.el7_9.16.noarch
bind-utils-9.11.4-26.P2.el7_9.16.x86_64	binutils-2.27-44.base.el7_9.1.x86_64	biosdevname-0.7.3-2.el7.x86_64	btrfs-progs-4.9.1-1.el7.x86_64
bzip2-1.0.6-13.el7.x86_64	bzip2-libs-1.0.6-13.el7.x86_64	ca-certificates-2023.2.60_v7.0.306-72.el7_9.noarch	cairo-1.15.12-4.el7.x86_64
c-ares-1.10.0-3.el7_9.1.x86_64	chkconfig-1.7.6-1.el7.x86_64	chrony-3.4-1.el7.x86_64	cms-R19.2.0.7-Lgi.b.x86_64
cmsweb-R19.2.0.7-web19gi.b.x86_64	copy-jdk-configs-3.3-11.el7_9.noarch	coreutils-8.22-24.el7_9.2.x86_64	cpio-2.11-28.el7.x86_64
cracklib-2.9.0-11.el7.x86_64	cracklib-dicts-2.9.0-11.el7.x86_64	cronie-1.4.11-25.el7_9.x86_64	cronie-anacron-1.4.11-25.el7_9.x86_64
crontabs-1.11-6.20121102git.el7.noarch	cryptsetup-2.0.3-6.el7.x86_64	cryptsetup-libs-2.0.3-6.el7.x86_64	cups-1.6.3-52.el7_9.x86_64
cups-client-1.6.3-52.el7_9.x86_64	cups-filesystem-1.6.3-52.el7_9.noarch	cups-filters-1.0.35-29.el7_9.x86_64	cups-filters-libs-1.0.35-29.el7_9.x86_64
cups-libs-1.6.3-52.el7_9.x86_64	curl-7.29.0-59.el7_9.2.x86_64	cyrus-sasl-2.1.26-24.el7_9.x86_64	cyrus-sasl-gssapi-2.1.26-24.el7_9.x86_64
cyrus-sasl-lib-2.1.26-24.el7_9.x86_64	dbus-1.10.24-15.el7.x86_64	dbus-glib-0.100-7.el7.x86_64	dbus-libs-1.10.24-15.el7.x86_64
dbus-python-1.1.1-9.el7.x86_64	dejavu-fonts-common-2.33-6.el7.noarch	dejavu-sans-fonts-2.33-6.el7.noarch	desktop-file-utils-0.23-2.el7.x86_64
device-mapper-1.02.170-6.el7_9.5.x86_64	device-mapper-libs-1.02.170-6.el7_9.5.x86_64	dhclient-4.2.5-83.el7_9.2.x86_64	dhcp-common-4.2.5-83.el7_9.2.x86_64
dhcp-libs-4.2.5-83.el7_9.2.x86_64	diffutils-3.3-6.el7_9.x86_64	dmidecode-3.2-5.el7_9.1.x86_64	dos2unix-6.0.3-7.el7.x86_64
dracut-033-572.el7.x86_64	dracut-config-rescue-033-572.el7.x86_64	dracut-network-033-572.el7.x86_64	e2fsprogs-1.42.9-19.el7.x86_64
e2fsprogs-libs-1.42.9-19.el7.x86_64	easg-1.1-0.AV01.el7.x86_64	ebtables-2.0.10-16.el7.x86_64	elfutils-default-yama-scope-0.176-5.el7.noarch
elfutils-libelf-0.176-5.el7.x86_64	elfutils-libs-0.176-5.el7.x86_64	emacs-filesystem-24.3-23.el7_9.1.noarch	ethtool-4.8-10.el7.x86_64
expat-2.1.0-15.el7_9.x86_64	expect-5.45-14.el7_1.x86_64	file-5.11-37.el7.x86_64	file-libs-5.11-37.el7.x86_64
filesystem-3.2-25.el7.x86_64	findutils-4.5.11-6.el7.x86_64	fipscheck-1.4.1-6.el7.x86_64	fipscheck-lib-1.4.1-6.el7.x86_64
firewalld-0.6.3-13.el7_9.noarch	firewalld-filesystem-0.6.3-13.el7_9.noarch	fontconfig-2.13.0-4.3.el7.x86_64	fontpackages-filesystem-1.44-8.el7.noarch
freetype-2.8-14.el7_9.1.x86_64	ftp-0.17-67.el7.x86_64	fuse-2.9.2-11.el7.x86_64	fuse-libs-2.9.2-11.el7.x86_64
fxload-2002_04_11-16.el7.x86_64	gawk-4.0.2-4.el7_3.1.x86_64	gdb-7.6.1-120.el7.x86_64	gdbm-1.10-8.el7.x86_64
GeoIP-1.5.0-14.el7.x86_64	geoipupdate-2.5.0-2.el7.x86_64	gettext-0.19.8.1-3.el7_9.x86_64	gettext-libs-0.19.8.1-3.el7_9.x86_64
ghostscript-9.25-5.el7.x86_64	ghostscript-cups-9.25-5.el7.x86_64	ghostscript-fonts-5.50-32.el7.noarch	giflib-4.1.6-9.el7.x86_64
glib2-2.56.1-9.el7_9.x86_64	glibc-2.17-326.el7_9.3.x86_64	glibc-common-2.17-326.el7_9.3.x86_64	gmp-6.0.0-15.el7.x86_64
gnupg2-2.0.22-5.el7_5.x86_64	gnutls-3.3.29-9.el7_6.x86_64	gobject-introspection-1.56.1-1.el7.x86_64	gpgme-1.3.2-5.el7.x86_64
gpg-pubkey-2fa658e0-45700c69	gpg-pubkey-fd431d51-4ae0493b	gpm-libs-1.20.7-6.el7.x86_64	graphite2-1.3.10-1.el7_3.x86_64
grep-2.20-3.el7.x86_64	groff-base-1.22.2-8.el7.x86_64	grub2-2.02-0.87.el7_9.14.x86_64	grub2-common-2.02-0.87.el7_9.14.noarch

grub2-pc-2.02-0.87.el7_9.14.x86_64	grub2-pc-modules-2.02-0.87.el7_9.14.noarch	grub2-tools-2.02-0.87.el7_9.14.x86_64	grub2-tools-extra-2.02-0.87.el7_9.14.x86_64
grub2-tools-minimal-2.02-0.87.el7_9.14.x86_64	grubby-8.28-26.el7.x86_64	gskcrypt64-8.0-50.88.x86_64	gsskssl64-8.0-50.88.x86_64
gssproxy-0.7.0-30.el7_9.x86_64	gzip-1.5-11.el7_9.x86_64	hardlink-1.0-19.el7.x86_64	harfbuzz-1.7.5-2.el7.x86_64
hesiod-3.2.1-3.el7.x86_64	hostname-3.13-3.el7_7.1.x86_64	hpsscli-2.0-23.0.x86_64	http-parser-2.7.1-9.el7.x86_64
hwdata-0.252-9.7.el7.x86_64	info-5.1-5.el7.x86_64	initscripts-9.49.53-1.el7_9.1.x86_64	iproute-4.11.0-30.el7.x86_64
iprutils-2.4.17.1-3.el7_7.x86_64	ipset-7.1-1.el7.x86_64	ipset-libs-7.1-1.el7.x86_64	iptables-1.4.21-35.el7.x86_64
iptables-services-1.4.21-35.el7.x86_64	iputils-20160308-10.el7.x86_64	irqbalance-1.0.7-12.el7.x86_64	ivtv-firmware-20080701-26.el7.noarch
iwl1000-firmware-39.31.5.1-83.el7_9.noarch	iwl100-firmware-39.31.5.1-83.el7_9.noarch	iwl105-firmware-18.168.6.1-83.el7_9.noarch	iwl135-firmware-18.168.6.1-83.el7_9.noarch
iwl2000-firmware-18.168.6.1-83.el7_9.noarch	iwl2030-firmware-18.168.6.1-83.el7_9.noarch	iwl3160-firmware-25.30.13.0-83.el7_9.noarch	iwl3945-firmware-15.32.2.9-83.el7_9.noarch
iwl4965-firmware-228.61.2.24-83.el7_9.noarch	iwl5000-firmware-8.83.5.1_1-83.el7_9.noarch	iwl5150-firmware-8.24.2.2-83.el7_9.noarch	iwl6000-firmware-9.221.4.1-83.el7_9.noarch
iwl6000g2a-firmware-18.168.6.1-83.el7_9.noarch	iwl6000g2b-firmware-18.168.6.1-83.el7_9.noarch	iwl6050-firmware-41.28.5.1-83.el7_9.noarch	iwl7260-firmware-25.30.13.0-83.el7_9.noarch
jansson-2.10-1.el7.x86_64	java-11-openjdk-11.0.23.0.9-2.el7_9.x86_64	java-11-openjdk-headless-11.0.23.0.9-2.el7_9.x86_64	javapackages-tools-3.4.1-11.el7.noarch
jbigkit-libs-2.0-11.el7.x86_64	json-c-0.11-4.el7_0.x86_64	kbd-1.15.5-16.el7_9.x86_64	kbd-legacy-1.15.5-16.el7_9.noarch
kbd-misc-1.15.5-16.el7_9.noarch	kernel-3.10.0-1160.119.1.el7.x86_64	kernel-3.10.0-1160.99.1.el7.x86_64	kernel-tools-3.10.0-1160.119.1.el7.x86_64
kernel-tools-libs-3.10.0-1160.119.1.el7.x86_64	kexec-tools-2.0.15-51.el7_9.3.x86_64	keyutils-1.5.8-3.el7.x86_64	keyutils-libs-1.5.8-3.el7.x86_64
kmod-20-28.el7.x86_64	kmod-libs-20-28.el7.x86_64	kpartx-0.4.9-136.el7_9.x86_64	krb5-libs-1.15.1-55.el7_9.x86_64
ksh-20120801-144.el7_9.x86_64	lcms2-2.6-3.el7.x86_64	less-458-10.el7_9.x86_64	libacl-2.2.51-15.el7.x86_64
libaio-0.3.109-13.el7.x86_64	libassuan-2.1.0-3.el7.x86_64	libattr-2.4.46-13.el7.x86_64	libbasicobjects-0.1.1-32.el7.x86_64
libblkid-2.23.2-65.el7_9.1.x86_64	libcap-2.22-11.el7.x86_64	libcap-ng-0.7.5-4.el7.x86_64	libcollection-0.7.0-32.el7.x86_64
libcom_err-1.42.9-19.el7.x86_64	libcroco-0.6.12-6.el7_9.x86_64	libcurl-7.29.0-59.el7_9.2.x86_64	libdaemon-0.14-7.el7.x86_64
libdb-5.3.21-25.el7.x86_64	libdb-utils-5.3.21-25.el7.x86_64	libdhash-0.5.0-32.el7.x86_64	libdnf-1.12-13.1.el7.x86_64
libdrm-2.4.97-2.el7.x86_64	libedit-3.0-12.20121213cvs.el7.x86_64	liberation-fonts-common-1.07.2-16.el7.noarch	liberation-mono-fonts-1.07.2-16.el7.noarch
libestr-0.1.9-2.el7.x86_64	libevent-2.0.21-4.el7.x86_64	libfastjson-0.99.4-3.el7.x86_64	libffi-3.0.13-19.el7.x86_64
libfontenc-1.1.3-3.el7.x86_64	libgcc-4.8.5-44.el7.x86_64	libgcrypt-1.5.3-14.el7.x86_64	libglvnd-1.0.1-0.8.git5baa1e5.el7.x86_64
libglvnd-egl-1.0.1-0.8.git5baa1e5.el7.x86_64	libglvnd-glx-1.0.1-0.8.git5baa1e5.el7.x86_64	libgomp-4.8.5-44.el7.x86_64	libgpg-error-1.12-3.el7.x86_64
libgs-9.25-5.el7.x86_64	libgudev1-219-78.el7_9.9.x86_64	libICE-1.0.9-9.el7.x86_64	libicu-50.2-4.el7_7.x86_64
libidn-1.28-4.el7.x86_64	libini_config-1.3.1-32.el7.x86_64	libipa_hbac-1.16.5-10.el7_9.16.x86_64	libjpeg-turbo-1.2.90-8.el7.x86_64
libldb-1.5.4-2.el7_9.x86_64	libmnl-1.0.3-7.el7.x86_64	libmount-2.23.2-65.el7_9.1.x86_64	libmspack-0.5-0.8.alpha.el7.x86_64
libndp-1.2-9.el7.x86_64	libnetfilter_conntrack-1.0.6-1.el7_3.x86_64	libnftnl-1.0.1-4.el7.x86_64	libnfsidmap-0.25-19.el7.x86_64
libnl-1.1.4-3.el7.x86_64	libnl3-3.2.28-4.el7.x86_64	libnl3-cli-3.2.28-4.el7.x86_64	libpaper-1.1.24-9.el7.x86_64
libpath_utils-0.2.1-32.el7.x86_64	libpcap-1.5.3-13.el7_9.x86_64	libpciaccess-0.14-1.el7.x86_64	libpipeline-1.2.3-3.el7.x86_64
libpng-1.5.13-8.el7.x86_64	libpwquality-1.2.3-5.el7.x86_64	libref_array-0.1.5-32.el7.x86_64	libseccomp-2.3.1-4.el7.x86_64
libselenium-2.5-15.el7.x86_64	libselenium-python-2.5-15.el7.x86_64	libselenium-utils-2.5-15.el7.x86_64	libsemanage-2.5-14.el7.x86_64

libsepol-2.5-10.el7.x86_64	libSM-1.2.2-2.el7.x86_64	libsmartcols-2.23.2-65.el7_9.1.x86_64	libsmclient-4.10.16-25.el7_9.x86_64
libss-1.42.9-19.el7.x86_64	libssh2-1.8.0-4.el7_9.1.x86_64	libsss_autofs-1.16.5-10.el7_9.16.x86_64	libsss_certmap-1.16.5-10.el7_9.16.x86_64
libsss_idmap-1.16.5-10.el7_9.16.x86_64	libsss_nss_idmap-1.16.5-10.el7_9.16.x86_64	libsss_sudo-1.16.5-10.el7_9.16.x86_64	libstdc++-4.8.5-44.el7.x86_64
libsysfs-2.1.0-16.el7.x86_64	libtalloc-2.1.16-1.el7.x86_64	libtasn1-4.10-1.el7.x86_64	libtdb-1.3.18-1.el7.x86_64
libteam-1.29-3.el7.x86_64	libtevent-0.9.39-1.el7.x86_64	libtiff-4.0.3-35.el7.x86_64	libtirpc-0.2.4-0.16.el7.x86_64
libtool-ltdl-2.4.2-22.el7_3.x86_64	libunistring-0.9.3-9.el7.x86_64	libusb-1.0.21-1.el7.x86_64	libuser-0.60-9.el7.x86_64
libutempter-1.1.6-4.el7.x86_64	Lib_Utils-1.00-09.noarch	libuuid-2.23.2-65.el7_9.1.x86_64	libverto-0.2.5-4.el7.x86_64
libverto-libevent-0.2.5-4.el7.x86_64	libwayland-client-1.15.0-1.el7.x86_64	libwayland-server-1.15.0-1.el7.x86_64	libwbclient-4.10.16-25.el7_9.x86_64
libX11-1.6.7-5.el7_9.x86_64	libX11-common-1.6.7-5.el7_9.noarch	libXau-1.0.8-2.1.el7.x86_64	libxcb-1.13-1.el7.x86_64
libXcomposite-0.4.4-4.1.el7.x86_64	libXcursor-1.1.15-1.el7.x86_64	libXdamage-1.1.4-4.1.el7.x86_64	libXext-1.3.3-3.el7.x86_64
libXfixes-5.0.3-1.el7.x86_64	libXfont-1.5.4-1.el7.x86_64	libXi-1.7.9-1.el7.x86_64	libXinerama-1.1.3-2.1.el7.x86_64
libxml2-2.9.1-6.el7_9.6.x86_64	libxml2-devel-2.9.1-6.el7_9.6.x86_64	libxml2-python-2.9.1-6.el7_9.6.x86_64	libXmu-1.1.2-2.el7.x86_64
libXrandr-1.5.1-2.el7.x86_64	libXrender-0.9.10-1.el7.x86_64	libxshmfence-1.2-1.el7.x86_64	libxslt-1.1.28-6.el7.x86_64
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