



# Contact Center Enterprise Solutions

- [New Features, on page 1](#)
- [Updated Features, on page 8](#)
- [Important Notes, on page 12](#)
- [Deprecated Features, on page 13](#)
- [Removed and Unsupported Features, on page 14](#)
- [Third Party Software Impacts, on page 15](#)

## New Features

The following table lists the new features available for each Contact Center Enterprise solution in Release 12.6(1).

**Table 1: New Features for Contact Center Enterprise Solutions**

Feature	Unified CCE	Packaged CCE
<a href="#">VPN-less Access to Finesse Desktop (For Agents and Supervisors), on page 2</a>	Yes	Yes
<a href="#">Agent Answers, on page 3</a>	Yes	Yes
<a href="#">Edge Chromium Browser Support, on page 4</a>	Yes	Yes
<a href="#">Simplified Upgrade, on page 4</a>	Yes	Yes
<a href="#">Graceful Shutdown, on page 5</a>	Yes	Yes
<a href="#">AppDynamics Native Integration with CCE, on page 5</a>	Yes	Yes
<a href="#">Support for 36000 Agents, on page 5</a>	Yes	
<a href="#">Custom Truststore to Store Component Certificates, on page 6</a>	Yes	Yes

Feature	Unified CCE	Packaged CCE
<a href="#">vMotion, on page 6</a>	Yes	Yes
<a href="#">Dual Platform Support, on page 7</a>	Yes	Yes
<a href="#">ECDSA Certificates, on page 7</a>	Yes	Yes
<a href="#">Webex Workforce Optimization (WFO) Support with Contact Center Enterprise (CCE) Solutions</a>	Yes	Yes

## Authentication for Reverse-Proxy Connections (ES02 Update)

Finesse introduces authentication at the edge for the reverse-proxy. Authentication is supported for both SSO and Non-SSO deployments. Authentication is enforced for all requests and protocols that are accepted at the proxy before they are forwarded to the respective component servers (Finesse, IdS, CUIC, and IdP). The component servers also enforce authentication locally. All authentications made at the proxy use the Finesse login credentials, irrespective of the component server to which the requests are made. For more information on authentication, see the **Authentication** topic under the **VPN-Less Access to Finesse Desktop** section in the [Cisco Unified Contact Center Enterprise Features Guide](#). For complete list of enhancements to the VPN-Less configuration, refer to the [Nginx TechNote article](#).

## Configurable Reverse-Proxy Host Verification (ES03 Update)

You can enable and disable SSL certificate verification for connections that are established from reverse-proxy hosts to Cisco Web Proxy Service by using the **utils system reverse-proxy client-auth** CLI command. For more information about reverse-proxy host authentication see the **Configure Reverse-Proxy Host Authentication** section in [Cisco Unified Contact Center Enterprise Features Guide](#).

## VPN-less Access to Finesse Desktop (For Agents and Supervisors)

This feature provides the flexibility for agents and supervisors to access the Finesse desktop from anywhere through the Internet without requiring VPN connectivity to the enterprise data center. To enable this feature, a reverse-proxy pair must be deployed in the DMZ. For more information on this feature, see the [Cisco Unified Contact Center Enterprise Features Guide, Release 12.6\(1\)](#) and [Security Guide for Cisco Unified ICM/Contact Center Enterprise, Release 12.6\(1\)](#).

Media access remains unchanged in reverse-proxy deployments. To connect to the media, agents and supervisors can use Cisco Jabber over MRA or the Mobile Agent capability of Contact Center Enterprise with a PSTN or mobile endpoint.

To use VPN-less access to Finesse desktop, you must upgrade Finesse, IdS, and CUIC to Release 12.6(1) ES02 or above. If you are using Unified CCE 12.6(1), you must upgrade Live Data to 12.6(1) ES02 or above. You can access the 12.6(1) ES03 Release and Readme from the following locations:

- [Finesse 12.6\(1\) ES](#)
- [CUIC/LD/IdS 12.6\(1\) ES](#)

**Note**

- For Nginx-based reverse-proxy rules, installation, configuration, and security hardening instructions, refer to the [Nginx TechNote article](#). Any reverse-proxy supporting the required criteria (as mentioned in the **Reverse-Proxy Selection Criteria** section of [Cisco Unified Contact Center Enterprise Features Guide, Release 12.6\(1\)](#)) can be used in place of Nginx for supporting this feature.
- If CORS status is "enabled", you must explicitly add the reverse-proxy domain name to the list of CORS trusted domain names.

## Agent Answers

Unified CCE leverages Artificial Intelligence (AI) and Natural Language Understanding (NLU) to provide services that assist agents. These Contact Center AI services are available for the agents through the Agent Answers gadget and the Call Transcript gadget on the Cisco Finesse desktop.

The Agent Answers gadget displays relevant suggestions and recommendations in real time for the agent to consider. The suggestions and recommendations are based on the ongoing conversation between the caller and the agent. Agent Answers enhances the customer experience because the timely suggestions improve the ability of the agent to respond.

The Call Transcript gadget dynamically converts the ongoing voice conversation to text and presents the text to an agent for real-time viewing and reference.

For details on how to configure the Agent Answers and Call Transcription features, see the *Agent Answers* and the *Call Transcription* chapters in the following documents:

- *Cisco Unified Contact Center Enterprise Features Guide, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-feature-guides-list.html>
- *Cisco Packaged Contact Center Enterprise Features Guide, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-maintenance-guides-list.html>

For information on the design considerations of the Agent Answers and Call Transcription features, see the *Contact Center AI Services Considerations* section in following documents:

- *Solution Design Guide for Cisco Unified Contact Center Enterprise, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html>
- *Solution Design Guide for Cisco Packaged Contact Center Enterprise, Release 12.6* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-technical-reference-list.html>

**Note**

To enable Agent Answers or Call Transcript features, ensure your Cisco Unified CVP is on 12.6(1) ES 06, Cisco Finesse is on 12.6(1) ES 01, and Cloud Connect is on 12.6.

## Edge Chromium Browser Support

This release supports Edge Chromium (Microsoft Edge) . For more information, see the *Supported Browsers* section in the *Contact Center Enterprise Solution Compatibility Matrix* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html>.

## Simplified Upgrade

The Orchestration feature provides partners and administrators an option to automatically download software updates and simplify the installation and rollback processes. Integration of Graceful Shutdown feature within the Orchestration framework ensures that the software updates are updated with minimal downtime. The Orchestration framework is built within the Cloud Connect server that connects to the Cisco-hosted cloud software repository. This framework provides the ability to check and download new software updates as and when they are available and notify the administrators via email about the new updates along with the release notes. Orchestration currently supports installation and rollback of Cisco Engineering Specials (ES), Service Updates (SU), Minor Releases (MR), and Microsoft Patches.

Cloud Connect server version 12.6(1) supports Orchestration in the following scenarios:

- CCE 12.5(x) ES, 12.6(x) ES and Windows Updates can be orchestrated from 12.6(x) Cloud Connect server
- CCE 12.5(1) to 12.5(2) or 12.6(1) software upgrade can be orchestrated from 12.6(x) Cloud Connect server



---

**Note** ICM 12.5(2) to 12.6(1) upgrade is not supported either manually or via orchestration.

Apply the mandatory patch on Cloud Connect to Orchestrate 12.5(2) ES and software upgrade.

---

The following are the known limitations:

- Orchestration is not supported for Tech Refresh and fresh install.
- Orchestration is not supported for Cisco Customer Collaboration Platform (CCP), Cisco Enterprise Chat and Email (ECE), Cisco Unified Contact Center Domain Manager (CCDM), Cisco Unified Contact Center Management Portal (CCMP), and non-Contact Center Cisco products such as Cisco Unified Communications Manager (CUCM), IM&P etc.
- The administrators should read the release notes specifically for ES releases that are notified via email to understand the dependency on each component. The Orchestration framework does not track this aspect automatically. For example, if an ES of Finesse has a dependency on an ES of Live Data and has to be installed in a specific order, then the administrator should consider this before initiating the patch installation from the Cloud Connect server.
- Only Microsoft Exchange Server is supported for email notification; Office 365 and Gmail are not supported as of now.



---

**Note** Orchestration is not supported for 12000, 24000, and 36000 agent deployment models.

---

## Graceful Shutdown

Graceful shutdown allows you to perform firmware upgrades, apply security patches, and apply Engineering Specials (ES) without the need for a maintenance window. With this feature, active calls and sessions are transitioned over to secondary or redundant components before an upgrade process is initiated on the target system. Agent states, call states, and call context are maintained. Operations such as reskilling and changing an agent's team membership are not affected.

For more information, see the following documents:

- *Administration Guide for Cisco Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-maintenance-guides-list.html>
- *Cisco Packaged Contact Center Enterprise Administration and Configuration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-maintenance-guides-list.html>

## AppDynamics Native Integration with CCE

For Cisco Contact Center Enterprise solution, it is important to have continuous and seamless monitoring of the deployed solution and automated alerting when anomalies are detected. AppDynamics provides a solution for application and platform performance monitoring that helps to achieve the following:

- Platform, application, and End User Monitoring (EUM) through dashboards and metrics.
- Automated alerting mechanism in case of anomaly detection.

For ordering and setting up AppDynamics SAAS controller, please contact [appd\\_ucce\\_sales@cisco.com](mailto:appd_ucce_sales@cisco.com)



---

**Note** For AppDynamics, CCE supports SaaS and On-Prem controller (version 21.4.10-24683) over secure connection only.

---

## Support for 36000 Agents

You can modify your existing 24000 agent reference design to scale up to 36000 agents. This is accomplished by adding more peripheral VMs and peripheral gateways to the deployment and modifying specific configuration limits. You must also modify the OVA files for Live Data and Cisco Identity Service (IdS).

For more information about configuring your solution for 36000 agents, see the following documents:

- *Solution Design Guide for Cisco Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html>

- *Solution Design Guide for Cisco Hosted Collaboration Solution for Contact Center* at <https://www.cisco.com/c/en/us/support/unified-communications/hosted-collaboration-solution-contact-center/products-implementation-design-guides-list.html>.

For more details, see the *Scale up to 36000 Agents* topic in the *Solution Design Guide for Cisco Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html>

## Custom Truststore to Store Component Certificates

Starting Unified CCE 12.6(x), a new custom truststore is created under the Unified ICM Installation directory `<ICM install directory>\ssl\cacerts` to store all the component certificates. With this new custom truststore, you don't need to export and import the certificates each time Java is updated in the system.

After upgrading from Unified CCE 12.5(x) to Unified CCE 12.6(x), you should export the certificates from the Java truststore to the custom truststore under the Unified ICM Installation directory `<ICM install directory>\ssl\cacerts`.

Export the certificate from the Java truststore:

- Run the command at the command prompt: `cd %JAVA_HOME%\bin.`




---

**Important** Use CCE\_JAVA\_HOME if upgrading from Unified CCE 12.5(1a) or Unified CCE 12.5(1) with ES55 (mandatory OpenJDK ES).

---

- Export the certificates of all the components imported into the truststore.

The command to export the certificates is `keytool -export -keystore <JRE path>\lib\security\cacerts -alias <alias of the component> -file <filepath>.cer`

- Enter the truststore password when prompted.

Import the certificate to the custom truststore:

- Run the command at the command prompt: `cd %CCE_JAVA_HOME%\bin.`

- Import the certificates for all the components that you exported from the Java truststore.

The command to import certificates is `keytool -import -keystore <ICM install directory>\ssl\cacerts -file <filepath>.cer -alias <alias>.`

- Enter the truststore password when prompted.
- Enter 'yes' when prompted to trust the certificate.

## vMotion

Cisco Contact Center Enterprise solution components now support vMotion of live virtual machines (VMs) on Cisco Hyperflex servers. VMware vMotion enables the live migration of running VMs from one physical server to another with zero downtime, continuous service availability, and complete transaction integrity. vMotion is a key enabling technology for creating dynamic, automated, and self-optimizing data centers.

## Dual Platform Support

Contact Center Enterprise (CCE) components supports the following platforms:

- Microsoft Windows Server 2016 and Microsoft SQL Server 2017
- Microsoft Windows Server 2019 and Microsoft SQL Server 2019



---

**Note** The cross combination of platforms is not supported. For example, Windows Server 2016 with SQL Server 2019 or Windows Server 2019 with SQL Server 2017 is not supported.

---

For more information, see the *Install Microsoft Windows Server* section in the Cisco Packaged Contact Center Enterprise Installation and Upgrade Guide at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-installation-guides-list.html>

## ECDSA Certificates

This release supports Elliptic Curve Digital Signature Algorithm (ECDSA) certificate, which can be enabled in Unified CCE, Cisco Unified CVP, Cisco Finesse, Cloud Connect, CUIC, Cisco VVB, Cisco IdS, and ECE.

For details on how to enable ECDSA, see *Enabling ECDSA for Unified CCE Solution* in *Security Guide for Cisco Unified ICM/Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html>

To enable ECDSA certificate, the following solution components in the specified versions, and the respective Engineering Specials (ES) are required. You have to install the below ESes in the order listed:

- [Cloud Connect 12.6\(1\) ES1](#)
- [Cisco VVB 12.6\(1\) ES1](#)
- [Cisco CVP 12.6\(1\) ES6](#)
- [CUIC 12.6\(1\) ES1](#)
- [Cisco Finesse 12.6\(1\) ES1](#)
- [ICM 12.6\(1\) ES9](#)

## Webex Workforce Optimization (WFO) Support with Contact Center Enterprise (CCE) Solutions

The Contact Center Enterprise (Unified CCE/Packaged CCE/Webex CCE) solutions supports the Webex Workforce Optimization offering. See <https://www.cisco.com/c/en/us/support/contact-center/webex-workforce-optimization/series.html>.

## Updated Features

The following table lists the updated features available for each Contact Center Enterprise solution in Release 12.6(1).

**Table 2: Updated Features for Contact Center Enterprise Solutions**

Feature	Unified CCE	Packaged CCE
<a href="#">Webex Experience Management Integration with Post Call Survey, on page 8</a>	Yes	Yes
<a href="#">SMS and Email Survey after Voice, on page 9</a>	Yes	Yes
<a href="#">Non-Production System (NPS), on page 10</a>	Yes	Yes
<a href="#">Database Schema Changes, on page 10</a>	Yes	Yes
<a href="#">Password Hashing, on page 11</a>	Yes	Yes
<a href="#">Diagnostic Framework Portico, on page 11</a>	Yes	Yes
<a href="#">Increased PG Agent Capacity for Mobile Agents, on page 9</a>	Yes	Yes
<a href="#">Enable or Disable Outbound Dialer from Redialing Failed Personal Callbacks (ES65 Update), on page 12</a>	Yes	Yes
<a href="#">Inactivity Timer</a>	Yes	Yes

## Webex Experience Management Integration with Post Call Survey

The Voice surveys can be triggered through Webex Experience Management or by using the traditional Post Call Survey (using CVP IVR).

Webex Experience Management surveys use the same scripting and call flows as Post Call Survey, except that the Questionnaire is provided by the cloud-based Experience Management service. The Call Studio survey application, to be invoked, is configured in the router script that runs during the survey leg of the call, and is passed to the CVP through an ECC variable.

The Call Studio application fetches the questions from the Experience Management service, collects the answers from the caller, and submits them to the Experience Management service over REST APIs.

For more information on how to configure Experience Management, see the *Webex Experience Management Integration* chapter in the following documents:



- *Cisco Unified Contact Center Enterprise Features Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-feature-guides-list.html>
- *Cisco Packaged Contact Center Enterprise Features Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-maintenance-guides-list.html>

Experience Management is supported in all the deployment types. For more information on the call flow and design considerations, see the following documents:

- *Solution Design Guide for Cisco Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html>
- *Solution Design Guide for Cisco Packaged Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-technical-reference-list.html>

## Increased PG Agent Capacity for Mobile Agents

The mobile agent capacity on the PG are as follows:

- 2000 with nailed-up connections (1:1)
- 1500 with nailed-up connections if the average handle time is less than 3 minutes, or if agent greeting or whisper announcement features are used with the mobile agent (1.3:1)
- 1500 with call-by-call connections (1.3:1)

For more details, see the *PG Agent Capacity with Mobile Agents* section in the *Sizing and Operating Conditions for Reference Designs* chapter in the following documents:

- *Solution Design Guide for Cisco Unified Contact Center Enterprise, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html>
- *Solution Design Guide for Cisco Packaged Contact Center Enterprise, Release 12.6* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-technical-reference-list.html>

## SMS and Email Survey after Voice

**Cisco Webex Experience Management** (referred to as Experience Management), introduced in 12.5(1), is a Customer Experience Management (CEM) solution that allows you to see your business from the perspective of your customers.

In 12.6(1), this feature is extended to SMS and Email. Customers can participate in surveys using the links sent over SMS or email. The survey results help the agents and the supervisors to offer more personalized and contextual experience to the customers.

Administrators can configure and customize the survey in the **Experience Management** console. The responses are displayed on the **Customer Experience Journey** gadget in the Finesse.

For more information, refer to the section *Webex Experience Management Integration* in the following documents:

- *Cisco Unified Contact Center Enterprise Features Guide, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-feature-guides-list.html>
- *Cisco Packaged Contact Center Enterprise Features Guide, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-maintenance-guides-list.html>

## Non-Production System (NPS)

In this release, Non-Production System (NPS) usage mode is introduced to give you more control on license usage. With NPS, you can switch from production deployment to other deployment types such as lab, testing, and staging.

For more information, refer to the section *Smart Licensing* in one of the following documents:

- *Administration Guide for Cisco Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-maintenance-guides-list.html>
- *Packaged Contact Center Enterprise Administration and Configuration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-maintenance-guides-list.html>

## Database Schema Changes

### Unified CCE Database Schema Changes

This release introduces minor database schema changes. The release includes changes to these tables:

Table	Changes
Smart_License_Server	Added the following columns to the existing table. <ol style="list-style-type: none"> <li>1. UsageMode</li> <li>2. SlrEnabled</li> <li>3. SlrStatus</li> </ol>
As part of Agent Answers added new tables: <ol style="list-style-type: none"> <li>1. Default_Configuration</li> <li>2. Agent_Service_Enabled</li> </ol>	-
Call_Type	Added a new column called CCAIConfigParamter.
Termination_Call_Detail	Added the following columns to the existing table. <ol style="list-style-type: none"> <li>1. AgentAnswersEnabled</li> <li>2. AgentTeamID</li> </ol>
ICR_Globals	Added a new column called GlobalSecureFlag.

## Password Hashing

This release includes a key security update which allows more secure hashing for agent and supervisor passwords in the non-SSO mode.

A Global switch is introduced in the **Manage Security** tab on Unified CCE Administration console to enforce SHA-256 hashing. When the switch is turned on, the MD5-based hashes are removed. The administrator must re-enter the passwords in the Unified CCE Administration console/Configuration Manager. Then the passwords are hashed with SHA-256 algorithm. For more information on how to enable or disable the global switch see one of the following documents:

- *Cisco Unified Contact Center Enterprise Developer Reference Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-programming-reference-guides-list.html>
- *Cisco Packaged Contact Center Enterprise Developer Reference Guide* at <https://d1nmyq4gcgsfi5.cloudfront.net/site/packaged-contact-center/documentation/>

## Diagnostic Framework Portico

The Unified ICM/Unified CCE Diagnostic Framework Portico has moved to form-based authentication for login. It has a new login page, an option to log out, and a 30 minute session timeout.



---

**Note** The **GetMenu** URL is now deprecated.

---



---

**Note** For more information, see *Diagnostic Tools* section in the *Serviceability Guide for Cisco Unified ICM/Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html>

---

## Enhanced Database Migration Tool (EDMT) Support

EDMT is used for seamlessly migrating data across different versions.

During the upgrade from 12.0(1) and 12.5(1) to 12.6(1), you can use EDMT 12.6(1) for data migration and synchronization.

You can also use EDMT 12.6(1), during the Technology Refresh migration from Windows Server 2016 to Windows Server 2019 on 12.6(1).

For more information on EDMT, see the following documents:

- *Cisco Unified Contact Center Installation and Upgrade Guide*: <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-guides-list.html>
- *Cisco Packaged Contact Center Installation and Upgrade Guide*: <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-installation-guides-list.html>

## Enable or Disable Outbound Dialer from Redialing Failed Personal Callbacks (ES65 Update)

You can now update the Dialer registry settings to enable or disable the outbound Dialer from retrying or redialing failed personal callbacks with dialing errors (where the CallResult value is 2).

For more information, see the **Dialer Registry Settings** section in the [Cisco Unified Contact Center Enterprise Outbound Options Guide](#).

## Inactivity Timer



---

**Note** This feature requires ICM\_12.6(2)\_ES9 to be installed on the 12.6(2) target system.

---

Administrators can now configure the inactivity timeout for a session to avoid being logged out after 30 minutes of inactivity. Navigate to the **Unified CCE Administration Portal > Call Settings > Miscellaneous** tab to set the inactivity time.

For instructions, see the *Miscellaneous* section in the [Cisco Packaged Contact Center Enterprise Administration and Configuration Guide](#).

For instructions, see the *System Setting for Unified CCE Deployment* section in the [Administration Guide for Cisco Unified Contact Center Enterprise](#).

## Important Notes

### IdS Upgrade

If you are upgrading Cisco Identity Service (IdS) to 12.6(1) and above, after the upgrade, you must reestablish trust relationship between the Identity Provider (IdP) and the IdS. This step is not required if you are using Microsoft ADFS as the IdP.

### OpenJDK Java Runtime Update

CCE has transitioned from Oracle to OpenJDK for the Java runtime environment (JRE). The CCE 12.6(1) installer will install the required OpenJDK version. If the existing Oracle JRE is not needed, you may uninstall it from the system manually.

For more information, see the following documents:

- *Cisco Unified Contact Center Enterprise Installation and Upgrade Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-guides-list.html>
- *Security Guide for Cisco Unified ICM/Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html>

- *Cisco Packaged Contact Center Enterprise Installation and Upgrade Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-installation-guides-list.html>

For information about supported Java versions, see the *Contact Center Enterprise Solution Compatibility Matrix* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html>.

## SQL Server Execution Plan Issue

Microsoft SQL Server 2016 and later includes a set of query optimizer enhancements. Under rare circumstances, queries against the Logger historical data have shown higher bandwidth and disk utilization. Interaction with the Logger VM becomes sluggish and the Windows Resource monitor shows close to 100 percent active time on the SQL Server database drive.

If you observe this issue, upgrade Microsoft SQL Server to the latest service pack. If you still experience this issue, run the following query against the database to set compatibility to Microsoft SQL Server 2014:

```
"Alter Database <dbname> set COMPATIBILITY_LEVEL = 120"
```

You can run this query while the system is in operation. For more information about this issue, refer to [CSCvw51851](#).

## Tomcat Utility Changes

The `-revert` command, which was used to revert Tomcat to its previous version, is removed. To revert Tomcat to a previous version, run the Tomcat utility with the installer of that Tomcat version.

For more information, see the Security Guide for Cisco Unified ICM/Contact Center Enterprise: <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html>.

## Deprecated Features

Deprecated features are fully supported. However, there is no additional development for deprecated features. These features may be scheduled to be removed in a future release. Plan to transition to the designated replacement feature. If you are implementing a new deployment, use the replacement technology rather than the deprecated feature.

**Table 3: Deprecated Features**

Deprecated Feature	Announced in Release	Replacement	Notes
UCC Enterprise Gateway PG (Parent PG in Parent-Child deployments)	12.5(1)	None	None
Integrity Check Tool	12.0(1)	None	None
External Script Validation	12.0(1)	None	None

Deprecated Feature	Announced in Release	Replacement	Notes
Translation Route Wizard	12.0(1)	Translation Route Explorer	None
Generic PG	11.5(1)	Agent PG and VRU PG	None
ECSPIM/Avaya (Definity) PG using CVLAN interface	11.5(1)	TAESPIM/Avaya (Definity) PG using TSAPI interface	CVLAN interface is deprecated by vendor with limited or no active development support
Webex Experience Management	14 November, 2022	None	Experience Management integration planned.

## Removed and Unsupported Features

The features listed in the following table are no longer available.

**Table 4: Removed and Unsupported Features/Solution**

Feature	Effective from Release	Replacement
Internet Explorer 11	12.6(1)	Edge Chromium (Microsoft Edge)
Avaya Aura Contact Center (AACC - formerly Symposium) PG	12.6(1)	Migrate to Contact Center Enterprise or Webex CCE.
Aspect PG	12.6(1)	Migrate to Contact Center Enterprise or Webex CCE.
Symposium ACD	12.6(1)	Migrate to Contact Center Enterprise or Webex CCE.
MIB Objects: <ul style="list-style-type: none"> <li>• cccaDistAwWebViewEnabled</li> <li>• cccaDistAwWebViewServerName</li> <li>• cccaSupportToolsURL</li> <li>• cccaDialerCallAttemptsPerSec</li> </ul>	12.6(1)	None
"Sprawler" deployment	12.6(1)	Packaged CCE deployment

Feature	Effective from Release	Replacement
Customer Journey Analyzer for Business Metrics (Trials)	12.6(1)	None <b>Note</b> Customer Journey Analyzer was available for trials only in Release 12.5(1). The trials have been discontinued.
Shared ACD Line	12.6(1)	Agent Device Selection <b>Note</b> For more information on device selection, see the <i>Agent Device Selection</i> section in <i>Cisco Finesse Agent and Supervisor Desktop User Guide</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-user-guide-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-user-guide-list.html</a> .
Cisco Hosted Collaboration Solution for Contact Center (HCS-CC)	12.6(1)	Unified CCE / Packaged CCE / Webex CCE.

## Third Party Software Impacts

For information about third-party software, see the *Contact Center Enterprise Solution Compatibility Matrix* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html>.

