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Microsoft Skype for Business Deployment Guide

Prerequisites

Prerequisites

Contents

- **1 Prerequisites**
 - 1.1 Software Requirements
 - 1.2 Hardware Requirements
 - 1.3 Licensing Requirements

T-Server has a number of prerequisites for deployment. Read through this section before deploying T-Server for Skype for Business.

Important

A key prerequisite before deploying the Genesys software is that the Skype for Business environment is deployed and functioning as expected. All features that are provided by Skype for Business must be active. Presence, IM, voice, and video are available for direct communication between Skype for Business clients, along with PSTN connectivity to Skype for Business clients if required by the deployment.

Microsoft recommends an Enterprise Edition Skype for Business pool for use with contact centers.

Important

On the Skype For Business Front End Pool that is used by Connector, the Meeting Configuration option **PstnCallersBypassLobby** must be enabled. This feature is enabled by default when creating a new Application Pool in Skype For Business so no specific action is required, but this feature should never be disabled on the Front End Pool used by Connector.

The Standard Edition server is designed for small organizations, and for pilot projects of large organizations. It enables many of the features of Skype, and the necessary databases, to run on a single server. This enables you to have Skype functionality for a lower cost, but does not provide a true high-availability solution.

Standard Edition server enables you to use instant messaging (IM), presence, conferencing, and Enterprise Voice, all running on one server. For a high-availability solution, use Skype Enterprise Edition. Thus, contact centers and other mission-critical workloads will work on Standard Edition boxes but this solution is NOT recommended.

Enterprise Edition is recommended for the following reasons:

- High-Availability and Disaster Recovery features are only available on Enterprise Edition. Contact center agents and the Application itself can be deployed redundantly in the form of a paired pool on Enterprise Edition for Disaster Recovery. Additionally, if a Front End server is taken out of service, other Front End servers will balance the load.
- Performance/Expansion—Enterprise Edition pools can be scaled up and down by adding or removing Front End servers.

Genesys cannot guarantee any performance level on a Standard Edition platform.

Software Requirements

T-Server supports UCMA 5.0 and UCMA 6.0 with Skype for Business.

1. Ensure you have installed UCMA Runtime.
 1. For UCMA 5.0 support, you must ensure that you have installed the Skype for Business Server and applied the latest Microsoft Cumulative server updates as well as the latest UCMA 5.0 Runtime updates. See the following pages for more information:
 1. <https://www.microsoft.com/en-us/download/details.aspx?id=47344>
 2. <https://support.microsoft.com/en-us/help/3061064/updates-for-skype-for-business-server-2015>
 2. For UCMA 6.0 support, you must ensure that you have installed the Skype for Business Server and applied the latest Microsoft Cumulative server updates as well as the latest UCMA 6.0 Runtime updates. See the following pages for more information:
 1. <https://www.microsoft.com/en-us/download/details.aspx?id=57507>
 2. <https://support.microsoft.com/en-us/help/4470124/updates-for-skype-for-business-server-2019>
2. The Workspace Plugin for Skype for Business uses 32-bit DLLs. So, you must install the 32-bit Microsoft Office Skype for Business client. The 64-bit Microsoft Office Skype for Business Client is not supported.
3. Review [Microsoft Patching Policy](#).
4. Review [DNS Requirements](#).
5. UCMA Connector supports two modes: provision-mode. If you use the auto-provisioning mode, complete the *Activating an auto-provisioned application* procedure on the host where the Connector will be running. See Microsoft documentation for details:
 1. Skype for Business: [https://msdn.microsoft.com/en-us/library/dn466123\(v=office.16\).aspx](https://msdn.microsoft.com/en-us/library/dn466123(v=office.16).aspx)

Genesys Components

You can only configure T-Server after you have deployed the Configuration Layer of Genesys Framework. This layer contains Configuration Server, the Configuration Database, and Genesys Administrator (or Configuration Manager). If you intend to monitor or control T-Server through the Management Layer, you must also install and configure components of this Framework layer, such as Local Control Agent (LCA), Database Access Point (DAP), Message Server, Log Database, and Solution Control Server (SCS) before deploying T-Server.

Refer to the [Management Framework Deployment Guide](#) for information about, and deployment instructions for these Framework components.

Recommended minimum versions of Genesys components:

- SIP Server 8.1.102.62+
- URS 8.1.3+
- ORS 8.1.3+
- Stat Server 8.1.2+
- GVP 8.5.1+

Microsoft Patching Policy

Skype for Business Server Updates

Microsoft delivers patches and updates for these components in Cumulative Update packages that must be manually downloaded and applied.

- Genesys installs and tests all Cumulative Update packages to ensure they are fully compatible with a Genesys deployment. Each Cumulative Update will be explicitly documented.
- Genesys recommends that customers do not apply Cumulative Updates for Skype for Business before Genesys has completed their tests and has approved these Cumulative Updates.

Skype for Business Server 2019 Cumulative Update Status

Genesys has tested and approved the following Skype for Business Server Cumulative Update (CU) versions:

CU Version	Release Date	Status
7.0.2046.385	December 2021	Approved with T-Server 9.0.001+
7.0.2046.369	May 2021	Approved with T-Server 9.0.001+
7.0.2046.367	March 2021	Approved with T-Server 9.0.001+
7.0.2046.252	February 2021	Approved with T-Server 9.0.001+
7.0.2046.248	November 2020	Approved with T-Server 9.0.001+
7.0.2046.244	September 2020	Approved with T-Server 9.0.001+
7.0.2046.236	July 2020	Approved with T-Server 9.0.001+
7.0.2046.216	March 2020	Approved with T-Server 9.0.001+
7.0.2046.151	December 2019	Approved with T-Server 9.0.001+
7.0.2046.143	September 2019	Approved with T-Server 9.0.001+
7.0.2046.123	July 2019	Approved with T-Server 9.0.001+

See this link for details and installation instructions: <https://support.microsoft.com/en-us/help/4470124/updates-for-skype-for-business-server-2019>.

Skype for Business Server 2015 Cumulative Update Status

Genesys has tested and approved the following Skype for Business Server Cumulative Update (CU) versions:

CU Version	Release Date	Status
6.0.9319.623	February 2022	Approved with T-Server 9.0.001+
6.0.9319.619	Aug 2021	Approved with T-Server 9.0.001+
6.0.9319.606	May 2021	Approved with T-Server 9.0.001+
6.0.9319.601	February 2021	Approved with T-Server 9.0.001+
6.0.9319.598	November 2020	Approved with T-Server 9.0.001+

CU Version	Release Date	Status
6.0.9319.591	July 2020	Approved with T-Server 9.0.001+
6.0.9319.562	August 2019	Approved with T-Server 9.0.001+
6.0.9319.556	July 2019	Approved with T-Server 9.0.001+
6.0.9319.548	May 2019	Approved with T-Server 8.5.001.65+
6.0.9319.544	Mar 2019	Approved with T-Server 8.5.001.65+
6.0.9319.534	July 2018	Approved with T-Server 8.5.001.65+
6.0.9319.516	April 2018	Approved with T-Server 8.5.001.49+
6.0.9319.510	December 2017	Approved with T-Server 8.5.001.49+
6.0.9319.281	May 2017	Approved with T-Server 8.5.001.02+
6.0.9319.277	February 2017	Approved with T-Server 8.5.001.02+
6.0.9319.272	November 2016	Approved with T-Server 8.5.001.02+
6.0.9319.259	June 2016	Approved with T-Server 8.5.001.02+
6.0.9319.102	November 2015	Approved

See this link for details and installation instructions: <https://support.microsoft.com/en-gb/kb/3061064>.

Skype for Business Client Versions

For the Skype for Business client versions, Genesys recommends that customers follow their normal IT patching policies. The Skype for Business clients used in the Genesys testing environments are updated using the Microsoft Office Current Channel.

Important

Genesys does not recommend installing Skype for Business client version 16.0.7329.1083, because of its stability issues. Those issues were fixed and successfully tested by Genesys in Skype for Business client version 16.0.7766.7080.

Microsoft Windows Updates and Security Patches

For regular Windows updates and security patches, Genesys recommends that customers follow their normal IT patching policies. These patches are applied on a weekly basis in the Genesys testing environments as they are delivered from Microsoft. If any patch is found to interfere with the normal operation of a Genesys deployment, then these issues will be documented.

Skype for Business DNS Requirements

Genesys Multimedia Connector for Skype for Business only has the following DNS requirement for proper operation:

- All hosts where Genesys Multimedia Connector for Skype for Business is deployed must be able to reach the Skype for Business Front End Pool and all Front End servers belonging to that pool.
- All Skype for Business Front End servers must be able to reach the FQDN of every host defined in the Skype for Business Trusted Application Pool used for the deployment of Skype for Business Multimedia Connector.

In order for Skype for Business to provide all services required by Skype for Business Multimedia Connector, all DNS prerequisites defined by Microsoft must be fulfilled. The following links provide useful information:

- <https://technet.microsoft.com/en-us/library/dn951397.aspx>
- <https://docs.microsoft.com/en-us/skypeforbusiness/plan-your-deployment/edge-server-deployments/advanced-edge-server-dns>
- <https://blogs.technet.microsoft.com/praj/2016/10/14/skype-for-business-client-sign-in-call-flow-detailed/>

Hardware Requirements

Both Skype for Business Server 2015 Enterprise Edition server roles and computers running the respective administrative tools require 64-bit hardware.

The specific hardware varies depending on the size and usage requirements.

For best performance, it is recommended to run Skype for Business Server 2015 Enterprise Edition on servers with hardware that meets the requirements described in Microsoft documentation below. Use of less powerful hardware may cause functionality issues or poor performance.

Minimum Hardware Requirements

T-Server for Skype for Business:

- 1 core CPU
- 4 GB memory

UCMA Connector:

- 6 core CPU
- 8 GB memory

SQL database size:

- Ensure that free disk space on Front End servers is at least twice the size of the local SQL database. This size can be estimated by looking at the size of the folder “<DeploymentDrive>:\CsData” on the Front

End server.

Consult the following Microsoft guides for server hardware sizing:

- Skype for Business 2015— <https://technet.microsoft.com/en-us/library/dn951388.aspx>
- Skype for Business 2019— <https://docs.microsoft.com/en-us/SkypeForBusiness/plan/system-requirements>

Licensing Requirements

All Genesys software is licensed. Genesys products are protected through legal license conditions as part of your purchase contract. However, the level of technical license-control enforcement varies across different solutions and components.

T-Server for Skype for Business as all Genesys T-Servers uses License Manager for licensing. Connector does not need any additional licensing.

Before you begin to install T-Server, remember that, although you may not have had to use technical licenses for your software when you deployed the Configuration and Management Layers in their basic configurations, this is not the case with the Media Layer. T-Server requires seat-related DN technical licenses to operate even in its most basic configuration. Without appropriate licenses, you cannot install and start T-Server. If you have not already done so, Genesys recommends that you install License Manager and configure a license file at this point. For complete information on which products require what types of licenses, and on the installation procedure for License Manager, refer to the [Genesys Licensing Guide](#).

Licensing HA Implementations

T-Servers operating with the hot standby redundancy type require a special CTI HA technical license, which allows for high-availability implementations, in addition to regular T-Server licenses. Neither T-Server in a redundant pair configured for hot standby starts if this license is unavailable. Moreover, the primary and backup T-Servers must use the same licenses to control the same pool of DNs. If your T-Servers are configured with the hot standby redundancy type, order licenses for CTI HA support.

Licensing Multi-Site Implementations

T-Servers/SIP Servers performing multi-site operations require licenses that allow for such operations, in addition to regular T-Server licenses. While T-Server for Skype for Business only performs multi-site operations with SIP Server, a Multi-Site license is still required in the deployment.