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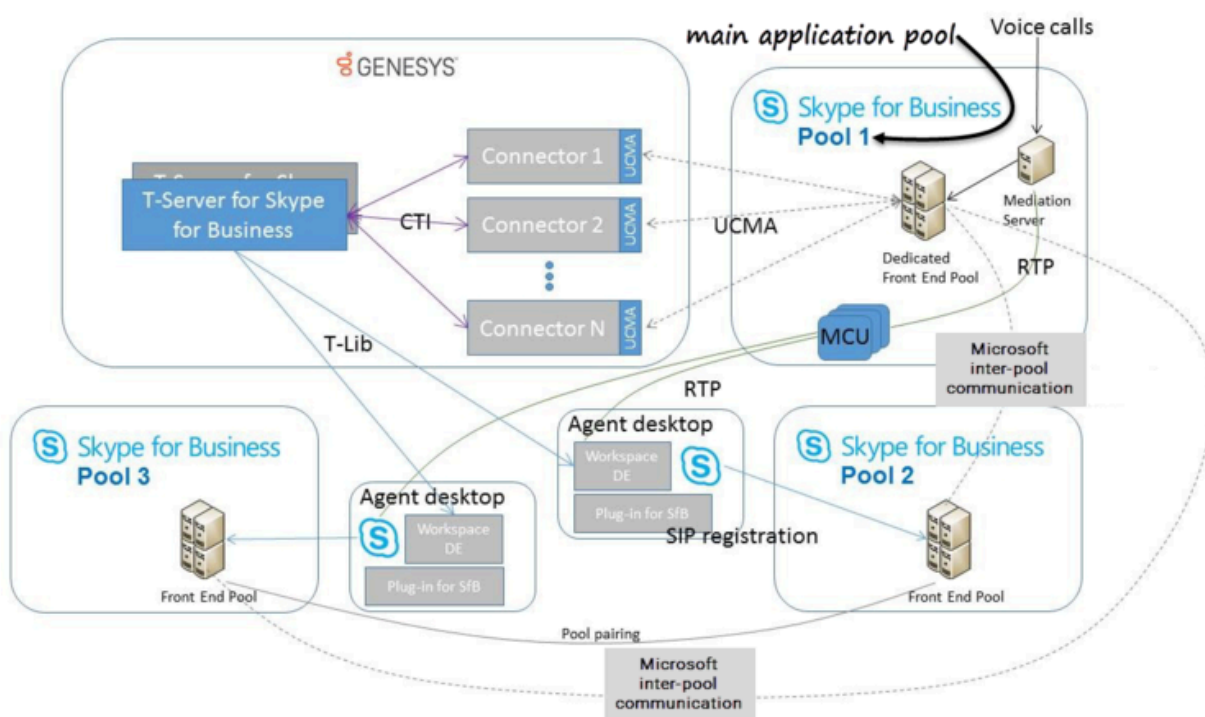
Microsoft Skype for Business Deployment Guide

Multiple Application Pools

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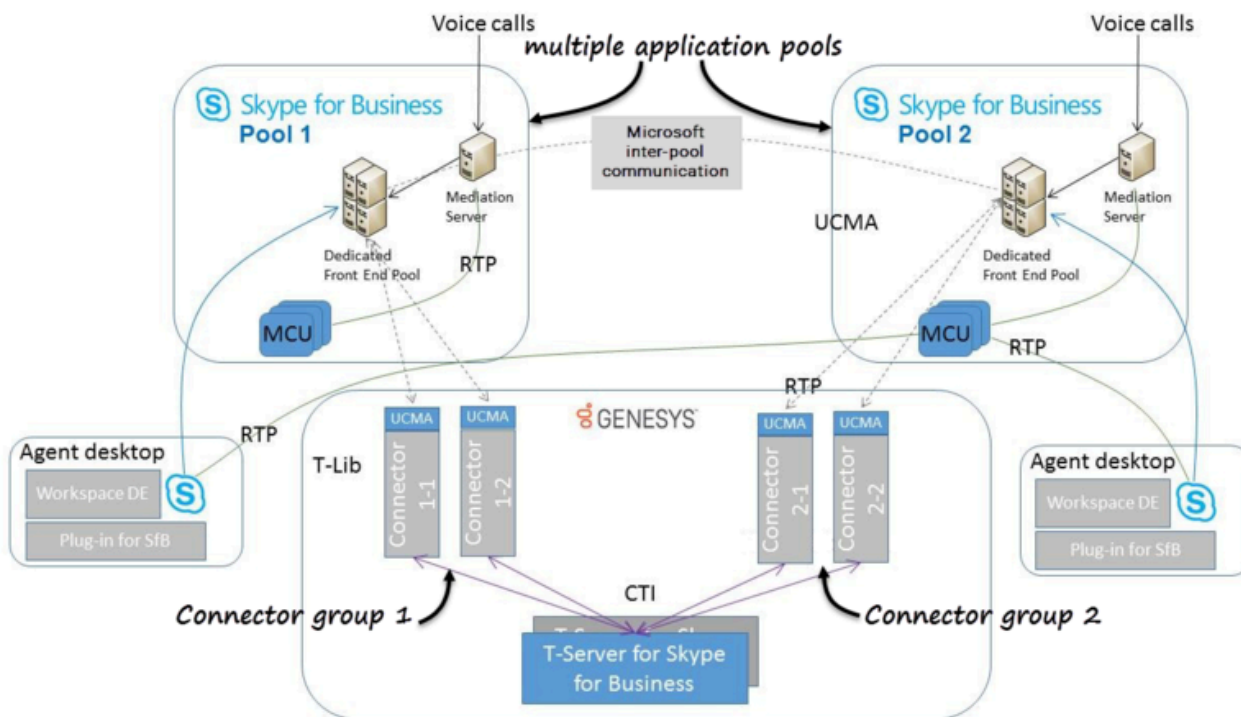
Background

Before the introduction of the Multiple Application Pools feature, all Connectors were connected to the main Application pool, which had a dedicated Front End Pool server which could be used to control agents defined in other pools through Microsoft's inter-pool communication protocol.



Multiple Application pool architecture

With the implementation of this feature, T-Server/Connectors support an architecture in which Connectors can configure and control resources that belong to different application Front End Server pools.



Information about which Application pool is used by Connector is retrieved from the relevant link section in the T-Server configuration. By specifying the new option **pool-name** within the T-Server link configuration, T-Server can group all the Connectors that serve a specific Skype for Business Application pool.

Furthermore, each group of Connectors can have its own dedicated SIP Server configuration that will allow the reduction of traffic when performing remote treatments or remote recording scenarios, especially if the Skype for Business Application Pools are located geographically in different places.

Pool Assignment

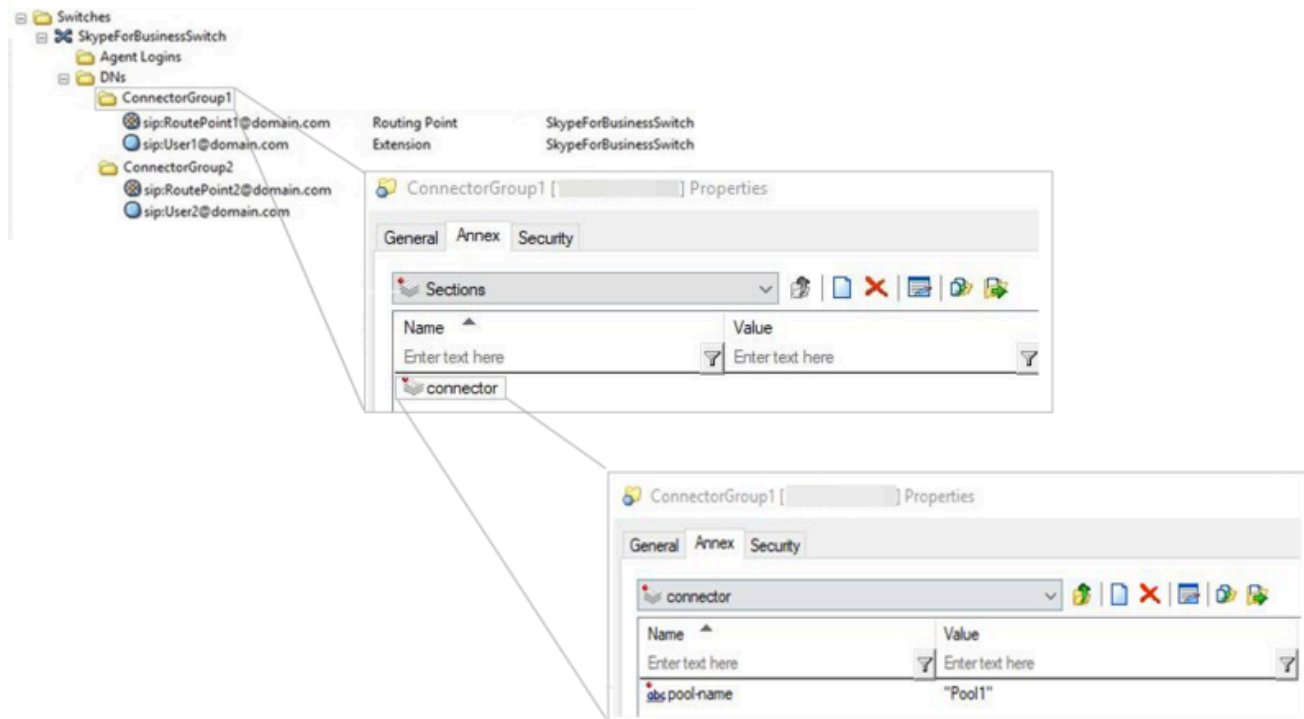
To assign connectors and DN to multiple Application Pools configure the following:

- in the T-Server Switch object—configure the new option **pool-name** on the **Annex** tab of the sub-folders of the DN configuration of the T-Server Switch object that maps to the relevant Application pool.
- in the T-Server **link-n-name** section—configure the **pool-name** option in the **[link-n-name]** section of the Connector that will serve the Application pool.
- in the T-Server **link-n-name** section—for non-default Application pools only, configure the **use-certificate** option in the **[link-n-name]** section of the Connector that will serve the Application pool. This defines whether the certificate-thumbprint is used when performing a connection to a link specified in this section.

When the pool name in the Switch object and the link sections are matched, T-Server associates the Connector with the relevant folder for the matched Application pool.

Example

In the T-Server Switch object



- In the **Annex** tab of folder **ConnectorGroup1** option **pool-name** = Pool1.
- In the **Annex** tab of folder **ConnectorGroup2** option **pool-name** = Pool2.
- Connector 1-1 and 1-2 connect to Skype For Business Pool 1.
- Connector 2-1 and 2-2 connect to Skype For Business Pool 2.

T-Server link sections

In T-Server there are four link sections for the four Connectors in the diagram. They would have the following settings:

Link-1

hostname = Connector1-1 host
port = Connector1-1 port
pool-name = Pool1

Link-2

hostname = Connector1-2 host
port = Connector1-2 port
pool-name = Pool1

Link-3

hostname = Connector2-1 host
port = Connector1-1 port
pool-name = Pool2

Link-4

hostname = Connector2-1 host
port = Connector2-1 port
pool-name = Pool2

T-Server matches sections Link-1 and Link-2 to folder ConnectorGroup1 because the pool-name defined in the folder **Annex** tab matches the value provided in the link section configurations. T-Server then registers User1 and RoutePoint1 with Skype For Business Pool 1.

T-Server matches sections Link-3 and Link-4 to folder ConnectorGroup2 because the pool-name defined in the folder **Annex** tab matches the value provided in the link section configurations. T-Server then registers User2 and RoutePoint2 with Skype For Business Pool 2.

Configuring the *default* pool

One Application pool is defined as the *default* pool. This pool inherits all T-Server Application-level options, which are listed below. If any other non-default Application pool is defined but does not have the relevant application-level configuration options set, such a pool will inherit the missing configuration option settings from the default pool's settings. Therefore, the default pool must have all the relevant application-level settings defined.

The default pool is defined by using the pool name default for the relevant Switch object's folder's **pool-name** Annex tab option and the T-Server link section. All devices in this folder and below will then belong to the default pool.

Application-level and Switch object options

There are no new application-level or Switch options for configuring the default pool.

[remote-treatment] and [remote-recording] section options

The list of options in the **[remote-treatment]** and **[remote-recording]** sections also remain unchanged.

[conference-services] and [connector] section options

The options in these section remain unchanged in definition and are applicable only to the default pool where multiple pools are configured.

Skype For Business T-Server application options applicable to default pool only

- sip-treatments-continuous
- allow-pass-through-calls
- calling-method-dialplan
- cpn
- default-dn

Skype For Business T-Server application options applicable to all pools

- conn-certificate
- im-joining-timeout
- av-joining-timeout
- default-redirect-limit
- router-timeout
- im-messages-stored
- im-reporting

Configuring a non-default pool

The options that apply to a non-default pool are specified only in the **Annex** tab of its corresponding top-level folder (**Env36** and **Pool11** in the diagram below.)



Every pool has a name and the pool to which a DN belongs is determined solely by the **Annex** configuration of the top-level folder above it or, in its absence, the default pool. It is a misconfiguration to assign the same non-default pool to different top-level folders, but multiple folders labelled 'default', or not labelled at all, are allowed.

Every resource (device) that is defined in a folder at the first level (**Env36** or **Pool11** in the picture) within the **DNs** configuration folder of the switch object will be considered as a resource in a non-default pool if that folder has the option **pool-name** in the [connector] section on the **Annex** tab. Resources in every folder on the second level and below (**Env11** in the picture) are considered as belonging to the default pool if the folder on the first level (**Pool11**) does not have option **pool-name** defined for the relevant pool. If **Pool11** does have the option **pool-name** configured then resources in the the **Env11** are considered as belonging to **Pool11**. Because only the first-level folders are used for pool assignment and configuration, any value for option **pool-name** set in the Annex tab of folder **Env11** will be ignored.

Non-default pool

The options below apply to non-default pools and must be specified the Annex tab of its corresponding top-level folder.

[TServer] section options

- sip-treatments-continuous
- allow-pass-through-calls

- calling-method-dialplan
- cpn
- default-dn

[connector] section options

- musicOnHoldFilePath
- ringtone-file-path
- caching-enabled
- conference-pool-size
- reuse-avcall

[remote-treatment] section

This section specifies properties of the remote SIPs T-Server used for implementation of remote treatments performed for calls handled by the pool. There are no new options in this section.

If a section is missing in the folder configuration for a specific pool, the relevant relevant services are performed using the configuration of the default pool (if present). If any options are misconfigured, this implies that no services will be performed.

[remote-recording] section

This section specifies properties of the remote SIPs T-Server used for implementation of remote recording performed for calls handled by the pool.

If a section is missing in the folder configuration for a specific pool, the relevant relevant services are performed using the configuration of the default pool (if present). If any options are misconfigured, this implies that no services will be performed.

[conference-services] section

This section specifies properties of the lobby bypass state and conference resources that have to be created in the Connectors connected to the relevant pool. There are no new options in this section.

New configuration options

- **[link-*n*-name]/pool-name**
 - **Default value**—No default value
 - **Valid values**—Any unique pool name.
 - **Changes take effect**—Immediately
 - **Description**—Specifies the name of a group of connectors that connect to a pool that is referenced in the **DN\Switch** configuration. If values are empty or missing, this Connector will connect to the default pool (backward-compatible behavior). If the option is specified but none of the Connectors **DN\Switch** properties reference such a pool, attempts to connect to Connectors will be performed, but the Connectors will not be used for call handling

- **[link-*n*-name]/use-certificate**

- **Default value**—true
- **Valid values**—true, false
- **Changes take effect**—On reconnection
- **Description**—Specifies whether T-Server uses the certificate-thumbprint when performing connection to the Connector specified in this section. Note: this option has no effect if no certificate thumbprint is provided in option conn-certificate

Limitations

Dynamically moving Routing Points between different pools is not supported.