Gplus Adapter 8.0 for SAP ICI Multi-Channel Deployment Guide

Gplus Adapters 8.0.2

2/7/2022

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Supplement to Gplus Adapter 8.0 for SAP ICI Multi-Channel Deployment Guide

Welcome to the Supplement to the Gplus Adapter 8.0 for SAP ICI Multi-Channel Deployment Guide. It provides descriptions of new features introduced in 8.0.2 release of this adapter.

8.0.2 Features Support

The following features are described in this supplement:

Released in Version	Feature Name	Date Released
8.0.210.00	Configuring which Work Modes are sent to SAP	October 1, 2018
8.0.200.18	Auto-answering by Call Type	Verified November 10, 2016
8.0.200.17	SAP ICI Proxy	September 2, 2016
8.0.200.12	Working with Outbound Personal Callbacks	April 22, 2016
8.0.200.09	SAP Agent Dashboard	March 7, 2016
	Configuring the Agent Name for Chat Sessions	
	Changes to Quality Assurance Review Functionality	
	Disabling Agent Mailboxes	

Important

- Genesys does not the support the concurrent agent use of Gplus Adapter and a different desktop application by the same agent at the same time.
- 8.0.2 release of the Adapter requires 64-bit Java.

Documentation Update

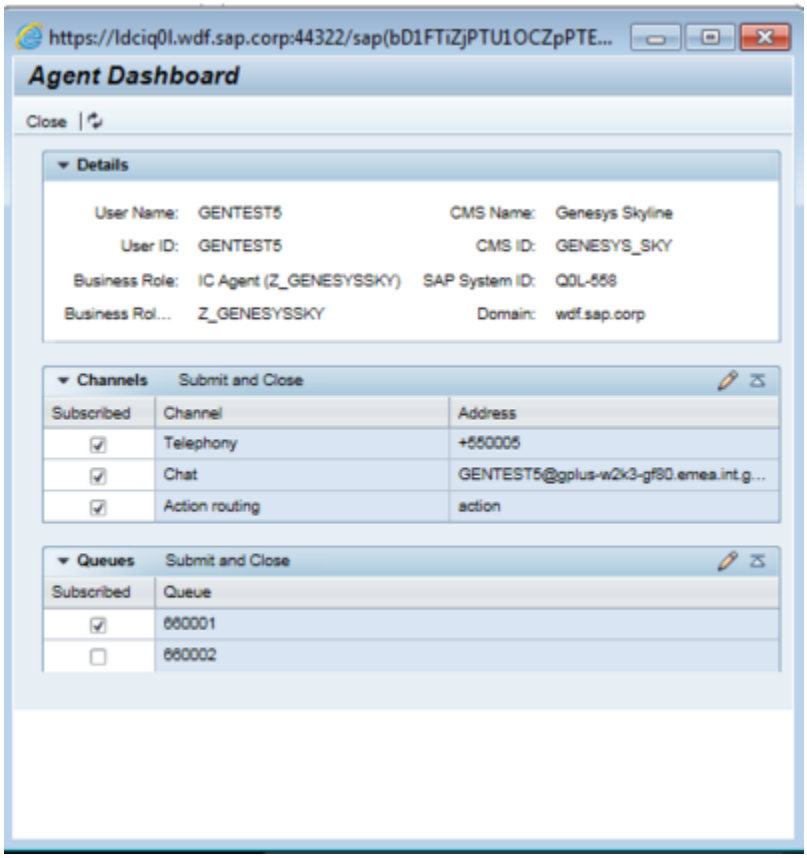
Update Date	Details
January 25, 2019	A new Configuring SAP System section was added to the SAP ICI Proxy topic about the requirement to configure the RFC Destination.
April 22, 2016	The Working with Outbound Personal Callbacks topic was revised to reflect that this feature is only available starting with version 8.0.200.12 instead

Update Date	Details
	of 8.0.200.09, as previously indicated. It also includes an associated new option that replaces the option that was removed.

SAP Agent Dashboard

Starting with version 8.0.200.09, the Adapter supports the following SAP Agent Dashboard operations:

- Switching channels on or off during an agent session
- Changing the queue that an agent is logged into



Switching channels on or off

An agent can switch channels on or off only when the blended workmodes feature is disabled (option **allowBlendedWorkmodes** in the **[GPMC_Common]** section is set to `0 - Off`).

> **Important**

> The Adapter generates an error if an agent switches channels on or off when the blended workmodes feature is enabled.

Channels can be turned on or off by selecting or deselecting the **Subscribed** check box. When the channel is switched off, the Adapter logs the agent out from the media and does not notify SAP until it is switched on again.

The agent can switch on or off those channels that were used upon initial login.

Changing the queue

An agent can change the voice queue that they are logged into by selecting the **Subscribed** check box for that queue. An agent can only be logged into one queue. If several queues are selected, the adapter logs the agent into the first queue in the list.

Configuring the Agent Name for Chat Sessions

Starting with version 8.0.200.09, the Adapter provides the ability to change how the agent name appears to a customer during a chat session. The **nickname** configuration option enables this functionality.

nickname

Setting: **[GPMC_Chat]** section
Default Value: [username]
Valid Values: Any string with predefined patterns
Changes Take Effect: After restart

Values can contain static text along with one or more defined patterns.

Pattern	Value	Example
[username]	User Name property of agent object	jdoe
[last]	Last Name property of agent object	Doe
[first]	First Name property of agent object	John
[empid]	Employee ID property of agent object	123456

> **Important**
> "[" and "]" characters cannot be used as the part of static content. The Adapter removes them as invalid patterns.

Here are more examples of the option value:

Option Value	Name Displayed in Chat
Agent [first]	Agent Joe
[first] [last] ([username])	John Doe (jdoe)
[first] ([empid])	John (123456)
Agent [unknown_pattern]	Agent

Configuring which Work Modes are sent to SAP

If your enterprise supports many blended work modes and you are concerned that your agent's productivity might be reduced if all are listed, you can now limit the work modes that agents see in their SAP CRM Work Modes selection box.

Starting with 8.0.210.00, the Adapter allows you to specify which blended work modes are not sent to SAP, and thus won't appear in the Work Modes selection box.

Configuring work modes that are not sent

1. Open the `gp_resources.properties` file, which is located in the `Adapter directory` directory.
2. For each work mode that you do not want sent to SAP, specify an empty string for the description.
3. Save the file.

Any work mode identified with this emptry string will not be sent to the SAP side in `userChanged` events. For example: `Workmode_mixed_12 =` means that the work mode with ID = `Workmode_mixed_base + 12 = 112` is not sent to SAP.

All other work modes are configured and function as described according to the *Gplus Adapter 8.0 for SAP ICI Multi-Channel Deployment Guide.* See the **Configuring Agent Work Modes** section of the *Configuration the Agent Place* chapter.

> **Important**
>
> Be aware that making these configuration changes impacts the auto-generation process for blended work modes. As such, once you specify that certain blended work modes not be sent to SAP, you will be completely responsible for the accuracy of your blended work mode configuration.

Configuration Examples

Example 1

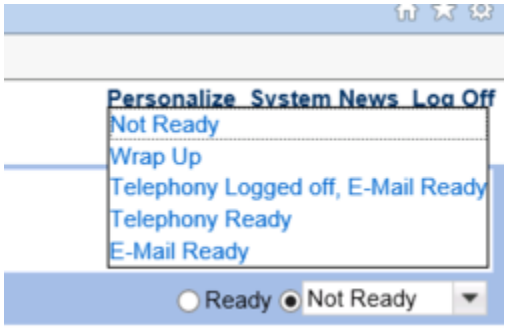
Only two channels are enabled in the Adapter: *Telephony* and *E-Mail*. The blended work modes section of the default `gp_resources.properties` looks like the following:

```
Workmode_mixed_base =100
```

```
Workmode_mixed_21 =

Workmode_mixed_23 =Telephony Ready

Workmode_mixed_32 =E-Mail Ready

Workmode_mixed_13 =

Workmode_mixed_31 =
```

As a result of this configuration,

- The following blended work modes appear in the SAP UI:
  - `Telephony Ready`
  - `E-Mail Ready`
  - `Telephony Logged off, Email Ready`, that was auto-generated
- The following blended work modes do not appear in the SAP UI because they have an empty string for the description:
  - `Telephony Ready, E-Mail Logged off`
  - `Telephony Logged off, Email Not Ready`
  - `Telephony Not Ready, E-Mail Logged off`



Example 2

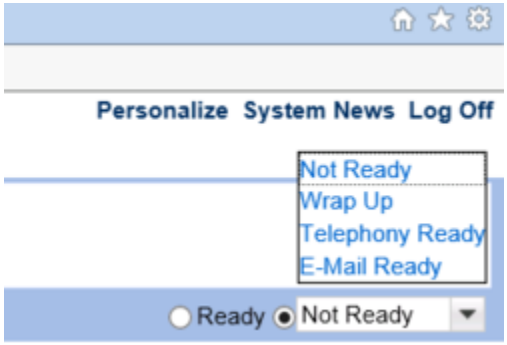
Only two channels are enabled in the Adapter: *Telephony* and *E-Mail.* The blended work modes section of the default `gp_resources.properties` looks like the following:

```
Workmode_mixed_base =100

Workmode_mixed_12 =

Workmode_mixed_21 =
```

```
Workmode_mixed_23 =Telephony Ready

Workmode_mixed_32 =E-Mail Ready

Workmode_mixed_13 =

Workmode_mixed_31 =
```

As a result of this configuration,

- The following blended work modes appear in the SAP UI:
  - `Telephony Ready`
  - `E-Mail Ready`
- The following blended work modes do not appear in the SAP UI because they have an empty string for the description:
  - `Telephony Logged off, E-Mail Ready`
  - `Telephony Ready, E-Mail Logged off`
  - `Telephony Logged off, Email Not Ready`
  - `Telephony Not Ready, E-Mail Logged off`



Changes to Quality Assurance Review Functionality

Starting with version 8.0.200.09, the Adapter now lets an agent (or supervisor) handle Quality Assurance (QA) Review emails in the SAP UI.

Feature Configuration

In the **[GPMC_Email]** section of the Adapter application, set the **qaReviewReject** configuration option to `0`.

qaReviewReject

Default Value: 1
Valid Values: `0`, 1
Changes Take Effect: After restart

This option enables the forwarding of review emails that are assigned to Adapter users to a special queue (as defined by the **qaReviewRejectQueue** option in the **[GPMC_Email]** section).

Working with QA Review Emails

> **Important**
> Genesys recommends that you use Genesys Workspace for managing QA review emails. Using the Adapter to manage these emails requires proper reporting configuration.

The Adapter manages emails for QA review as incoming email to SAP. The agent (or supervisor) can then reply or forward the emails to customers.

Disabling Agent Mailboxes

Starting with version 8.0.200.09, the Adapter lets you disable agent mailboxes, which prohibits agents from sending emails to other agents.

Feature Configuration

In the **[GPMC_Email]** section of the Adapter Application, set the **enableAgentMailboxes** configuration option to `0` to disable agent mailboxes.

enableAgentMailboxes

Default Value: 1
Valid Values: `0`, 1
Changes Take Effect: After restart

This option enables (or disables) agent mailboxes that agents can use to send emails to other agents.

- If the value is `0`, agents can send emails to external mailboxes only (recommended).
- If the value is 1, agents can send emails to external mailboxes and other agents.

Working with Outbound Personal Callbacks

Starting with release 8.0.200.12, the Adapter enables agents to control scheduled calls. When a call is received, a new communications item is created in SAP. Two buttons, **Accept** and **Reject,** will be available and blinking. When the agent clicks **Accept,** a new outbound call is created. When the agent clicks **Reject,** a scheduled call is either rejected or canceled, according to how you configure the new **rejectBehavior** option described here.

> **Important**
>
> The **rescheduleDelay** option introduced in release 8.0.200.09 was removed.

Feature Configuration

In the **[GPMC_Outbound]** section of the Adapter Application, set the **rejectBehavior** option to the desired value.

rejectBehavior

Default Value: `0`
Valid Values: `0, 1`
Changes Take Effect: After restart

When set to `0` (the default), the Adapter sends the RecordReject request to Outbound Contact Server.
When set to `1`, the Adapter sends the RecordCancel request to Outbound Contact Server

SAP ICI Proxy

This section provides the purpose of this component, and how to deploy and configure it.

Introduction

SAP ICI Proxy is the optional component that helps distribute ICI requests to the backup environment in case there is a permanent or temporary outage of your primary environment.

Important

SAP ICI Proxy is not a load-balancer or extended High Availability solution.
As a consequence, be aware of the following.

- It does not distribute the load between the different instances of the Adapter or Genesys environments.
- It will not smoothly transition an agent session from one instance of the Adapter to another. It will start redirecting requests to a live endpoint and will not do any extra actions (like restore the agent session state, re-subscribe SAP for some events and so on). In other words, each agent will need to restart their session to have it working correctly.

SAP ICI Proxy must be used in environments that are using the SIP Business Continuity feature to route agents to backup environment if the primary environment fails or is inaccessible.

Switchover Logic

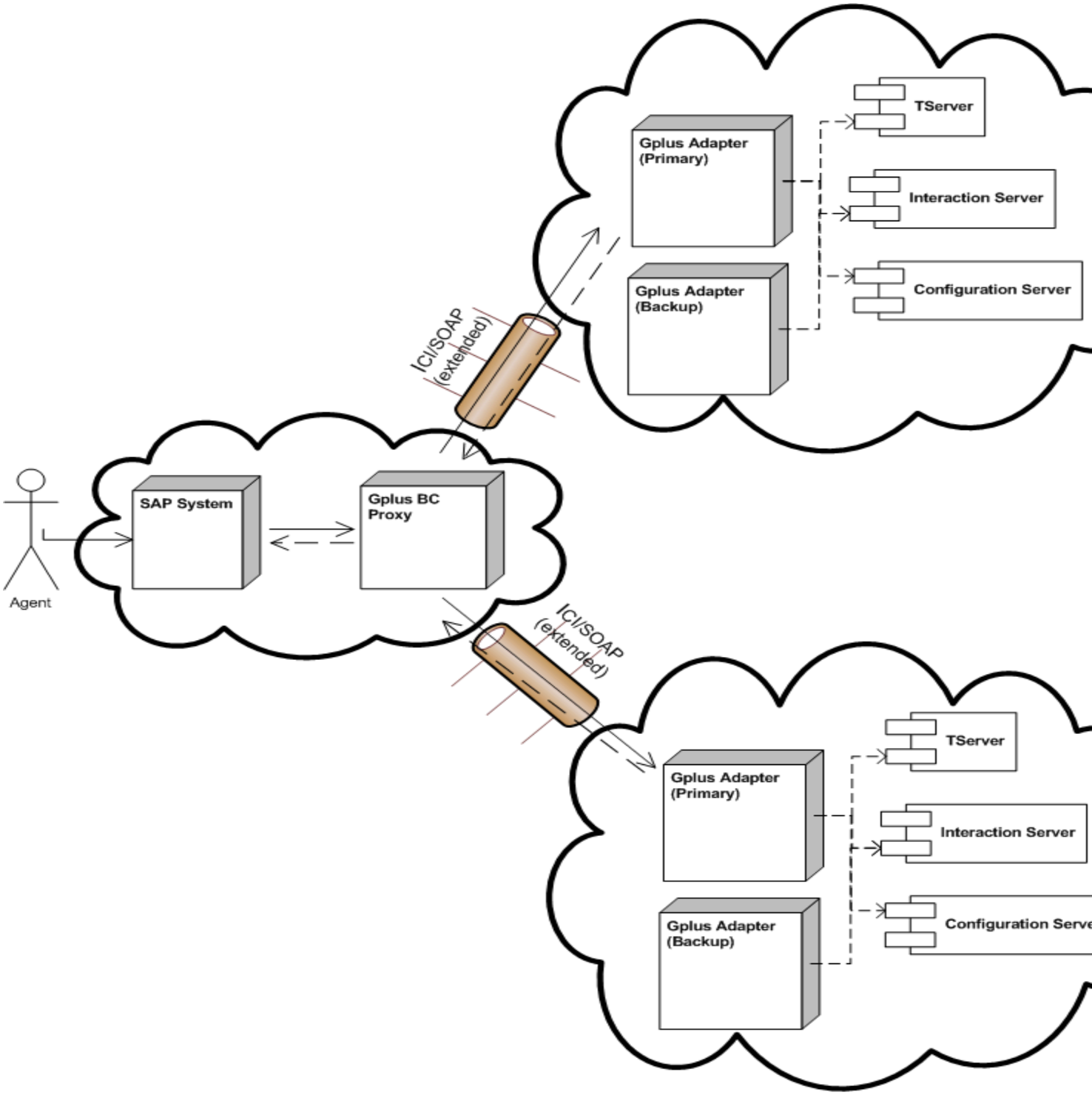
- SAP ICI Proxy delivers all agent requests to the Primary Adapter on the primary site if the site is available.
- If the primary Adapter on the primary site stops responding or reports that it is unavailable and needs a switchover to the backup Adapter for configurable period of time, SAP ICI Proxy starts distributing all requests to the backup Adapter on the same site.
- If the backup Adapter on the same site is also unavailable, SAP ICI Proxy tries to deliver the agent session to the backup site (starting with the primary Adapter, and continuing with the backup Adapter if the primary Adapter is not available).

SAP ICI Proxy delivers all requests of the agent session to the same Adapter if that Adapter is responding. In addition, SAP ICI Proxy will attempt to deliver every new agent session to the primary Adapter on the Primary site.

> **Important**
>
> SAP ICI Proxy does not restore the agent state and SAP subscriptions when switching from one instance of Adapter to another. The agent must log in to SAP again to continue the session.

Deployment Overview

SAP ICI Proxy must be deployed on the same network as the SAP environment. The diagram below shows a sample deployment using SAP ICI Proxy:

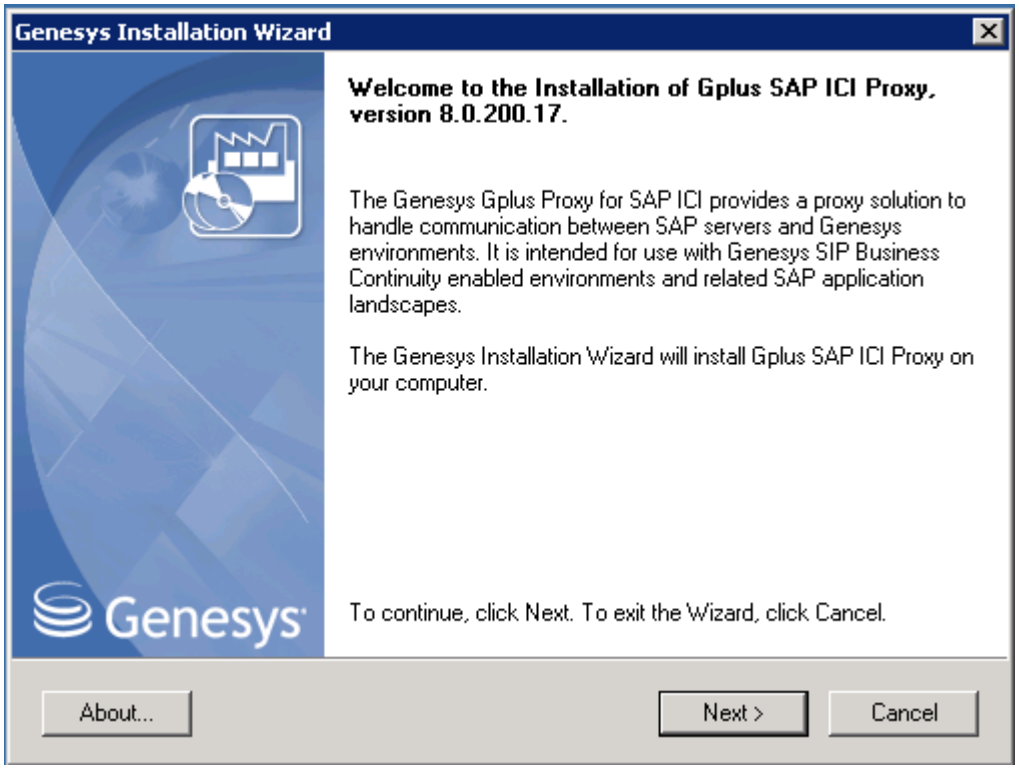

TServer
Gplus Adapter (Primary)
Interaction Server
Gplus Adapter (Backup)
Configuration Server
ICI/SOAP (extended)
SAP System
Gplus BC Proxy
Agent
ICI/SOAP (extended)
TServer
Gplus Adapter (Primary)
Interaction Server
Gplus Adapter (Backup)
Configuration Serve

Deployment Steps

> **Important**
>
> When planning to deploy SAP ICI Proxy, the SAP ICI Proxy version must be the same version as the *Gplus SAP ICI Multi-Channel Adapter* that you are using.

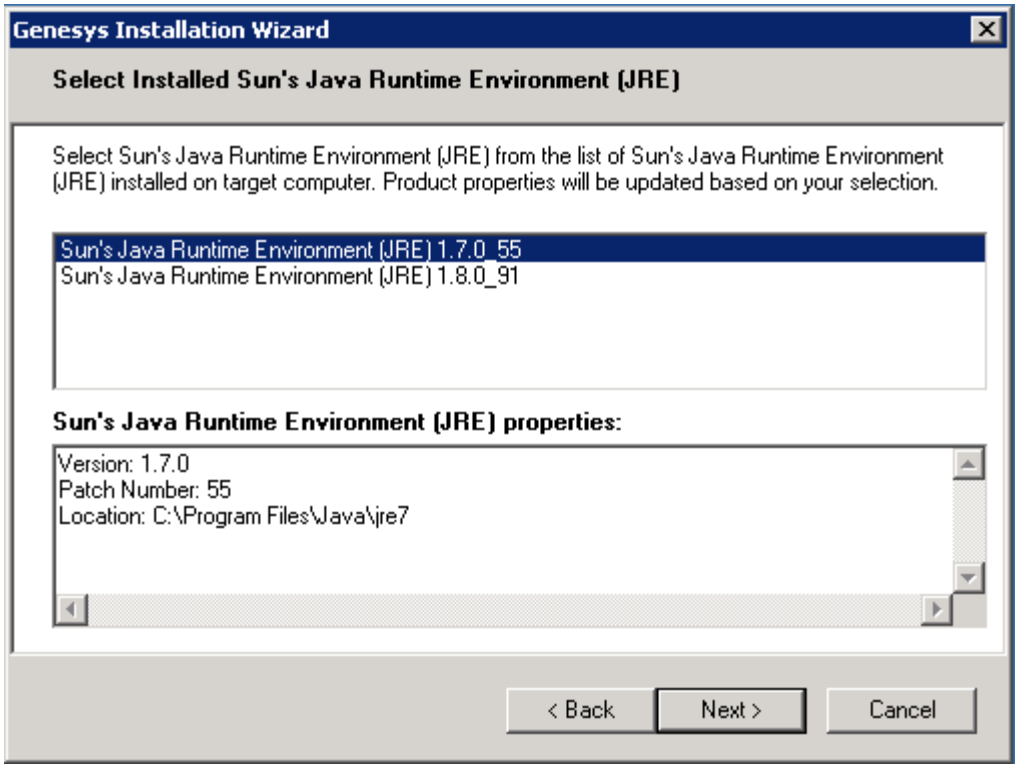
Installing SAP ICI Proxy on Windows

1. In your installation package, locate and double-click the *setup.exe* file. The Install Shield opens the welcome screen.



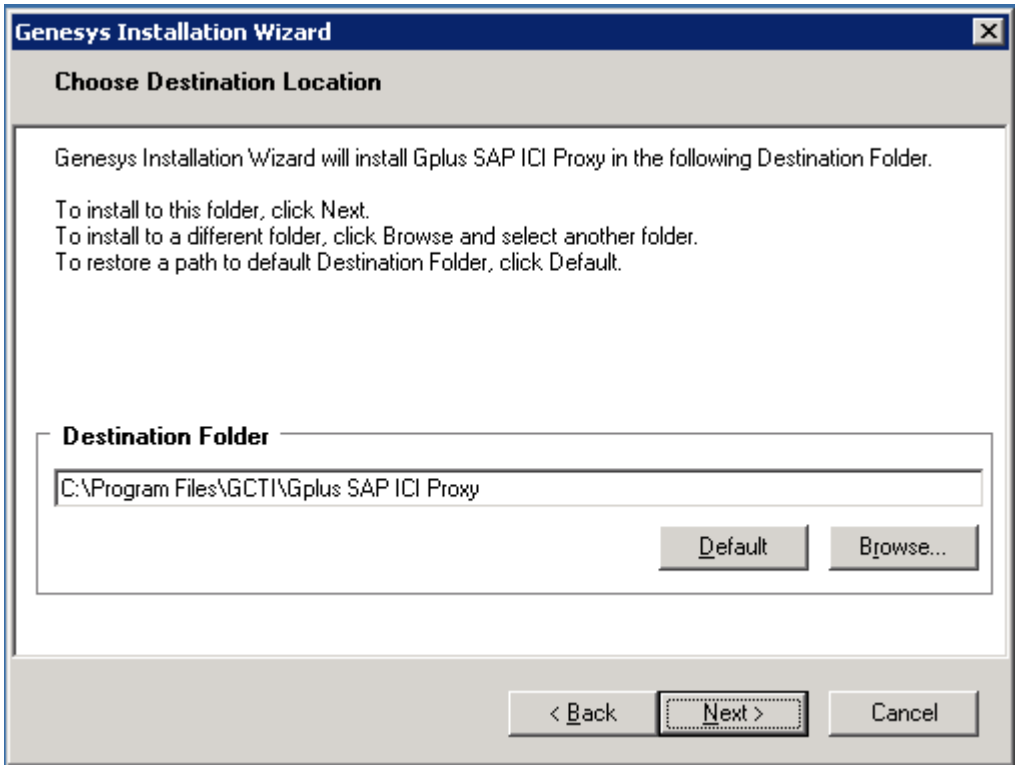
SAP ICI Proxy Installation Window

2. Select the appropriate version of the Java JDK.



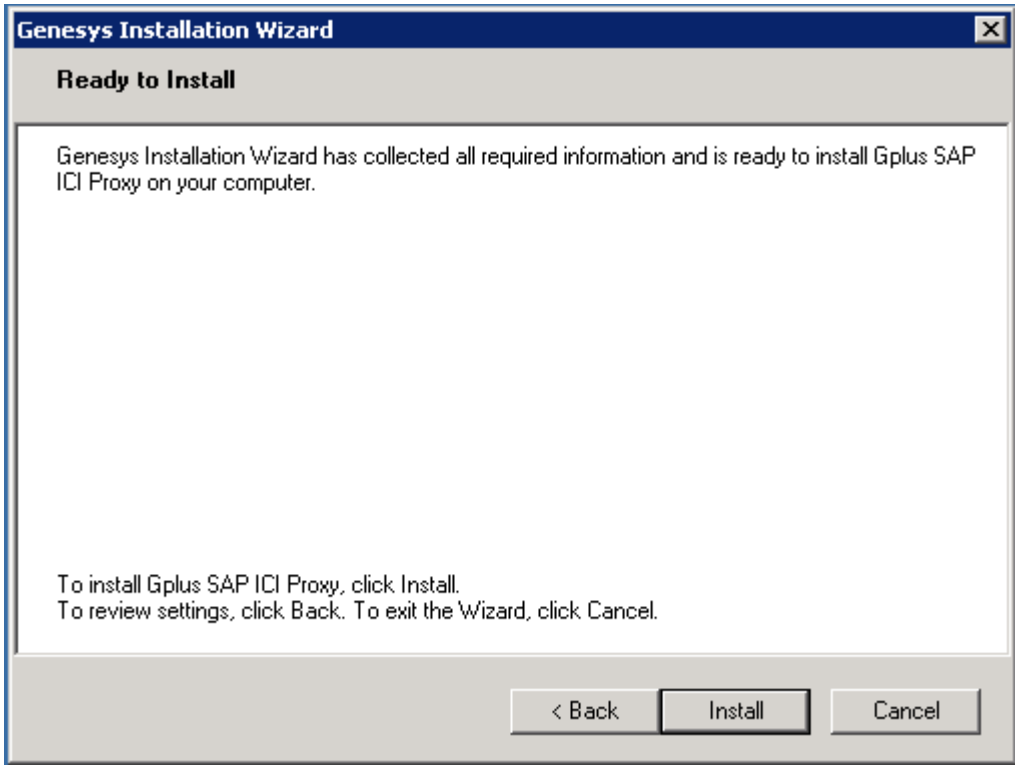
Selecting the Java Version

3. Click **Next.** The **Choose Destination Location** screen appears.



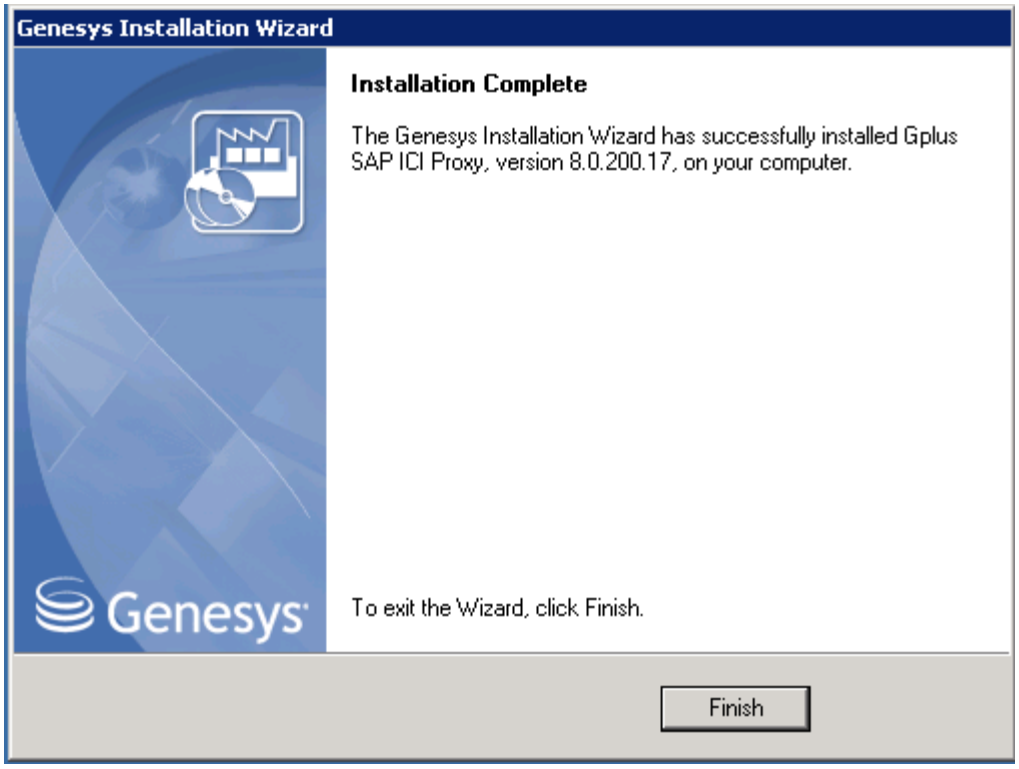
Choosing the Installation Destination

4. Under **Destination Folder**, keep the default value or browse to the desired installation location.
5. Click **Next.** The **Ready to Install** screen appears.



SAP ICI Proxy is Ready to Install

6. Click **Install.** The Genesys Installation Wizard indicates that it is performing the requested operation. When completed, the **Installation Complete** screen appears.



Installation Complete

7. Click **Finish** to complete your installation.
8. Inspect the directory tree of your system to make sure that the files were installed in the location that you intended.

Installing SAP ICI Proxy on Linux

1. In a terminal, run the *install.sh* file. The Genesys installation starts.
2. Enter the full path to your installation directory and confirm that it is correct.

If the installation is successful, the console displays the following message: *Installation of SAP ICI Proxy, version 8.0.2 has completed successfully.*

Configuration

Configuring Gplus Adapter Pairs

> **Important**

SAP ICI Proxy must be restarted in order for changes to take effect.

1. Go to the installation folder and open the *iciproxy.properties* configuration file.
2. Configure the following settings:
   - Proxy.Port: [port]—Listening port for the proxy server.
   - Primary.Gplus.URL: [URL] —URL of the primary Gplus Adapter on the primary site (example: *http://gplus1:8080/*). This option is **mandatory.**
   - Primary.Gplus.Backup.URL: [URL]—URL of the backup Gplus Adapter on the primary site.
   - Backup.Gplus.URL: [URL]—URL of the primary Gplus Adapter on the backup site. This option is **mandatory.**
   - Backup.Gplus.Backup.URL: [URL]—URL of the backup Gplus Adapter on the backup site.
   - reconnect.timeout: [positive number]—Timeout, in milliseconds, that the SAP ICI Proxy wait for the Adapter to restore its functionality before starting agents' switchover to other adapters (default: 150000).
   - status.timeout: [positive number]—Timeout, in milliseconds, that SAP ICI Proxy waits between subsequent ping requests to the Adapter to detect its availability (default: 30000).

Configuring logging parameters

Important

SAP ICI Proxy must be restarted in order for changes to take effect.

1. Go to the installation folder and open the *log4j.properties* configuration file. the format of the file is the standard Apache Log4j 1.x properties configuration file.
2. If you want some specific logging behavior, look to associated documentation and examples of the Apache Log4j library on the internet to guidance on how to configure that.

Changing log level

The output log level is defined by the following code line:

```
log4j.rootLogger=DEBUG, stdout, file
```

Available log levels include:

- **DEBUG**—Designates fine-grained informational events that are most useful to debug an application.
- **INFO**—Designates informational messages that highlight the progress of the application at a coarse-grained level.
- **WARN**—Designates potentially harmful situations.

- **ERROR**—Designates error events that might still allow the application to continue running.
- **FATAL**—Designates very severe error events that will presumably lead to the application aborting.
- **OFF**—The highest possible rank and is intended to turn off logging.

Logging to console

Logging to the console is defined by the following configuration.

```
log4j.appender.stdout=org.apache.log4j.ConsoleAppender
log4j.appender.stdout.layout=org.apache.log4j.PatternLayout
log4j.appender.stdout.layout.ConversionPattern=%d [%-15.15t] %-5p %-30.30c{1} - %m%n
```

You can change the log level of the messages added to console by adding following line:

```
log4j.appender.stdout.threshold=WARN
```

In the example provided only the WARN, ERROR and FATAL messages are be added to console.

Limit size of the file logging

By default, SAP ICI Proxy stores all the logs in the `ici-proxy.log` file without any restrictions. To limit the size of the logs on the disk replace:

```
# File appender
log4j.appender.file=org.apache.log4j.FileAppender
log4j.appender.file.layout=org.apache.log4j.PatternLayout
log4j.appender.file.file=ici-proxy.log
log4j.appender.file.append=true
log4j.appender.file.layout.ConversionPattern=%d [%-15.15t] %-5p %-30.30c{1} - %m%n
```

with

```
# File appender
log4j.appender.file=org.apache.log4j.RollingFileAppender
log4j.appender.file.file=ici-proxy.log
log4j.appender.file.append=true
log4j.appender.file.MaxFileSize=100MB
log4j.appender.file.MaxBackupIndex=5
log4j.appender.file.layout=org.apache.log4j.PatternLayout
log4j.appender.file.layout.ConversionPattern=%d [%-15.15t] %-5p %-30.30c{1} - %m%n
```

This example configuration demonstrates that the maximum size allowed for each log file is 100 MB. When the file exceeds the maximum size, a new log file is created. Since `maxBackupIndex` is set to 5, when the fifth log file reaches the maximum size, the first log file is overwritten, as are the subsequent log files as the file before it reaches the maximum size. The overall size of the logs on the disk will not exceed 500 MB (100 MB * 5 files).

Configuring the SAP System

In the SAP System, configure the HTTP Connection to External Server.

1. In the appropriate RFC Destination, go to **Technical Settings** tab.
2. Set the **Path Prefix** parameter to `/proxy`.

Advanced Log System Configuration

Configuring file output

You control the log file output of the Adapter using the `file` option in the `log` section of the Adapter:

file

Default Value: `info, ail, 10MB, 20, zip`
Valid Values: <level>, <file_name_root>, <file_max_size>, <file_number> `[, zip] [, timestamped]`

- "<level>: *`false, debug, info, warn, error, fatal`*
- *<file_name_root>:* correct path to a file name
- *< file_max_size>:* maximum file size in MB
- *< file_ number>:* number of files for the rolling logs
- `[, zip]`: to get compressed log files (optional)
- `[, timestamped]`: to add a timestamp when a new file is created. An existing file will be replaced when it reaches file_max_size (optional)

Changes Take Effect: Immediately.

Specifies how to write entries into log files.

How to limit size of the logs?

You can define the size of the log file (`file_max_size`) and the number of log files (`file_number`) that will be stored. For example, if you would like your logs to use a maximum of 1 GB of disk space set the `file` value as follows:

'file' = 'info, ici, 50MB, 20'

This will instruct the Adapter to create up to 20 log files, with a maximum size of 50 MB (20 * 50 = 1000 MB).

Can I store compressed logs on my computer?

Yes, by adding `zip` to the `file` option you instruct Adapter to compress the log file and store it to the computer. For example:

```
'file' = 'info, ici, 50MB, 20, zip'
```

Can I add a timestamp to every log file with the creation time?

Yes. By default, the Adapter includes a start timestamp in the file name application, as well the the file number 1,2,..,N. For example:

```
ici.20160418_151555_698.1.log

ici.20160418_151555_698.2.log

ici.20160418_151555_698.3.log

ici.20160418_151555_698.4.log

ici.20160418_151555_698.5.log
```

If you would like every file name to contain a timestamp when it is created, add the `timestamped` flag to the `file` option.

For example:

```
'file'='info, ici, 10MB, 20, timestamped'
```

When set accordingly, option file names appear as follows:

```
ici.20160418_154441_330.log

ici.20160418_154443_353.log

ici.20160418_154444_378.log

ici.20160418_154447_407.log

ici.20160418_154451_455.log
```

Notice that each timestamp is different and that no file number is added at the end of file name.

For more information please see the log Section of the Genesys Interaction SDK Java Deployment Guide.

Auto Answering by Call Type

Starting with version 8.0.200.18, the Adapter supports auto answering for the calls with specific call types. **Note:** 8.0.200.18 was first available on 9/14/16. However auto-answering was not verified for use until 11/10/16.

Three new options were introduced to support auto answering according to call types. You enable this feature using:

- The new `autoAnswerCallType` option in the `GPMC_<channel>` (for example, `GPMC_Voice`) section of the Application to control the behavior for all agents.
- The new `autoAnswerCallType` option in each channel section (for example, `voice`) of the Agent's Annex to control the behavior for a specific agent.
- The new `autoAnswerKey option in the GPMC_Common section of application to control the behavior at the interaction level based on User Data.`

Notes:

- The auto answering functionality is enabled only if the corresponding Application `autoAnswer` option or the Agent's Annex `autoAnswer` option for the given media is set to 1, as described in the *Gplus Adapter 8.0 for SAP ICI Multi-Channel Deployment Guide*.
- Auto answering is controlled hierarchically according to the following:
- User Data key/value overrides the autoAnswer option for both the Application `GPMC_<Channel>/autoAnswer` option and the Agent's `Annex/<channel>/autoAnswer` option.
- The Agent's `Annex/<channel>/autoAnswer` option overrides the Application `GPMC_<Channel>/autoAnswer` option. For example: if `GPMC_Voice/autoAnswer=1` and Agent's `Annex/voice/autoAnswer=0`, then auto answering is disabled for the voice channel.
- Auto answering works only if the agent is in the Ready state.

Control for all agents

To control this behavior, configure the following option in the `GPMC_<Channel>/` section of the Application for each channel you want to control:

autoAnswerCallType

```
Default Value: empty string
Valid Values: internal, unknown, outbound, inbound, consult
Changes Take Effect: After restart
```

This option controls auto answering of a channel for all agents. When configured, the Adapter enables auto answering of incoming calls for the call types specified as the value. You specify one or more of the call types, separated by commas, to indicate those call types you want enabled for auto answering. For example, configuring `autoAnswerCallType = internal` enables auto answering only for internal calls. Configuring `autoAnswerCallType = internal,outbound` enables auto answering

for internal and outbound calls.

Control for a specific agent

To control this behavior, configure the following option in the Agent's Annex/<channel> section for each channel:

autoAnswerCallType

```
Default Value: empty string
Valid Values: internal, unknown, outbound, inbound, consult
Changes Take Effect: After restart
```

This option controls auto answering of a channel for a specific agent. Be please aware of the following:

- This option has higher priority than the corresponding option for a specific channel in the GPMC_<channel> section of the Application. For example, this means that configuring GPMC_Voice/autoAnswer=internal and Agent's Annex/voice/autoAnswerCallType=outbound enables auto answering for that particular agent but only for interactions with the outbound call type.
- If auto answering is enabled for a specific agent, it overrides autoAnswerCallType option from the Application level even if this option is not configured on Agent's Annex level. This means that even if autoAnswer is enabled on Annex level but the autoAnswerCallType option is not configured, Adapter handles it according to the default value, which is an empty string. As a result, all call types will be auto-answered.

Control based on User Data

To control this behavior, configure the following option in the GPMC_Common section of the Application:

autoAnswerKey

```
Default Value: empty string
Valid Values: any string value
Changes Take Effect: After restart
```

This option controls auto answering based on interaction User Data. If configured, this option triggers auto answering for an interaction that contains the specified key in User Data. This option controls auto answering for all media supported by the Adapter. For the option value, specify the User Data key name.

The User Data value for the specified User Data key can be either 0 or 1.

- Set the value to 0 to disable auto answering for that interaction.
- Set the value to 1 to enable auto answering for that interaction.

This functionality overrides the autoAnswer option in both the Agent's Annex and Application options. For example:

- If the autoAnswer option is set to 0 in the Application options and the User Data key is present in the interaction User Data and set to 1, then auto answering is enabled for that interaction.

- If the `autoAnswer` option is set to `1` in the Application options or in the Agent's Annex and the User Data key is present in User Data but set to `0`, then auto answering is disabled for that interaction.

Configuring the Media Routing Component

> **Important**
>
> This supplemental section is added to address a known issue where open media interactions are not being correctly synchronized between Interaction Server and the UCS database. For information about installing and configuring the Media Routing Component, see the *Configuring the Media Routing Component* chapter in the Gplus Adapter for SAP ICI Multi-Channel Deployment Guide.

Feature Configuration

To ensure that open media interactions are correctly synchronized between the Interaction Server and UCS database, add the `ActionItem` media type to the list of valid media types in the Adapter application options.

open-media-saved-list

Section: `multimedia`
Option: `open-media-saved-list`
Default Value: none
Valid Values: Media types, separated by commas
Changes Take Effect: Immediately

A comma-separated list of valid media types that will be saved in UCS. (Valid media types are created and configured in the **Business** directory of Configuration Manager.)