

GENESYS[®]

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Agent Pacing Service Deployment Guide

Install the Pacing Service

9/4/2025

Contents

- 1 About the Pacing Service Cluster
- 2 Deploy Pacing Server
- 3 Import the Pacing Service cluster application template
- 4 Create the cluster application
- 5 Configure the cluster application
- 6 Import the Pacing Server application template
- 7 Create and configure a node application
- 8 Add a node application to the cluster
- 9 Install Pacing Server
- 10 Configure alarms
- 11 Configure a forward proxy (optional)

Complete the steps to install the Pacing Server.

The 9.0 release of Pacing Server can be used on premises.

About the Pacing Service Cluster

Agent Pacing Service uses an N+1 architecture. This means that almost all of the configuration is handled at the level of the cluster, rather than at the level of individual nodes. In particular,

- The cluster combines one or more nodes. You must install and configure at least one Pacing Server node in order to use Pacing Service. Every time you add a node to the cluster, you must create and configure it using the same steps you used for the first node.
- All nodes are treated as equivalent to each other. Because of this, the nodes only contain a connection to the cluster application.
- Connections to other Genesys servers—such as Stat Server and Message Server—are defined for the cluster.

Important

Pacing Service is a single-tenant application—it only has access to the tenant, objects, and transaction list of the tenant it is configured for. In a multi-tenant environment, you can configure a Pacing Service for each individual tenant.

Deploy Pacing Server

To deploy Pacing Server, follow these steps:

- 1. Import the Pacing Service Cluster Application template
- 2. Create the cluster application
- 3. Configure the cluster application
- 4. Import the Pacing Server Application template
- 5. Create and configure a node application
- 6. Add the node application to the cluster

- 7. Install Pacing Server
- 8. Configure alarms
- 9. Configure a forward proxy (optional)

Import the Pacing Service cluster application template

Prerequisite: Download the Pacing Server installation on the host where you are going to install it.

1. Open Genesys Administrator Extension and navigate to **Environment > Application Templates**:

ල් කෙ	Dashboard	Configuration	Routing Parameters	Administration	Centralized Lo	ogs Engagement Manager	
Home > /	Application Ten	nplates > Applicat	ion Templates				7
Select	Edit 🗘	New 📋 Delete	: More 🔍 Sho	ow Quick Filter	Directory A	pplication Templates (Application Template Fo	older)
	Name		*	Туре	\$ V	Version	/
	GA						

2. Click New. In the Tasks panel, click Import Application Template:

GAX Dashboard Co	nfiguration Routing Parameter			Engagement Manager			
me > Application Template	es > Application Templates > Nev	w Properties				F Import Metadata	O Import A
General	Name *						
Options	New						
Application Options	Type*		Version *				
		*					
	Tenant						
	Environment	10	 State Enabled 				

3. Navigate to the **Pacing Server installation root/templates** folder and select **Pacing_Server_Cluster.apd**:

		×
🛕 Plea	se Confirm	
Choose an app import.	plication template file to	
Application Te	mplate File (.apd) *	
Choose File	Pacing_ServCluster.apd	
01	Canad	

- 4. Click Import Metadata.
- 5. Navigate to the **Pacing Server installation root/templates** folder and select **Pacing_Server_Cluster.xml**:

Import Metadata Please select an application metadata file to import. Application Metadata File (.xml) * Choose File Pacing Server Cluster xml	Import Metadata Please select an application metadata file to import. Application Metadata File (.xml)* Choose File Pacing_Server_Cluster.xml OK Cancel	Import Metadata Please select an application metadata file to import. Application Metadata File (.xml) * Choose File Pacing_Server_Cluster.xml OK Cancel	Import Metadata Please select an application metadata file to import. Application Metadata File (.xml) * Choose File Pacing_Server_Cluster.xml
Please select an application metadata file to import. Application Metadata File (.xml) *	Please select an application metadata file to import. Application Metadata File (.xml) * Choose File Pacing_Server_Cluster.xml	Please select an application metadata file to import. Application Metadata File (.xml) * Choose File Pacing_Server_Cluster.xml OK Cancel	Please select an application metadata file to import. Application Metadata File (.xml) * Choose File Pacing_Server_Cluster.xml
Application Metadata File (.xml) *	Application Metadata File (.xml) * Choose File Pacing_Server_Cluster.xml OK Cancel	Application Metadata File (.xml) * Choose File Pacing_Server_Cluster.xml OK Cancel	Application Metadata File (.xml) * Choose File Pacing_Server_Cluster.xml
Choose File Pacing Server Cluster yml	Choose File Pacing_Server_Cluster.xml	Choose File Pacing_Server_Cluster.xml	Choose File Pacing_Server_Cluster.xml
onoose the the the deng_oetver_oldstet.xill	OK Cancel	OK Cancel	

6. Click Save

Create the cluster application

Prerequisite: Import the Pacing Service cluster application template

- 1. Open Genesys Administrator Extension and navigate to **Environment > Applications**.
- 2. In the **Tasks** panel, click **New**:



3. Specify the name of the Pacing Service cluster application (for example, *Pacing_Service_Cluster_9.0*), then click to select a template:

	and the stand stand stand stand	15	
General	Name *		
Connections	Pacing_Service_Cluster_9.0		
Ports	Template *	Туре	
Tenants		-	
Options	Version	Is Application Server	
Application Options	Tenant		
	Environment	 State Enabled 	

4. Select the application template that you created previously:

≡			Q, Quick Filter	
Name	\$ Туре	₽	Version	
Pacing_Server	Genesys Generic Server		9.0.0	
Pacing_Server_Cluster	Application Cluster		9.0.0	
Pacing_Server_Cluster_9.0.000.04	Application Cluster		9.0.000.04	

- 5. Select the **General** tab and:
 - Set the value of the **Working Directory** and **Command Line** fields to . (a single dot).
 - Make sure that **State** is enabled.
 - Select the **Host** on which the Pacing Service Cluster will reside. This is usually the fully qualified

domain name or IP address of the load balancer that provides access to the Pacing Service (that is, the set of Pacing Servers)

• Click Save.

ල් GAX Dashboard C	configuration Routing Parameters	Administration Centralized Logs	Engagement Manager	default ?
Home > Applications > App	plications > Pacing Service > New Pro	perties		
General	9.0.000.04	 Is Application Server 		^
Connections	Working Directory *		(
Ports	Command Line *			
Tenants				
Options	Command Line Arguments			
Application Options				
Application Options	Startup Timeout *	Shutdown Timeout *	(
	90	90		
	Auto Destart	d Drimony		
	Host *	I Primary		
	demosrv		•	
	Certificate	Certificate Description		
	Certificate Key	Trusted CA		
	Tenant)	
	Environment	✓ State Enabled		
				×
	Cancel		(Apply Save

6. The new Cluster application is now available:

ő	GAX	Dashboard Configuration Routing Pa	rameters	Administration		alized Logs Engagemen	it Mar	nager					d	efault ?
Ho	me > A	pplications > Applications > Pacing Service	(4)											
	Select	🖉 Edit 🗿 New 📋 Delete 🚦 More	Q, sh	ow Quick Filter	lirector	Pacing Service (A	pplica	tion Folder)		*			Q	invironment
		Name	¢	Status	¢	Туре	¢	Version	¢	Mode	\$ Host	\$ Server 🌵	Template	٥
	0	Pacing_Service_Cluster_9.0		Stopped		Application Cluster		9.0.000.04			demosrv	~	Pacing_Server_Clu	ister_9

Configure the cluster application

Prerequisite: Create the cluster application

1. Open Genesys Administrator Extension and navigate to **Environment > Applications**, then open your cluster application:

Genteers Configuration	nouling Parameters Administration	Gentralized Loga Engagement Manager] 54	ceta are Q, Search 🖨 Env
Accounts	Routing / Digital	Application Templates Applications Alares Conditions Detection / Reaction Scripts Horts Scripts Scripts Schickings Temarts Temarts Time Zones	Switching	Outbound	
	•))				
Desktop	Voice Platform				

2. In the **Connections** tab, click **Add**:

Seperal									-	
	Connect	ions								
Connections		Server	¢	Secured 🖨	Connection Protocol	¢	Local	Remote	∲ Tr	ace Mode
Ports	No iter	ns								
Tenants	100 1121									
Options										
Permissions										

3. Select the **Stat Server** application. Leave the connection port ID set to **default**. Click **OK**:

Server *	
Stat_Server	
Port ID *	
default	~
Connection Protocol	
Local Timeout	Ť
0	
Remote Timeout	
0	
Trace Mode *	
Unknown Trace Mode	*
Transport Protocol Parameters	
Application Parameters	
	/

- 4. If appropriate, you can also add a connection to Message Server (to apply the network logging options).
- 5. Navigate to the **Ports** tab and set the desired value of the default port. **Note:** The cluster application does not represent a particular server: you must treat as the load balancing entry point. Set the connection type to **http**. Genesys recommends that you use a secure connection.

General	Ports								
Connections		ID	 Ş	Port	Ş	Connection	¢ ⊽	HA Sync 🕀	Listening Mod
Ports		default		9081		http			Secured
Tenants									
Options									

6. In the **Tenant** tab, click **Add** and select your tenant. For instance, *Environment*.

eneral	Tenant	S			
onnections		Name	<u>↓</u>	State	
orts		Environment		Enabled	
enants					
ptions					
armissione					

7. Navigate to the **Application Options** tab. You can keep the default values for all options except the ones in the **pacingEndpoint** section.

ne > Applications > Appli	ications > Pa	cing > Pacing_Service_900200_Cluster Properties			📋 Delete Applicati
General	Applicat	ion Options			Q. Quick Filter
Connections		Norma A	Castion A	1/ Å	Make
Ports		name v memos (neapmenioryosage.unesnou	Section •	пеарпления учраде, штерноги	value U.o
Tenants		metrics \ GcFrequency.threshold	metrics	GcFrequency.threshold	24
Options		metrics \ reporter.console.logFrequency	metrics	reporter.console.logFrequency	30min
Permissions		metrics \ reporter.messageServer.logFreque	metrics	reporter.messageServer.logFrequency	30min
Dependencies		metrics \ reporter.log.enabled	metrics	reporter.log.enabled	false
Application Options		metrics \ GcLatency.threshold	metrics	GcLatency.threshold	1000
		metrics \ reporter.messageServer.enabled	metrics	reporter.messageServer.enabled	true
		metrics \ reporter.log.logFrequency	metrics	reporter.log.logFrequency	30min
		metrics \ reporter.console.enabled	metrics	reporter.console.enabled	false
		▼ pacingEndpoint			
		pacingEndpoint \ targetEndpoint	pacingEndpoint	targetEndpoint	v2/journey/actiontargets/bulk

8. Click Save.

Import the Pacing Server application template

Prerequisite: Configure the cluster application

1. Open Genesys Administrator Extension and navigate to **Environment > Application Templates**:

ල් _{GAX}	Dashboard	Configuration	Routing Parameters	Administration	Centralized	Logs Engagement Manag	ger
Home >	Application Ten	nplates > Applicat	ion Templates				
Selec	at 🥒 Edit 🔂	New 📋 Delete	: More 🔍 She	ow Quick Filter	Directory	Application Templates (Appl	cation Template Folder)
	Name		\$	Туре	☆	Version	/
	GA						(

2. Click New. In the Tasks panel, click Import Application Template:

3 GA	X Dashboard	Configuration	Routing Parameters	Administration	Centralized Logs	Engagement Mar
Home	> Application Ten	plates > Applicat	ion Templates > New Pr	roperties		
Ge	eneral	Name *				
Op	ptions	New				
Ap	plication Options	Type*		Vers	ion *	
				·		
		Tenant			State Enabled	
		Environm	nent		state chapter	

3. Navigate to the **Pacing Server installation root /templates** folder and select **Pacing_Server.apd**:

Choose an application template file to import. Application Template File (.apd)* Browse Pacing_Server.apd	🛕 🛛 Please C	Confirm
Application Template File (.apd)* Browse Pacing_Server.apd	Choose an applicatio	on template file to
Browse Pacing_Server.apd	Application Topplate	File (and) *
	Application Template	e File (.apd)*
	Browse Pacing.	_Server.apd
OK Cancel	Browse Pacing.	_Server.apd Cancel

4. Navigate to the **Pacing Server installation root/templates** folder and select **Pacing_Server.xml**:

 \times

data
n metadata file
(.xml) * er.xml
Cancel

5. Click Save.

Create and configure a node application

You must create and configure every node that you add to the cluster, using the instructions in this section and the following one.

Prerequisite: Import the Pacing Server application template

1. Open Genesys Administrator Extension and navigate to **Environment > Applications**.

x Dechours Configuration	Routing Parameters Administration Inager	Centralized Loga Engagement Manager		1	default More Q, Search 🍘 Enviro
Accounts	Routing / Digital	Application Templates Adelications Altern Conditions Defection / Feaction Scripts Heats Scripts Scripts Schultons Temantis Time Zones	Switching	Outbound	
	•)				
Desktop	Voice Platform				

2. In the **Tasks** panel, click **New**:

ල් GAX	Dashboard	Configuration	Routing Parameter	s Administration	Central	ized Logs	Engagement Mar	nager
Home > A	pplications >	Applications (156)						
Select	🖌 Edit 🖯	New 📋 Delete	: More 🔍 S	how Quick Filter	Directory	Applica	ations (Application I	Folder)
	Name		\$	Status	Ş	Туре	∆ ⊽	Version

3. Specify the name of the Pacing Server application, for example, *Pacing_Server_Node_01*, then click to select a template for creating the application:

	photonois > Facing service > New	Properties
General	Name *	
Connections	Pacing_Server_Node_01	
Ports	Template *	Туре
Tenants		_
Options	version	Is Application Serve
Application Options	Tenant	
	Environment	 State Enabled

4. Select the application template you created previously:

Genesys Generic Server Directory							
elect Genesys Generic Ser	ver						
 ■ 				C, Pacing_Servel X	+	Ę	
Name	¢	Туре	÷	Version		÷	
** D		Concern Concela Concer		900			

- 5. Select the **General** tab and:
 - 1. Set the value of the **Working Directory** and **Command Line** fields to . (a single dot).
 - 2. Make sure that **State** is enabled.
 - 3. Select the **Host** on which the Pacing Server node will reside.
 - 4. Click **Save**.

General	Pacing_Server_9.0.000.04	Genesys Generic Server	~	
Connections	Component type			
			~	
Ports	Version			
Tenants	9.0.000.04	 Is Application Server 		
Options	Working Directory *			
Application Options	Command Line *			
	Command Line Arguments			
	Startup Timeout *	Shutdown Timeout *		
	90	90		
	Auto-Restart Host *	Primary		
	demosrv			

6. Navigate to the **Connections** tab and click **Add**. Select the Pacing Service cluster application you created previously, then click **OK**:

.

New	×
Server*	
PacingService_Cluster	la la
Port ID *	
default (Secured)	×
Connection Protocol	v
Local Timeout	
0	
Remote Timeout	
0	
Trace Mode *	
Unknown Trace Mode	*
Transport Protocol Parameters	
	le le
Application Parameters	
	li li
ок	Cancel

7. Navigate to the **Ports** tab and make sure that the value of the default port is set to the port that this Pacing Server node should listen on. Also, set the protocol type to **http** or **https**.

Important

- Genesys recommends that you always use the HTTPS protocol.
- Genesys recommends that all instances of Pacing Server listen on the same ports.
- Pacing Servers are connected in the cluster through a dedicated port on the host where the Pacing Server instance is installed. By default, this port is 7800. If this port is already in use, go to the Ports tab and add another port with ID **clustering** and the desired value. You don't have to specify a connection type for this port.

GAX Dashboard	Configuration	Routing Parameters	Administration	Centralize	d Logs	Engage	ment Manager			
Home > Applications > Applications > Pacing Service > New Properties										
General	Ports	Ports								
Connections		ID		\$	Port	\$	Connection	\$	HA Sync	Listening Mode
Ports		default			9081		http			Secured
Options										
Application Options										

8. Navigate to the **Tenants** tab and click **Add**. Select the same tenant that is specified for the Pacing Service Cluster application:

ő	GAX	Dashboard	Configuration	Routing Parameters	Administration	Centralized L	.ogs Engagement M			default	?
Но	me > A	pplications >	Applications > P	acing Service > New Pro	operties						
	Genera	eral Tenants							Ado	Remove	
Connections			■ Name ≜ State						4		
	Ports			Environment		·	Enabled				
	Tenant	ts									
	Option	15						/			
	Applic	ation Options									
								/			
								/			
			Can	cel					Apply	Save	

9. Click **Save**.

Add a node application to the cluster

Prerequisites:

- Create the cluster application
- Configure the cluster application
- Create and Configure a node application

Although a single-node configuration works well in a lab environment, in order to provide high availability in production, you must use multiple nodes.

Important

- Every time you establish a new node, you must complete the steps described in Create and Configure a node application.
- If you use multiple nodes, you must set up load balancing in your environment.

Install Pacing Server

Prerequisite: Create and Configure a node application

Important

For more information on how to install apps that you have configured in Genesys Administrator Extension, consult Generic Installation Procedures.

Windows

Windows

- 1. In your installation package, locate and double-click **setup.exe**. InstallShield opens the welcome screen.
- 2. Click Next. The Connection Parameters to the Configuration Server screen appears.

- 3. Under **Host**, specify the host name and port number where Configuration Server is running. (This is the main listening port entered in the **Server Info** tab for Configuration Server.)
- 4. Under **User**, enter the user name and password for logging into Configuration Server.
- 5. Click Next. The Select Application screen appears.
- 6. Select the Genesys Generic Server application—that is, the Node app you created above—that you are installing. The Application Properties area shows the Type, Host, Working Directory, Command Line executable, and Command Line Arguments information previously entered in the Server Info and Start Info tabs of the selected Application object.
- 7. Click Next. The Choose Destination Location screen appears.
- 8. Under **Destination Folder**, either keep the default value or browse for the desired installation location.
- 9. Click Next. The Backup Configuration Server Parameters screen appears.
- 10. If you have a backup Configuration Server, enter the Host name and Port.
- 11. Click Next. The Ready to Install screen appears.
- 12. Click **Install**. The Genesys Installation Wizard indicates it is performing the requested operation for Pacing Server. When it is finished, the **Installation Complete** screen appears.
- 13. Click **Finish** to complete your installation of the Pacing Server.

Linux

Linux

- 1. Open the Pacing Server IP in a terminal window, and run **Install.sh**. The Genesys Installation starts.
- 2. Enter the **hostname** of the host on which you are going to install.
- 3. Enter the connection information to log into Configuration Server:
 - 1. The **hostname**. For instance, *demosrv.genesyslab.com*.
 - 2. The listening port. For instance, 2020.
 - 3. The **user name**. For instance, *demo*.
 - 4. The **password**.
 - 5. If the connection settings are successful, a list of keys and Pacing Server applications is displayed.
- 4. Enter the key for the Pacing Server application—that is, the Node app you created above—that you are installing.
- 5. Enter the location where Pacing Server is to be installed on your host.

Note: This location must match the previous settings that you entered in Configuration Server.

- 1. If you have a backup Configuration Server, enter the Host name and Port.
- 2. If the installation is successful, the console displays the following message:

Installation of Pacing Server, version 9.0.x has completed successfully.

Important

This installation procedure automatically provisions all of the Pacing Server-related configuration information. For more information, see Provisioning.

Configure alarms

Genesys recommends that you tune the following Pacing Server-related alarms:

- GC Latency
- Heap Memory Usage
- PacingRequestsFailed
- PacingResponseTargetError
- PacingResponseValidationError

Although these alarms are created automatically during installation, you can remove them if necessary and then re-create them manually.

To access the alarms in Genesys Administrator Extension, open **Environment > Alarm Conditions**.



The automatic provisioning procedure places the Pacing Server-related alarms in the dedicated **PacingService** alarm folder.

Configure a forward proxy (optional)

Important

This feature is available in release 9.0.000.10 and higher.

If your environment permits connections to the Internet only through a forward proxy service (such as DMZ or your local intranet), configure the forward-proxy options, so the Pacing Service can connect to Genesys Predictive Engagement.