GENESYS™

Predictive Routing Deployment and Operations Guide

System Requirements and Interoperability

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System Requirements and Interoperability

Genesys Predictive Routing (GPR) includes several components. This topic provides an overview of the prerequisite hardware and software required to run each component.

It also includes an Interoperability table, showing which versions of the Genesys components required to run an end-to-end GPR solution are compatible.

> ## Important
>
> In addition to the prerequisites noted here, see the *Genesys Supported Operating Environment Reference Guide*, which provides operating system, database, and browser requirements information for most Genesys products.

The GPR Components: Hardware and Software Requirements

AI Core Services (AICS)

- Provides the Predictive Routing user interface, the API, and the scoring engine. This component consists of a number of Docker containers deployed from a single IP.

Important Considerations

- You might need an active internet connection to download additional libraries when installing Docker.
- The GPR uses CentOS 7 as the base Docker image.
- If you are deploying AICS in an HA architecture, the system clocks on all target servers must be synchronized. You can use Network Time Protocol (NTP) for this.
- For a list of ports required by the various Docker containers and components, see Required Ports for AICS Servers.

Considerations Related to Third-Party Software

- If you are deploying AICS in an HA architecture and running VMWare VXLAN, you might encounter a port conflict between VMWare VXLAN and Docker, both of which require port 4789. If you encounter this issue, Genesys recommends that you use a networking application such as Weave Net to manage networking among Docker containers. For additional information, consult the documentation for the respective products:
    - For the Docker Swarm port requirements: Use swarm mode routing mesh
    - For VMWare VXLAN port requirements: Ports and Protocols Required by NSX

- For Weave Net: Introducing Weave Net

Agent State Connector (ASC)

- Connects to Configuration Server (or Configuration Server Proxy) and (optionally, in release 9.0.015.04 and higher) Stat Server to read real-time updates on agents, agent groups, and agent availability. ASC passes these updates to AI Core Services, which connects to your Genesys Routing solution. With ASC release 9.0.015.04 and higher, and URS Strategy Subroutines 9.0.015.00 and higher you can choose the have GPR monitor agent availability through Universal Routing Server rather than Stat Server, reducing the connections required.

  The option to monitor agent availability from URS rather than Stat Server increases the load on URS. See the Sizing Guide for guidelines.

URS Strategy Subroutines/Composer Subroutines

- Editable out-of-the-box strategy subroutines to use with your Genesys routing components. Genesys Predictive Routing includes a set of subroutines created for use with Universal Routing Server (URS) and Interaction Routing Designer (IRD), and an analogous set that supports the addition of Orchestration Server (ORS) and Composer Universal Routing Server (URS) and Interaction Routing Designer (IRD).

Genesys Reporting Integration

- Configure GPR and your historical reporting components to ensure that the required data, in the form of key-value pairs, is made available to support Genesys historical reporting on GPR performance and outcomes.

General Recommendations

Genesys recommends that you set up at least two instances of Predictive Routing, a *test* or *development* instance and a *production* instance.

- The production instance runs Predictive Routing applications for both pre-production and production environments.
- The development instance runs a separate Predictive Routing application used for development and testing of the data collection pipeline.

System Requirements and Required Components/Versions

The following table lists the hardware and software requirements that should be in place before starting your deployment.

AI Core Services		
Hardware/Software Type	**Requirement**	**Comments**
OS	- CentOS Linux7 (64-bit) - RHEL 7 (64-bit)	

AI Core Services		
	• Oracle Linux 7.3	
RAM	32 GB	
CPUs	8 cores minimum	
Disk space	50 GB free space minimum required, 100 GB recommended	Ideally, the root directory should have at least 50 GB of free space to be used for operating system needs, Docker images, containers, and so on. The directory, /datadir, where MongoDB stores data should be on a separate volume with at least 50 GB, with the option to grow as needed.
Docker	docker-ce version 18.09.2 or higher; OR docker-ee 18.09.2 or higher	The recommended version was updated in March, 2019. For security reasons, *all* deployments should upgrade to the recommended Docker version.
MongoDB	version 3.6	The recommended version is required for GPR release 9.0.011.00 and higher. Earlier versions of AICS are compatible with earlier versions of Mongo DB.
Load Balancer	Depends on your environment	For production HA environments, Genesys recommends that you use a specialized load balancer, such as F5.
Agent State Connector (ASC)		
Hardware/Software Type	**Requirement**	**Comments**
OS	• CentOS Linux 7 (64-bit) • RHEL 7 (64-bit) • Oracle Linux 7.3 • Windows Server	
RAM	1 GB	
Java	Java JDK 1.8	
Configuration Server	8.1.300.26	
Stat Server	8.5.108.17	
Message Server—for logging	8.1.300.11	
URS Strategy Subroutines/Composer Strategy Subroutines		
Hardware/Software Type	**Requirement**	**Comments**
See the Genesys Predictive		

AI Core Services		
Routing Sizing Worksheet to calculate the memory and CPU requirements for URS/ORS when using Predictive Routing.		

Interoperability

Among GPR components:

GPR Component	Requirement	Comments
AI Core Services	AI Core Services 9.0.015.03 and higher requires Agent State Connector 9.0.015.04 and higher.	
Agent State Connector	Agent State Connector 9.0.015.04 and higher requires AI Core Services 9.0.015.03 and higher.	

For Routing using the URS Strategy Subroutines:

Hardware/Software Type	Requirement	Comments
Universal Routing Server	8.1.400.57	
Interaction Routing Designer	8.1.400.26 or higher	

For Routing using the Composer Subroutines. The addition of Orchestration Server and Composer enables you to use Composer to manage the routing workflow, but the Composer subroutine acts as a wrapper for the functionality implemented in the URS Strategy Subroutines component.

Hardware/Software Type	Requirement	Comments
Universal Routing Server	8.1.400.57	
Interaction Routing Designer	8.1.400.26 or higher	
Orchestration Server	8.1.400.40 or higher	
Composer	8.1.400.36 or higher	

For integration with Genesys Reporting:

Hardware/Software Type	Requirement	Comments
Genesys Predictive Routing	9.0.007 or higher	
Interaction Concentrator	8.1.5 or higher	
Genesys Info Mart	8.5.009.12 or higher is the base version. URS Strategy Subroutines 9.0.015.00 and	

Hardware/Software Type	Requirement	Comments
	higher requires Genesys Info Mart 8.5.014.09 and higher.	
Reporting and Analytics Aggregates	8.5.002 or higher	
Genesys Interactive Insights/ GCXI	8.5.001 or higher	