



This PDF is generated from authoritative online content, and is provided for convenience only. This PDF cannot be used for legal purposes. For authoritative understanding of what is and is not supported, always use the online content. To copy code samples, always use the online content.

# Genesys Voice Platform Private Edition Guide

6/4/2026

# Table of Contents

<b>Overview</b>	
About Genesys Voice Platform	6
Architecture	10
Architecture - Configuration Server	17
Architecture - Service Discovery	22
Architecture - Reporting Server	26
Architecture - Resource Manager	31
Architecture - Media Control Platform	36
High availability and disaster recovery	42
<b>Configure and deploy</b>	
Before you begin	45
Configure Genesys Voice Platform	58
Provision Genesys Voice Platform	91
Deploy Genesys Voice Platform	98
<b>Upgrade, roll back, or uninstall</b>	
Upgrade, rollback, or uninstall Genesys Voice Platform	130
<b>Observability</b>	
Observability in Genesys Voice Platform	137
Voice Platform Configuration Server metrics and alerts	141
Voice Platform Service Discovery metrics and alerts	144
Voice Platform Reporting Server metrics and alerts	146
Voice Platform Resource Manager metrics and alerts	150
Voice Platform Media Control Platform metrics and alerts	156
Logging	160

---

## Contents

- [1 Overview](#)
- [2 Configure and deploy](#)
- [3 Upgrade, roll back, or uninstall](#)
- [4 Observability](#)

---

Find links to all the topics in this guide.

**Related documentation:**

•

**RSS:**

- [For private edition](#)

Genesys Voice Platform is a service available with the Genesys Multicloud CX private edition offering.

## Overview

Learn more about Genesys Voice Platform, its architecture, and how to support high availability and disaster recovery.

- [About Genesys Voice Platform](#)
- [Architecture](#)
- [High availability and disaster recovery](#)

---

## Configure and deploy

Find out how to configure and deploy Genesys Voice Platform.

- [Before you begin](#)
- [Configure Genesys Voice Platform](#)
- [Provision Genesys Voice Platform](#)
- [Deploy Genesys Voice Platform](#)
- [Upgrade, rollback, or uninstall Genesys Voice Platform](#)

---

## Upgrade, roll back, or uninstall

Find out how to upgrade, roll back, or uninstall the Genesys Voice Platform services.

---

- 
- Upgrade, rollback, or uninstall Genesys Voice Platform
- 

## Observability

Learn how to monitor Genesys Voice Platform with metrics and logging.

- Logging
-

# About Genesys Voice Platform

## Contents

- [1 Genesys Voice Platform](#)
- [2 Supported Kubernetes platforms](#)
- [3 GVP Configuration Server](#)
- [4 Service Discovery](#)
- [5 Reporting Server](#)
- [6 Resource Manager](#)
- [7 Media Control Platform](#)

Learn about Genesys Voice Platform and how it works in Genesys Multicloud CX private edition.

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Genesys Voice Platform

Genesys Voice Platform (GVP) is a software-only, standards-based voice portal that provides cost-effective customer interactions, 24x7, for businesses using voice, video, the web, and the cloud. Functioning beyond traditional IVR systems, GVP provides touch-tone access to applications and incorporates speech recognition technology and video for conversational exchanges, better to identify and resolve customer requests.

GVP employs a VoiceXML-based media server for network service providers and enterprise customers. GVP is a self-service system that comes with Genesys Media Server and can provide media services simultaneously with VoiceXML self-service applications.

Media services available with GVP are:

- Call parking
- Call qualification
- Call progress detection
- Third-party call recording support
- Call conferencing
- Audio/video streaming

So GVP can be used to provide augmented routing and agent services in addition to self-service applications, proactive contact solutions and outbound calling media.

Genesys Voice Platform (GVP) comprises the following services:

- GVP Configuration Server
- Service Discovery
- Reporting Server
- Resource Manager

- Media Control Platform

## Supported Kubernetes platforms

GVP services are supported on the following cloud platforms:

- Google Kubernetes Engine (GKE)
- Azure Kubernetes Service (AKS)

See the Genesys Voice Platform Release Notes for information about when support was introduced.

## GVP Configuration Server

GVP Configuration Server service is the internal application that connects to the database for the GVP service.

## Service Discovery

Service Discovery:

- Allows MCP pods to be discovered via consul as they are scaled out and added to LRG in Config Server
- Checks the tenant configmap and if there are new tenant information changes that are not in GVP Configuration Server
- Creates/updates the tenant configuration, such as IVR profile in GVP Configuration Server

## Reporting Server

Reporting Server (RS) receives the data and statistics submitted by the reporting clients (Resource Manager, Media Control Platform, and MRCP Proxy)

RS provides this service: storage in the SQLServer DB is used for billing and reporting purposes. RS uses persistent volume for storing the Active MQ journal files.

## Resource Manager

Resource Manager (RM) is the first element to process requests for GVP services, and it interacts with the GVP Configuration Server to determine the tenant, the IVR profile, and the resource required to deliver the service. It then forwards the request to the resource that can deliver the service, such as

Media Control Platform (MCP) and others.

Resource Manager acts as a SIP proxy for SIP traffic between any two SIP components in the GVP architecture.

Resource Manager also acts as a SIP notifier, accepting SIP SUBSCRIBE requests from SIP Server and maintaining multiple independent subscriptions for the same or different SIP devices.

K8s headless service is created to expose both the RM addresses. The K8s RM headless service name is configured in the sip-server cluster MSML DN (VOIP DN). SIP Server is enabled to use SRV, and the RM headless service name is used as SRV record for contacting RM.

When RM pairs are upgraded, the K8s RM headless service name remains the same, so there is no need to update the SIP DNs.

## Media Control Platform

Media Control Platform (MCP) provides media services such as:

- Call parking
- Call qualification
- Call Progress Detection
- Third-party call recording support
- Call conferencing
- Audio/video streaming

# Architecture

## Contents

- [1 Introduction](#)
- [2 Architecture diagram — Connections](#)
- [3 Connections table](#)

Learn about Genesys Voice Platform architecture

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

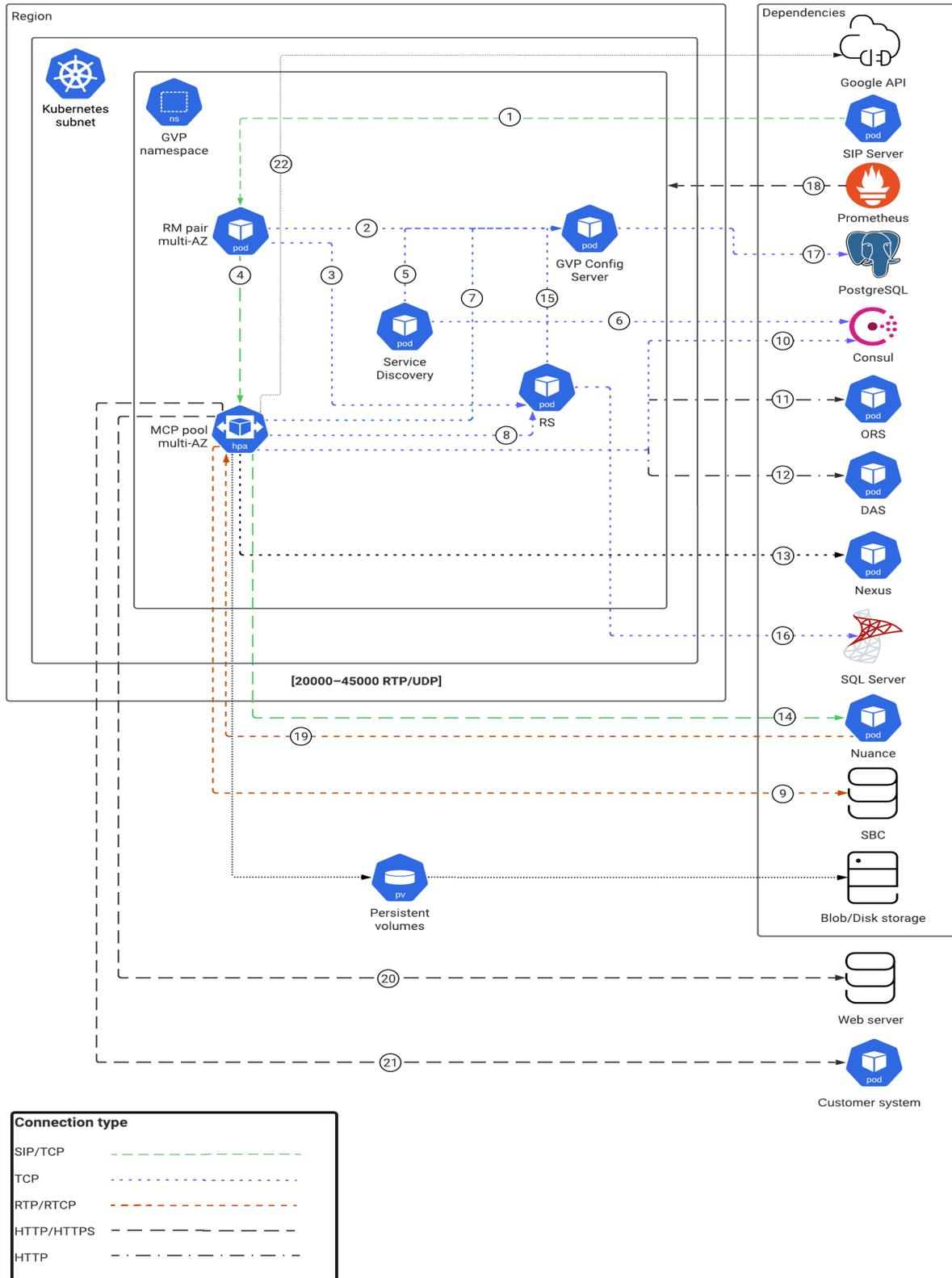
## Introduction

For information about the overall architecture of Genesys Multicloud CX private edition, see the high-level Architecture page.

See also High availability and disaster recovery for information about high availability/disaster recovery architecture.

## Architecture diagram — Connections

The numbers on the connection lines refer to the connection numbers in the table that follows the diagram. The direction of the arrows indicates where the connection is initiated (the source) and where an initiated connection connects to (the destination), from the point of view of Genesys Voice Platform as a service in the network.



## Connections table

The connection numbers refer to the numbers on the connection lines in the diagram. The **Source**, **Destination**, and **Connection Classification** columns in the table relate to the direction of the arrows in the Connections diagram above: The source is where the connection is initiated, and the destination is where an initiated connection connects to, from the point of view of Genesys Voice Platform as a service in the network. *Egress* means the Genesys Voice Platform service is the source, and *Ingress* means the Genesys Voice Platform service is the destination. *Intra-cluster* means the connection is between services in the cluster.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
1	RM pair multi-AZ	SIP Server	SIP/TCP	5090	Egress	SIP Protocol messages.
2	RM pair multi-AZ	GVP Config Server	TCP	8888	Egress	TCP messages. RM connects to GVP Configuration Server to get configuration data.
3	RM pair multi-AZ	RS	TCP	61616	Egress	ActiveMQ messages RM posts billing data to RS.
4	RM pair multi-AZ	MCP pool multi-AZ	SIP/TCP	5070	Egress	SIP Protocol messages.
5	Service Discovery	GVP Config Server	TCP	8888	Egress	TCP messages. SD connects to configuration server to Check/Add/Delete MCP applications.
6	Service Discovery	Consul	TCP	8500/8501	Egress	TCP messages.  SD periodically syncs with Consul to get information of MCPs registered in Consul.  SD writes tenant-related

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						information to Consul KV.
7	MCP pool multi-AZ	GVP Config Server	TCP	8888	Egress	TCP messages. MCP connects to configuration server to get recording certificate details.
8	MCP pool multi-AZ	RS	TCP	61616	Egress	ActiveMQ messages. MCP posts billing data to RS.
9	MCP pool multi-AZ	SBC	RTP/RTCP	20000-45000	Egress	RTP messages.
10	MCP pool multi-AZ	Consul	TCP	8500/8501	Egress	TCP messages. Service Handler container inside MCP Registers MCP to the Consul.
11	MCP pool multi-AZ	ORS	HTTP/HTTPS	11200	Egress	HTTP messages
12	MCP pool multi-AZ	DAS	HTTP/HTTPS	80	Egress	HTTP messages. MCP connects to DAS to fetch vxml applications.
13	MCP pool multi-AZ	Nexus		443	Egress	<p>Websocket messages.</p> <p>MCP connects to Nexus for Voicebot and Agent Assist services.</p> <p><b>Note:</b> The protocol is WebSocket.</p>
14	MCP pool multi-AZ	Nuance	SIP/TCP	5060	Egress	SIP Messages

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						(port is 5060). Also, RTSP messages (port range is 14000-15999) and RTP (port range is 20000-45000).  MCP connects to Nuance for ASR/TTS services.
15	RS	GVP Config Server	TCP	8888	Egress	TCP messages. RS connects to configuration server to fetch configuration data.
16	RS	SQL Server	TCP	1433	Egress	TCP Messages. RS connection to database.
17	GVP Config Server	PostgreSQL	TCP	5432	Egress	TCP messages. GVP Config Server connection to database.
18	Prometheus	GVP namespace	HTTP		Ingress	HTTP messages
19	Nuance	MCP pool multi-AZ	RTP/RTCP	20000-45000/ 14000-15999		Nuance provides ASR/TTS services. RTSP messages (port range is 14000-15999) and RTP (port range is

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						20000-45000.
20	MCP pool multi A-Z	Web server	HTTP/HTTPS	80	Egress	HTTP messages. MCP connects to web server to fetch vxml applications.
21	MCP pool multi A-Z	Customer system	HTTP/HTTPS	80	Egress	HTTP messages.
22	MCP pool multi A-Z	Google API		443	Egress	GRPC messages. MCP connects to Google APIs for TTS service.

# Architecture - Configuration Server

## Contents

- [1 Introduction](#)
- [2 Architecture diagram — Connections](#)
- [3 Connections table](#)

Learn about Genesys Voice Platform- configuration server architecture

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Introduction

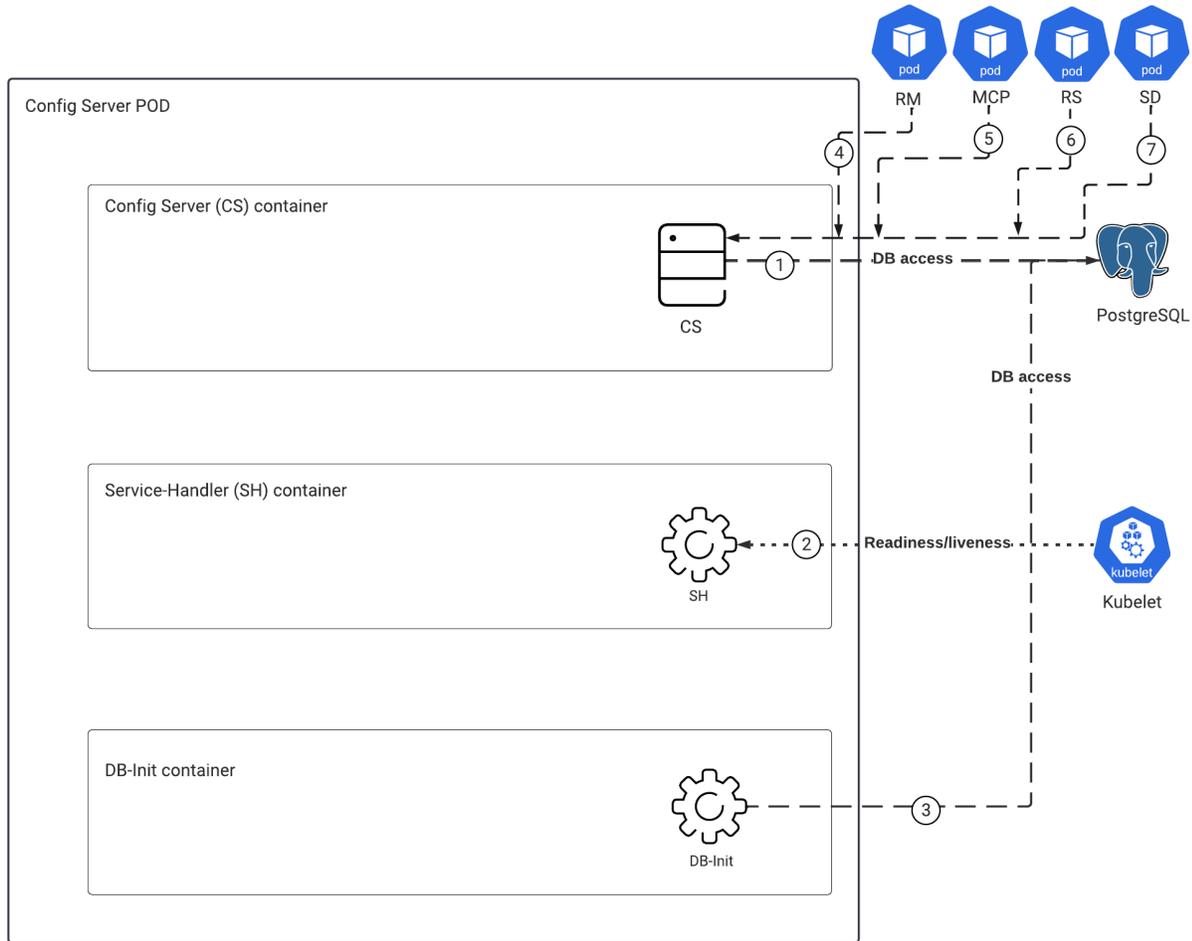
The following diagram displays the architecture of GVP Configuration Server.

For information about the overall architecture of Genesys Multicloud CX private edition, see the high-level Architecture page.

See also High availability and disaster recovery for information about high availability/disaster recovery architecture.

## Architecture diagram — Connections

The numbers on the connection lines refer to the connection numbers in the table that follows the diagram. The direction of the arrows indicates where the connection is initiated (the source) and where an initiated connection connects to (the destination), from the point of view of Genesys Voice Platform as a service in the network.



Connection type	
TCP	-----
HTTP	.....

## Connections table

The connection numbers refer to the numbers on the connection lines in the diagram. The **Source**, **Destination**, and **Connection Classification** columns in the table relate to the direction of the arrows in the Connections diagram above: The source is where the connection is initiated, and the destination is where an initiated connection connects to, from the point of view of Genesys Voice Platform as a service in the network. *Egress* means the Genesys Voice Platform service is the source, and *Ingress* means the Genesys Voice Platform service is the destination. *Intra-cluster* means the connection is between services in the cluster.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
1	CS	PostgreSQL	TCP	5432	Egress	TCP messages. GVP Config Server connection to database.
2	Kubelet	SH	HTTP	8300	Ingress	HTTP GET Requests and for liveness and readiness checks.
3	DB-Init	PostgreSQL	TCP	5432	Egress	TCP messages.
4	RM	CS	TCP	8888	Egress	TCP messages. RM connects to GVP Configuration Server connects to get configuration data.
5	MCP	CS	TCP	8888	Egress	TCP messages. MCP connects to Configuration Server to get recording certificate details and Google keys.
6	RS	CS	TCP	8888	Egress	TCP messages. RS connects to configuration server to fetch configuration data.
7	SD	CS	TCP	8888	Egress	TCP messages. Service Discovery connects to Configuration

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						Server to Check/Add/Delete MCP applications.

# Architecture - Service Discovery

## Contents

- [1 Introduction](#)
- [2 Architecture diagram — Connections](#)
- [3 Connections table](#)

Learn about Genesys Voice Platform- service discovery architecture

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Introduction

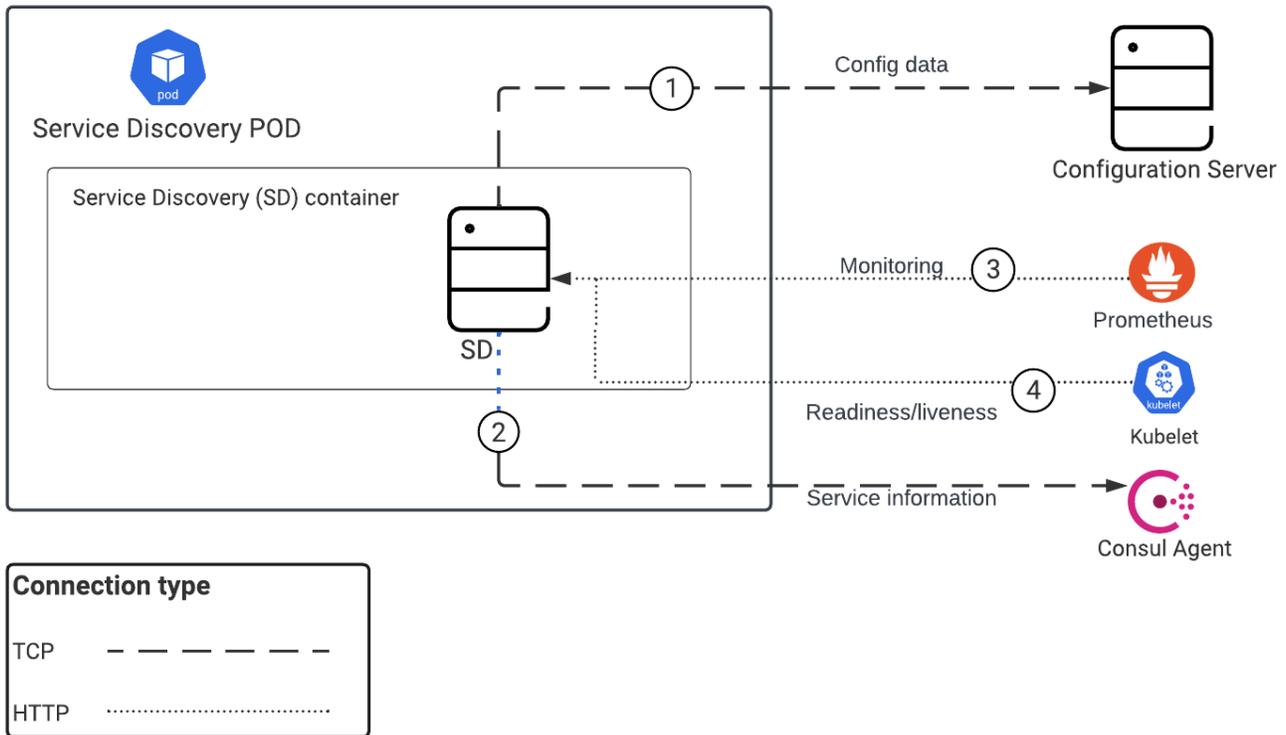
The following diagram displays the architecture of GVP Service Discovery.

For information about the overall architecture of Genesys Multicloud CX private edition, see the high-level Architecture page.

See also High availability and disaster recovery for information about high availability/disaster recovery architecture.

## Architecture diagram — Connections

The numbers on the connection lines refer to the connection numbers in the table that follows the diagram. The direction of the arrows indicates where the connection is initiated (the source) and where an initiated connection connects to (the destination), from the point of view of Genesys Voice Platform as a service in the network.



## Connections table

The connection numbers refer to the numbers on the connection lines in the diagram. The **Source**, **Destination**, and **Connection Classification** columns in the table relate to the direction of the arrows in the Connections diagram above: The source is where the connection is initiated, and the destination is where an initiated connection connects to, from the point of view of Genesys Voice Platform as a service in the network. *Egress* means the Genesys Voice Platform service is the source, and *Ingress* means the Genesys Voice Platform service is the destination. *Intra-cluster* means the connection is between services in the cluster.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
1	SD	Configuration Server	TCP	8888	Egress	TCP messages. SD connects to configuration server to Check/Add/Delete MCP applications.
2	SD	Consul	TCP	8500/8501	Egress	TCP

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
		Agent				messages. SD periodically syncs with Consul to get information of MCPs registered in Consul.
3	Prometheus	SD	HTTP	9090	Ingress	HTTP messages. SD metric upload to Prometheus.
4	Kubelet	SD	HTTP	8080	Ingress	HTTP GET Requests and for liveness and readiness checks.

# Architecture - Reporting Server

## Contents

- [1 Introduction](#)
- [2 Architecture diagram — Connections](#)
- [3 Connections table](#)

Learn about Genesys Voice Platform- reporting server architecture

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Introduction

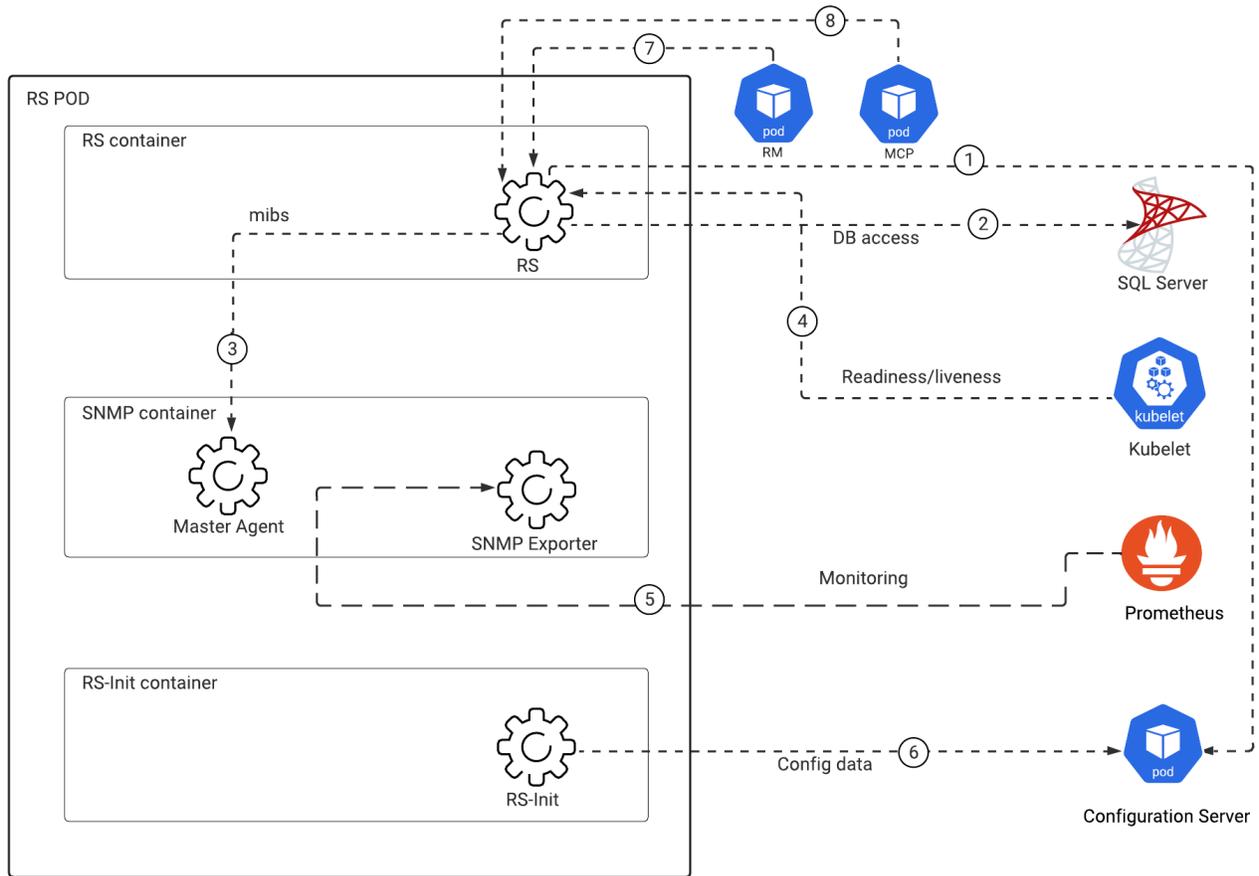
The following diagram displays the architecture for GVP Reporting Server.

For information about the overall architecture of Genesys Multicloud CX private edition, see the high-level Architecture page.

See also High availability and disaster recovery for information about high availability/disaster recovery architecture.

## Architecture diagram — Connections

The numbers on the connection lines refer to the connection numbers in the table that follows the diagram. The direction of the arrows indicates where the connection is initiated (the source) and where an initiated connection connects to (the destination), from the point of view of Genesys Voice Platform as a service in the network.



Connection type	
TCP	-----
HTTP	- - - - -

## Connections table

The connection numbers refer to the numbers on the connection lines in the diagram. The **Source**, **Destination**, and **Connection Classification** columns in the table relate to the direction of the arrows in the Connections diagram above: The source is where the connection is initiated, and the destination is where an initiated connection connects to, from the point of view of Genesys Voice Platform as a service in the network. *Egress* means the Genesys Voice Platform service is the source, and *Ingress* means the Genesys Voice Platform service is the destination. *Intra-cluster* means the connection is between services in the cluster.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
1	RS	Config Server	TCP	8888	Egress	TCP messages. RS connects to configuration server to fetch configuration data.
2	RS	SQL Server	TCP	1433	Egress	TCP messages. RS connection to database.
3	RS	Master Agent	TCP	1705	Egress	TCP messages. RS posts SNMP metric and traps to SNMP MA.
4	Kubelet	RS	TCP	61616 / 8080		61616 for liveness and 8080 for readiness. <b>Note:</b> The protocol is not just TCP, but TCP/ HTTP.
5	Prometheus	SNMP Exporter	HTTP	9116	Ingress	HTTP Messages. RS Custom SNMP metric upload to Prometheus.
6	RS-Init	Config Server	TCP	8888	Egress	TCP messages. RS-Init container connects to GVP CS to create RS application.
7	RM	RS	TCP	61616	Ingress	ActiveMQ messages. RM posts billing data to RS.
8	MCP	RS	TCP	61616	Ingress	ActiveMQ

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						messages. MCP posts billing data to RS.

# Architecture - Resource Manager

## Contents

- [1 Introduction](#)
- [2 Architecture diagram — Connections](#)
- [3 Connections table](#)

Learn about Genesys Voice Platform- resource manager architecture

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Introduction

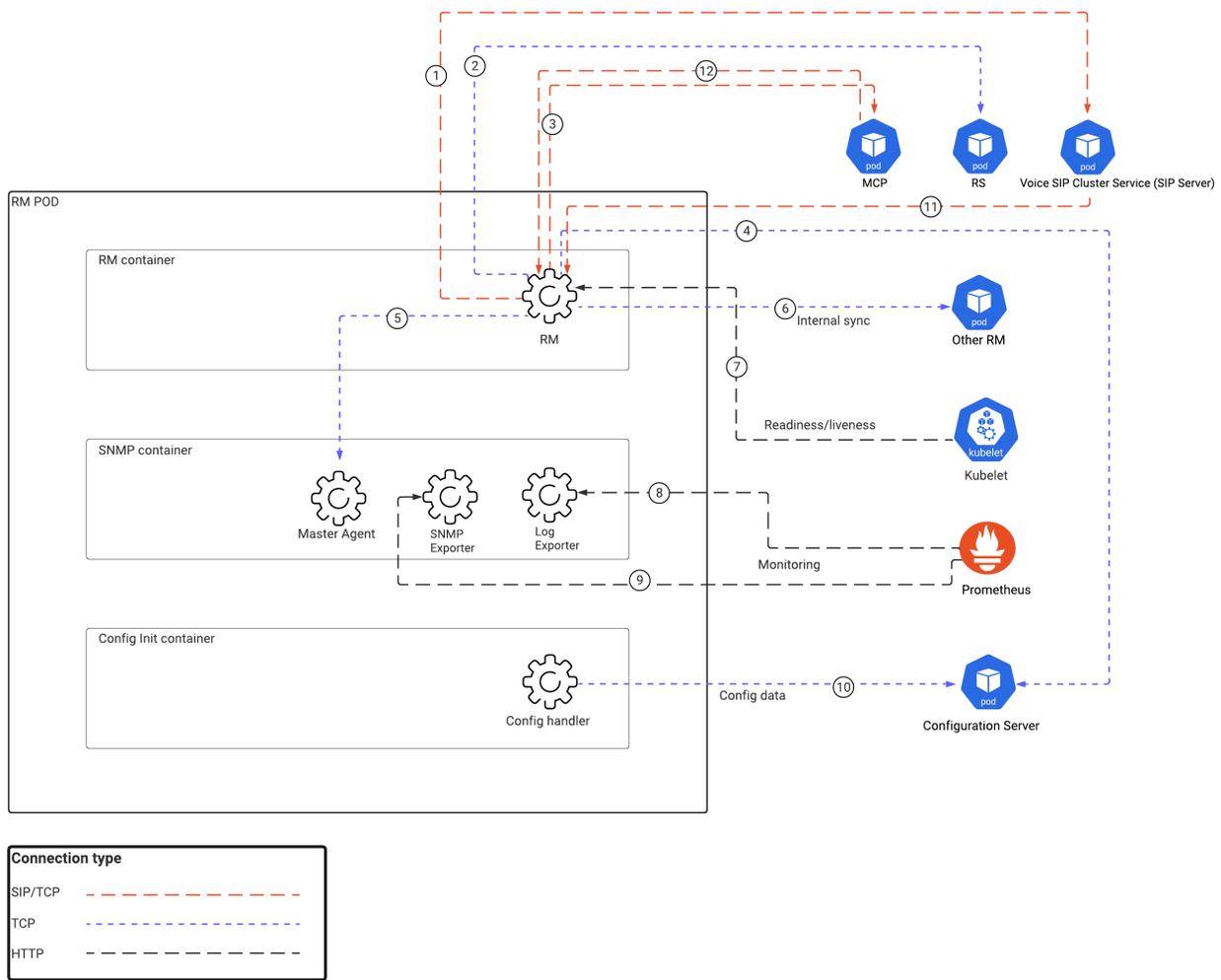
The following diagram displays the architecture for Resource Manager.

For information about the overall architecture of Genesys Multicloud CX private edition, see the high-level Architecture page.

See also High availability and disaster recovery for information about high availability/disaster recovery architecture.

## Architecture diagram — Connections

The numbers on the connection lines refer to the connection numbers in the table that follows the diagram. The direction of the arrows indicates where the connection is initiated (the source) and where an initiated connection connects to (the destination), from the point of view of Genesys Voice Platform as a service in the network.



### Connections table

The connection numbers refer to the numbers on the connection lines in the diagram. The **Source**, **Destination**, and **Connection Classification** columns in the table relate to the direction of the arrows in the Connections diagram above: The source is where the connection is initiated, and the destination is where an initiated connection connects to, from the point of view of Genesys Voice Platform as a service in the network. *Egress* means the Genesys Voice Platform service is the source, and *Ingress* means the Genesys Voice Platform service is the destination. *Intra-cluster* means the connection is between services in the cluster.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
1	RM	SIP Server	SIP/TCP	5090	Egress	SIP Protocol

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						messages.
2	RM	RS	TCP	61616	Egress	ActiveMQ messages. RM posts billing data to RS.
3	RM	MCP	SIP/TCP	5070	Egress	SIP Protocol messages.
4	RM	Config Server	TCP	8888	Egress	TCP messages. RM connects to GVP CS to get configuration data.
5	RM	SNMP Master Agent	TCP	1705	Egress	TCP Messages. RM posts SNMP metric and traps to SNMP MA.
6	RM	Other RM	TCP	9801	Egress	TCP messages. Internode communication between RMs.
7	Kubelet	RM	HTTP	8300		For liveness and readiness checks
8	Prometheus	Log Exporter	HTTP	8200	Ingress	HTTP messages. RM log metric upload to Prometheus.
9	Prometheus	SNMP Exporter	HTTP	9116	Ingress	HTTP Messages. RM custom SNMP metric upload to Prometheus.
10	Config handler	Config Server	TCP	8888	Egress	TCP messages. Config Handler container

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						connects to GVP CS to create RM application and LRG.
11	SIP Server	RM	SIP/TCP	5060	Ingress	SIP Protocol messages.
12	MCP	RM	SIP/TCP	5060	Ingress	SIP Protocol messages.

# Architecture - Media Control Platform

## Contents

- [1 Introduction](#)
- [2 Architecture diagram — Connections](#)
- [3 Connections table](#)

Learn about Genesys Voice Platform- media control platform architecture

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Introduction

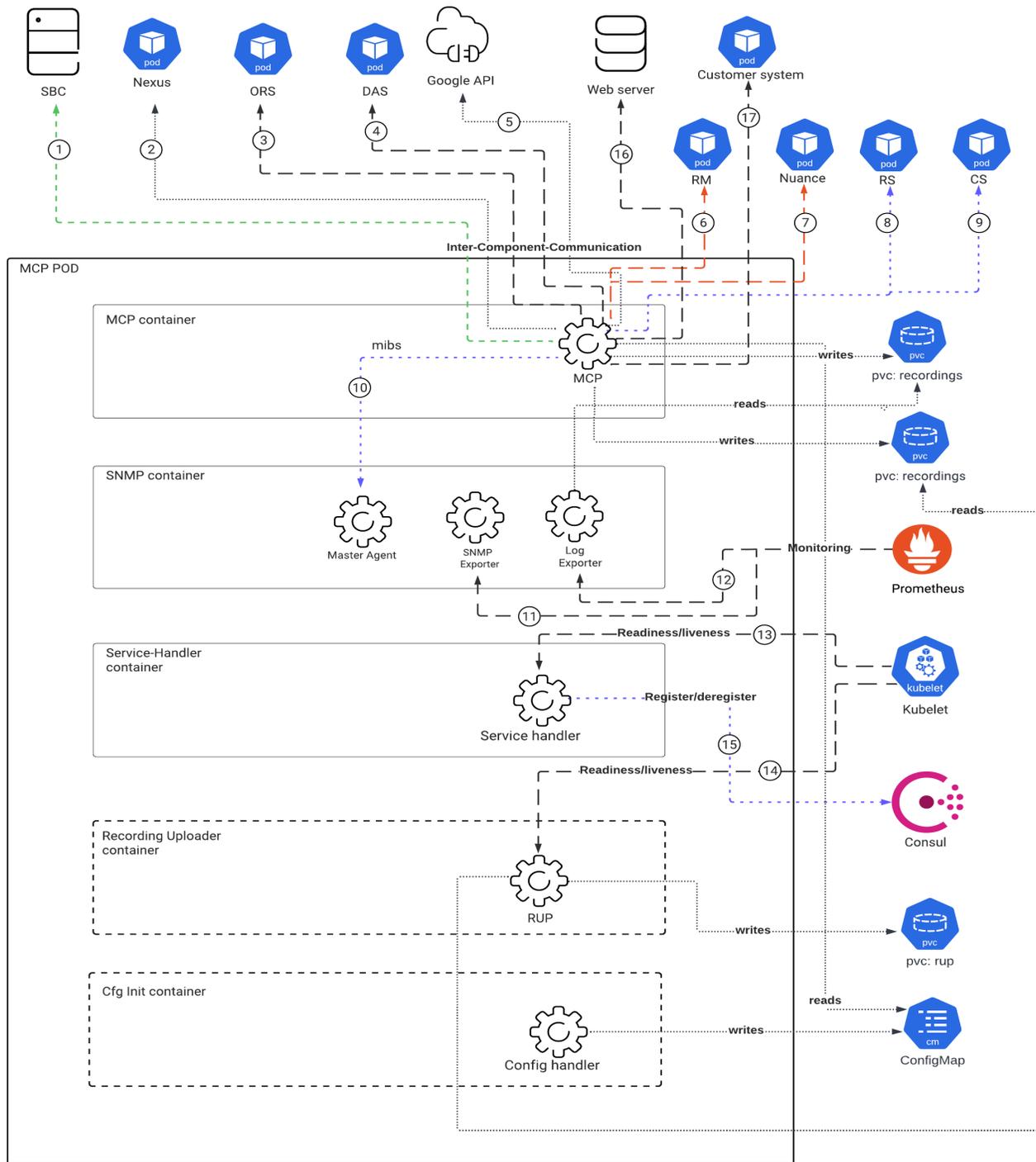
The following diagram displays the architecture for Media Control Platform.

For information about the overall architecture of Genesys Multicloud CX private edition, see the high-level Architecture page.

See also High availability and disaster recovery for information about high availability/disaster recovery architecture.

## Architecture diagram — Connections

The numbers on the connection lines refer to the connection numbers in the table that follows the diagram. The direction of the arrows indicates where the connection is initiated (the source) and where an initiated connection connects to (the destination), from the point of view of Genesys Voice Platform as a service in the network.



Connection type	
RTP/RTCP	--- (dashed green line)
HTTP	- - - (dashed black line)
SIP/TCP	- . - . - (dashed red line)
TCP	... (dotted blue line)

## Connections table

The connection numbers refer to the numbers on the connection lines in the diagram. The **Source**, **Destination**, and **Connection Classification** columns in the table relate to the direction of the arrows in the Connections diagram above: The source is where the connection is initiated, and the destination is where an initiated connection connects to, from the point of view of Genesys Voice Platform as a service in the network. *Egress* means the Genesys Voice Platform service is the source, and *Ingress* means the Genesys Voice Platform service is the destination. *Intra-cluster* means the connection is between services in the cluster.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
1	MCP	SBC	RTP/RTCP	20000-45000	Egress	RTP messages.
2	MCP	Nexus	HTTP	443	Egress	Websocket messages. MCP connects to Nexus for Voicebot and Agent Assist services.
3	MCP	ORS	HTTP	11200	Egress	HTTP messages.
4	MCP	DAS	HTTP	80	Egress	HTTP messages. MCP connects to DAS to fetch VXML applications.
5	MCP	Google API	HTTP	443	Egress	GRPC messages. MCP connects to Google APIs for TTS service.
6	MCP	RM	SIP/TCP	5060	Egress	SIP Protocol messages.
7	MCP	Nuance	SIP/TCP	5060	Egress	SIP messages. Also, RTSP messages (protocol is RTSP and port is 14000-15999) and RTP (protocol is

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						RTP and port is (20000-45000). MCP connects to Nuance for ASR/TTS services.
8	MCP	RS	TCP	61616	Egress	ActiveMQ messages. MCP posts billing data to RS.
9	MCP	CS	TCP	8888	Egress	TCP messages. MCP connects to configuration server to get recording certificate details.
10	MCP	Master Agent	TCP	1705	Egress	TCP messages. MCP posts SNMP metric and traps to SNMP MA.
11	Prometheus	SNMP Exporter	HTTP	9116	Ingress	HTTP messages. MCP Custom SNMP metric upload to Prometheus.
12	Prometheus	Log Exporter	HTTP	8200	Ingress	HTTP messages. MCP log metric upload to Prometheus.
13	Kubelet	Service Handler	HTTP	8300	Ingress	HTTP GET Requests and for liveness and readiness checks.
14	Kubelet	RUP	HTTP	8080	Ingress	HTTP GET Requests and for

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						liveness and readiness checks.
15	Service Handler	Consul	TCP	8500/8501	Egress	TCP messages. Service Handler container inside MCP Registers MCP to the Consul.
16	MCP	Web server	HTTP	80	Egress	HTTP messages. MCP connects to web server to fetch vxml applications.
17	MCP	Customer system	HTTP/HTTPS	80	Egress	HTTP messages.

# High availability and disaster recovery

Find out how this service provides disaster recovery in the event the service goes down.

## Related documentation:

- 
- 
- 

## RSS:

- [For private edition](#)

Name	High Availability	Disaster Recovery	Where can you host this service?
Voice Platform Configuration Server	N = 1 (singleton)	Active-spare	Primary or secondary unit
Voice Platform Media Control Platform	N = N (N+1)	Active-spare	Primary or secondary unit
Voice Platform Reporting Server	N = 1 (singleton)	Active-spare	Primary or secondary unit
Voice Platform Resource Manager	N = 2 (active-active)	Active-spare	Primary or secondary unit
Voice Platform Service Discovery	N = 1 (singleton)	Active-spare	Primary or secondary unit

See High Availability information for all services: High availability and disaster recovery

## GVP Configuration Server

GVP Configuration Server is a singleton instance which connects to a highly available database.

## Service Discovery

Service Discovery is a singleton service which will be restarted in case of crash or unavailability.

## Reporting Server

A single-instance Reporting Server is used and the POD is re-started by Kubernetes Service in case of any error.

## Resource Manager

High Availability for Resource Manager is achieved by combining two Resource Manager pods in an Active-Active HA-pair, where either one of the pods can process SIP requests. SIP Server acts as a load balancer and applies proprietary load-balancing rules (round-robin) when it forwards the SIP requests.

Service is Active-Active and replicates using in-memory data. Kubernetes stateful sets with replicas (2) are used to deploy the Active-Active RM pairs in the K8 cluster. SIP-Cluster in front of RM A-A pair takes care of load balancing.

## Media Control Platform

For High Availability, MCP is deployed as a pool of instances (N+1) in a region and calls are routed to available MCPs from Resource Manager (RM). RM detects when an MCP instance goes down and marks that instance as unavailable. Future calls will not be routed to that instance.

SIP Server/RM has a recovery mechanism where existing recordings which started on a MCP, which has now become unavailable, are then re-routed to a different MCP.

It is recommended to deploy the MCP pool across multiple AZs (min 2 AZs) so that there is redundancy in case of specific AZ issues.

In case of DR, MCP pool in another region should be configured along with other GVP components.

## Auto-scaling

MCP supports 2 types of auto-scaling: a time-based schedule scaling and a CPU-based scaling. A combination of both types of scaling can be used to provide the most efficient and agile autoscaling policy. For example, pre-scaling at the start of the work day and scaling down at the end of the day and the ability to react to bursts of traffic using CPU-based scaling.

- Cron schedule scaling

MCP can be pre-scaled based on a time schedule using KEDA cron scaler. The following parameters are available to customize:

```
useKeda: true # If this is set to true, use Keda for scaling, or use HPA directly
keda:
  enabled: true
  preScaleStart: "0 14 * * *"
  preScaleEnd: "0 2 * * *"
  preScaleDesiredReplicas: 4
  pollingInterval: 15
  cooldownPeriod: 300
```

- CPU-based scaling

MCP scaling is also triggered by CPU usage using the Horizontal Pod Autoscaler (HPA).

---

```
hpa:
  enabled: true
  # minReplicas => replicaCount is used instead
  maxReplicas: 4
  targetCPUAverageUtilization: 20
  scaleupPeriod: 15
  scaleupPods: 4
  scaleupPercent: 50
  scaleupStabilizationWindow: 0
  scaleupPolicy: Max
  scaledownPeriod: 300
  scaledownPods: 2
  scaledownPercent: 10
  scaledownStabilizationWindow: 3600
  scaledownPolicy: Min
```

# Before you begin

## Contents

- 1 Limitations and assumptions
- 2 Download the Helm charts
- 3 Third-party prerequisites
- 4 Storage requirements
  - 4.1 Media Control Platform
  - 4.2 Resource Manager
  - 4.3 Service Discovery
  - 4.4 Reporting Server
  - 4.5 GVP Configuration Server
- 5 Network requirements
  - 5.1 Media Control Platform
  - 5.2 Resource Manager
  - 5.3 Service Discovery
  - 5.4 Reporting Server
  - 5.5 GVP Configuration Server
- 6 Browser requirements
- 7 Genesys dependencies
  - 7.1 Media Control Platform
  - 7.2 Resource Manager
  - 7.3 Service Discovery
  - 7.4 Reporting Server
  - 7.5 GVP Configuration Server
- 8 GDPR support
  - 8.1 Data Retention Policies
  - 8.2 Configuration Settings

Find out what to do before deploying Genesys Voice Platform.

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Limitations and assumptions

- Resource Manager does not use gateway LRG configurations. Instead, it uses the contact center ID coming from SIP Server as gvp-tenant-id in the INVITE message to identify the tenant and pick the IVR Profiles.
- Only single MCP LRG is supported per GVP deployment.
- Only the specific component configuration options documented in Helm values.yaml overrides can be modified. Other configuration options can't be changed.
- DID/DID groups are managed as part of Designer applications (Applications)
- SIP TLS / SRTP are currently not supported.

## Download the Helm charts

You will have to download the GVP related Docker containers and Helm charts from the JFrog repository. For docker container and helm chart versions, refer to Helm charts and containers for Genesys Voice Platform.

For more information on JFrog, refer to the Downloading your Genesys Multicloud CX containers topic in the *Setting up Genesys Multicloud CX private edition* document.

## Third-party prerequisites

Third-party services

Name	Version	Purpose	Notes
A container image		Used for downloading	

## Before you begin

Name	Version	Purpose	Notes
registry and Helm chart repository		Genesys containers and Helm charts into the customer's repository to support a CI/CD pipeline. You can use any Docker OCI compliant registry.	
PostgreSQL	11.x	Relational database.	The GVP Configuration Server is separate from the Tenant Configuration Server and requires its own database.
Consul	1.8	Service discovery, service mesh, and key/value store.	The following features must be enabled in Consul: Service Discovery - to register MCP service for auto discovery of MCP pods by RM
MS SQL Server	2016 or later	Relational database. Required only for GVP.	

## Storage requirements

### Media Control Platform

Storage requirement for production (min)

Persistent Volume	Size	Type	IOPS	Functionality	Container	Critical	Backup needed
recordings-volume	100Gi	RWO	high	Storing recordings, dual AZ,	gvp-mcp, rup	Y	Y
rup-volume	40Gi	RWO	high	Storing recordings temporarily, dual AZ,	rup	Y	Y
log-pvc	50Gi	RWO	medium	storing log files	gvp-mcp	Y	Y

Storage requirements for Sandbox

Persistent Volume	Size	Type	IOPS	Functionality	Container	Critical	Backup needed
recordings-volume	50Gi	RWO	high	Storing recordings, dual AZ,	gvp-mcp, rup	Y	Y

Before you begin

---

rup-volume	20Gi	RWO	high	Storing recordings temporarily, dual AZ,	rup	Y	Y
log-pvc	25Gi	RWO	medium	storing log files	gvp-mcp	Y	Y

## Resource Manager

Storage requirement for production (min)

Persistent Volume	Min Size	Type	IOPS	Functionality	Container	Critical	Backup needed
billingpvc	20Gi	RWO	high	billing	gvp-rm	Y	Y
log-pvc	50Gi	RWO	medium	storing log files	gvp-rm	Y	Y

Storage requirements for Sandbox

Persistent Volume	Min Size	Type	IOPS	Functionality	Container	Critical	Backup needed
billingpvc	20Gi	RWO	high	billing	gvp-rm	Y	Y
log-pvc	10Gi	RWO	medium	storing log files	gvp-rm	Y	Y

## Service Discovery

Not applicable

## Reporting Server

Storage requirement for production (min)

Persistent Volume	Min Size	Type	IOPS	Functionality	Container	Critical	Backup needed
billing-pvc	20Gi	RWO	High	Stores ActiveMQ data and config information	gvp-rs	Y	Y

Storage requirement for Sandbox

Persistent Volume	Min Size	Type	IOPS	Functionality	Container	Critical	Backup needed
billing-pvc	10Gi	RWO	High	Stores ActiveMQ data and	gvp-rs	Y	Y

---

Before you begin

---

Persistent Volume	Min Size	Type	IOPS	Functionality	Container	Critical	Backup needed
				config information			

## GVP Configuration Server

Not applicable

## Network requirements

### Media Control Platform

Ingress

Not applicable

HA/DR

MCP is deployed with autoscaling in all regions. For more details, see the section Auto-scaling.

Calls are routed to active MCPs from GVP Resource Manager (RM) and in case of a MCP instance terminating, the calls are then routed to a different MCP instance.

Cross-region bandwidth

MCPs are not expected to be doing cross-region requests in normal mode of operation.

External connections

Not applicable

Pod Security Policy

All containers running as genesys user (500) and non-root user.

```
podSecurityContext:  
  fsGroup: 500  
  runAsUser: 500  
  runAsGroup: 500  
  runAsNonRoot: true
```

SMTP Settings

Not applicable

Before you begin

---

TLS/SSL Certificates configurations

Not applicable

Resource Manager

Ingress

Not applicable

HA/DR

Resource Manager is deployed as the Active and Active pair.

Cross-region bandwidth

Resource Manager is deployed per region. There is no cross region deployment.

External connections

Not applicable

Pod Security Policy

All containers running as genesys user (500) and non-root user.

```
podSecurityContext:  
  fsGroup: 500  
  runAsUser: 500  
  runAsGroup: 500  
  runAsNonRoot: true
```

SMTP Settings

Not applicable

TLS/SSL Certificates configurations

Not applicable

Service Discovery

Ingress

Not applicable

HA/DR

Service Discovery is a singleton service which will be restarted if it shuts down unexpectedly or becomes unavailable.

## Before you begin

---

### Cross-region bandwidth

Service Discovery is not expected to be doing cross-region requests in normal mode of operation.

### External connections

Not applicable

### Pod Security Policy

All containers running as genesys user (500) and non-root user.

```
podSecurityContext:  
  fsGroup: 500  
  runAsUser: 500  
  runAsGroup: 500  
  runAsNonRoot: true
```

### SMTP Settings

Not applicable

### TLS/SSL Certificates configurations

Not applicable

### Reporting Server

#### Ingress

Not applicable

#### HA/DR

Reporting Server is deployed as a single pod service.

### Cross-region bandwidth

Reporting Server is deployed per region. There is no cross region deployment.

### External connections

Not applicable

### Pod Security Policy

All containers running as genesys user (500) and non-root user.

```
podSecurityContext:  
  fsGroup: 500  
  runAsUser: 500
```

## Before you begin

---

```
runAsGroup: 500
runAsNonRoot: true
```

### SMTP Setting

Not applicable

### TLS/SSL Certificates configurations

Not applicable

## GVP Configuration Server

### Ingress

Not applicable

### HA/DR

GVP Configuration Server is deployed as a singleton. If the GVP Configuration Server crashes, a new pod will be created. The GVP services will continue to service calls if the GVP Configuration Server is unavailable and only new configuration changes, such as new MCP pods, will not be available.

### Cross-region bandwidth

GVP Configuration Server is not expected to be doing cross-region requests in normal mode of operation.

### External connections

External service	Functionality
PostgreSQL	database

### Pod Security Policy

All containers running as genesys user (500) and non-root user.

```
podSecurityContext:
  fsGroup: 500
  runAsUser: 500
  runAsGroup: 500
  runAsNonRoot: true
```

### SMTP Settings

Not applicable

### TLS/SSL Certificates configurations

Not applicable

---

Before you begin

---

## Browser requirements

N/A

## Genesys dependencies

### Media Control Platform

Service	Functionality
Consul	Consul service must be deployed before deploying MCP for proper service registration in GVP Configuration Server and RM.

### Resource Manager

Service	Functionality
GVP Configuration Server	GVP Configuration Server must be deployed before deploying RM for proper working.

### Service Discovery

Service	Functionality
Consul	Consul service must be deployed before deploying Service Discovery for proper service registration in GVP Configuration Server and Resource Manager.

### Reporting Server

Service	Functionality
GVP Configuration Server	GVP Configuration Server must be deployed before deploying RS for proper working.

### GVP Configuration Server

N/A

## GDPR support

This section describes product-specific aspects of Genesys Voice Platform support for the European Union's General Data Protection Regulation (GDPR) in premise deployments. For general information about Genesys support for GDPR compliance, see General Data Protection Regulation.

---

## Warning

Disclaimer: The information contained here is not considered final. This document will be updated with additional technical information.

## Data Retention Policies

GVP has configurable retention policies that allow expiration of data. GVP allows aggregating data for items like peak and call volume reporting. The aggregated data is anonymous. Detailed call detail records include DNIS and ANI data. The Voice Application Reporter (VAR) data could potentially have personal data, and would have to be deleted when requested. The log data files would have sensitive information (possibly masked), but requires the data to be rotated/expired frequently to meet the needs of GDPR.

## Configuration Settings

### Media Server

Media Server is capable of storing data and sending alarms which can potentially contain sensitive information, but by default, the data will typically be automatically cleansed (by the log rollover process) within 40 days.

The location of these files can be configured in the GVP Media Control Platform Configuration [default paths are shown below]:

- vxmli:recordutterance-path = \$InstallationRoot\$/utterance/
- vxmli:recording-basepath = \$InstallationRoot\$/record/
- Netann:record-basepath = \$InstallationRoot\$/record
- msml:cpd-record-basepath = \$InstallationRoot\$/record/
- msml:record-basepath = \$InstallationRoot\$
- msml:record-irrecoverablerecordpostdir = \$InstallationRoot\$/cache/record/failed
- mpc:recordcachedir = \$InstallationRoot\$/cache/record
- calllog:directory = \$InstallationRoot\$/callrec/Log files and temporary files can be saved.

The location of these files can be configured in the GVP Media Control Platform Configuration [default paths are shown below]:

- vxmli:logdir = \$InstallationRoot\$/logs/
- vxmli:tmpdir = \$InstallationRoot\$/tmp/
- vxmli:directories-save\_tempfiles = \$InstallationRoot\$/tmp/

**Note:** Changing default values is not really supported in the initial Private Edition release for any of the above MCP options.

Also, additional sinks are available where alarms and potentially sensitive information can be captured. See **Table 6** and **Appendix H** of the Genesys Voice Platform User's Guide for more information. The metrics can be configured in the GVP Media Control Platform configuration:

- `ems.log_sinks = MFSINK | DATAC | TRAPSINK`
- `ems:metricsconfig-DATAC = *`
- `ems:dc-default-metricsfilter = 0-16,18,25,35,36,41,52-55,74,128,136-141`
- `ems.metricsconfig.MFSINK = 0-16,18-41,43,52-56,72-74,76-81,127-129,130,132-141,146-152`

### **GVP Resource Manager**

Resource Manager is capable of storing data and sending alarms and potentially sensitive information, but by default, the data will typically be automatically cleansed (by the log rollover process) within 40 days.

Customers are advised to understand the GVP logging (for all components) and understand the sinks (destinations) for information which the platform can potentially capture. See **Table 6** and **Appendix H** of the Genesys Voice Platform User's Guide for more information.

### **GVP Reporting Server**

The Reporting Server is capable of storing/sending alarms and potentially sensitive information, but by default, these components process but do not store consumer PII. Customers are advised to understand the GVP logging (for all components) and understand the sinks (destinations) for information which the platform can potentially capture. See **Table 6** and **Appendix H** of the Genesys Voice Platform User's Guide for more information.

By default, Reporting Server is designed to collect statistics and other user information. Retention period of this information is configurable, with most data stored for less than 40 days. Customers should work with their application designers to understand what information is captured as part of the application, and, whether or not the data could be considered sensitive.

These settings could be changed by the customer as per their need by using a Helm chart override `values.yaml`.

### **Data Retention Specific Settings**

- `rs.db.retention.operations.daily.default: "40"`
- `rs.db.retention.operations.monthly.default: "40"`
- `rs.db.retention.operations.weekly.default: "40"`
- `rs.db.retention.var.daily.default: "40"`
- `rs.db.retention.var.monthly.default: "40"`
- `rs.db.retention.var.weekly.default: "40"`
- `rs.db.retention.cdr.default: "40"`

### **Identifying Sensitive Information for Processing**

The following example demonstrates how to find this information in the Reporting Server database - for the example where 'Session\_ID' is considered sensitive:

- `select * from dbo.CUSTOM_VARS where session_ID = '018401A9-100052D6';`
- `select * from dbo.VAR_CDRS where session_ID = '018401A9-100052D6';`

## Before you begin

---

- select \* from dbo.EVENT\_LOGS where session\_ID = '018401A9-100052D6';
- select \* from dbo.MCP\_CDR where session\_ID = '018401A9-100052D6';
- select \* from dbo.MCP\_CDR\_EXT where session\_ID = '018401A9-100052D6';

An example of a SQL query which might be used to understand if specific information is sensitive:

```
USE [ems-rs]
DECLARE @SearchStr nvarchar(100) = '018401A9-100052D6'
DECLARE @Results TABLE (ColumnName nvarchar(370), ColumnValue nvarchar(3630))

SET NOCOUNT ON

DECLARE @TableName nvarchar(256), @ColumnName nvarchar(128), @SearchStr2 nvarchar(110)
SET @TableName = ''
SET @SearchStr2 = QUOTENAME('%' + @SearchStr + '%','''')

WHILE @TableName IS NOT NULL

BEGIN
    SET @ColumnName = ''
    SET @TableName =
    (
        SELECT MIN(QUOTENAME(TABLE_SCHEMA) + '.' + QUOTENAME(TABLE_NAME))
        FROM     INFORMATION_SCHEMA.TABLES
        WHERE          TABLE_TYPE = 'BASE TABLE'
        AND          QUOTENAME(TABLE_SCHEMA) + '.' + QUOTENAME(TABLE_NAME) > @TableName
        AND          OBJECTPROPERTY(
            OBJECT_ID(
                QUOTENAME(TABLE_SCHEMA) + '.' + QUOTENAME(TABLE_NAME)
            ), 'IsMSShipped'
        ) = 0
    )

    WHILE (@TableName IS NOT NULL) AND (@ColumnName IS NOT NULL)

    BEGIN
        SET @ColumnName =
        (
            SELECT MIN(QUOTENAME(COLUMN_NAME))
            FROM     INFORMATION_SCHEMA.COLUMNS
            WHERE          TABLE_SCHEMA    = PARSENAME(@TableName, 2)
            AND          TABLE_NAME      = PARSENAME(@TableName, 1)
            AND          DATA_TYPE IN ('char', 'varchar', 'nchar', 'nvarchar', 'int', 'decimal')
            AND          QUOTENAME(COLUMN_NAME) > @ColumnName
        )

        IF @ColumnName IS NOT NULL

        BEGIN
            INSERT INTO @Results
            EXEC
            (
                'SELECT ''' + @TableName + '.' + @ColumnName + ''', LEFT(' + @ColumnName + ',
3630)
                FROM ' + @TableName + ' (NOLOCK) ' +
                ' WHERE ' + @ColumnName + ' LIKE ' + @SearchStr2
            )
        END
    END
END
```

Before you begin

---

```
SELECT ColumnName, ColumnValue FROM @Results
```

# Configure Genesys Voice Platform

## Contents

- [1 Override Helm chart values](#)
- [2 GVP Configuration Server](#)
- [3 Service Discovery](#)
- [4 Reporting Server](#)
- [5 Resource Manager](#)
- [6 Media Control Platform](#)
- [7 Configure Kubernetes](#)
  - [7.1 Media Control Platform](#)
  - [7.2 Resource Manager](#)
  - [7.3 Service Discovery](#)
  - [7.4 Reporting Server](#)
  - [7.5 GVP Configuration Server](#)
- [8 Configure security](#)

Learn how to configure Genesys Voice Platform.

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Override Helm chart values

The following sections provide information on the various settings that have to be configured in Genesys Voice Platform.

- Configuration Server
- Service Discovery
- Reporting Server
- Resource Manager
- Media Control Platform

This page also includes the section Configure Kubernetes.

## GVP Configuration Server

The following tables list the configurable parameters of the GVP ConfigServer chart and their default values.

**NOTE:** There may be other parameters that could be changed, but changing them is not recommended, unless you know exactly what you are doing.

You must set `service.port` and `serviceHandler.port` to 8888 and 8300. This limitation will be addressed in a future release.

Parameter	Description	Default Value	Valid Values	Notes
<code>podLabels</code>	Custom labels to be added for each pod	(none)	Valid set of labels as "name: value"	

Parameter	Description	Default Value	Valid Values	Notes
podAnnotations	Custom annotations to be added for each pod	(none)	Valid set of annotations as "name: value"	
replicaCount	Number of replicas in deployment (should be 1 for CS)	1	A number > 0	
partOf	Namespace where the application is deployed	gvp	A string	
image..registry	Image registry URL for the container	genesysengagedev.azurecr.io	A valid registry URI	
image..repository	Repository path for the container in the above registry	gvp/ gvp_confserv, gvp_configserver_servicehandler, gvp/ gvp_configserver_configserverinit	A valid repository path/name	
image..pullPolicy	Pull policy for the container	IfNotPresent	IfNotPresent or Always	
image..tag	Container version tag	{{.Chart.AppVersion}}	A valid tag string	
configserver.alerts.cpuUtilizationAlertLimit	CPU utilization % limit above which an alert will be generated	70	A number > 0	The condition must last for 5 mins
configserver.alerts.memoryUtilizationAlertLimit	Working memory utilization % limit above which an alert will be generated	90	A number > 0	The condition must last for 5 mins
configserver.alerts.workingMemAlertLimit	Working memory size limit in GB above which an alert will be generated	1	A number > 0	The condition must last for 5 mins
configserver.alerts.maxRestarts	A limit on number of container restarts in last 5 mins above which an alert will be generated	2	A number > 0	
service.type	Service type - ClusterIP/ NodePort/ LoadBalancer	ClusterIP	ClusterIP, NodePort, or LoadBalancer	
service.host	Host name of the service/config server	gvp-configserver-0	A valid Config Server name	

Parameter	Description	Default Value	Valid Values	Notes
service.port	Service port number	8888	A valid port number	
service.targetPort	Application port within the container	8888	A valid port number	
serviceHandler.port	Port of serviceHandler	8300	A valid port number	
secrets.imagePull	Secret names used for container image pulls	pureengage-docker-dev, pureengage-docker-staging	Valid secret names	
secrets.configServer.secretName	K8s secret name for Config Server	configserver-secret	A valid secret name	
secrets.configServer.userKey	K8s secret user key for Config Server	username	A valid user key	
secrets.configServer.passwordKey	K8s secret password key for Config Server	password	A valid password key	
secrets.postgres.dbName	Postgres DB name	gvp	A valid DB name key	
secrets.postgres.dbPort	Postgres DB port	5432	A valid DB port number	
secrets.postgres.secretName	K8s secret name for Postgres	postgres-secret	A valid secret name	
secrets.postgres.secretAdminUserKey	K8s secret user key for Postgres admin user	db-username	A valid DB user name key	
secrets.postgres.secretAdminPwdKey	K8s secret password key for Postgres admin user	db-password	A valid DB user password key	
secrets.postgres.secretHostKey	K8s secret hostname key for Postgres	db-hostname	A valid DB host name key	
secrets.postgres.secretDBNameKey	K8s secret DB name key for Postgres	db-name	A valid DB name key	
resources.requests.memory	Guaranteed memory allocation for CS container	128Mi	A valid k8s memory size value	
resources.requests.cpu	Guaranteed CPU allocation for CS container	100m	A valid k8s CPU unit value	
resources.limits.memory	Maximum amount of Memory K8s allocates for CS container	1Gi	A valid k8s memory size value	

Parameter	Description	Default Value	Valid Values	Notes
resources.limits.cpu	Maximum amount of CPU K8s allocates for CS container	1	A valid k8s CPU unit value	
podSecurityContext.seccompProfile.gid	Pod SecurityContext GID for volumes	500	A valid GID number	
podSecurityContext.runAsUser	Pod SecurityContext user ID for processes	500	A valid UID number	
podSecurityContext.runAsGroup	Pod SecurityContext primary group ID for processes	500	A valid GID number	
podSecurityContext.flags.noNewPrivileges	Pod SecurityContext flag to prevent running as non-root	true	true or false	
securityContext.*	Same as podSecurityContext settings above but for containers			See above
priorityClassName	K8s priorityClassName for the pod (optional parameter, but recommended)	(none)	A valid priority class name	
affinity	Affinity for pod assignment (optional parameter)	(none)	Valid affinity settings	
nodeSelector	Node selector labels	(none)	Valid nodeSelector settings	
tolerations	Settings for tolerations	(none)	Valid name:value pairs	
prometheus.createRules	Whether to create the Prometheus rules or not	true	true or false	
prometheus.logExporterPort	Port for allowing Prometheus scrapes for log exporter. Do not change.	8200	A valid port number	
prometheus.snmpExporterPort	Port for allowing Prometheus scrapes for SNMP exporter. Do not	9116	A valid port number	

Parameter	Description	Default Value	Valid Values	Notes
	change.			
grafana.enabled	Whether to create the Grafana dashboard or not	true	true or false	
grafana.k8sSidecarTargetDirectory	Directory in Grafana where the gvp dashboard should be stored. Internal to Genesys	/var/lib/grafana/dashboards/gvp	/var/lib/grafana/dashboards/gvp	
networkPolicies.enabled	Whether to enable network policies or not	false	true or false	
networkPolicies.dnsPort	Port for allowing DNS lookup. Do not change.	53	A valid port number	
dnsConfig.options.ndots	Required number of dots in an FQDN to trigger a DNS query	3	A valid number of dots	

## Service Discovery

The following tables list the configurable parameters of the GVP SD chart and their default values.

**Note:** There may be other parameters that could be changed, but changing them is not recommended, unless you know exactly what you are doing. SD runs periodically, every SYNC\_PERIOD.

Parameter	Description	Default Value	Valid Values	Notes
podLabels	Custom labels to be added for each pod	(none)	Valid set of labels as "name: value"	
podAnnotations	Custom annotations to be added for each pod	(none)	Valid set of annotations as "name: value"	
replicaCount	Number of replicas in deployment (should be 1 for SD)	1	A number > 0	
smtp	Whether SMTP is supported or not (for email)	allowed	allowed, or none	

Parameter	Description	Default Value	Valid Values	Notes
partOf	Namespace where the application is deployed	gvp	A string value for name space	
serviceName	Service name	gvp-sd		Not to be changed
image.registry	Image registry URL for the SD container	genesysengagedev.azurecr.io	A valid registry URI	
image.repository	Repository path for the SD container in the above registry	gvp/gvp_sd		
image.pullPolicy	Pull policy for the container	IfNotPresent	IfNotPresent or Always	
image.tag	Container version tag	{{.Chart.AppVersion}}	A valid tag number	
env.EXTERNAL_CONSUL_SERVER	Complete URL of an external Consul server, if used	none (empty)	URI such as https://consul.genesyscloud.com:8501	The port is included in this URL. If defined, env.CONSUL_PORT will not be used.
env.CONSUL_PORT	Consul Server port	8501	Valid port number	
env.CONFIG_SERVER_HOST	Name of the Config Server	gvp-configserver	Valid Config Server name	
env.CONFIG_SERVER_PORT	Port used by Config Server	8888	Valid port number	
env.CONFIG_SERVER_APP	Application name used for Config Server access	default	Valid application name	
env.HTTP_SERVER_PORT	Port used by the local HTTP Server (used for health checks)	8080	Valid port number	
env.METRICS_EXPORTER_PORT	Port used for metrics exporter	9090	Valid port number	
env.DEF_MCP_FOLDER	MCP apps CU (Configuration Unit) folder in Config Server (CS)	MCP_Configuration_Unit\MCP_LRG	Valid CU folder in CS	
env.TEST_MCP_FOLDER	MCP apps CU (Configuration Unit) folder for testing	MCP_Configuration_Unit_Test\MCP_LRG	Valid CU folder in CS	
env.SYNC_INIT_DELAY	Initial delay in ms before app is executed	10000	A Valid number of ms	
env.SYNC_PERIOD	Time in ms between successive executions	60000	A valid number of ms	

Parameter	Description	Default Value	Valid Values	Notes
env.MCP_PURGE_PERIOD_MINS	Time in minutes between attempts to purge extra MCPs in CME	0	A valid number of minutes	0 means, try every time
env.EMAIL_METERING_FACTOR	Error emails are sent once every this many SYNC_PERIODs	10	A valid number of seconds	
env.RECORDINGS_CONTAINER	Recordings container name to use in the Annex section of Transaction object in CME	recordings	A valid container name	
env.TENANT_KV_FOLDER	KV tenants folder name in Consul	tenants	A valid folder name	
env.TENANT_CONFIGMAP_FOLDER	Local folder to store tenant config files	/etc/config	A valid folder path	Should not be changed
env.SMTP_SERVER	SMTP server URI	smtp-relay.smtp.svc.cluster.local	A valid URI	
secrets.imagePull	Secret names used for container image pulls	pureengage-docker-dev, pureengage-docker-staging	Valid secret names	
secrets.configServer.k8s	Whether k8s secret is used or csi/vault is used for CS	true	true or false	
secrets.configServer.k8sSecretName	K8s secret name for Config Server	configserver-secret	Valid k8s secret name	
secrets.configServer.k8sUsername	K8s secret user for Config Server	username	Valid user name	
secrets.configServer.k8sPassword	K8s secret password for Config Server	password	Valid password	
secrets.configServer.vaultSecretName	Vault secret name for Config Server	/configserver-secret	Valid valult secret name	
secrets.configServer.vaultUsername	Vault secret user for Config Server	configserver-username	Valid user name	
secrets.configServer.vaultPassword	Vault secret password for Config Server	configserver-password	Valid password	
secrets.consul.k8s	Whether k8s secret is used or csi/vault is used for Consul	true	true or false	

Parameter	Description	Default Value	Valid Values	Notes
secrets.consul.k8s.tokenName	K8s token name for Consul	shared-consul-consul-gvp-token	Valid k8s token name	
secrets.consul.k8s.tokenKey	K8s token key for Consul	consul-consul-gvp-token	Valid k8s token key	
secrets.consul.vault.secretName	Vault secret name for Consul	/consul-secret	Valid k8s secret name	
secrets.consul.vault.secretKey	Vault secret key for Consul	consul-consul-gvp-token	Valid k8s secret key	
secrets.gtts.k8s	Whether k8s secret is used or csi/vault is used for GTTS	false	true or false	
secrets.gtts.k8sSecretName	K8s secret name for GTTS	gtts-secret	Valid k8s secret name	
secrets.gtts.EncryptedKey	K8s encrypted key for GTTS	encrypted-key	Valid k8s encrypted key	
secrets.gtts.PasswordKey	K8s secret password key for GTTS	password	Valid password key	
resources.requests.memory	Guaranteed memory allocation for SD container	128Mi	A valid k8s memory size value	
resources.requests.cpu	Guaranteed CPU allocation for SD container	100m	A valid k8s CPU unit value	
resources.limits.memory	Maximum amount of Memory K8s allocates for SD container	2Gi	A valid k8s memory size value	
resources.limits.cpu	Maximum amount of CPU K8s allocates for SD container	1000m	A valid k8s CPU unit value	
podSecurityContext.seccomp	Pod SecurityContext seccomp GID for volumes	500	A valid GID number	
podSecurityContext.runAsUser	Pod SecurityContext user ID for processes	500	A valid UID number	
podSecurityContext.runAsGroup	Pod SecurityContext primary group ID for processes	500	A valid GID number	
podSecurityContext.runAsNonRoot	Pod SecurityContext flag to require running as non-	true	true or false	

Parameter	Description	Default Value	Valid Values	Notes
	root			
securityContext.*	Same as podSecurityContext settings above but for containers	(See above)		
priorityClassName	K8s priorityClassName for the pod (optional parameter, but recommended)	(none)	Valid priority class name	
affinity	Affinity for pod assignment (optional parameter)	(none)	Valid affinity settings	
nodeSelector	Node selector labels	(none)	Valid nodeSelector settings	
tolerations	Settings for tolerations	(none)	Valid name:value pairs	
prometheus.enabled	Whether to enable Prometheus scraping or not	true	true or false	
prometheus.podMonitor.enabled	Whether to enable Prometheus podMonitor rules or not	true	true or false	
networkPolicies.enabled	Whether to enable network policies or not	false	true or false	
dnsConfig.options.ndots	Required number of dots in an FQDN to trigger a DNS query	3	A valid number of dots	

## Reporting Server

The following tables list the configurable parameters of the GVP Reporting Server chart and their default values.

Parameter	Description	Default	Valid values	Notes
replicaCount	Number of replicas in deployment	1		
image.gvprsrepository	Image repository location for RS container	pureengage-docker-staging.jfrog.io/gvp/gvp_rs		

Parameter	Description	Default	Valid values	Notes
image.snmprepository	Image repository location for snmp container	pureengage-docker-staging.jfrog.io/gvp/multicloud/gvp_snmp		
image.dbinitrepository	Image repository location for RS init container	pureengage-docker-staging.jfrog.io/gvp/gvp_rs_init		
imagePullSecrets.name	Image pull secret name	pureengage-docker-staging		
namespace	Namespace where the component is deployed	gvp	Per environment	
prometheus.metric.port	SNMP exporter port at which Prometheus would scrape data	9116	Same as default/ fixed	
service.restapiport	The RS rest API port	8080	Standard Port range : 1 to 65535. Changing this would require RS application configuration changes.	
service.activemqport	The RS ActiveMQ port	61616	Standard Port range : 1 to 65535. Changing this would require RS application configuration changes.	
service.envinjectport	Port used for reading secret details	443	Fixed	
service.dnsport	Port used for DNS resolution	53	Per environment	
service.configserver	The port of the GVP Configuration Server	8888	Per environment	
service.snmpport	The SNMP container port to which RS sends mib data	1705	Same as default/ fixed	
livenessValues.initialDelaySeconds	Initial delay before the liveness probe	30	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	

Parameter	Description	Default	Valid values	Notes
<code>livenessValues.periodSeconds</code>	The interval between each liveness probe request	120	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	
<code>livenessValues.timeoutSeconds</code>	The timeout for each liveness probe request	3	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	
<code>livenessValues.failureThreshold</code>	Threshold for liveness check failure and container restart	3	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	
<code>readinessValues.path</code>	Readiness probe URI path	<code>/ems-rs/readiness</code>	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	
<code>readinessValues.initialDelaySeconds</code>	Initial delay before the first readiness probe	10	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	
<code>readinessValues.periodSeconds</code>	The interval between each readiness probe request	60	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	
<code>readinessValues.timeoutSeconds</code>	The timeout for each readiness probe request	3	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	
<code>readinessValues.failureThreshold</code>	Threshold for readiness check failure	3	Same as default/ fixed. It is not advisable to change the values unless instructed by Genesys.	
<code>pvc.activemqAndLocalConfigPath</code>	ActiveMQ and local config cache path	<code>/billing/gvp-rs</code>	Same as default/ fixed. It is not advisable to change the values	

Parameter	Description	Default	Valid values	Notes
			unless instructed by Genesys.	
resourceForRS.requestMemory	Guaranteed Memory allocation for RS container	4Gi		
resourceForRS.requestCpu	Guaranteed CPU allocation for RS container	600m		
resourceForRS.limitMemory	Maximum amount of Memory K8s allocates for RS container	13Gi		
resourceForRS.limitCpu	Maximum amount of CPU K8s allocates for RS container	1000m		
resoueceForSnmp.requestMemory	Guaranteed Memory allocation for snmp container	500Mi		
resoueceForSnmp.requestCpu	Guaranteed CPU allocation for snmp container	1000m		
resoueceForSnmp.limitMemory	Maximum amount of Memory K8s allocates for snmp container	8Gi		
resoueceForSnmp.limitCpu	Maximum amount of CPU K8s allocates for snmp container	1500m		
env.CFGAPP	The GVP configuration Server application name	default	Per environment	
env.GVP_RS_SERVICE_HOSTNAME	Hostname of the RS	gvp-rs.gvp.svc.cluster.local	Per environment - eg : gvp.svc.cluster.local	
env.CFG_HOST	The Hostname of the GVP Configuration Server	gvp-configserver.gvp.svc.cluster.local	Per environment	
env.CFG_PORT	The port of the GVP Configuration Server	8888	Per environment	
env.CMDLINE	Command line set in the Start info tab of RS application	./rs_startup.sh	Same as default / fixed	
env.DBNAME	The name of the	gvp-rs	Per environment	

Parameter	Description	Default	Valid values	Notes
	RS DB to be used			
env.DBUSER	RSDB user which has read and write access on the DB	mssql	Per environment	
env.rsDbSharedUsername	RSDB username which has read-only access on the DB	mssqlreader	Per environment	
env.DBPORT	RS SQL server DB port	1433	Per environment	
env.ENVTYPE	Environment on which RS is going to be deployed	""		
env.GenesysIURegion	The region on which RS is going to be deployed	""		
env.localconfigcachePath	The local GVP Configuration Server cache path	/billing/gvp-rs/data/cache	. Changing this would require RS application configuration changes.	
env.HOSTFOLDER	The RS host object folder in GVP Configuration Server	Hosts		
env.HOSTOS	The OS of the Host on which RS is going to be deployed	CFGRedHatLinux	fixed	
env.LCAPORT	The LCA port to be set on the RS Host object	4999		
env.MSSQLHOST	The Hostname of the MSSQL server which contains the RS DB	mssql100-gvp-dev-westus2.privatelink.database.windows.net	mssql100-gvp--.privatelink.database.windows.net	
env.RSAPP	The name of the RS application object	azure_rs		
env.RSJVM_INITIALHEAPSIZE	The initial and minimum JVM heap size	500m	Per environment	
env.RSJVM_MAXHEAPSIZE	The maximum JVM heap size	1536m	Per environment	
env.RSFOLDER	The RS application folder in GVP Configuration Server	Applications		

Parameter	Description	Default	Valid values	Notes
env.RS_VERSION	The RS version to be set in the RS application	9.0.032.22		
env.STDOUT	Determines whether init container writes console logs or not	true		
env.WRKDIR	The RS working directory to be set on the RS application	/usr/local/genesys/rs/	. Changing this would require RS application configuration changes.	
env.SNMPAPP	The RS SNMP application name	azure_rs_snmp		
env.SNMP_WORKDIR	The SNMP working directory to be set on the SNMP application	/usr/sbin		
env.SNMP_CMDLINE	The SNMP command line to be set in the snmp application	snmpd	Same as default/ fixed	
env.SNMPFOLDER	The snmp application folder in GVP Configuration Server	Applications		

Reporting Server configuration options can be modified using values.yaml in the section **RS config**. For example, as below:

```
RSCONFIG:
  log:
    verbose: "trace"
    trace: "stdout"
```

Genesys recommends using the below configuration option for RS in values.yaml:

```
RSCONFIG:
  persistence:
    rs.storage.metricsfilter: "0-15,25,36,52-55,74,136-141,148-151"
```

## Resource Manager

The following tables list the configurable parameters of the GVP RM chart and their default values.

**Note:** There is a typo in names of a few parameters in the table. "resource" is spelt "resouece". Regardless of the typo, the parameters function correctly. The typo will be corrected in a future version.

Parameter	Description	Default	Valid values	Notes
replicaCount	Number of replicas in deployment	2		
image.gvprmrepository	Image repository location for RM container	pureengage-docker-staging.jfrog.io/gvp/gvp_rm		
image.cfghandlerrepository	Image repository location for cfghandler container	pureengage-docker-staging.jfrog.io/gvp/gvp_rm_cfghandler		
image.snmprepository	Image repository location for snmp container	pureengage-docker-staging.jfrog.io/gvp/multicloud/gvp_snmp		
image.gvprmtestrepository	Image repository location for gvprmtest container	pureengage-docker-staging.jfrog.io/gvp/gvp_rm_test		
image.pullSecret	Image pull secret	pureengage-docker-staging		
namespace	Namespace where the component is deployed	gvp	As per Environment	
prometheus.metric.port	SNMP exporter port at which Prometheus would scrape data	9116	same as default/ fixed	
prometheus.log.port	Log exporter port at which Prometheus would scrape data	8200		
service.port	RM service port	5060	Changing this would require RM application configuration changes.	
service.rmHealthCheckAPIPort	Node JS server port for liveness and readiness probes	8300		
livenessValues.path	Liveness probe URI path	/rm/liveness	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	
livenessValues.initialDelaySeconds	Initial delay before the first liveness	60	Same as default/ fixed. The values	

Parameter	Description	Default	Valid values	Notes
	probe		are not advisable to be changed unless instructed by genesys.	
<code>livenessValues.periodSeconds</code>	The interval between each liveness probe request	90	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	
<code>livenessValues.timeoutSeconds</code>	The timeout for each liveness probe request	20	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	
<code>livenessValues.failureThreshold</code>	Threshold for liveness check failure and container restart	3	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	
<code>readinessValues.path</code>	Readiness probe URI path	<code>/rm/readiness</code>	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	
<code>readinessValues.initialDelaySeconds</code>	Initial delay before the first readiness probe	10	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	
<code>readinessValues.periodSeconds</code>	The interval between each readiness probe request	60	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	
<code>readinessValues.timeoutSeconds</code>	The timeout for each readiness probe request	20	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	
<code>readinessValues.failureThreshold</code>	Threshold for readiness check failure	3	Same as default/ fixed. The values are not advisable to be changed unless instructed by genesys.	

Parameter	Description	Default	Valid values	Notes
env.cfghandler.CFGSERVER	Primary Configuration Server	gvp-configserver.gvp.svc.cluster.local	Per environment	
env.cfghandler.CFGSERVERBACKUP	Backup Configuration Server	gvp-configserver.gvp.svc.cluster.local	Per environment	
env.cfghandler.CFGPORT	Configuration Server port	8888	Per environment	
env.cfghandler.CFGSERVER	Configuration Server name for login	default	Per environment	
env.cfghandler.RMAPP	Prefix to RM application name	azure_rm		
env.cfghandler.RMFOLDER	RM application folder in Configuration Server	Applications\ RM_MicroService\ RM_Apps		
env.cfghandler.HOSTFOLDER	RM host folder in Configuration Server	Hosts\ RM_MicroService		
env.cfghandler.MCPFOLDER	MCP CU and LRG Folder to which RM points to	MCP_Configuration_Unit\ MCP_LRG		
env.cfghandler.SNMPFOLDER	SNMP application folder in Configuration Server	Applications\ RM_MicroService\ SNMP_Apps		
env.cfghandler.EnvironmentType	Environment on which RM is going to be deployed	prod		
env.cfghandler.CONFIGSERVERAPP	Configuration Server application to be tied to RM	confserv	Per environment	
env.cfghandler.RSAPP	RS application to be tied to RM	azure_rs		
env.cfghandler.SNMPAPP	SNMP application to be tied to RM	azure_rm_snmp		
env.cfghandler.STDOUT	Determines whether init container writes console logs or not	true		
env.cfghandler.VOICEMAILSERVICEIDNUMBER	voicemail number for tenant creation	5551111		
resourceForRM.requestMemory	Guaranteed Memory allocation for RM container	4Gi		

Parameter	Description	Default	Valid values	Notes
resourceForRM.requests	Guaranteed CPU allocation for RM container	2000m		
resourceForRM.limits.memory	Maximum amount of Memory K8s allocates for RM container	14Gi		
resourceForRM.limits.cpu	Maximum amount of CPU K8s allocates for RM container	4000m		
resouceForSnmp.resources.memory	Guaranteed Memory allocation for snmp container	500Mi		
resouceForSnmp.requests	Guaranteed CPU allocation for snmp container	1000m		
resouceForSnmp.limits.memory	Maximum amount of Memory K8s allocates for snmp container	8Gi		
resouceForSnmp.limits.cpu	Maximum amount of CPU K8s allocates for snmp container	1500m		
fluentBitSidecar.enabled	Enable/disable fluentBit sidecar for console logging	false	true or false	Warning: The fluent-bit sidecar feature is being provided as-is w/o support and requires a third-party container image that Genesys does not provide or support.
rmLogStorage.volumePersistentVolumeEnabled	Enable/disable Persistent Volume (PV) for logging	false	true or false	
rmLogStorage.volumeClaimerLogStorage	Storage class for PVC of log storage	disk-premiumclass	A valid PVC storage class name	
rmLogStorage.volumeTypePersistentVolumeAccessMode	Log storage PVC access mode	ReadWriteOnce	A valid PVC storage access mode	
rmLogStorage.volumeTypePersistentVolumeClaimSize	Size of log storage of PVC type	50Gi	A valid storage size	
rmLogStorage.volumeTypePathEnabled	Enable/disable path for logging	true	true or false	

Parameter	Description	Default	Valid values	Notes
rmLogStorage.volumeType.enabled	Enable/disable logging	true	true or false	
rmLogStorage.volumeHostPath.path	Log storage host path for RM logs	/mnt/log	A valid storage path	Do not change, as other resources may depend on this.
rmLogStorage.volumeDir.enabled	Enable/disable logging	false	true or false	

Resource Manager configuration options can be modified using values.yaml in the section **RM config**. For example, as below:

```
RMCONFIG:
  log:
    verbose: "trace"
```

## Media Control Platform

The following tables list the configurable parameters of the GVP MCP chart, their default values, etc.

**Note:**

- There may be other parameters that could be changed, but changing them is not recommended, unless you know exactly what you are doing.
- You must set mcp.sipPort to 5070. This limitation will be addressed in a future release.
- All the necessary overrides exist allowing for integration with Nuance V11 running on VMs. Using overrides in this manner requires network connectivity between the Kubernetes cluster and host(s) running Nuance. For more details on this integration option, refer to Nuance 11 GVP case study.

Parameter	Description	Default Value	Valid Values	Notes
podLabels	Custom labels to be added for each pod	(none)	Valid set of labels as "name: value"	
podAnnotations	Custom annotations to be added for each pod	(none)	Valid set of annotations as "name: value"	
deploymentEnv	Name of environment - should start with dev, stage, or prod	"UPDATE_ENV" (dummy)	A valid environment name	The prefix is used to determine the configuration map to use. It may also be used by the deployment

Parameter	Description	Default Value	Valid Values	Notes
				pipeline.
replicaCount	Number of minimum replicas required in the deployment 2	A number > 0	2 or higher is recommended for HPA or rolling upgrade with podDisruptionBudget	
podManagementPolicy	Pod Management Policy for Launch/Termination	Parallel	Parallel or OrderedReady	
terminationGracePeriod	Time to wait for graceful shutdown	3600 seconds	A valid time value	
dashboardReplicaSelector	This value is used to filter MCP replica sets or PVCs in Grafana dashboards. The default is the full Chart name.	(node)	A valid filter string	
partOf	Namespace where the application is deployed	gvp	A string value	
image..registry	Image registry URL for the container	genesysengagedev.azurecr.io	A valid registry URI	
image..repository	Repository path for the container in the above registry	gvp/multicloud/ gvp_mcp, gvp/ multicloud/ gvp_mcp_servicehandler, gvp/multicloud/ gvp_mcp_confighandler, gvp/multicloud/ gvp_snmp, or cce/ recording-provider	A valid repository path/name	
image..pullPolicy	Pull policy for the container	IfNotPresent	IfNotPresent or Always	
image..tag	Container version tag	{{.Chart.AppVersion}}, or a particular tag for some containers - see values.yaml	A valid tag string	
mcp.sipPort	SIP port used by MCP	5070	A valid port number	This has to match MCP configuration
mcp.sipProtocol	SIP transport Protocol used by MCP	TCP	A valid transport protocol	Has to match MCP configuration
mcp.logicalResourceGroup	Name of the LRG in the Config Server	MCP_Configuration_	A valid LRG name	
mcp.alerts.*	Threshold value	A number	A number > 0	This value may

Parameter	Description	Default Value	Valid Values	Notes
	for each MCP alert			require tuning
mcpsnmp.logPrefixName	Prefix of the MCP log files to query, should be MCP	MCP	A valid MCP log file prefix	
rup.rupVolume.storageClass	Storage class for PVCs of RUP volume	disk-premium	A valid PVC storage class name	
rup.rupVolume.accessModes	PVC access mode of RUP volume	ReadWriteOnce	A valid PVC storage access mode	
rup.rupVolume.volumeSize	Size of RUP volume	40Gi	A valid storage size	
rup.recordingsFolder	RUP recordings folder	/pvolume/recordings	Recordings folder used MCP and RUP	Do not change
rup.recordingsCache	Recordings cache folder, where MCP creates recordings files	/pvolume/recording_cache	Recordings cache folder used MCP and RUP	Do not change
rup.decommisionDestType	Destination type for RUP recordings on decommission/shutdown	WebDAV	A valid destination type	
rup.decommisionDestWebdavUrl	WebDAV destination URL to be used on decommission	http://gvp-central-rup:8180	A valid URL	
rup.diskFullDestType	Destination type for RUP recordings on disk-full condition	WebDAV	A valid destination type	
rup.diskFullDestWebdavUrl	WebDAV destination URL to be used on disk-full condition	http://gvp-central-rup:8180	A valid URL	
rup.cpUrl	RUP Conversation Provider URL	http://cce-conversation-provider.cce.svc.cluster.local	A valid URL	
rup.unrecoverableLostAction	Action for unrecoverable/lost recordings	uploadtodefualt	A valid action type	
rup.unrecoverableDestType	Destination type for RUP unrecoverable/lost recordings	Azure	A valid destination type	
rup.unrecoverableDestAzureAccountName	Account name for RUP lost recordings for Azure dest type	gvpwestus2dev	Azure account name	

Parameter	Description	Default Value	Valid Values	Notes
rup.unrecoverableDestAzureContainerName	Container name for RUP lost recordings for Azure dest type	ccerp-unrecoverable	A container name	
rup.logJsonEnable	Enable RUP logging in Json format	true	true or false	
rup.logLevel	Log level for RUP file logging	INFO	A valid Java log level string	
rup.logConsoleLevel	Log level for RUP console logging	INFO	A valid Java log level string	
rup.resources.requests.memory	Guaranteed memory allocation for RUP container	120Mi	A valid k8s memory size value	
rup.resources.requests.cpu	Guaranteed CPU allocation for RUP container	100m	A valid k8s CPU unit value	
rup.resources.requests.storage	Ephemeral storage size for RUP container	10Gi	A valid k8s storage size	
rup.resources.limits.memory	Maximum amount of Memory K8s allocates for RUP container	2Gi	A valid k8s memory size value	
rup.resources.limits.cpu	Maximum amount of CPU K8s allocates for RUP container	1000m	A valid k8s CPU unit value	
recordingStorage.storageClass	Storage class for PVCs for recording storage	disk-premium	A valid PVC storage class name	
recordingStorage.accessMode	PVC access mode of recording storage	ReadWriteOnce	A valid PVC storage access mode	
recordingStorage.volumeSize	Size of recording volume of PVC type	40Gi	A valid storage size	
fluentBitSidecar.enabled	Enable/disable FluentBit sidecar for console logging	false	true or false	Warning: The fluent-bit sidecar feature is being provided as-is w/o support and requires a third-party container image that Genesys does not provide or support.
mcpLogStorage.volumeType	Enable/disable Persistent Volume	false.enabled	true or false	

Parameter	Description	Default Value	Valid Values	Notes
	(PV) for logging			
mcpLogStorage.volumeType.persistentVdisk-premiumClass	Storage class for PV type of log storage		A valid PVC storage class name	
mcpLogStorage.volumeType.persistentVReadWriteOnceodes	Log storage PVC access mode		A valid PVC storage access mode	
mcpLogStorage.volumeType.persistentV50Gi3.volumeSize	Size of log storage of PVC type		A valid storage size	
mcpLogStorage.volumeType.persistentVPath.enabled	Enable/disable host path for logging		true or false	
mcpLogStorage.volumeType.persistentVPath.pa;/mnt/log	Log storage host path for MCP logs		A valid storage path	Do not change, as other resources may depend on this
mcpLogStorage.volumeType.persistentVPath.dir.enabled	Enable/disable host path dir for logging		true or false	
serviceHandler.serviceHandlerPort	Port of serviceHandler	8300	A valid port	Do not change, as other resources may depend on this
serviceHandler.consulExternalHost	External Consul host used	''	A valid host FQDN or address	
serviceHandler.consulServicePort	Consul service port	8501	A valid port	Do not change, as other resources may depend on this
serviceHandler.registrationInterval	Consul registration interval in ms	10000	Time in milliseconds	
serviceHandler.mcpHealthCheckInterval	Consul Health Check interval	30s	A time value	
serviceHandler.mcpHealthCheckTimeout	Consul Health Check timeout	10s	A time value	
configServer.host	GVP Config Server host name	gvp-configserver	Name of Config Server	
configServer.port	GVP Config Server port number	8888	Service port of Config Server	
configServer.app	GVP Config Server application name	default	A valid Config Server application name	
secrets.imagePull	Secret names used for container image pulls	pureengage-docker-dev, pureengage-docker-staging	Valid secret names	

Parameter	Description	Default Value	Valid Values	Notes
secrets.configServer.k8s	Whether k8s secret is used or csi/vault is used for CS	true	true or false	
secrets.configServer.secretName	K8s secret name for Config Server	configserver-secret	A valid secret name	
secrets.configServer.keyDBUserKey	K8s secret DB user for Config Server	username	A valid user key	
secrets.configServer.passwordKey	K8s secret DB password key for Config Server	password	A valid password key	
secrets.configServer.csiSecretProviderClass	CSI secret provider class for Config Server	keyvault-gvp-gvp-configserver-secret	A valid csiSecretProviderClass attribute string	
secrets.consul.k8s	Whether k8s secret is used or csi/vault is used for Consul	true	true or false	
secrets.consul.secretName	K8s secret name for Consul	shared-consul-consul-gvp-token	A valid secret name	
secrets.consul.secretKey	K8s secret key for Consul	consul-consul-gvp-token	A valid secret key	
secrets.consul.csiSecretProviderClass	CSI secret provider class for Consul	keyvault-consul-consul-gvp-token	A valid csiSecretProviderClass attribute string	
resourcesMcp.requests.memory	Guaranteed memory allocation for MCP container	500Mi	A valid k8s memory size value	
resourcesMcp.requests.cpu	Guaranteed CPU allocation for MCP container	250m	A valid k8s CPU unit value	
resourcesMcp.requests.storage	Ephemeral storage size for MCP container	10Gi	A valid storage size	
resourcesMcp.limits.memory	Maximum amount of Memory K8s allocates for MCP container	8Gi	A valid k8s memory size value	
resourcesMcp.limits.cpu	Maximum amount of CPU K8s allocates for MCP container	4000m	A valid k8s CPU unit value	
resourcesDefault.requests.memory	Guaranteed memory allocation for other/default container	120Mi	A valid k8s memory size value	

Parameter	Description	Default Value	Valid Values	Notes
resourcesDefault.requests.cpu	Guaranteed CPU requests for default container	100m	A valid k8s CPU unit value	
resourcesDefault.limits.memory	Maximum amount of Memory K8s allocates for default container	128Mi	A valid k8s memory size value	
resourcesDefault.limits.cpu	Maximum amount of CPU K8s allocates for default container	100m	A valid k8s CPU unit value	
podSecurityContext.seccompProfile.type	Pod SecurityContext seccompProfile type	500	A valid seccompProfile type	
podSecurityContext.runAsUser	Pod SecurityContext User ID for processes	500	A valid UID number	
podSecurityContext.runAsGroup	Pod SecurityContext primary Group ID for processes	500	A valid GID number	
podSecurityContext.flags.noNewPrivileges	Pod SecurityContext flag to require not running as non-root	true	true or false	
securityContext.*	Same as podSecurityContext settings above but for containers	(See above)		
priorityClassName	K8s priorityClassName for the pod (optional parameter, but recommended)	(none)	A valid priority class name	
affinity	Affinity for pod assignment (optional parameter)	(none)	Valid affinity settings	
nodeSelector	Node selector labels	genesysengage.com/ nodepool: realtime	Valid nodeSelector settings	
tolerations	Settings for tolerations	key: "k8s.genesysengage.com/ nodepool", operator: Exists, effect: NoSchedule	Valid name:value pairs	

Parameter	Description	Default Value	Valid Values	Notes
hpa.enabled	A 'true' value enables HPA (HPA needs to be enabled when Keda is enabled)	true	true or false	
hpa.maxReplicas	Number of maximum replicas	4	A number >= replicaCount	
hpa.targetCPUAverageUtilization	CPU utilization target utilization percentage	20	A number 1 to 100	
hpa.scaleupPeriod	Time period in seconds to use with "scaleupPods" as well as "scaleupPercent"	15	A number >= 1	
hpa.scaleupPercent	Maximum percentage of replicas allowed to be scaled up in "scaleupPeriod"	50	A number 1 to 100	
hpa.scaleupPods	Maximum number of replicas allowed to be scaled up in "scaleupPeriod"	4	A number >= 1	
hpa.scaleupStabilizationWindow	Stabilization window in seconds for scale-ups	0	A number >= 0	0 is recommended
hpa.scaleupPolicy	Scale-up policy allowing minimum or maximum change in replica count	Max	Min, Max, or Disabled	
hpa.scaledownPeriod	Time period in seconds to use with "scaledownPods" as well as "scaledownPercent"	300	A number >= 1	
hpa.scaledownPercent	Maximum percentage of replicas allowed to be scaled down in "scaledownPeriod"	10	A number 1 to 100	
hpa.scaledownPods	Maximum number of replicas allowed to be scaled down in "scaledownPeriod"	2	A number >= 1	
hpa.scaledownStabilizationWindow	Stabilization window in seconds	3600	A number >= 0	

Parameter	Description	Default Value	Valid Values	Notes
	for scale-downs			
hpa.scaledownPolicy	Scale-down policy allowing minimum or maximum change in replica count	Min	Min, Max, or Disabled	
hpa.keda.enabled	Whether to enable Keda with HPA for auto scaling or not.	true	true or false	HPA must be enabled when Keda is enabled
hpa.keda.preScaleStart	Cron schedule for starting Keda scaling	0 14 * * *	A valid string with cron schedule	
hpa.keda.preScaleEnd	Cron schedule for ending Keda scaling	0 2 * * *	A valid string with cron schedule	
hpa.keda.preScaleDesiredReplicas	Number of desired replicas for Keda scaling	4	A valid number > 1	
hpa.keda.pollingInterval	Interval for polling Keda trigger source, in seconds	15	Number of seconds	
hpa.keda.cooldownPeriod	Seconds to wait after last trigger before scaling down	300	Number of seconds	
prometheus.enabled	Whether to enable Prometheus scraping or not	true	true or false	
prometheus.podMonitor.enabled	Whether to enable Prometheus podMonitor rules or not	true	true or false	
grafana.enabled	Whether to enable Grafana dashboard or not	false	true or false	
podDisruptionBudget.enabled	Enable or disable podDisruptionBudget	true	true or false	
podDisruptionBudget.maxUnavailable	Maximum number of pods that can be unavailable during a rolling update	1	A number >= 1	
networkPolicies.enabled	Whether to enable network policies or not	false	true or false	
dnsConfig.options.numberOfDots	Required number of dots in an FQDN to trigger a DNS	3	A valid number of dots	

Parameter	Description	Default Value	Valid Values	Notes
	query			

The following chart parameters are MCP configurable options in the ConfigMap that can be overridden.

Parameter	Description	Default Value	Valid Values	Notes
mcpConfig.mcp.ems.delivered_to_metrics	Specifies the default filter for metrics to be delivered to the Reporting Server for Call Events reporting.	0-15,25,36,52-55,74,136-141,148-151	Comma separated list of metric values or ranges. A metric value must be between 0 and 151 inclusive. The values * and blank are also allowed.	
mcpConfig.mcp.ems.dc.enableSOA	This flag determines if the Data Collection Sink is configured to perform Service Quality analysis.	false	True or false	
mcpConfig.mcp.mpc.dispatch_threads	Number of media dispatch threads	4	A number >= 1	2 or more matching CPU cores is recommended
mcpConfig.mcp.log.verbose_level	MCP log verbose level	interaction	all, debug, trace, interaction, or standard	
mcpConfig.mcp.mpc.codec_support	List of codecs to support	pcmu pcma telephone-event	Any combination of: pcmu, pcma, g722, opus, g726, g729, gsm, amr, amr-wb, tfci, h263, h263-1998, h264, vp8 or telephone-event	
mcpConfig.mcp.mpc.transcoders_to_enable	List of transcoders to enable	PCM MP3	Any combination of: G722, GSM, G726, G729, AMR, AMR-WB, MP3, OPUS, H263, H264 and VP8, or "none"	
mcpConfig.mcp.mpc.playcache.enable	Enable or disable media play cache	1	0 or 1	0 - disable, 1 - enable
mcpConfig.mcp.fm.http_proxy	Address of HTTP proxy to be used	(none)	A valid address, possibly with port	
mcpConfig.mcp.fm.https_proxy	Address of HTTPS proxy to be used	(none)	A valid address, possibly with port	
mcpConfig.nexus_asr1_pool_size	Size of Nexus ASR1 pool	0	`0` or a positive number	A `0` value disables this

Parameter	Description	Default Value	Valid Values	Notes
				resource pool
mcpConfig.nexus_asr1.provision.vrm.client.resource.uri	A list/array of URIs within square brackets delimited by commas	["ws://nexus-production.nexus.svc.cluster.local/nexus/v3/bot/connection"]	A valid list of URIs	
mcpConfig.nexus_asr1.provision.vrm.client.resource.type	The type of resource	ASRC	ASRC	Do not change
mcpConfig.nexus_asr1.provision.vrm.client.resource.name	The name of the resource	ASRC	ASRC	Do not change
mcpConfig.nexus_asr1.provision.vrm.client.resource.engine	A list of engine names	nexus	nexus	This name is used by the application
mcpConfig.nexus_asr1.provision.vrm.client.resource.engine.audio.codec	Name of the audio codec used	mulaw	nexus.audio.codec	Only "mulaw" supported currently
mcpConfig.nexus_asr1.provision.vrm.client.resource.engine.audio.sampleRate	Audio sampling rate	8000	8000	nexus.audio.sampleRate Do not change
mcpConfig.nexus_asr1.provision.vrm.client.resource.engine.enableMaxSpeechDuration	Whether to enable MaxSpeechDuration or not	true	true or false	Do not change
mcpConfig.nexus_asr1.provision.vrm.client.resource.engine.serviceAccountKey	The string value of service account key	(none)	A valid key, or empty if no serviceAccountKey needed	
mcpConfig.nexus_asr1.provision.vrm.client.resource.privateKey	The private key to use with the resource, if needed	(none)	A valid key	
mcpConfig.nexus_asr1.provision.vrm.client.resource.proxyUri	The proxy URI to use	(none)	A valid URI	
mcpConfig.nexus_asr1.provision.vrm.client.transportProtocol	Transport protocol used with the server	WEBSOCKET	WEBSOCKET	Do not change

### Configuring MCPs to connect to Nexus (for Bot use cases)

- Set one or more URIs for Nexus service using parameter `mcpConfig.nexus\_asr1.provision.vrm.client.resource.uri`, separated by commas.
- Set the value of `mcpConfig.nexus\_asr1.pool.size` to the number of Nexus service URIs in the previous step.

**Note:** To test the connectivity between the MCP's network and the Nexus service, you could use a program like 'curl'. Though the service would return a 404 error for the HTTP request, this would tell you if a connection could be made between the two. Here is an example of a curl request to Nexus:

```
$ curl -v https://nex-2.genhtcc.com/api/v1beta/asrConnector/openConnection
...
* Connected to nex-2.genhtcc.com (xx.yyy.zzz.172) port 443 (#0)
...
> GET /api/v1beta/asrConnector/openConnection HTTP/2
> Host: nex-2.genhtcc.com
```

```
> User-Agent: curl/7.61.1
> Accept: */*
>
* Connection state changed (MAX_CONCURRENT_STREAMS == 128)!
```

## Configure Kubernetes

### Media Control Platform

#### Secrets

Secrets used by MCP:

Secret Name	Secret key	Type of secret	Notes
secrets.configServer.secretName	secrets.configServer.dbUsername	Kubernetes	GVP Configuration Server username
	secrets.configServer.dbPassword	Kubernetes	GVP Configuration Server password
secrets.consul.secretName	secrets.consul.secretKey	Kubernetes	Consul token

#### ConfigMaps

The following ConfigMaps are used:

ConfigMap	Used by	Notes
-mcp-config	confighandler, gvp-mcp	Template for MCP configuration
-log-alerts-dashboard	Grafana	Dashboard for MCP alerts based on parsing MCP logs
-utilization-dashboard	Grafana	Dashboard for MCP utilization

### Resource Manager

#### ConfigMaps

ConfigMap	Used by	Notes
-configmap	cfghandler, gvp-rm	Template for RM configuration

#### Secrets

Secret Name	Secret key	Type of secret	Notes
secrets.configserverProviderClassName	cfgSecretFileNameForCfgUsername	Kubernetes	GVP Configuration Server username
	cfgSecretFileNameForCfgPassword	Kubernetes	GVP Configuration

Secret Name	Secret key	Type of secret	Notes
			Server password

## Service Discovery

### ConfigMaps

The following config maps are used:

ConfigMap	Used by	Notes
tenant-inventory	gvp-sd	Tenant information to be synced in GVP Configuration Server

### Secrets

Secret Name	Secret key	Type of secret	Notes
secrets.configServer.secretName	secrets.configServer.dbUsername	Kubernetes	GVP Configuration Server username
	secrets.configServer.dbPassword	Kubernetes	GVP Configuration Server password
secrets.consul.k8sTokenName	secrets.consul.k8sTokenKey	Kubernetes	Consul token in k8s
secrets.consul.vaultSecretName	secrets.consul.vaultSecretKey	CSI	Consul token in CSI

## Reporting Server

### ConfigMaps

ConfigMap	Used by	Notes
	init, gvp-rs	Template for RS configuration

### Secrets

Secret Name	Secret key	Type of secret	Notes
secrets.configserverProviderClassName	cfgSecretFileNameForCfgUsername	Kubernetes	GVP Configuration Server username
	cfgSecretFileNameForCfgPassword	Kubernetes	GVP Configuration Server password

Secret Name	Secret key	Type of secret	Notes
secret.rsSecretName	dbadminsecretFileName	Kubernetes	RS DB Password
	dbreadersecretFileName	Kubernetes	RS DB Password

SQLServer password is created as Kubernetes secrets and is used by Reporting Server for connecting with SQL DB. They will be mounted as a Volume in RS init / RS container for DB initialization and DB connection

1. SQL secrets should be created in the Cluster with admin and reader passwords.

1. RS admin file name - RS admin password created during DB deployment which will be used reporting server.
2. RS reader file name - Random password string which will be associated to 'read-only' user created by RS init container. They will be shared to BDS namespace for billing purposes

To use Kubernetes secret, set the following parameter to 'false'.

```
secret: keyVaultSecret: false
```

## GVP Configuration Server

### ConfigMaps

N/A

### Secrets

Secrets used by GVP Configuration Server:

Secret Name	Secret key	Type of secret	Notes
secrets.postgres.secretName	secrets.postgres.secretHostName	Kubernetes	Database hostname
	secrets.postgres.secretDbName	Kubernetes	Database name
	secrets.postgres.secretAdminUser	Kubernetes	Database admin user
	secrets.postgres.secretAdminPassword	Kubernetes	Database password

Secrets to be created after GVP Configuration Server deployment:

Secret Name	Secret key	Type of secret	Notes
secrets.configServer.secretName	secrets.configServer.dbUsername	Kubernetes	GVP Configuration Server username
	secrets.configServer.dbPassword	Kubernetes	GVP Configuration Server password

# Provision Genesys Voice Platform

## Contents

- **1 Tenant provisioning**
  - 1.1 Overview
  - 1.2 Use Case 1 - Deploy New Tenant
  - 1.3 Use Case 2 - Update Existing Tenant
- **2 Provisioning Nexus connection in GVP MCP**
  - 2.1 Integrating MCP to Nexus for Dialogflow voicebot
  - 2.2 Integrating MCP to Nexus for Agent Assist

- Administrator

Learn how to provision Genesys Voice Platform.

### Related documentation:

- 
- 
- 

### RSS:

- [For private edition](#)

This page includes the following sections:

- Tenant provisioning
- Provisioning Nexus connection in GVP

## Tenant provisioning

GVP Service Discovery (**SD**) container is used for provisioning tenant object in GVP Configuration Server and creating application objects for - Configuration Server, Media Control Platform app objects under Resource Manager logical resource group.

### Overview

GVP Service Discovery (**SD**) container (running in **K8s**) does the following:

1. Runs a timer that gets invoked every **1 min** by default (this is configurable).
2. Checks **Consul** for the registered MCPs and then checks **GVP Configuration Server (CS)** for the MCPs present there and does the necessary addition/removal of MCPs from CS to sync with Consul data.
3. Checks the **tenant-inventory** configmap in the **gvp** namespace of the **K8s cluster** and, if configmap is updated from the last run, then based on the new data creates/updates tenant information.
4. Note that SD processes one tenant at a time.

The following **objects** are created in CS as part of GVP Tenant creation, and unless specified SD uses default values for those objects:

- The **Tenant** object itself with properties set in the **Annex** section
- The following **IVR Profiles**:
  - IVRAppDefault

- conference
- cpd
- record
- media
- The following **Transactions** object (used by **Recording Uploader**):
  - hybrid\_integration

For Tenant creation, the following parameters **SHOULD** be specified:

- As part of Tenant provisioning, the tenant is registered to **GWS** and you get a **GWS-CCID**. This parameter is **mandatory** for GVP tenant creation.
- The **id** for the tenant is a **mandatory** parameter. This can be arbitrary string, but the preferable value is the **last 4-digits of the GWS-CCID**.
- The tenant **name** parameter is **preferred** to be populated.
- The **default-application** parameter should be set to **IVRAppDefault** always.
- The provisioned parameter should be set to 'true', unless the git pipeline workflow does that. Once this is set, then Service Discovery populates the tenant's contact center id (uuid) and the tenant's default IVR-Profile's dbid in Consul KV store.

Provision Consul to provide `gvp_config_dbid` and `ivr_app_dbid` parameters with Tenant ID and default IVR application ID values from the GVP Configuration Server database.

Where,

- **gvp\_config\_dbid** is the DB ID for a particular tenant.
- **ivr\_app\_dbid** is the DB ID for the default IVR application for that tenant.

Example request:

```
curl -H "Authorization: Bearer " https://v1/kv/tenants//gvp
{
"gvp_config_dbid": "161",
"ivr_app_dbid" : "217"
```

## Use Case 1 - Deploy New Tenant

- As mentioned above, deploying a new tenant with SD and CS simply boils down to creating a configmap in your K8s cluster under gvp namespace.

**Note:** SD doesn't support creating multiple tenants in bulk, so you need to provide one JSON data file per tenant and repeat the process for multiple tenants.

- A bare minimum JSON should contain the minimal set of parameters mentioned above:

```
{
```

```
"name": "CustomerX",
"id": "2026",
"gws-ccid": "285bd12f-5e4a-4c76-ad93-752ee1a82026",
"default-application": "IVRAppDefault"
}
```

- Delete the existing **tenant-inventory** configmap if any: **kubectl -n gvp delete configmap tenant-inventory --ignore-not-found**
- Create the configmap with your JSON file: **kubectl -n gvp create configmap tenant-inventory --from-file tenant-2026.json**
- This configmap is mounted as a **volume** in SD - so the new JSON is updated in the **/etc/config** folder of the SD container.

```
[genesys@gvp-sd-bfcdd567f-8hrzm config]$ pwd
/etc/config
[genesys@gvp-sd-bfcdd567f-8hrzm config]$ ls -ls
total 0
0 lrwxrwxrwx 1 root root 27 May  5 12:59 tenant-2026.json > ../data/tenant 2026.json
```

- In the **next cycle**, SD will detect the new file and process it - thus creating/updating tenant and the associated objects.
- Once processed, SD **ignores** the file in subsequent cycles.

## Use Case 2 - Update Existing Tenant

**Note:** Service Discovery cannot change/update configuration for Environment tenant. This limitation will be addressed in future release.

The mechanism for updating existing tenant is very similar to deploying new tenant. In this case, the existing JSON for the tenant needs to be updated with new parameters.

**Note:** You MUST always keep the minimal set of parameters present in the JSON even if in the case of update.

### Example 1 - Recording destination provisioning for recording uploader

WEM provisioning is supported through the **hybrid\_integration** transactions object. Only change is to specify the additional **WEM parameters** in the **Tenant JSON** file. An example JSON file with the WEM parameters may look like the following:

```
{
  "name": "CustomerX",
  "id": "2026",
  "gws-ccid": "285bd12f-5e4a-4c76-ad93-752ee1a82026",
  "default-application": "IVRAppDefault",
  "provisioned": "true",
  "transactions": {
```

```
    "name": "hybrid_integration",
    "recording-uploader.destFolder": {
      "destType": "Folder"
    },
    "recording-uploader.destFolder.mediaUpload": {
      "folder_path": "/rup/recordings"
    }
  }
}
```

The rest of the steps are the same as above. Delete existing configmap and create new with updated JSON.

## Provisioning Nexus connection in GVP MCP

### Integrating MCP to Nexus for Dialogflow voicebot

This section explains how to integrate MCP to Nexus for Dialogflow voicebot.

#### Pre-requisites

The following are the pre-requisites for integrating MCP to Nexus for Dialogflow voicebot:

1. The Nexus bot endpoint URL. For example:

```
ws://nexus-production.nexus.svc.cluster.local/nexus/v3/bot/connection
```

2. You should register the Tenant to Nexus.
3. Verify that the Nexus API key is configured for the tenant by logging into the Tenant's Configuration Server > Transactions > DesignerEnv > Nexus.

#### Configuration

Update the following parameters in the section **mcpConfig** in the **values.yaml** file and deploy/redeploy MCP:

```
nexus_asr1.pool.size: 1

nexus_asr1.provision.vrm.client.resource.uri: "[\"ws://nexus-
production.nexus.svc.cluster.local/nexus/v3/bot/connection\"]"

nexus_asr1.provision.vrm.client.resource.type: "ASR"

nexus_asr1.provision.vrm.client.resource.name: "ASRC"

nexus_asr1.provision.vrm.client.resource.engines: "nexus"

nexus_asr1.provision.vrm.client.resource.engine.nexus.audio.codec: "mulaw"

nexus_asr1.provision.vrm.client.resource.engine.nexus.audio.samplerate: 8000
```

```
nexus_asr1.provision.vrm.client.resource.engine.nexus.enableMaxSpeechTimeout: true
nexus_asr1.provision.vrm.client.resource.certificate: ""
nexus_asr1.provision.vrm.client.resource.privatekey: ""
nexus_asr1.provision.vrm.client.resource.proxy: ""
nexus_asr1.provision.vrm.client.TransportProtocol: "WEBSOCKET"
```

The mandatory parameters are:

```
nexus_asr1.pool.size
nexus_asr1.provision.vrm.client.resource.uri.
```

You can leave the remaining parameters as default.

For more information on the above-mentioned parameters, refer to [Configure Genesys Voice Platform](#).

### Validation

Make test calls and check the following statements in MCP logs:

```
Int 50148 5A1A9632-10053FC2 140635978869056 asr_open 5A1A9632-10053FC2-asr-nexus-471699/
success
Int 50149 5A1A9632-10053FC2 140635978869056 asr_close 5A1A9632-10053FC2-asr-nexus-471699
Int 50159 5A1A9632-10053FC2-asr-nexus-471699 140635978869056 ws_stats 5c49970a-d41a-91f5-6ece-
af6d71bf2120 Tx: total 477/76320, sent 477/76320, failed 0/0, dropped 0/0 Rx: 0/0
```

### Integrating MCP to Nexus for Agent Assist

This section explains how to integrate MCP to Nexus for Agent Assist.

#### Pre-requisites

The following are the pre-requisites for Integrating MCP to NEXUS for Agent Assist:

1. The Nexus Agent Assist endpoint URL. For example:

```
ws://nexus-production.nexus.svc.cluster.local/athena/v1/agent-assist/voice/connection
```

2. You should register the Tenant to Nexus.
3. The GWS URL and client secrets. For example:

```
https://gauth-int.nlb02-westus2.int.dev.genazure.com/auth/v3/oauth/token
```

#### Configuration

For configuration, complete these steps:

1. Create a new Kubernetes secret:

```
apiVersion: v1
kind: Secret
```

```
metadata:  
  name: shared-gauth-gvp-client-secret  
  namespace: gvp  
type: Opaque  
data:  
  gauth-gvp-client-secret: $CLIENT_SECRET
```

**Note:** As regards Client secret, you must obtain the value from your GWS and replace "\$CLIENT\_SECRET " with the actual secret.

2. Update the following parameters in the section **secrets** in the **values.yaml** file:

```
gws:  
  enabled: true  
  clientName: "gvp_client"  
  clientSecret:  
    secretName: "shared-gauth-gvp-client-secret"  
    secretKey: "gauth-gvp-client-secret"
```

3. Update the following parameters in the section **gws** in the **values.yaml** file and deploy/redeploy MCP:

```
gws:  
  authEndpoint: $
```

**Note:** Replace "\$" with the actual URL.

4. Add the following parameters to record the IVR profile of the Tenant:

```
"recordingclient.streaml.dest": "fixed",  
"recordingclient.streaml.dialogflow.engineId": "fixed,dfaa",  
"recordingclient.streaml.encoding": "fixed,audio/mulaw",  
"recordingclient.streaml.gauth": "fixed,true",  
"recordingclient.streaml.xccid": "fixed,true",  
"recordingclient.gvp.config.msml.record.enablestipfilerrecording": "fixed,true"
```

## Validation

Make test calls and check the following statements in the MCP logs:

```
Int 50156 F5099632-100028BD-0_268435867 140575662311744 streamer_open 0_268435867success  
Int 50157 F5099632-100028BD-0_268435867 140575662311744 streamer_close 0_268435867
```

The MCP metrics section includes the following Nexus-related triggers:

MCP_WEBSOCKET_CLIENT_OPEN_ERROR	A websocket client error opening a connection to service, such as Nexus
MCP_WEBSOCKET_CLIENT_PROTOCOL_ERROR	A websocket client received a protocol error from the service, such as Nexus

# Deploy Genesys Voice Platform

## Contents

- [1 Assumptions](#)
- [2 Deploy](#)
  - [2.1 Prerequisites](#)
  - [2.2 Environment setup](#)
  - [2.3 GKE](#)
  - [2.4 AKS](#)
  - [2.5 Helm chart release URLs](#)
- [3 1. GVP Configuration Server](#)
  - [3.1 Secrets creation](#)
  - [3.2 Install Helm chart](#)
  - [3.3 Verify the deployed resources](#)
- [4 2. GVP Service Discovery](#)
  - [4.1 Secrets creation](#)
  - [4.2 ConfigMap creation](#)
  - [4.3 Install Helm chart](#)
  - [4.4 Verify the deployed resources](#)
- [5 3. GVP Reporting Server](#)
  - [5.1 Secrets creation](#)
  - [5.2 Persistent Volumes creation](#)
  - [5.3 Install Helm chart](#)
  - [5.4 Verify the deployed resources](#)
- [6 4. GVP Resource Manager](#)
  - [6.1 Persistent Volumes creation](#)
  - [6.2 Install Helm chart](#)
  - [6.3 Verify the deployed resources](#)
- [7 5. GVP Media Control Platform](#)
  - [7.1 Persistent Volumes creation](#)
  - [7.2 Install Helm chart](#)

- [7.3 Verify the deployed resources](#)

Learn how to deploy Genesys Voice Platform (GVP) into a private edition environment.

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Assumptions

- The instructions on this page assume you are deploying the service in a service-specific namespace, named in accordance with the requirements on [Creating namespaces](#). If you are using a single namespace for all private edition services, replace the namespace element in the commands on this page with the name of your single namespace or project.
- Similarly, the configuration and environment setup instructions assume you need to create namespace-specific (in other words, service-specific) secrets. If you are using a single namespace for all private edition services, you might not need to create separate secrets for each service, depending on your credentials management requirements. However, if you do create service-specific secrets in a single namespace, be sure to avoid naming conflicts.

## Deploy

### Important

Make sure to review [Before you begin](#) for the full list of prerequisites required to deploy Genesys Voice Platform.

## Prerequisites

- Consul with Service Mesh and DNS
- Availability of shared Postgres for GVP Configuration Server
- Availability of SQL Server database for Reporting Server
  - Create DB in advance (for example, DB Name: **gvp\_rs**).



```
kubectl describe namespace gvp
```

The order of installation matters with GVP. To deploy without errors, install in this order:

1. GVP Configuration Server
2. GVP ServiceDiscovery
3. GVP Reporting Server
4. GVP Resource Manager
5. GVP Media Control Platform

### Helm chart release URLs

Download the GVP Helm charts from JFrog using your credentials:

gvp-configserver : <https://gvp-configserver.tgz>

gvp-sd : <https://gvp-sd.tgz>

gvp-rs : <https://gvp-rs.tgz>

gvp-rm : <https://gvp-rm.tgz>

gvp-mcp : <https://gvp-mcp.tgz>

For version numbers, refer to Helm charts and containers for Genesys Voice Platform.

## 1. GVP Configuration Server

### Secrets creation

Create the following secrets that are required for the service deployment.

#### postgres-secret

db-hostname: Hostname of DB server

db-name: Database name

db-password: Password for DB user

db-username: Username for DB

server-name: Hostname of DB server

```
apiVersion: v1
```

```
kind: Secret
metadata:
  name: postgres-secret
  namespace: gvp
type: Opaque
data:
  db-username:
  db-password:
  db-hostname: cG9zdGdyZXMtencuaW5mcmEuc3ZjLmNsdXN0ZXIubG9jYWw=
  db-name: Z3Zw
  server-name: cG9zdGdyZXMtencuaW5mcmEuc3ZjLmNsdXN0ZXIubG9jYWw=
```

Run the following command:

```
kubectl apply -f postgres-secret.yaml
```

### configserver-secret

password: Password to set for Config DB

username: Username to set for Config DB

```
apiVersion: v1
kind: Secret
metadata:
  name: configserver-secret
  namespace: gvp
type: Opaque
data:
  username:
  password:
```

Run the following command:

```
kubectl apply -f configserver-secret.yaml
```

### Install Helm chart

Download the required Helm chart release from the JFrog repository and install. Refer to Helm Chart URLs.

```
helm install gvp-configserver ./ -f gvp-configserver-values.yaml
```

Set the following values in your values.yaml for Configuration Server:

priorityClassName >> Set to a priority class that exists on the cluster (or create it instead).

imagePullSecrets >> Set to your pull secret name.

### **gvp-configserver-values.yaml**

## Deploy Genesys Voice Platform

---

```
# Default values for gvp-configserver.
# This is a YAML-formatted file.
# Declare variables to be passed into your templates.

## Global Parameters
## Add labels to all the deployed resources
##
podLabels: {}

## Add annotations to all the deployed resources
##
podAnnotations: {}

serviceAccount:
  # Specifies whether a service account should be created
  create: false
  # Annotations to add to the service account
  annotations: {}
  # The name of the service account to use.
  # If not set and create is true, a name is generated using the fullname template
  name:

## Deployment Configuration
## replicaCount should be 1 for Config Server
replicaCount: 1

## Base Labels. Please do not change these.
serviceName: gvp-configserver
component: shared
# Namespace
partOf: gvp

## Container image repo settings.
image:
  confserv:
    registry: pureengage-docker-staging.jfrog.io
    repository: gvp/gvp_confserv
    pullPolicy: IfNotPresent
    tag: "{{ .Chart.AppVersion }}"
  serviceHandler:
    registry: pureengage-docker-staging.jfrog.io
    repository: gvp/gvp_configserver_servicehandler
    pullPolicy: IfNotPresent
    tag: "{{ .Chart.AppVersion }}"
  dbInit:
    registry: pureengage-docker-staging.jfrog.io
    repository: gvp/gvp_configserver_configserverinit
    pullPolicy: IfNotPresent
    tag: "{{ .Chart.AppVersion }}"

## Config Server App Configuration
configserver:
  ## Settings for liveness and readiness probes
  ## !!! THESE VALUES SHOULD NOT BE CHANGED UNLESS INSTRUCTED BY GENESYS !!!
  livenessValues:
    path: /cs/liveness
    initialDelaySeconds: 30
    periodSeconds: 60
    timeoutSeconds: 20
    failureThreshold: 3
    healthCheckAPIPort: 8300

  readinessValues:
```

```
    path: /cs/readiness
    initialDelaySeconds: 30
    periodSeconds: 30
    timeoutSeconds: 20
    failureThreshold: 3
    healthCheckAPIPort: 8300

alerts:
  cpuUtilizationAlertLimit: 70
  memUtilizationAlertLimit: 90
  workingMemAlertLimit: 7
  maxRestarts: 2

## PVCs defined
# none

## Define service(s) for application
service:
  type: ClusterIP
  host: gvp-configserver-0
  port: 8888
  targetPort: 8888

## Service Handler configuration.
serviceHandler:
  port: 8300

## Secrets storage related settings - k8s secrets only
secrets:
  # Used for pulling images/containers from the repositories.
  imagePull:
    - name: pureengage-docker-dev
    - name: pureengage-docker-staging

  # Config Server secrets. If k8s is false, csi will be used, else k8s will be used.
  # Currently, only k8s is supported!
  configServer:
    secretName: configserver-secret
    secretUserKey: username
    secretPwdKey: password
    #csiSecretProviderClass: keyvault-gvp-gvp-configserver-secret

  # Config Server Postgres DB secrets and settings.
  postgres:
    dbName: gvp
    dbPort: 5432
    secretName: postgres-secret
    secretAdminUserKey: db-username
    secretAdminPwdKey: db-password
    secretHostnameKey: db-hostname
    secretDbNameKey: db-name
    #secretServerNameKey: server-name

## Ingress configuration
ingress:
  enabled: false
  annotations: {}
  # kubernetes.io/ingress.class: nginx
  # kubernetes.io/tls-acme: "true"
  hosts:
    - host: chart-example.local
      paths: []
  tls: []
```

```
# - secretName: chart-example-tls
#   hosts:
#     - chart-example.local

## App resource requests and limits
## ref: http://kubernetes.io/docs/user-guide/compute-resources/
##
resources:
  requests:
    memory: "512Mi"
    cpu: "500m"
  limits:
    memory: "1Gi"
    cpu: "1"

## App containers' Security Context
## ref: https://kubernetes.io/docs/tasks/configure-pod-container/security-context/#set-the-security-context-for-a-container
##
## Containers should run as genesys user and cannot use elevated permissions
##
securityContext:
  runAsUser: null
  runAsGroup: 0
  # capabilities:
  #   drop:
  #     - ALL
  # readOnlyRootFilesystem: true
  # runAsNonRoot: true
  # runAsUser: null

podSecurityContext: {}
  # fsGroup: 0

## Priority Class
## ref: https://kubernetes.io/docs/concepts/configuration/pod-priority-preemption/
## NOTE: this is an optional parameter
##
priorityClassName: system-cluster-critical

## Affinity for assignment.
## Ref: https://kubernetes.io/docs/concepts/configuration/assign-pod-node/#affinity-and-anti-affinity
##
affinity: {}

## Node labels for assignment.
## ref: https://kubernetes.io/docs/user-guide/node-selection/
##
nodeSelector: {}

## Tolerations for assignment.
## ref: https://kubernetes.io/docs/concepts/configuration/taint-and-toleration/
##
tolerations: []

## Service/Pod Monitoring Settings
## Whether to create Prometheus alert rules or not.
prometheusRule:
  create: true

## Grafana dashboard Settings
## Whether to create Grafana dashboard or not.
```

```
grafana:
  enabled: true

## Enable network policies or not
networkPolicies:
  enabled: false

## DNS configuration options
dnsConfig:
  options:
    - name: ndots
      value: "3"
```

### Verify the deployed resources

Verify the deployed resources from the CLI.

## 2. GVP Service Discovery

**NOTE:** After GVP-SD (Service Discovery) pod gets deployed, you will notice a few errors. Please ignore them and move on to the next deployment. This will start working once Resource Manager (RM) and Media Control Platform (MCP) are deployed.

### Secrets creation

Create the following secrets that are required for the service deployment.

shared-consul-consul-gvp-token

#### **shared-consul-consul-gvp-token-secret.yaml**

In regards to consul secret, you must obtain the token value from your consul deployment and replace "\$CONSUL\_TOKEN" with the actual token.

```
apiVersion: v1
kind: Secret
metadata:
  name: shared-consul-consul-gvp-token
  namespace: gvp
type: Opaque
data:
  consul-consul-gvp-token: $CONSUL_TOKEN
```

Run the following command:

```
kubectl create -f shared-consul-consul-gvp-token-secret.yaml
```

## ConfigMap creation

Create the following ConfigMap that is required for the service deployment.

### Caveat

If the tenant has not been deployed yet, then you will not have the information needed to populate the config map. An empty config-map can be created using:

```
kubectl create configmap tenant-inventory -n gvp
```

Create Config based on Tenant provisioning via Service Discovery Container.

### t100.json

```
{
  "name": "t100",
  "id": "80dd",
  "gws-ccid": "9350e2fc-a1dd-4c65-8d40-1f75a2e080dd",
  "default-application": "IVRAppDefault"
}
```

Run the following command:

### Add Config Map

```
kubectl create configmap tenant-inventory --from-file t100.json -n gvp
```

## Install Helm chart

Download the required Helm chart release from the JFrog repository and install. Refer to Helm Chart URLs.

```
helm install gvp-sd ./ -f gvp-sd-values.yaml
```

### gvp-sd-values.yaml

```
# Default values for gvp-sd.
# This is a YAML-formatted file.
# Declare variables to be passed into your templates.

## Global Parameters
## Add labels to all the deployed resources
##
podLabels: {}

## Add annotations to all the deployed resources
##
podAnnotations: {}

serviceAccount:
  # Specifies whether a service account should be created
  create: false
  # Annotations to add to the service account
```

```
annotations: {}
# The name of the service account to use.
# If not set and create is true, a name is generated using the fullname template
name:

## Deployment Configuration
replicaCount: 1
smtp: allowed

## Name overrides
nameOverride: ""
fullnameOverride: ""

## Base Labels. Please do not change these.
component: shared
partOf: gvp

image:
  registry: pureengage-docker-staging.jfrog.io
  repository: gvp/gvp_sd
  tag: "{{ .Chart.AppVersion }}"
  pullPolicy: IfNotPresent

## PVCs defined
# none

## Define service for application.
service:
  name: gvp-sd
  type: ClusterIP
  port: 8080

## Application configuration parameters.
env:
  MCP_SVC_NAME: "gvp-mcp"
  EXTERNAL_CONSUL_SERVER: ""
  CONSUL_PORT: "8501"
  CONFIG_SERVER_HOST: "gvp-configserver"
  CONFIG_SERVER_PORT: "8888"
  CONFIG_SERVER_APP: "default"
  HTTP_SERVER_PORT: "8080"
  METRICS_EXPORTER_PORT: "9090"
  DEF_MCP_FOLDER: "MCP_Configuration_Unit\MCP_LRG"
  TEST_MCP_FOLDER: "MCP_Configuration_Unit_Test\MCP_LRG"
  SYNC_INIT_DELAY: "10000"
  SYNC_PERIOD: "60000"
  MCP_PURGE_PERIOD_MINS: "0"
  EMAIL_METERING_FACTOR: "10"
  RECORDINGS_CONTAINER: "ccerp-recordings"
  TENANT_KV_FOLDER: "tenants"
  TENANT_CONFIGMAP_FOLDER: "/etc/config"
  SMTP_SERVER: "smtp-relay.smtp.svc.cluster.local"

## Secrets storage related settings
secrets:
  # Used for pulling images/containers from the repositories.
  imagePull:
    - name: pureengage-docker-dev
    - name: pureengage-docker-staging

  # If k8s is true, k8s will be used, else vault secret will be used.
  configServer:
    k8s: true
```

```
k8sSecretName: configserver-secret
k8sUserKey: username
k8sPasswordKey: password
vaultSecretName: "/configserver-secret"
vaultUserKey: "configserver-username"
vaultPasswordKey: "configserver-password"

# If k8s is true, k8s will be used, else vault secret will be used.
consul:
  k8s: true
  k8sTokenName: "shared-consul-consul-gvp-token"
  k8sTokenKey: "consul-consul-gvp-token"
  vaultSecretName: "/consul-secret"
  vaultSecretKey: "consul-consul-gvp-token"

# GTTS key, password via k8s secret, if k8s is true. If false, this data comes from tenant
profile.
gtts:
  k8s: false
  k8sSecretName: gtts-secret
  EncryptedKey: encrypted-key
  PasswordKey: password

ingress:
  enabled: false
  annotations: {}
  # kubernetes.io/ingress.class: nginx
  # kubernetes.io/tls-acme: "true"
  hosts:
    - host: chart-example.local
      paths: []
  tls: []
  # - secretName: chart-example-tls
  #   hosts:
  #     - chart-example.local

resources:
  requests:
    memory: "2Gi"
    cpu: "1000m"
  limits:
    memory: "2Gi"
    cpu: "1000m"

## App containers' Security Context
## ref: https://kubernetes.io/docs/tasks/configure-pod-container/security-context/#set-the-
security-context-for-a-container
##
## Containers should run as genesys user and cannot use elevated permissions
## Pod level security context
podSecurityContext:
  fsGroup: 0
  runAsUser: null
  runAsGroup: 0
  runAsNonRoot: true

## Container security context
securityContext:
  runAsUser: null
  runAsGroup: 0
  runAsNonRoot: true

## Priority Class
```

```
## ref: https://kubernetes.io/docs/concepts/configuration/pod-priority-preemption/
## NOTE: this is an optional parameter
##
priorityClassName: system-cluster-critical

## Affinity for assignment.
## Ref: https://kubernetes.io/docs/concepts/configuration/assign-pod-node/#affinity-and-anti-
affinity
##
affinity: {}

## Node labels for assignment.
## ref: https://kubernetes.io/docs/user-guide/node-selection/
##
nodeSelector: {}

## Tolerations for assignment.
## ref: https://kubernetes.io/docs/concepts/configuration/taint-and-toleration/
##
tolerations: []

## Service/Pod Monitoring Settings
prometheus:
  # Enable for Prometheus operator
  podMonitor:
    enabled: true

## Enable network policies or not
networkPolicies:
  enabled: false

## DNS configuration options
dnsConfig:
  options:
    - name: ndots
      value: "3"
```

## Verify the deployed resources

Verify the deployed resources from the CLI.

## 3. GVP Reporting Server

### Secrets creation

Create the following secrets that are required for the service deployment.

#### rs-dbreader-password

db\_hostname: Hostname of DB server

db\_name: Database name

db\_password: Password for DB user

db\_username: Username for DB

### **rs-dbreader-password-secret.yaml**

```
apiVersion: v1
kind: Secret
metadata:
  name: rs-dbreader-password
  namespace: gvp
type: Opaque
data:
  db_username:
  db_password:
  db_hostname: bXNzcWxzZXJ2ZXJvcGVuc2hpZnZGF0YWJhc2Uud2luZG93cy5uZXQ=
  db_name: cnNfZ3Zw
```

Run the following command:

```
kubectl create -f rs-dbreader-password-secret.yaml
```

### **shared-gvp-rs-sqlserver-secret**

db-admin-password: Password for DB admin

db-reader-password: Password for reader

### **shared-gvp-rs-sqlserver-secret.yaml**

```
apiVersion: v1
kind: Secret
metadata:
  name: shared-gvp-rs-sqlserver-secret
  namespace: gvp
type: Opaque
data:
  db-admin-password:
  db-reader-password:
```

Run the following command:

```
kubectl create -f shared-gvp-rs-sqlserver-secret.yaml
```

## Persistent Volumes creation

Create the following Persistent Volumes (PVs) that are required for the service deployment.

gvp-rs-0

### **gvp-rs-pv.yaml**

```
apiVersion: v1
```

---

```
kind: PersistentVolume
metadata:
  name: gvp-rs-0
  namespace: gvp
spec:
  capacity:
    storage: 30Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Retain
  storageClassName: gvp
  nfs:
    path: /export/vol1/PAT/gvp/rs-01
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-rs-pv.yaml
```

### Install Helm chart

Download the required Helm chart release from the JFrog repository and install. Refer to [Helm Chart URLs](#).

```
helm install gvp-rs ./ -f gvp-rs-values.yaml
```

Set the following values in your values.yaml:

- `priorityClassName` >> Set to a priority class that exists on the cluster (or create it instead).
- `imagePullSecrets` >> Set to your pull secret name.
- `keyVaultSecret: false` >> Make sure this is false to force use of k8s secrets.
- `storageClass: genesys-gvp` >> Set to your storage class.

### **gvp-rs-values.yaml**

```
## Global Parameters
## Add labels to all the deployed resources
##
labels:
  enabled: true
  serviceGroup: "gvp"
  componentType: "shared"

serviceAccount:
  # Specifies whether a service account should be created
  create: false
  # Annotations to add to the service account
  annotations: {}
  # The name of the service account to use.
  # If not set and create is true, a name is generated using the fullname template
  name:

## Primary App Configuration
```

```
##
# primaryApp:
# type: ReplicaSet
# Should include the defaults for replicas
deployment:
  replicaCount: 1
  strategy: Recreate
  namespace: gvp
  nameOverride: ""
  fullnameOverride: ""

image:
  registry: pureengage-docker-staging.jfrog.io
  gvprsrepository: gvp/gvp_rs
  snmprepository: gvp/gvp_snmp
  rsinitrepository: gvp/gvp_rs_init
  rstag:
  rsinittag:
  snmptag: v9.0.040.07
  pullPolicy: Always
  imagePullSecrets:
    - name: "pureengage-docker-staging"

## liveness and readiness probes
## !!! THESE OPTIONS SHOULD NOT BE CHANGED UNLESS INSTRUCTED BY GENESYS !!!
livenessValues:
  path: /ems-rs/components
  initialDelaySeconds: 30
  periodSeconds: 120
  timeoutSeconds: 3
  failureThreshold: 3

readinessValues:
  path: /ems-rs/components
  initialDelaySeconds: 10
  periodSeconds: 60
  timeoutSeconds: 3
  failureThreshold: 3

## PVCs defined
volumes:
  pvc:
    storageClass: managed-premium
    claimSize: 20Gi
    activemqAndLocalConfigPath: "/billing/gvp-rs"

## Define service(s) for application. Fields many need to be modified based on `type`
service:
  type: ClusterIP
  restapiport: 8080
  activemqport: 61616
  envinjectport: 443
  dnsport: 53
  configserverport: 8888
  snmpport: 1705

## ConfigMaps with Configuration
## Use Config Map for creating environment variables
context:
  env:
    CFGAPP: default
    GVP_RS_SERVICE_HOSTNAME: gvp-rs.gvp.svc.cluster.local
    #CFGPASSWORD: password
```

```
#CFGUSER: default
CFG_HOST: gvp-configserver.gvp.svc.cluster.local
CFG_PORT: '8888'
CMDLINE: ./rs_startup.sh
DBNAME: gvp_rs
#DBPASS: 'jbIKfoS6LpfgaU$E'
DBUSER: DBadmin
rsDbSharedUsername: DBadmin
DBPORT: 1433
ENVTYPE: staging
GenesysIURegion: westus2
localconfigcachepath: /billing/gvp-rs/data/cache
HOSTFOLDER: Hosts
HOSTOS: CFGRedHatLinux
LCAPORT: '4999'
MSSQLHOST: mssqlserver.database.windows.net
RSAPP: azure_rs
RSJVM_INITIALHEAPSIZE: 500m
RSJVM_MAXHEAPSIZE: 1536m
RSFOLDER: Applications
RS_VERSION: 9.0.032.22
STDOUT: 'true'
WRKDIR: /usr/local/genesys/rs/
SNMPAPP: azure_rs_snmp
SNMP_WORKDIR: /usr/sbin
SNMP_CMDLINE: snmpd
SNMPFOLDER: Applications
```

```
RSCONFIG:
messaging:
  activemq.memoryUsageLimit: "256 mb"
  activemq.dataDirectory: "/billing/gvp-rs/data/activemq"
log:
  verbose: "trace"
  trace: "stdout"
dbmp:
  rs.db.retention.operations.daily.default: "40"
  rs.db.retention.operations.monthly.default: "40"
  rs.db.retention.operations.weekly.default: "40"
  rs.db.retention.var.daily.default: "40"
  rs.db.retention.var.monthly.default: "40"
  rs.db.retention.var.weekly.default: "40"
  rs.db.retention.cdr.default: "40"
```

```
# Default secrets storage to k8s secrets with csi able to be optional
secret:
  # keyVaultSecret will be a flag to between secret types(k8's or CSI). If keyVaultSecret was
  set to false k8's secret will be used
  keyVaultSecret: false
  #RS SQL server secret
  rsSecretName: shared-gvp-rs-sqlserver-secret
  # secretProviderClassName will not be used when keyVaultSecret set to false
  secretProviderClassName: keyvault-gvp-rs-sqlserver-secret-00
  dbreadersecretFileName: db-reader-password
  dbadminsecretFileName: db-admin-password
  #Configserver secret
  #If keyVaultSecret set to false the below parameters will not be used.
  configserverProviderClassName: gvp-configserver-secret
  cfgSecretFileNameForCfgUsername: configserver-username
  cfgSecretFileNameForCfgPassword: configserver-password
  #If keyVaultSecret set to true the below parameters will not be used.
  cfgServerSecretName: configserver-secret
  cfgSecretKeyNameForCfgUsername: username
```

```
  cfgSecretKeyNameForCfgPassword: password

## Ingress configuration
ingress:
  enabled: false
  annotations: {}
  # kubernetes.io/ingress.class: nginx
  # kubernetes.io/tls-acme: "true"
  hosts:
    - host: chart-example.local
      paths: []
  tls: []
  # - secretName: chart-example-tls
  #   hosts:
  #     - chart-example.local

networkPolicies:
  enabled: false

## primaryAppresource requests and limits
## ref: http://kubernetes.io/docs/user-guide/compute-resources/
##
resourceForRS:
  # We usually recommend not to specify default resources and to leave this as a conscious
  # choice for the user. This also increases chances charts run on environments with little
  # resources, such as Minikube. If you do want to specify resources, uncomment the following
  # lines, adjust them as necessary, and remove the curly braces after 'resources:'.
  requests:
    memory: "500Mi"
    cpu: "200m"
  limits:
    memory: "1Gi"
    cpu: "300m"

resoueceForSnmp:
  requests:
    memory: "500Mi"
    cpu: "100m"
  limits:
    memory: "1Gi"
    cpu: "150m"

## primaryApp containers' Security Context
## ref: https://kubernetes.io/docs/tasks/configure-pod-container/security-context/#set-the-
security-context-for-a-container
##
## Containers should run as genesys user and cannot use elevated permissions
securityContext:
  runAsNonRoot: true
  runAsUser: null
  runAsGroup: 0

podSecurityContext:
  fsGroup: 0

## Priority Class
## ref: https://kubernetes.io/docs/concepts/configuration/pod-priority-preemption/
##
priorityClassName: ""

## Affinity for assignment.
## Ref: https://kubernetes.io/docs/concepts/configuration/assign-pod-node/#affinity-and-anti-
affinity
```

```
##
affinity: {}

## Node labels for assignment.
## ref: https://kubernetes.io/docs/user-guide/node-selection/
##
nodeSelector: {}

## Tolerations for assignment.
## ref: https://kubernetes.io/docs/concepts/configuration/taint-and-toleration/
##
tolerations: []

## Extra labels
## ref: https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/
##
# labels: {}

## Extra Annotations
## ref: https://kubernetes.io/docs/concepts/overview/working-with-objects/annotations/
##
# annotations: {}

## Service/Pod Monitoring Settings
monitoring:
  podMonitorEnabled: true
  prometheusRulesEnabled: true
  grafanaEnabled: true

monitor:
  prometheusPort: 9116
  monitorName: gvp-monitoring
  module: [if_mib]
  target: [127.0.0.1:1161]

##DNS Settings
dnsConfig:
  options:
    - name: ndots
      value: "3"
```

### Verify the deployed resources

Verify the deployed resources from the CLI.

## 4. GVP Resource Manager

**Note:** Resource Manager and forward will not pass readiness checks until an MCP has registered properly. This is because this service is not available without MCPs.

### Persistent Volumes creation

Create the following PVs that are required for the service deployment.

**Note:** If your deployment is capable of self-provisioning of Persistent Volumes, you can skip this step. The provisioner will create the volumes.

**gvp-rm-01**

### **gvp-rm-01-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-rm-01
spec:
  capacity:
    storage: 30Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Retain
  storageClassName: gvp
  nfs:
    path: /export/vol1/PAT/gvp/rm-01
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-rm-01-pv.yaml
```

**gvp-rm-02**

### **gvp-rm-02-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-rm-02
spec:
  capacity:
    storage: 30Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Retain
  storageClassName: gvp
  nfs:
    path: /export/vol1/PAT/gvp/rm-02
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-rm-02-pv.yaml
```

**gvp-rm-logs-01**

### **gvp-rm-logs-01-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-rm-logs-01
spec:
  capacity:
    storage: 10Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Recycle
```

```
storageClassName: gvp
nfs:
  path: /export/vol1/PAT/gvp/rm-logs-01
  server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-rm-logs-01-pv.yaml
```

**gvp-rm-logs-02**

### **gvp-rm-logs-02-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-rm-logs-02
spec:
  capacity:
    storage: 10Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Recycle
  storageClassName: gvp
  nfs:
    path: /export/vol1/PAT/gvp/rm-logs-02
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-rm-logs-02-pv.yaml
```

## Install Helm chart

Download the required Helm chart release from the JFrog repository and install. Refer to Helm Chart URLs.

```
helm install gvp-rm ./ -f gvp-rm-values.yaml
```

Set the following values in your values.yaml for Configuration Server:

- `priorityClassName` >> Set to a priority class that exists on the cluster (or create it instead).
- `imagePullSecrets` >> Set to your pull secret name.
- Set `cfgServerSecretName` if you changed it from default.

### **gvp-rm-values.yaml**

```
## Global Parameters
## Add labels to all the deployed resources
##
labels:
  enabled: true
  serviceGroup: "gvp"
  componentType: "shared"

## Primary App Configuration
##
```

```
# primaryApp:
# type: ReplicaSet
# Should include the defaults for replicas
deployment:
  replicaCount: 2
  deploymentEnv: "UPDATE_ENV"
  namespace: gvp
  clusterDomain: "svc.cluster.local"
nameOverride: ""
fullnameOverride: ""

image:
  registry: pureengage-docker-staging.jfrog.io
  gvprmrepository: gvp/gvp_rm
  cfghandlerrepository: gvp/gvp_rm_cfghandler
  snmprepository: gvp/gvp_snmp
  gvprmtestrepository: gvp/gvp_rm_test
  cfghandlertag:
  rmtesttag:
  rmtag:
  snmpitag: v9.0.040.07
  pullPolicy: Always
  imagePullSecrets:
    - name: "pureengage-docker-staging"

dnsConfig:
  options:
    - name: ndots
      value: "3"

# Pod termination grace period 15 mins.
gracePeriodSeconds: 900

## liveness and readiness probes
## !!! THESE OPTIONS SHOULD NOT BE CHANGED UNLESS INSTRUCTED BY GENESYS !!!
livenessValues:
  path: /rm/liveness
  initialDelaySeconds: 60
  periodSeconds: 90
  timeoutSeconds: 20
  failureThreshold: 3

readinessValues:
  path: /rm/readiness
  initialDelaySeconds: 10
  periodSeconds: 60
  timeoutSeconds: 20
  failureThreshold: 3

## PVCs defined
volumes:
  billingpvc:
    storageClass: managed-premium
    claimSize: 20Gi
    mountPath: "/rm"
  logpvc:
    EnablePVForLogStorage: true
    storageClass: managed-premium
    claimSize: 5Gi
    accessMode: ReadWriteOnce
    mountPath: "/mnt/log"
    # If PV is not used for log storage by disabling the flag EnablePVForLogStorage: false,
    the given host path will be used for log storage.
```

```
LogStorageHostPath: /mnt/log

## Define service(s) for application. Fields many need to be modified based on `type`
service:
  type: ClusterIP
  port: 5060
  rmHealthCheckAPIPort: 8300

## ConfigMaps with Configuration
## Use Config Map for creating environment variables
context:
  env:
    cfghandler:
      CFGSERVER: gvp-configserver.gvp.svc.cluster.local
      CFGSERVERBACKUP: gvp-configserver.gvp.svc.cluster.local
      CFGPORT: "8888"
      CFGAPP: "default"
      RMAPP: "azure_rm"
      RMFOLDER: "Applications\RM_MicroService\RM_Apps"
      HOSTFOLDER: "Hosts\RM_MicroService"
      MCPFOLDER: "MCP_Configuration_Unit\MCP_LRG"
      SNMPFOLDER: "Applications\RM_MicroService\SNMP_Apps"
      EnvironmentType: "prod"
      CONFSERVERAPP: "confserv"
      RSAPP: "azure_rs"
      SNMPAPP: "azure_rm_snmp"
      STDOUT: "true"
      VOICEMAILSERVICEDIDNUMBER: "55551111"

RMCONFIG:
  rm:
    sip-header-for-dnis: "Request-Uri"
    ignore-gw-lrg-configuration: "true"
    ignore-ruri-tenant-dbid: "true"
  log:
    verbose: "trace"
  subscription:
    sip.transport.dnsharouting: "true"
    sip.headerutf8verification: "false"
    sip.transport.setuptimer.tcp: "5000"
    sip.threadpoolsize: "1"
  registrar:
    sip.transport.dnsharouting: "true"
    sip.headerutf8verification: "false"
    sip.transport.setuptimer.tcp: "5000"
    sip.threadpoolsize: "1"
  proxy:
    sip.transport.dnsharouting: "true"
    sip.headerutf8verification: "false"
    sip.transport.setuptimer.tcp: "5000"
    sip.threadpoolsize: "16"
    sip.maxtcpconnections: "1000"
  monitor:
    sip.transport.dnsharouting: "true"
    sip.maxtcpconnections: "1000"
    sip.headerutf8verification: "false"
    sip.transport.setuptimer.tcp: "5000"
    sip.threadpoolsize: "1"
  ems:
    rc.cdr.local_queue_path: "/rm/ems/data/cdrQueue_rm.db"
    rc.ors.local_queue_path: "/rm/ems/data/orsQueue_rm.db"

# Default secrets storage to k8s secrets with csi able to be optional
```

---

```
secret:
  # keyVaultSecret will be a flag to between secret types(k8's or CSI). If keyVaultSecret was
  # set to false k8's secret will be used
  keyVaultSecret: false
  #If keyVaultSecret set to false the below parameters will not be used.
  configserverProviderClassName: gvp-configserver-secret
  cfgSecretFileNameForCfgUsername: configserver-username
  cfgSecretFileNameForCfgPassword: configserver-password
  #If keyVaultSecret set to true the below parameters will not be used.
  cfgServerSecretName: configserver-secret
  cfgSecretKeyNameForCfgUsername: username
  cfgSecretKeyNameForCfgPassword: password

## Ingress configuration
ingress:
  enabled: false
  annotations: {}
  # kubernetes.io/ingress.class: nginx
  # kubernetes.io/tls-acme: "true"
  paths: []
  hosts:
    - chart-example.local
  tls: []
  # - secretName: chart-example-tls
  #   hosts:
  #     - chart-example.local
networkPolicies:
  enabled: false
sip:
  serviceName: sipnode

## primaryAppresource requests and limits
## ref: http://kubernetes.io/docs/user-guide/compute-resources/
##
resourceForRM:
  # We usually recommend not to specify default resources and to leave this as a conscious
  # choice for the user. This also increases chances charts run on environments with little
  # resources, such as Minikube. If you do want to specify resources, uncomment the following
  # lines, adjust them as necessary, and remove the curly braces after 'resources:'.
  requests:
    memory: "1Gi"
    cpu: "200m"
    ephemeral-storage: "10Gi"
  limits:
    memory: "2Gi"
    cpu: "250m"

resouceForSnmpp:
  requests:
    memory: "500Mi"
    cpu: "100m"
  limits:
    memory: "1Gi"
    cpu: "150m"

## primaryApp containers' Security Context
## ref: https://kubernetes.io/docs/tasks/configure-pod-container/security-context/#set-the-security-context-for-a-container
##
## Containers should run as genesys user and cannot use elevated permissions
securityContext:
  fsGroup: 500
  runAsNonRoot: true
```

```
runAsUserRM: 500
runAsGroupRM: 500
runAsUserCfghandler: 500
runAsGroupCfghandler: 500

## Priority Class
## ref: https://kubernetes.io/docs/concepts/configuration/pod-priority-preemption/
##
priorityClassName: ""

## Affinity for assignment.
## Ref: https://kubernetes.io/docs/concepts/configuration/assign-pod-node/#affinity-and-anti-
affinity
##
affinity: {}

## Node labels for assignment.
## ref: https://kubernetes.io/docs/user-guide/node-selection/
##
nodeSelector:

## Tolerations for assignment.
## ref: https://kubernetes.io/docs/concepts/configuration/taint-and-toleration/
##
tolerations: []

## Service/Pod Monitoring Settings
monitoring:
  podMonitorEnabled: true
  prometheusRulesEnabled: true
  grafanaEnabled: true

monitor:
  monitorName: gvp-monitoring
  prometheusPort: 9116
  prometheusPortlogs: 8200
  logFilePrefixName: RM
  module: [if_mib]
  target: [127.0.0.1:1161]
```

## Verify the deployed resources

Verify the deployed resources from the CLI.

## 5. GVP Media Control Platform

### Persistent Volumes creation

Create the following PVs that are required for the service deployment.

gvp-mcp-logs-01

#### **gvp-mcp-logs-01-pv.yaml**

```
apiVersion: v1
```

---

```
kind: PersistentVolume
metadata:
  name: gvp-mcp-logs-01
spec:
  capacity:
    storage: 10Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Recycle
  storageClassName: gvp
  nfs:
    path: /export/vol1/PAT/gvp/mcp-logs-01
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-mcp-logs-01-pv.yaml
```

**gvp-mcp-logs-02**

### **gvp-mcp-logs-02-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-mcp-logs-02
spec:
  capacity:
    storage: 10Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Recycle
  storageClassName: gvp
  nfs:
    path: /export/vol1/PAT/gvp/mcp-logs-02
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-mcp-logs-02-pv.yaml
```

**gvp-mcp-rup-volume-01**

### **gvp-mcp-rup-volume-01-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-mcp-rup-volume-01
spec:
  capacity:
    storage: 40Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Recycle
  storageClassName: disk-premium
  nfs:
    path: /export/vol1/PAT/gvp/mcp-logs-01
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-mcp-rup-volume-01-pv.yaml
```

gvp-mcp-rup-volume-02

### **gvp-mcp-rup-volume-02-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-mcp-rup-volume-02
spec:
  capacity:
    storage: 40Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Recycle
  storageClassName: disk-premium
  nfs:
    path: /export/vol1/PAT/gvp/mcp-logs-02
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-mcp-rup-volume-02-pv.yaml
```

gvp-mcp-recording-volume-01

### **gvp-mcp-recordings-volume-01-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-mcp-recording-volume-01
spec:
  capacity:
    storage: 40Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Recycle
  storageClassName: gvp
  nfs:
    path: /export/vol1/PAT/gvp/mcp-logs-01
    server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-mcp-recordings-volume-01-pv.yaml
```

gvp-mcp-recording-volume-02

### **gvp-mcp-recordings-volume-02-pv.yaml**

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: gvp-mcp-recording-volume-02
spec:
  capacity:
    storage: 40Gi
  accessModes:
```

```
- ReadWriteOnce
persistentVolumeReclaimPolicy: Recycle
storageClassName: gvp
nfs:
  path: /export/vol1/PAT/gvp/mcp-logs-02
  server: 192.168.30.51
```

Run the following command:

```
kubectl create -f gvp-mcp-recordings-volume-02-pv.yaml
```

## Install Helm chart

Download the required Helm chart release from the JFrog repository and install. Refer to Helm Chart URLs.

```
helm install gvp-mcp ./ -f gvp-mcp-values.yaml
```

Set the following values in your values.yaml:

- Set **logicalResourceGroup: "MCP\_Configuration\_Unit"** to add MCPs to the Real Configuration Unit (rather than test).

### gvp-mcp-values.yaml

```
## Default values for gvp-mcp.
## This is a YAML-formatted file.
## Declare variables to be passed into your templates.

## Global Parameters
## Add labels to all the deployed resources
##
podLabels: {}

## Add annotations to all the deployed resources
##
podAnnotations: {}

serviceAccount:
  # Specifies whether a service account should be created
  create: false
  # Annotations to add to the service account
  annotations: {}
  # The name of the service account to use.
  # If not set and create is true, a name is generated using the fullname template
  name:

## Deployment Configuration
deploymentEnv: "UPDATE_ENV"
replicaCount: 2
terminationGracePeriod: 3600

## Name and dashboard overrides
nameOverride: ""
fullnameOverride: ""
dashboardReplicaStatefulsetFilterOverride: ""

## Base Labels. Please do not change these.
serviceName: gvp-mcp
component: shared
```

```
partOf: gvp

## Command-line arguments to the MCP process
args:
  - "gvp-configserver"
  - "8888"
  - "default"
  - "/etc/mcpconfig/config.ini"

## Container image repo settings.
image:
  mcp:
    registry: pureengage-docker-staging.jfrog.io
    repository: gvp/multicloud/gvp_mcp
    tag: "{{ .Chart.AppVersion }}"
    pullPolicy: IfNotPresent
  serviceHandler:
    registry: pureengage-docker-staging.jfrog.io
    repository: gvp/multicloud/gvp_mcp_servicehandler
    tag: "{{ .Chart.AppVersion }}"
    pullPolicy: IfNotPresent
  configHandler:
    registry: pureengage-docker-staging.jfrog.io
    repository: gvp/multicloud/gvp_mcp_confighandler
    tag: "{{ .Chart.AppVersion }}"
    pullPolicy: IfNotPresent
  snmp:
    registry: pureengage-docker-staging.jfrog.io
    repository: gvp/multicloud/gvp_snmp
    tag: v9.0.040.21
    pullPolicy: IfNotPresent
  rup:
    registry: pureengage-docker-staging.jfrog.io
    repository: cce/recording-provider
    tag: 9.0.000.00.b.1432.r.ef30441
    pullPolicy: IfNotPresent

## MCP specific settings
mcp:
  ## Settings for liveness and readiness probes of MCP
  ## !!! THESE VALUES SHOULD NOT BE CHANGED UNLESS INSTRUCTED BY GENESYS !!!
  livenessValues:
    path: /mcp/liveness
    initialDelaySeconds: 30
    periodSeconds: 60
    timeoutSeconds: 20
    failureThreshold: 3
    healthCheckAPIPort: 8300

  # Used instead of startupProbe. This runs all initial self-tests, and could take some time.
  # Timeout is = 2
  # maxUnavailable = 1
hpa:
  enabled: false
  minReplicas: 2
  maxUnavailable: 1
  maxReplicas: 4
  podManagementPolicy: Parallel
  targetCPUAverageUtilization: 20
  scaleupPeriod: 15
  scaleupPods: 4
  scaleupPercent: 50
  scaleupStabilizationWindow: 0
```

```
scaleupPolicy: Max
scaledownPeriod: 300
scaledownPods: 2
scaledownPercent: 10
scaledownStabilizationWindow: 3600
scaledownPolicy: Min

### Service/Pod Monitoring Settings
prometheus:
  mcp:
    name: gvp-mcp-snmp
    port: 9116

  rup:
    name: gvp-mcp-rup
    port: 8080

  podMonitor:
    enabled: true

grafana:
  enabled: false

#log:
# name: gvp-mcp-log
# port: 8200

### Pod Disruption Budget Settings
podDisruptionBudget:
  enabled: true

### Enable network policies or not
networkPolicies:
  enabled: false

### DNS configuration options
dnsConfig:
  options:
    - name: ndots
      value: "3"

### Configuration overrides
mcpConfig:
  # MCP config overrides
  mcp.mpc.numdispatchthreads: 4
  mcp.log.verbose: "interaction"
  mcp.mpc.codec: "pcmu pcma telephone-event"
  mcp.mpc.transcoders: "PCM MP3"
  mcp.mpc.playcache.enable: 1
  mcp.fm.http_proxy: ""
  mcp.fm.https_proxy: ""

#MRCP v2 ASR config overrides
mrcpv2_asr.provision.vrm.client.connectpersetup: true
mrcpv2_asr.provision.vrm.client.disablehotword: false
mrcpv2_asr.provision.vrm.client.hotkeybasepath: "/usr/local/genesys/mcp/grammar/nuance/
hotkey"
mrcpv2_asr.provision.vrm.client.noduplicatedgramuri: true
mrcpv2_asr.provision.vrm.client.sendswmsparams: false
mrcpv2_asr.provision.vrm.client.transportprotocol: "MRCPv2"
mrcpv2_asr.provision.vrm.client.sendloggingtag: true
mrcpv2_asr.provision.vrm.client.resource.name: "NuanceASRv2"
mrcpv2_asr.provision.vrm.client.resource.uri: "sip:mresources@speech-server-clusterip:5060"
```

```
mrcpv2_asr.provision.vrm.client.tlscertificatekey: "/usr/local/genesys/mcp/config/
x509_certificate.pem"
mrcpv2_asr.provision.vrm.client.tlsprivatekey: "/usr/local/genesys/mcp/config/
x509_certificate.pem"
mrcpv2_asr.provision.vrm.client.tlspassword: ""
mrcpv2_asr.provision.vrm.client.tlsprotocoltype: "TLSv1"
mrcpv2_asr.provision.vrm.client.confidencescale: 1
mrcpv2_asr.provision.vrm.client.sendsessionxml: true
mrcpv2_asr.provision.vrm.client.supportfornuancecell: true
mrcpv2_asr.provision.vrm.client.uniquegramid: true

#MRCP v2 TTS config overrides
mrcpv2_tts.provision.vrm.client.connectpersetup: true
mrcpv2_tts.provision.vrm.client.speechmarkerencoding: "UTF-8"
mrcpv2_tts.provision.vrm.client.transportprotocol: "MRCPv2"
mrcpv2_tts.provision.vrm.client.sendloggingtag: true
mrcpv2_tts.provision.vrm.client.resource.name: "NuanceTTSv2"
mrcpv2_tts.provision.vrm.client.resource.uri: "sip:mresources@speech-server-clusterip:5060"
mrcpv2_tts.provision.vrm.client.tlscertificatekey: "/usr/local/genesys/mcp/config/
x509_certificate.pem"
mrcpv2_tts.provision.vrm.client.tlsprivatekey: "/usr/local/genesys/mcp/config/
x509_certificate.pem"
mrcpv2_tts.provision.vrm.client.tlspassword: ""
mrcpv2_tts.provision.vrm.client.tlsprotocoltype: "TLSv1"
mrcpv2_tts.provision.vrm.client.nospeechlanguageheader: true
mrcpv2_tts.provision.vrm.client.sendsessionxml: true
mrcpv2_tts.provision.vrm.client.supportfornuancecell: true
```

### Verify the deployed resources

Verify the deployed resources from Google console/CLI.

# Upgrade, rollback, or uninstall Genesys Voice Platform

## Contents

- **1 Upgrade Genesys Voice Platform**
  - 1.1 Media Control Platform
  - 1.2 Validating the upgrade
  - 1.3 Complete the upgrade
  - 1.4 Resource Manager
  - 1.5 Service Discovery
  - 1.6 Reporting Server
  - 1.7 GVP Configuration Server
- **2 Rollback Genesys Voice Platform**
  - 2.1 Media Control Platform
  - 2.2 Resource Manager
  - 2.3 Service Discovery
  - 2.4 Reporting Server
  - 2.5 GVP Configuration Server
- **3 Uninstall Genesys Voice Platform**
  - 3.1 Media Control Platform
  - 3.2 Resource Manager
  - 3.3 Service Discovery
  - 3.4 Reporting Server
  - 3.5 GVP Configuration Server

Learn how to upgrade, rollback or uninstall Genesys Voice Platform.

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Upgrade Genesys Voice Platform

### Media Control Platform

MCP supports a canary upgrade, where a single instance of the statefulset (green) containing the new version is deployed along with the existing statefulset (blue).

#### Upgrade

#### Canary Upgrade

Add 1 instance of the new version in the green statefulset. Download the required Helm chart release from the JFrog repository and install. Refer to Helm Chart URLs.

#### Adding 1 instance of green with new version

```
helm install gvp-mcp-green ./ -f gvp-mcp-values.yaml --set hpa.maxReplicas=1 --set replicaCount=1
```

#### Validating the upgrade

The readiness and liveness probes run some basic validation tests. To validate the deployment was successful, verify that all containers are running, and in Ready state.

#### Validation

```
kubectl get pods | grep gvp-mcp-green
```

NAME	READY	STATUS	RESTARTS	AGE
gvp-mcp-pipe-green-0	4/4	Running	0	70m

Check for errors in the pod events.

## Validation

```
kubectl describe pod gvp-mcp-green-0
```

## Complete the upgrade

Scale-up the green statefulset, assuming the overridevalues.yaml has the desired HPA min and max replicas.

## Scale-up green with new version

```
helm upgrade gvp-mcp-green ./ -f gvp-mcp-values.yaml
```

Uninstall old blue statefulset to complete the upgrade.

```
helm uninstall gvp-mcp-blue
```

## Resource Manager

### Upgrade with Helm

1. Download RM helm.
2. Navigate to gvp-rm-microservice-master\helmcharts\gvp-rm
3. Check and update RM version in chart.yaml [Optional]
4. Check and update values.yaml [Optional]. Refer to the Resource Manager Override Helm chart values.
5. Navigate to gvp-rm-microservice-master\helmcharts
6. Issue the following command: gvp-rm >

## Command: helm upgrade gvp-rm gvp-rm

```
PS C:\RM_microservice\gvp-rm-microservice-01042021\gvp-rm-microservice-master\helmcharts> helm upgrade gvp-rm-test gvp-rm
Release "gvp-rm-test" has been upgraded. Happy Helming!
NAME: gvp-rm-test
LAST DEPLOYED: Tue Apr 13 16:27:15 2021
NAMESPACE: gvp
STATUS: deployed
REVISION: 3
NOTES:
1. Get the application URL by running these commands:
  export POD_NAME=$(kubectl get pods --namespace gvp -l "app.kubernetes.io/name=gvp-rm,app.kubernetes.io/instance=gvp-rm-test" -o jsonpa
ame)
  echo "visit http://127.0.0.1:8080 to use your application"
  kubectl port-forward $POD_NAME 8080:80
```

## Service Discovery

Service Discovery is upgraded with a rolling restart of the single instance.

## Upgrade

Download the required Helm chart release from the JFrog repository and install. Refer to Helm Chart URLs.

```
helm upgrade gvp-sd ./ -f gvp-sd-values.yaml
```

### Validating the upgrade

The readiness and liveness probes run some basic validation tests. To validate the deployment was successful, verify that all containers are running and in Ready state.

#### Validation

```
kubectl get pods | grep gvp-sd
```

NAME	READY	STATUS	RESTARTS	AGE
gvp-sd-5d8c7bf4cf-znrqt	2/2	Running	0	70m

Check for errors in the pod events.

#### Validation

```
kubectl describe pod gvp-sd-5d8c7bf4cf-znrqt
```

## Reporting Server

You need an SQL server deployed and secrets created in Kubernetes cluster.

DB is pre-initialised and has data [Optional]

1. Download RS helm.

2. Navigate to gvp-rs-microservice-master\helmcharts\gvp-rs

3. Check and update RS version in chart.yaml [Optional].

4. Check and update values.yaml. Configure DB details in values.yaml. Refer to the Reporting Server Override Helm chart values.

1. DB server name
2. DB name
3. DB username
4. secretProviderClassName
5. dbreadersecretFileName
6. dbadminsecretFileName

5. Navigate to gvp-rs-microservice-master\helmcharts

6. Issue the following command gvp-rs

**Command: helm upgrade gvp-rs gvp-rs**

## GVP Configuration Server

GVP Configuration Server is upgraded with a rolling restart of the single instance.

### Upgrade

Download the required Helm chart release from the JFrog repository and install. Refer to Helm Chart URLs.

```
helm upgrade gvp-configserver ./ -f gvp-configserver-values.yaml
```

### Validating the upgrade

The readiness and liveness probes run some basic validation tests. To validate the deployment was successful, verify that all containers are running and in Ready state.

```
kubectll get pods| grep gvp-configserver
```

NAME	READY	STATUS	RESTARTS	AGE
gvp-configserver-0	2/2	Running	0	70m

Check for errors in the pod events.

```
kubectll describe pod gvp-configserver-0
```

## Rollback Genesys Voice Platform

### Media Control Platform

The rollback procedure is to uninstall the new statefulset that was added during the canary upgrade.

#### **Uninstall green statefulset during rollback**

```
helm uninstall gvp-mcp-green
```

### Scaling up/down the current stack

In the event that the current stack needs to be updated, for example making changes to the scaling policy but keeping the same version of the software, make the changes to the overridevalues.yaml and upgrade the current statefulset (blue in the example below).

#### Scale-up blue

```
helm upgrade gvp-mcp-blue ./ -f gvp-mcp-values.yaml
```

### Resource Manager

Rollback can be done using the below command:

```
helm rollback gvp-rm
```

## Service Discovery

The rollback procedure is to uninstall the new version and re-install the old version.

```
helm rollback gvp-sd
```

## Reporting Server

Rollback can be done using the below command:

```
helm rollback
```

## GVP Configuration Server

The rollback procedure is to uninstall the new version and re-install the old version.

```
helm rollback gvp-configserver
```

## Uninstall Genesys Voice Platform

### Media Control Platform

If there is only one MCP stack/statefulset, the uninstallation will cause service disruption.

Uninstall any statefulsets which are currently installed.

```
helm uninstall gvp-mcp-
```

### Resource Manager

Uninstall Resource Manager using the following command:

```
helm uninstall gvp-rm
```

### Service Discovery

#### **Warning**

Since there is only one Service Discovery instance, the uninstallation will cause service disruption.

Uninstall any statefulsets which are currently installed.

```
helm uninstall gvp-sd
```

### Reporting Server

Uninstall Reporting Server by using the following command:

```
helm uninstall gvp-rs
```

## GVP Configuration Server

### **Warning**

Since there is only one GVP Configuration Server instance, the uninstallation will cause service disruption.

Uninstall any stateful sets which are currently installed.

```
helm uninstall gvp-configserver
```

# Observability in Genesys Voice Platform

## Contents

- **1 Monitoring**
  - **1.1 Enable monitoring**
  - **1.2 Configure metrics**
- **2 Alerting**
  - **2.1 Configure alerts**
- **3 Logging**

Learn about the logs, metrics, and alerts you should monitor for Genesys Voice Platform.

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Monitoring

Private edition services expose metrics that can be scraped by Prometheus, to support monitoring operations and alerting.

- As described on [Monitoring overview and approach](#), you can use a tool like Grafana to create dashboards that query the Prometheus metrics to visualize operational status.
- As described on [Customizing Alertmanager configuration](#), you can configure Alertmanager to send notifications to notification providers such as PagerDuty, to notify you when an alert is triggered because a metric has exceeded a defined threshold.

The services expose a number of Genesys-defined and third-party metrics. The metrics that are defined in third-party software used by private edition services are available for you to use as long as the third-party provider still supports them. For descriptions of available Genesys Voice Platform metrics, see:

- [Voice Platform Configuration Server metrics](#)
- [Voice Platform Media Control Platform metrics](#)
- [Voice Platform Service Discovery metrics](#)
- [Voice Platform Reporting Server metrics](#)
- [Voice Platform Resource Manager metrics](#)

See also [System metrics](#).

## Enable monitoring

Service	CRD or annotations?	Port	Endpoint/Selector	Metrics update interval
Voice Platform Configuration	Service/Pod Monitoring	Not applicable	See selector details on the	

Service	CRD or annotations?	Port	Endpoint/ Selector	Metrics update interval
Server	Settings		Voice Platform Configuration Server metrics and alerts page	
Voice Platform Media Control Platform	Service/Pod Monitoring Settings	9116, 8080, 8200	See selector details on the Voice Platform Media Control Platform metrics and alerts page	
Voice Platform Service Discovery	Automatic	9090	See selector details on the Voice Platform Service Discovery metrics and alerts page	
Voice Platform Reporting Server	ServiceMonitor / PodMonitor	9116	See selector details on the Voice Platform Reporting Server metrics and alerts page	
Voice Platform Resource Manager	ServiceMonitor / PodMonitor	9116, 8200	See selector details on the Voice Platform Resource Manager metrics and alerts page	

## Configure metrics

The metrics that are exposed by Genesys Voice Platform services are available by default. No further configuration is required in order to define or expose these metrics. You cannot define your own custom metrics.

## Alerting

Private edition services define a number of alerts based on Prometheus metrics thresholds.

### Important

You can use general third-party functionality to create rules to trigger alerts based on metrics values you specify. Genesys does not provide support for custom alerts that you create in your environment.

For descriptions of available Genesys Voice Platform alerts, see:

- Voice Platform Configuration Server alerts
- Voice Platform Media Control Platform alerts
- Voice Platform Service Discovery alerts
- Voice Platform Reporting Server alerts
- Voice Platform Resource Manager alerts

### Configure alerts

Private edition services define a number of alerts by default (for Genesys Voice Platform, see the pages linked to above). No further configuration is required.

The alerts are defined as **PrometheusRule** objects in a **prometheus-rule.yaml** file in the Helm charts. As described above, Genesys Voice Platform does not support customizing the alerts or defining additional **PrometheusRule** objects to create alerts based on the service-provided metrics.

### Logging

*Content coming soon*

# Voice Platform Configuration Server metrics and alerts

## Contents

- [1 Metrics](#)
- [2 Alerts](#)

Find the metrics Voice Platform Configuration Server exposes and the alerts defined for Voice Platform Configuration Server.

Service	CRD or annotations?	Port	Endpoint/Selector	Metrics update interval
Voice Platform Configuration Server	Service/Pod Monitoring Settings	Not applicable	Service/Pod Monitoring Settings: values.yaml ----- prometheus: createRule: true  Grafana Dashboard Settings: values.yaml ----- grafana: enabled: true	

See details about:

- Voice Platform Configuration Server metrics
- Voice Platform Configuration Server alerts

## Metrics

No metrics are defined for Voice Platform Configuration Server.

Metric and description	Metric details	Indicator of
------------------------	----------------	--------------

## Alerts

The following alerts are defined for Voice Platform Configuration Server.

Alert	Severity	Description	Based on	Threshold
ContainerCPUreached70PercentForConfigserver	Warning	The trigger will flag an alarm when the Configserver container CPU utilization goes	container_cpu_usage_seconds_total, container_spec_cpu_quota, container_spec_cpu_period	15mins

Alert	Severity	Description	Based on	Threshold
		beyond 70% for 15 mins		
ContainerMemoryUseOver90PercentForConfigserver	CRITICAL	The trigger will flag an alarm when the Configserver container working memory use is over 90% of the limit for 15 mins	container_memory_working_set_bytes, kube_pod_container_resource_limits_memory_bytes	15mins
ContainerMemoryUseOver1GBForConfigserver	CRITICAL	The trigger will flag an alarm when the Configserver container working memory has exceeded 1GB for 15 mins	container_memory_working_set_bytes	15mins
ContainerRestartsOver4ForConfigserver	HIGH	This alert is triggered when the Configserver container restarts in 15 mins exceeded 4	kube_pod_container_status_restarts_total	15mins
ContainerNotRunningForConfigserver	HIGH	This alert is triggered when the Configserver container has not been running for 15 minutes	kube_pod_container_status_running	15mins
ContainerRestartsOver4ForServiceHandler	MEDIUM	This alert is triggered when the service-handler container restarts exceeded 4 for 15 mins	kube_pod_container_status_running	15mins
ContainerNotRunningForServiceHandler	MEDIUM	This alert is triggered when the service-handler container has not been running for 15 minutes	kube_pod_container_status_running	15mins

# Voice Platform Service Discovery metrics and alerts

## Contents

- [1 Metrics](#)
- [2 Alerts](#)

Find the metrics Voice Platform Service Discovery exposes and the alerts defined for Voice Platform Service Discovery.

Service	CRD or annotations?	Port	Endpoint/Selector	Metrics update interval
Voice Platform Service Discovery	Automatic	9090	env: METRICS_EXPORTER_PORT: "9090"	

## Metrics

Metric and description	Metric details	Indicator of
<b>sdServiceCounter</b> Consul and Configserver Sync Check Counter	<b>Unit:</b> Unsigned32 <b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 131	Useful for checking if SD is stuck or there is any deadlock
<b>sdServiceLastRun</b> Last Time When Consul and Configserver Sync Check has Run	<b>Unit:</b> Unix Time <b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 1634071196.054	Useful for checking if SD is stuck or there is any deadlock

## Alerts

No alerts are defined for Genesys Voice Platform.

# Voice Platform Reporting Server metrics and alerts

## Contents

- [1 Metrics](#)
- [2 Alerts](#)

Find the metrics Voice Platform Reporting Server exposes and the alerts defined for Voice Platform Reporting Server.

Service	CRD or annotations?	Port	Endpoint/Selector	Metrics update interval
Voice Platform Reporting Server	ServiceMonitor / PodMonitor	9116	<p>Metrics endpoint:</p> <pre>curl -v "http://:9116/snmp?target=127.0.0.1%3A1161&amp;module=if_mib"</pre> <p>Enabling metrics:</p> <p>Service/Pod Monitoring Settings</p> <pre>prometheus:   enabled: true   metric:     port: 9116</pre> <p>Enable for Prometheus operator</p> <pre>podMonitor:   enabled: true   metric:     path: /snmp     module: [ if_mib ]     target: [       127.0.0.1:1161 ]</pre> <p>monitoring:</p> <ul style="list-style-type: none"> <li>prometheusRulesEnabled: true</li> <li>grafanaEnabled: true</li> </ul> <p>monitor:</p> <ul style="list-style-type: none"> <li>monitorName: gvp-monitoring</li> </ul>	

See details about:

- Voice Platform Reporting Server metrics
- Voice Platform Reporting Server alerts

## Metrics

Metric and description	Metric details	Indicator of
<b>rsQueueName</b> The name of the message queue (rsQueueName{gvpConfigDBID="172",rsQueueName="rs.queue.remote_cdr.rm"})	<b>Unit:</b> DisplayString <b>Type:</b> Gauge <b>Label:</b> rsQueueName <b>Sample value:</b> rs.queue.remote_cdr.rm	Information
<b>rsQueueSize</b> Used to get the size of the message queue. (rsQueueSize{gvpConfigDBID="172",rsQueueIndex="1"})	<b>Unit:</b> Unsigned32 <b>Type:</b> Gauge <b>Label:</b> rsQueueSize <b>Sample value:</b> 1	Traffic
<b>rsDequeueCount</b> Used to get dequeue value of the message queue. (rsDequeueCount{gvpConfigDBID="172",rsQueueIndex="1"})	<b>Unit:</b> Counter64 <b>Type:</b> Counter <b>Label:</b> rsDequeueCount <b>Sample value:</b> 0	Traffic
<b>rsEnqueueCount</b> Used to get enqueue value of the message queue. (rsEnqueueCount{gvpConfigDBID="172",rsQueueIndex="1"})	<b>Unit:</b> Counter64 <b>Type:</b> Counter <b>Label:</b> rsEnqueueCount <b>Sample value:</b> 4	Traffic
<b>rsUptime</b> The time (in hundredths of a second) since the RS was started.	<b>Unit:</b> Unsigned32 <b>Type:</b> Gauge <b>Label:</b> rsUptime <b>Sample value:</b> 30619972	Information

## Alerts

The following alerts are defined for Voice Platform Reporting Server.

Alert	Severity	Description	Based on	Threshold
PodStatusNotReady	CRITICAL	The trigger will flag an alarm when RS pod status is Not ready for 30 mins and this will be controlled through override-value.yaml file.	kube_pod_status_ready	30mins
ContainerRestartedRepeatedly	CRITICAL	The trigger will flag an alarm when the RS or RS SNMP	kube_pod_container_status_restarts_total	15mins

Alert	Severity	Description	Based on	Threshold
		container gets restarted 5 or more times within 15 mins		
InitContainerFailingRepeatedly	CRITICAL	The trigger will flag an alarm when the RS init container gets failed 5 or more times within 15 mins	kube_pod_init_container_status_restarts_total	15mins
ContainerCPUreached80percent	HIGH	The trigger will flag an alarm when the RS container CPU utilization goes beyond 80% for 15 mins	container_cpu_usage_seconds_total, container_spec_cpu_quota, container_spec_cpu_period	15mins
ContainerMemoryUsage80percent	HIGH	The trigger will flag an alarm when the RS container Memory utilization goes beyond 80% for 15 mins	container_memory_usage_bytes, kube_pod_container_resource_limits_memory_bytes	15mins
RSQueueSizeCritical	HIGH	The trigger will flag an alarm when RS JMS message queue size goes beyond 15000 (3GB approx. backlog) for 15 mins	rsQueueSize	15mins
PVC50PercentFilled	HIGH	This trigger will flag an alarm when the RS PVC size is 50% filled	kubelet_volume_stats_used_bytes, kubelet_volume_stats_capacity_bytes	15mins
PVC80PercentFilled	CRITICAL	This trigger will flag an alarm when the RS PVC size is 80% filled	kubelet_volume_stats_used_bytes, kubelet_volume_stats_capacity_bytes	5mins

# Voice Platform Resource Manager metrics and alerts

## Contents

- [1 Metrics](#)
- [2 Alerts](#)

Find the metrics Voice Platform Resource Manager exposes and the alerts defined for Voice Platform Resource Manager.

Service	CRD or annotations?	Port	Endpoint/Selector	Metrics update interval
Voice Platform Resource Manager	ServiceMonitor / PodMonitor	9116, 8200	<p>Metrics endpoints:</p> <pre>curl -v "http://:9116/snmp?target=127.0.0.1%3A1161&amp;module=if_mib" curl -v "http://:8200/log"</pre> <p>Enable metrics:</p> <p>Service/Pod Monitoring Settings</p> <pre>prometheus:   enabled: true   metric:     port: 9116   log:     port: 8200</pre> <p>Enable for Prometheus operator</p> <pre>podMonitor:   enabled: true   metric:     path: /snmp     module: [ if_mib ]     target: [ 127.0.0.1:1161 ]   log:     path: /log</pre> <p>monitoring:</p> <ul style="list-style-type: none"> <li>prometheusRulesEnabled: true</li> <li>grafanaEnabled: true</li> </ul> <p>monitor:</p> <ul style="list-style-type: none"> <li>monitorName: gvp-monitoring</li> <li>logFilePrefixName: RM</li> </ul>	

See details about:

- Voice Platform Resource Manager metrics
- Voice Platform Resource Manager alerts

## Metrics

Metric and description	Metric details	Indicator of
<p><b>rmTotal5xxInviteSent</b></p> <p>Number of 5xx that were received for INVITE sent by RM</p>	<p><b>Unit:</b> Unsigned32</p> <p><b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 514</p>	Error
<p><b>rmTotal4xxInviteSent</b></p> <p>Number of 4xx that were received for INVITE sent by RM</p>	<p><b>Unit:</b> Unsigned32</p> <p><b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 10</p>	Error
<p><b>rmPRStatus</b></p> <p>GVP_RM_PhysicalResourceTable.Status: Current state of the resource</p> <p>(rmPRStatus{gvpConfigDBID="174",rmPRName="mcp-10.206.5.89",rmPRStatus="AVAILABLE"})</p>	<p><b>Unit:</b> DisplayString</p> <p><b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 1</p>	Information
<p><b>rmPRActiveCalls</b></p> <p>GVP_RM_PhysicalResourceTable.ActiveCalls: Number of calls that currently are handled by the resource.</p> <p>(rmPRActiveCalls{gvpConfigDBID="174",rmPRName="mcp-10.206.5.89"})</p>	<p><b>Unit:</b> Unsigned32</p> <p><b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b></p>	Traffic
<p><b>rmPRTotalCalls</b></p> <p>GVP_RM_PhysicalResourceTable.TotalCalls: Total number of calls that have been handled by this resource since it was connected to RM.</p> <p>(rmPRTotalCalls{gvpConfigDBID="174",rmPRName="mcp-10.206.5.89"})</p>	<p><b>Unit:</b> Unsigned32</p> <p><b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 150</p>	Traffic
<p><b>rmTenantCurrentInboundCalls</b></p> <p>Number of active inbound calls that use this tenant.</p>	<p><b>Unit:</b> Unsigned32</p> <p><b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 2</p>	Traffic
<p><b>rmTenantPeakCalls</b></p> <p>Maximum number of concurrent calls to this Tenant since it became active</p>	<p><b>Unit:</b></p> <p><b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 10</p>	Traffic

## Alerts

The following alerts are defined for Voice Platform Resource Manager.

Alert	Severity	Description	Based on	Threshold
RM Service Down	CRITICAL	RM pods are not in ready state and RM service is not available	kube_pod_container_status_running	0
InitContainerFailingRepeatedly	CRITICAL	The trigger will flag an alarm when the RM init container gets failed 5 or more times within 15 mins.	kube_pod_init_container_status_restarts_total	15 mins
ContainerRestartedRepeatedly	CRITICAL	The trigger will flag an alarm when the RM or RM SNMP container gets restarted 5 or more times within 15 mins	kube_pod_container_status_restarts_total	15 mins
PodStatusNotReady	CRITICAL	The trigger will flag an alarm when RM pod status is Not ready for 30 mins and this will be controlled by override-value.yaml.	kube_pod_status_ready	30mins
RMTotal5XXErrorForINMIB	HIGH	The RM mib counter stats will be collected for every 30 seconds and if the mib counter total5xxInviteSent increments from its previous value by 5 within 5 minutes the trigger will flag an alarm.	rmTotal5xxInviteSent	5 mins
RMTotal4XXErrorForINMIB	MEDIUM	The RM mib counter stats will be collected for every 60 seconds and if the mib counter total4xxInviteSent increments from its previous value	rmTotal4xxInviteSent	1min

Alert	Severity	Description	Based on	Threshold
		by 10 within 60 seconds the trigger will flag an alarm.		
RMInterNodeConnectivityBroken	HIGH	Inter-node connectivity between RM nodes is lost for 5mins.	gvp_rm_log_parser_warn_total	5 mins
RMConfigServerConnectionLost	HIGH	RM lost connection to GVP Configuration Server for 5mins.	gvp_rm_log_parser_warn_total	5 mins
RMSocketInterNodeError	HIGH	RM Inter node Socket Error for 5mins.	gvp_rm_log_parser_error_total	5mins
ContainerCPUReached80PercentForRM0	CRITICAL	The trigger will flag an alarm when the RM container CPU utilization goes beyond 80% for 15 mins	container_cpu_usage_seconds_total, container_spec_cpu_quota, container_spec_cpu_period	15mins
ContainerCPUReached80PercentForRM1	CRITICAL	The trigger will flag an alarm when the RM container CPU utilization goes beyond 80% for 15 mins	container_cpu_usage_seconds_total, container_spec_cpu_quota, container_spec_cpu_period	15mins
ContainerMemoryUsage80PercentForRM0	HIGH	The trigger will flag an alarm when the RM container Memory utilization goes beyond 80% for 15 mins	container_memory_rss, kube_pod_container_resource_limits_memory_bytes	15mins
ContainerMemoryUsage80PercentForRM1	HIGH	The trigger will flag an alarm when the RM container Memory utilization goes beyond 80% for 15 mins	container_memory_rss, kube_pod_container_resource_limits_memory_bytes	15mins
MCPPortsExceeded	HIGH	All the MCP ports in MCP LRG are exceeded	gvp_rm_log_parser_error_total	1min
RMServiceDegradedTo50Percentage	CRITICAL	One of the RM container is not in running state for 5mins	kube_pod_container_status_running	5mins
RMMatchingIVRTenantNotFound	CRITICAL	Matching IVR profile tenant could not be found for 2mins	gvp_rm_log_parser_error_total	2mins

## Voice Platform Resource Manager metrics and alerts

---

Alert	Severity	Description	Based on	Threshold
RMResourceAllocationFailed	MEDIUM	RM Resource allocation failed for 1mins	gvp_rm_log_parser_error_total	10

# Voice Platform Media Control Platform metrics and alerts

## Contents

- [1 Metrics](#)
- [2 Alerts](#)

Find the metrics Voice Platform Media Control Platform exposes and the alerts defined for Voice Platform Media Control Platform.

Service	CRD or annotations?	Port	Endpoint/Selector	Metrics update interval
Voice Platform Media Control Platform	Service/Pod Monitoring Settings	9116, 8080, 8200	Metrics endpoints:  <pre>curl -v "http://:9116/snmp?target=127.0.0.1%3A1161&amp;module=if_mib"</pre> <pre>curl -v "http://:8080/metrics"</pre> <pre>curl -v "http://:8200/log"</pre> Service/Pod Monitoring Settings:  <pre>values.yaml ----- prometheus:   enabled: true   mcp:     port: 9116   rup:     port: 8080   log:     port: 8200   podMonitor:     enabled: true</pre> Grafana dashboard settings:  <pre>values.yaml ----- grafana:   enabled: true</pre>	

See details about:

- Voice Platform Media Control Platform metrics
- Voice Platform Media Control Platform alerts

## Metrics

Metric and description	Metric details	Indicator of
<b>mcpSipCurrentInboundSessions</b> Unit:	Unsigned32	Traffic

Metric and description	Metric details	Indicator of
MCP Current Inbound Sessions	<b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 3	
<b>mcpSipPeakInboundSessions</b> MCP Peak Inbound Sessions	<b>Unit:</b> Unsigned32 <b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 100	Traffic
<b>mcpSipTotalInboundSessions</b> MCP Total Inbound Sessions	<b>Unit:</b> Unsigned32 <b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 9000	Traffic
<b>mcpStatus</b> MCP is RUNNING or not	<b>Unit:</b> 0/1 <b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 1	Information
<b>gvp_mcp_log_parser_error_total</b> Used for alerting for various errors based on MCP log parsing. Errors are indexed by LogID's.	<b>Unit:</b> Unsigned32 <b>Type:</b> Gauge <b>Label:</b> <b>Sample value:</b> 35929	Errors

## Alerts

The following alerts are defined for Voice Platform Media Control Platform.

Alert	Severity	Description	Based on	Threshold
ContainerCPUReached70PercentForMCP	CRITICAL	The trigger will flag an alarm when the MCP container CPU utilization goes beyond 70% for 5 mins	container_cpu_usage_seconds_total, container_spec_cpu_quota, container_spec_cpu_period	15mins
ContainerMemoryUsedOver90PercentForMCP	CRITICAL	The trigger will flag an alarm when the MCP container working memory use is over 90% of the limit for 5 mins	container_memory_working_set_bytes, kube_pod_container_resource_limits_memory_bytes	15mins
ContainerMemoryUsedOver7GBForMCP	CRITICAL	The trigger will flag an alarm when the MCP container working memory has exceeded 7GB for 5 mins	container_memory_working_set_bytes	15mins

Alert	Severity	Description	Based on	Threshold
ContainerRestartsOverLimitMCP	HIGH	The trigger will flag an alarm when the MCP container restarts exceeded 2 for 15 mins	kube_pod_container_status_restarts_total	15mins
MCP_MEDIA_ERROR_CRITICAL	CRITICAL	Number of LMSIP media errors exceeded critical limit	gvp_mcp_log_parser_error_total {LogID="33008",endpoint="mcplog"...}	30mins
NGI_LOG_FETCH_RESOURCE_TIMEOUT	WARNING	Number of VXMLi fetch timeouts exceeded limit	gvp_mcp_log_parser_error_total {LogID="40026",endpoint="mcplog"...}	1min
NGI_LOG_FETCH_RESOURCE_ERROR	WARNING	Number of VXMLi fetch errors exceeded limit	gvp_mcp_log_parser_error_total {LogID="40026",endpoint="mcplog"...}	1min
NGI_LOG_PARSE_ERROR	WARNING	Number of VXMLi parse errors exceeded limit	gvp_mcp_log_parser_error_total {LogID="40028",endpoint="mcplog"...}	1min
NGI_LOG_FETCH_RESOURCE_ERROR_4XX	WARNING	Number of VXMLi 4xx fetch errors exceeded limit	gvp_mcp_log_parser_error_total {LogID="40032",endpoint="mcplog"...}	1min
MCP_WEBSOCKET_TOKEN_CREATE_ERROR	HIGH	There are errors creating a JWT token with a websocket client	gvp_mcp_log_parser_error_total {LogID="40026",endpoint="mcplog"...}	N/A
MCP_WEBSOCKET_TOKEN_CONFIG_ERROR	HIGH	There are errors getting information for Auth token with a websocket client	gvp_mcp_log_parser_error_total {LogID="40026",endpoint="mcplog"...}	N/A
MCP_WEBSOCKET_TOKEN_FETCH_ERROR	HIGH	There are errors fetching Auth token with a websocket client	gvp_mcp_log_parser_error_total {LogID="40026",endpoint="mcplog"...}	N/A
MCP_WEBSOCKET_CLIENT_OPEN_ERROR	HIGH	There are errors opening a session with a websocket client	gvp_mcp_log_parser_error_total {LogID="40026",endpoint="mcplog"...}	N/A
MCP_WEBSOCKET_CLIENT_PROTOCOL_ERROR	HIGH	There are protocol errors with a websocket client	gvp_mcp_log_parser_error_total {LogID="40026",endpoint="mcplog"...}	N/A
MCP_SDP_PARSE_ERROR	WARNING	Number of SDP parse errors exceeded limit	gvp_mcp_log_parser_error_total {LogID="33006",endpoint="mcplog"...}	N/A

# Logging

## Contents

- [1 Media Control Platform](#)
- [2 Resource Manager](#)
- [3 Service Discovery](#)
- [4 Reporting Server](#)
- [5 GVP Configuration Server](#)

Learn how to store logs for Genesys Voice Platform.

**Related documentation:**

- 
- 
- 

**RSS:**

- [For private edition](#)

## Media Control Platform

Container	logging destination	log rotation
gvp-mcp	mcp-log-pvc	100 MB
servicehandler	stdout	N/A
confighandler	stdout	N/A
mcp-snmp	stdout	N/A
rup	stdout	N/A

Log rotation and retention policy could be decided as per the requirements. Refer to MCP storage requirements for on log volume size and IOPS.

You may use the following settings to determine the retention period. For example:

```
mcpConfig:  
  mcp.log.verbose: "interaction"  
  mcp.log.segment:"100 MB"  
  mcp.log.expire: 3
```

Refer to MCP storage requirements for the storage requirements for mcp-log-pvc pvc.

The referenced stdout through sidecar is the preferred method. If MCP logs need to be redirected to stdout, enable the following configuration in the Helm override values.yaml file:

```
fluentBitSidecar:  
  enabled: true
```

When fluent-bit is enabled, the log storage configuration could be any of type - **persistantVolume**, **hostPath**, or **emptyDir**.

For more information on how to configure fluent-bit, refer to Sidecar processed logging.

**Note:** The fluent-bit sidecar feature is being provided *as-is* without support and requires a third-party container image that Genesys does not provide or support.

## Resource Manager

Log rotation and retention policy could be decided as per the requirements. Refer to Resource Manager storage requirements for on log volume size and IOPS.

You may use the log expire to determine the retention period. For example:

```
RMCONFIG:
  log:
    expire: 40 day
```

The referenced stdout through sidecar is the preferred method. If RM logs need to be redirected to stdout, enable the following configuration in the Helm override values.yaml file:

```
fluentBitSidecar:
  enabled: true
```

When fluent-bit is enabled, the log storage configuration could be any of type – **persistantVolume**, **hostPath**, or **emptyDir**.

For more information on how to configure fluent-bit refer to, refer to Sidecar processed logging.

**Note:** The fluent-bit sidecar feature is being provided *as-is* without support and requires a third-party container image that Genesys does not provide or support.

## Service Discovery

The following table describes information for logging for the different containers:

Container	logging destination	log rotation
gvp-sd	stdout	N/A

Log rotation and retention policy could be decided as per the requirements. Service Discovery uses stdout for logging. Service Discovery logs redirected from the stdout can be terminated from the Service Discovery log location based on the the retention period that you decide.

## Reporting Server

Log rotation and retention policy could be decided as per the requirements. RS uses stdout for logging. RS logs redirected from the stdout can be terminated from the RS log location based on the the retention period that you decide.

```
RSCONFIG:
  log:
    verbose: "trace"
    trace: "stdout"
```

## GVP Configuration Server

The following table describes information for logging for the different containers:

<b>Container</b>	<b>logging destination</b>	<b>log rotation</b>
servicehandler	stdout	N/A
gvp-configserver	stdout	N/A

Log rotation and retention policy could be decided as per the requirements. GVP Configuration Server uses stdout for logging. GVP Configuration Server logs redirected from the stdout can be terminated from the GVP Configuration Server log location based on the the retention period that you decide.