Genesys Voice Platform Private Edition Guide

Architecture

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Contents

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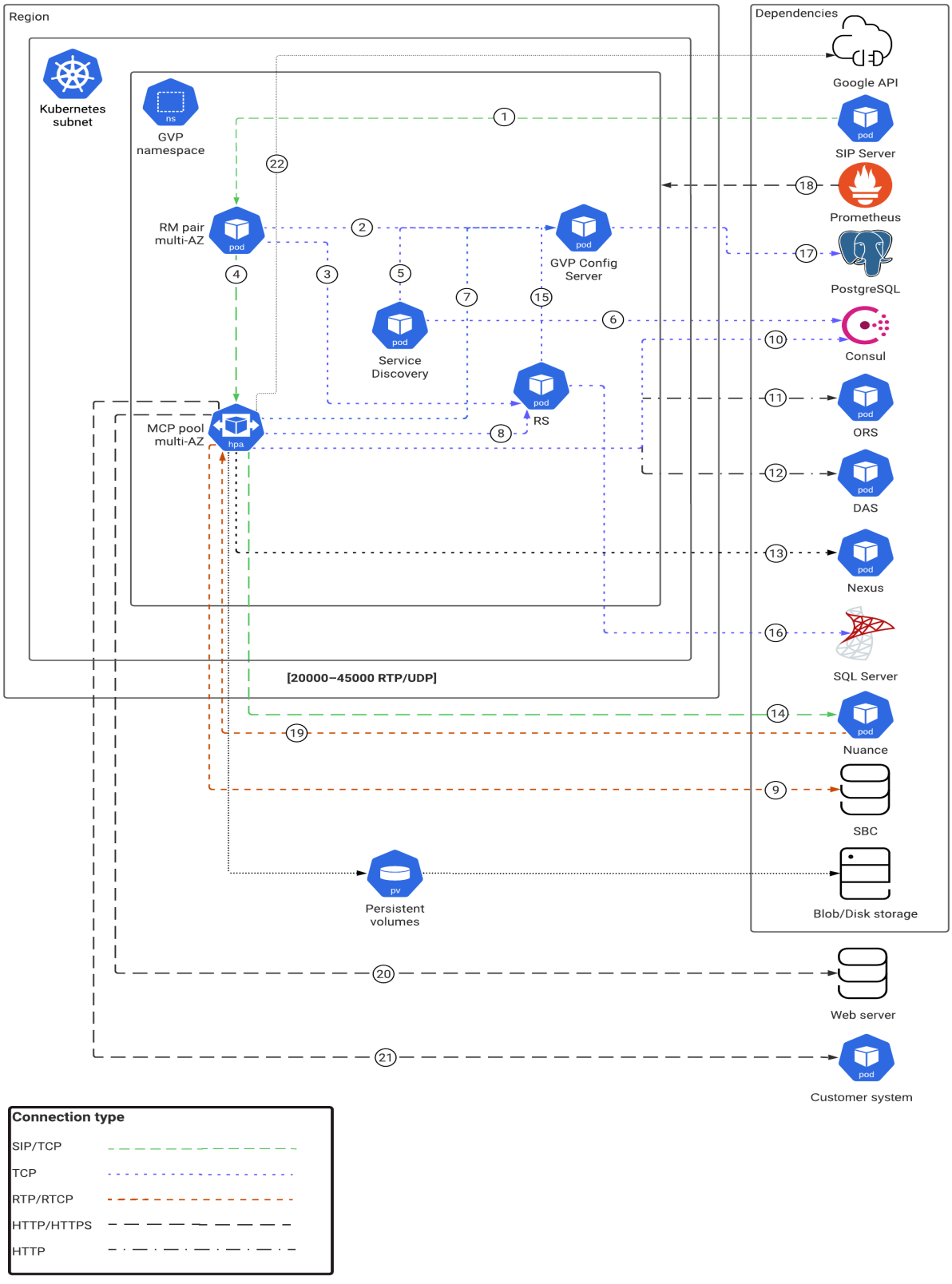
Introduction

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.


Region
Kubernetes subnet
ns
GVP namespace
RM pair multi-AZ
pod
GVP Config Server
Service Discovery
RS
MCP pool multi-AZ
hpa
[20000–45000 RTP/UDP]
pv
Persistent volumes
Dependencies
Google API
SIP Server
Prometheus
PostgreSQL
Consul
ORS
DAS
Nexus
SQL Server
Nuance
SBC
Blob/Disk storage
Web server
Customer system
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
Connection type
SIP/TCP
TCP
RTP/RTCP
HTTP/HTTPS
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	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	Websocket messages. MCP connects to Nexus for Voicebot and Agent Assist services. **Note**: The protocol is WebSocket.
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.