

# **GENESYS**

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# Designer Deployment Guide

Deploy Designer (versions v9012214 and above)

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Learn how to deploy Designer as a service in a Kubernetes cluster (for **DesDepMnfst v9012214** and above).

#### 1. About this document

This document guides you through the process of deploying and configuring Designer and Designer Application Server (DAS) as a service in a Kubernetes (K8s) cluster.

Information on the following topics is provided:

- · Overview of Designer and DAS
- · Configuration details
- Deployment process
- Enabling optional features
- Cleanup
- Known limitations

#### 1.1 Intended audience

This document is intended for use primarily by system engineers and other members of an implementation team who will be involved in configuring and installing Designer and DAS, and system administrators who will maintain Designer and DAS installations.

To successfully deploy and implement applications in Designer and DAS, you must have a basic understanding of and familiarity with:

- Network design and operation
- Network configurations in your organization
- Kubernetes
- Genesys Framework architecture and functions

#### 1.2 Before you begin

- 1. Install Kubernetes. Refer to the Kubernetes documentation site for installation instructions. You can also refer to the Genesys Docker Deployment Guide for information on Kubernetes and High Availability.
- 2. Install Helm according to the instructions outlined in the Helm documentation site.

After you complete the above mandatory procedures, return to this document to complete an onpremise deployment of Designer and DAS as a service in a K8s cluster.

## 2. Product overview

The following sections provide a brief overview of Designer and DAS.

#### 2.1 Designer

The Designer service provides a web UI to build and manage VXML and SCXML based self-service and assisted service applications for a number of media types. It stores data on the local file system and is synchronized across instances by using services like Network File System (NFS). Genesys customers can build applications using a simple drag and drop method, and assign contact points (Route Points and other media endpoints) to applications directly from the Designer UI. Insights into runtime behavior of applications and troubleshooting aid is provided by Designer Analytics, which includes a rich set of dashboards based on session detail records (SDR) from data stored in Elasticsearch.

Designer offers the following features:

- Applications for working with phone, chat, email, SMS (text messages), Facebook, Twitter, and open media types.
- Bots, ASR, TTS capabilities for self-service.
- · Assisted service or routing.
- · Callback.
- Business Controls.
- Audio, message management.
- Grammars management.
- Contact points management route points, chat end points, email pop-client/mailboxes.
- · Analytics dashboards through embedded Kibana.

Designer is an Express/Node.js application. The UI is designed using Angular powered Bootstrap. Application data (SCXML and VXML) is stored as a file system. Designer Analytics and Audit data is stored in Flasticsearch.

#### 2.2 Designer Application Server (DAS)

Designer Application Server (DAS) hosts and serves the Designer generated application files (SCXML and VXML), audio, and grammars. It also provides:

- Runtime evaluation of Business Controls (business hours, special days, emergency flags and data tables).
- Callback interface to GES.

DAS uses built-in NGINX to front requests. It consists of 3 modules: NGINX, PHP, and Node.js.

 Requests for static workspace content (SCXML, VXML, JS, audio, grammar, etc) are handled by the NGINX module.

- Requests for PHP content are processed by the FastCGI PHP module.
- SDR (Analytics) processing requests are handled by the DAS Node.js module.

#### **Important**

Files generated by Designer can be served only by DAS. Designer will work only with DAS.

#### 2.3 Deployment architecture

The below architecture diagram illustrates a sample premise deployment of Designer and DAS:

Error creating thumbnail: Unable to save thumbnail to destination

#### 2.4 High Availability (HA), Disaster Recovery (DR), and Scalability

Designer and DAS must be deployed as highly available in order to avoid single points of failure. A minimum of 2 replicas of each service must be deployed to achieve HA.

The Designer and DAS service pods can be automatically scaled up or down based on metrics such as CPU and memory utilization. The *Deployment configuration settings* section explains how to configure HA and auto-scaling.

Refer to the Genesys Docker Deployment Guide for more information on general HA recommendation for Kubernetes.

# 3. Prerequisites

Before deploying Designer, ensure the following resources are deployed, configured, and accessible:

#### 3.1 Mandatory prerequisites

- Kubernetes 1.12+
- Helm 3.0
- Docker
  - To store Designer and DAS docker images to the local docker registry.
- Ingress Controller
  - If Designer and DAS are accessed from outside of a K8s cluster, it is recommended to deploy/ configure an ingress controller (for example, NGINX), if not already available. Also, the Blue-Green deployment strategy works based on the ingress rules.
  - The Designer UI requires Session Stickiness. Configure session stickiness in the annotations parameter in the **values.yaml** file during Designer installation.

- Persistent Volumes (PVs)
  - Create persistent volumes for workspace storage (5 GB minimum) and logs (5 GB minimum)
  - Set the access mode for these volumes to ReadWriteMany.
  - The Designer manifest package includes a sample YAML file to create Persistent Volumes required for Designer and DAS.
  - Persistent volumes must be shared across multiple K8s nodes. Genesys recommends using NFS to create Persistent Volumes.
- · Shared file System NFS
  - For production, deploy the NFS server as highly available (HA) to avoid single points of failure. It is also recommended that the NFS storage be deployed as a Disaster Recovery (DR) topology to achieve continuous availability if one region fails.
  - By Default, Designer and DAS containers run as a Genesys user (uid:gid 500:500). For this reason, the shared volume must have permissions that will allow write access to uid:gid 500:500. The optimal method is to change the NFS server host path to the Genesys user: chown -R genesys:genesys.
  - The Designer manifest package includes a sample YAML file to create an NFS server. Use this only for a demo/lab setup purpose.
  - Azure Files Storage If you opt for Cloud storage, then Azure Files Storage is an option to consider and has the following requirements:

A Zone-Redundant Storage for RWX volumes replicated data in zone redundant (check this), shared across multiple pods.

• Provisioned capacity: 1 TiB

Baseline IO/s: 1424Burst IO/s: 4000

Egress Rate: 121.4 MiBytes/sIngress Rate: 81.0 MiBytes/s

- Genesys Web Services (GWS) 9.x
  - Configure GWS to work with a compatible version of Configuration Server.
- Other Genesys Components
  - ORS ORS 8.1.400.x
  - Nexus 9.x
  - URS 8.1.400.x

#### 3.2 Optional prerequisites

- Elasticsearch 7.8.0
  - Elasticsearch is used for Designer Analytics and audit trail.
- Redis 3.2.x
  - Redis is used for resource index caching and multi-user collaboration locks on Designer resources.

# 4. Deployment configuration settings (Helm values)

This section provides information on the various settings that have to be configured in Designer and DAS. The configuration settings listed below will be used during the deployment of Designer and DAS. That is, these settings will be used during initial deployment / upgrade. These settings can be configured in the **values.yaml** Helm file.

#### 4.1 Designer deployment settings

The following table provides information on the Designer deployment settings. These settings are configured in the **designer-values.yaml** file.

Parameter	Description	Mandatory?	Default Value
designer.deployment.re	Number of service plical ount instances to be created.	Mandatory	2
designer.deployment.ma	The maximum number of replicas to be created. It is recommended to configure this setting if auto-scaling is used.	Optional	10
designer.deployment.st	The deployment strategy to follow. This determines which type of resources are deployed. Valid values are: rollingupdate, blue-green, blue-green-volume, blue-green-ingress, grafana.  • rollingupdate - default Kubernetes update strategy where resources will	Mandatory	rollingupdate

	time.  • blue-green-ingress - for the blue/green upgrade, this is to create an ingress for the first time and update the ingress during a service cutover.  • grafana - for deploying the Grafana dashboard.		
designer.deployment.co	This is to deploy/ upgrade the Designer service in a blue-green upgrade strategy. Valid values are: blue, green.	Optional	
designer.deployment.ty	This is to specify the type of deployment.  PValid value: Deployment.	Optional	Deployment
designer.image.regist	The registry that the ryorganization uses for storing images.	Mandatory	
designer.image.reposit	Docker repository that coogntains the images for Designer.	Mandatory	
designer.image.tag	Designer image version.	Mandatory	9.0.110.07.7
designer.image.PullPol	the image only if it does not already exist on the node.  • Never - never pull the image.	Mandatory	IfNotPresent
designer.image.imagePu	Secret name containing Teredentials for authenticating access to the Docker repository.	Mandatory	
designer.volumes.works	If a persistent volume is paced voice at the to be created, this value	Mandatory	true

	has to be true.		
designer.volumes.works	The path where the workspace yolume is to be mounted inside the Designer container.	Mandatory	/designer/workspace (Changing this value is not recommended.)
designer.volumes.works	Persistent volume claim paaueRevfo.rctheim workspace.	Mandatory	designer-managed- disk
designer.volumes.works	Size of the persistent volume claim for the workspace. spacePvc.claimSize The persistent volume must be equal to or greater than this size.	Mandatory	
designer.volumes.works	storageClassName provided in the persistent volume that pacePyCestorageClass is created for the Designer workspace (example, <b>nfs</b> ).	Mandatory	
designer.volumes.logsF	If a PVC volume is to be Pvcreated; this value has to be true, else false.	Mandatory	true
designer.volumes.logsF	The path where the Designer logs volume is to be mounted inside the Designer container.	Mandatory	/designer/logs
designer.volumes.logsF	Persistent volume claim vc. claim name for logs.	Mandatory	designer-logs
designer.volumes.logsF	Size of the persistent volume claim for the Designer logs.  Pvc.claimSize The persistent volume must be equal to or greater than this size.	Mandatory	
designer.volumes.logsF	storageClassName provided in the persistent volume that is created for the Designer logs (example, <b>nfs</b> ).	Mandatory	
designer.podVolumes	Log and workspace persistent volume claim names and name of the volumes attached to the pod.	Mandatory	<pre>designer:    podVolumes:         - name: designer- pv-volume  persistentVolumeClaim:</pre>

			- name: designer- log-volume persistentVolumeClaim: claimName: designer-logs
designer.volumeMounts	Name and mount path of the volumes to be attached to the Designer pods.	Mandatory	<pre>volumeMounts:     - name: designer- pv-volume</pre>
designer.livenessProbe	Designer liveness probe API path.	Mandatory	/health
designer.livenessProbe	Port running the container.	Mandatory	8888
designer.livenessProbe	The liveness probe will state of the liveness probe will ended the state of the liveness of th	Mandatory	20
designer.livenessProbe	The interval between e.கோடும் <b>kivebe</b> s அரே obe request.	Mandatory	5
designer.livenessProbe	Number of liveness probe failures after whaidhy the Container as unstable or restart.	Mandatory	5
designer.readinessProb	Designer readiness probe API path.	Mandatory	/health
designer.readinessProb	Port running the container Port container.	Mandatory	8888
designer.readinessProb	The readiness probe will be stanteplettery a given delay as specified here.	Mandatory	20
designer.readinessProb	The interval between nearthe ckaidinessaphrobe request.	Mandatory	5
designer.readinessProb	Number of readiness probe failures after pew/hachl, troe@auk/the container as unstable or restart.	Mandatory	5
designer.designerSecre	This enables providing the GWS Client ID and Secret as an input to the Designer pods.	Mandatory	true

Kuhe			
used	ernetes Secrets is d to store the GWS at credentials.		
Clier new does designer.designerSecret infor a ne prov	of Client ID and GWS on the Secret. Create a GWS Client if it so not exist. A link to enation on creating ow GWS Client is wided in the Platform ings section.	Mandatory	
Set t designer.service.enablesdervi crea		Optional	true
designer.service.type Value	rice type. Valid es are: ClusterIP, ePort, dBalancer.	Mandatory	NodePort
designer.service.port port	Designer service to be exposed in cluster.	Mandatory	8888
designer.service.targetapopt	Designer tcation port running le the container.	Mandatory	http
designer.service.nodePorase	to be exposed in e service type is ePort.	Mandatory for designer.service.type=	30180 Nouerort.
designer.service.termination	period after which ernetes starts to on diace period te the pods after ice termination.	Optional	30 seconds.
ingred designer.ingress.enabledgres		Mandatory	true
ingre requ Stick coun designer.ingress.annotation Stick ingre Conf ingre Stick	otations added for ess. The Designer Uluires Session kiness if the replicant is more than 1. figure Session kiness based on the ess controller type. figuration specific to ess such as Session kiness can be rided here.	Optional	
designer.ingress.paths Ingre	ess path	Mandatory	[/]
	names to be igured in ingress for	Mandatory	example.com

	the Designer service.		blue.example.com green.example.com
	TLS configuration for		
designer.ingress.tls	ingress.	Optional	[]
designer.resources.lim	Maximum amount of i近BU如at K8s allocates for the container.	Mandatory	600m
designer.resources.lim	Maximum amount of memory that K8s allocates for the container.	Mandatory	1Gi
designer.resources.req	Guaranteed CPU  प्रसिक्तंड्यतंक्का for the container.	Mandatory	500m
designer.resources.req	Guaranteed memory பணிவ்கூர்ள்ளைச்சுர் container.	Mandatory	512Mi
designer.securityConte	This setting controls which user ID the containers are run with. This can be configured to run Designer as a non-root user. You can either use the <b>Genesys</b> user or arbitrary UIDs. Both are supported by the Designer base image. 500 is the ID of the Genesys user.  The file system must reside within the Genesys user account in order to run Designer as a Genesys user. Change the NFS server host path to the Genesys user: chown -R genesys:genesys.	Optional	
designer.securityConte	Controls which primary group ID the containers are run with. This can be configured to run Designer as a non-root extserunascure use the <b>Genesys</b> userGroup (GID - 500) or arbitrary GIDs. Both are supported by the Designer base image.	Optional	
designer.nodeSelector	To allow pods to be scheduled based on the labels assigned to the nodes.	Optional	Default value: nodeSelector: {} Sample value:

			nodeSelector:
designer.affinity	The K8s standard node affinity and anti-affinity configurations can be added here. Refer to the this topic in the Kubernetes documentation site for sample values.	Optional	{}
designer.tolerations	Tolerations work with taints to ensure that pods are not scheduled on to inappropriate nodes. Refer to the Taints and Tolerations topic in the Kubernetes documentation site for sample values.	Optional	[]
designer.podDisruption	Set to true if a pod n <b>Bdidgeptienddoldeg</b> let is to be created.	Optional	false
designer.podDisruption	The number of pods that should always be Budget minAvailable available during a disruption.	Optional	1
designer.dnsPolicy	The DNS policy that should be applied to the Designer pods.	Optional	
designer.dnsConfig	The DNS configuration that should be applied to the Designer pods.	Optional	
designer.priorityClass	The priority class name sName the pods should belong to.	Optional	
designer.hpa.enabled	Enables K8s Horizontal Pod Autoscaler (HPA). It automatically scales the number of pods based on average CPU utilization and average memory utilization. For more information on HPA refer to this topic in the Kubernetes documentation site.	Optional	false
designer.hpa.targetCPU	The K8s HPA controller will scale up or scale JP&oventods based on the target CPU utilization percentage specified	Optional	70

	here. It scales up or scales down pods between the range - designer.deployment.re	eplicaCount	
	designer.deployment.ma	xreplicaCount.	
designer.hpa.targetMem	The K8s HPA controller will scale up or scale down pods based on the target memory utilization percentage coppedified there. It scales up or scales down pods between the range designer.deployment.reand		70
designer.labels	Labels that will be added to the Designer pods.	Optional	{}
designer.annotations	Annotations added to the Designer pods.	Optional	{}
designer.prometheus.en	Set to true if altrometrics must be enabled.	Optional	false
designer.prometheus.ta	Label key assigned to gothempods/service to filter out.	Optional	service
designer.prometheus.ta	Label value assigned to gWælpeds/service to filter out.	Optional	designer
designer.prometheus.in	stance	Optional	{{instance}}
designer.prometheus.se	Set to true if a service monitor resource is needed to monitor the pods through the Kubernetes service.	Optional	false
designer.prometheus.se	The path in which the rylceron to reach the metrics are exposed.	Optional	/metrics
designer.prometheus.se	The scrape interval specified for the Prometheus server. That risited a mixed matal which the Prometheus server will fetch metrics from the service.	Optional	10s
designer.prometheus.se	Labels to be specified rfordelloseitoire habeitor resource.	Optional	
designer.prometheus.al	eStatistoetrue if	Optional	false

	Prometheus alerts must to be created.		
designer.prometheus.a	Any custom alerts that Leartescreattedmanust the specified here.	Optional	
designer.prometheus.a	Labels to be specified lerts labels resource.	Optional	
designer.prometheus.a	Scenarios for which Learlests need to be created.	Optional	designer.prometheus.ale  containerRestartAlert:     interval: 3m     threshold: 5  AlertPriority: CRITICAL  MemoryUtilization:     interval: 1m     threshold: 70  AlertPriority: CRITICAL  endpointAvailable:     interval: 1m  AlertPriority: CRITICAL      CPUUtilization:     interval: 1m     threshold: 70  AlertPriority: CRITICAL  containerReadyAlert:     interval: 1m     readycount: 1  AlertPriority: CRITICAL  WorkspaceUtilization:     interval: 3m     threshold: 80  workspaceClaim: designer-managed-disk  AlertPriority: CRITICAL  AbsentAlert:     interval: 1m  AlertPriority: CRITICAL  AbsentAlert:     interval: 1m  AlertPriority: CRITICAL  AbsentAlert:     interval: 1m

			AlertPriority: CRITICAL  WorkspaceHealth:     interval: 3m  AlertPriority: CRITICAL     ESHealth:     interval: 3m  AlertPriority: CRITICAL     GWSHealth:     interval: 3m  AlertPriority: CRITICAL     GWSHealth:     interval: 3m
designer.grafana.enab	Set to true if the Ledrafana dashboard is to be created.	Optional	true
designer.grafana.label	Labels that have to be Ladded to the Grafana ConfigMap.	Optional	
designer.grafana.annot	Annotations that have tabibesadded to the Grafana ConfigMap.	Optional	
annotations	Enables Kubernetes Annotations and adds it to all the resources that have been created.  For more information, refer to the Annotations topic in the Kubernetes documentation site.	Optional	{}
labels	Any custom labels can be configured here. It is a key and value pair, for example, key:"value". These labels are added to all resources.	Optional	{}
podLabels	Labels that will be added to all application pods.	Optional	{}
podAnnotations	Annotations that will be added to all application pods.	Optional	{}

## 4.1.1 Designer ConfigMap settings

The following table provides information on the environment variables and service-level settings stored in the Designer ConfigMap.

Parameter	Description	Mandatory?	Default Value
designer.designerConfi	This enables providing environment variables as an input to the Designer pods. It uses a ConfigMap to store the environment variables.	Mandatory	true
designer.designerConfi	Designer port for container ("port" in logical in logi	Mandatory	"8888"
designer.designerConfi	DAS hostname Lg("applicationHost"=R_H0 flowsettings.json).	O <b>9</b> /Tandatory	das
designer.designerConfi	DAS port ("applicationPort" in LoflewsetUntos_ARDASERVER_Poinput should be a string, within double quotes.	D <b>M</b> Tandatory	"80"
designer.designerConfi	This is normally not changed. It is the relative path to the workspace on DAS. The Lodenaut DEGLEPLOY_URL "/workspaces" should be used always ("deployURL" in flowsettings.json).	Mandatory	"/workspaces"
designer.designerConfi	Set to "true" so Designer works with GWS. If set to "false", Designer defaults to a local mode and may be gussed to DESOTASTEY HIT GWS is unavailable ("usehtcc" in flowsettings.json). Input should be "true" or "false".	Mandatory	"false"
designer.designerConfi	GWS server host ("htccserver" in flowsettings.json). For gexemvsleES_HTCC_SERVER "gws.genhtcc.com". The input should be a string, within double quotes.	Mandatory	п п
designer.designerConfi	GWS server port  ("htccport" in flowsettings ison). For example, "80". The input should be a string, within double quotes.	Mandatory	п п

designer.designerConfi	To enable or disable Designer Analytics ("enableAnalytics", in a light of the control of the con	YTOIp0Sonal	"false"
designer.designerConfi	Elasticsearch URL ("esUrl" in flowsettings.json). For igexanvapl@EShttp://west- service:9200". The input should be a string, within double quotes.	Optional	п п
designer.designerConfi	Elasticsearch Server Host Name ("esServer" in flowsettings.json). For igexamvapleE"esSERVER service"). The input should be a string, within double quotes.	Optional	п п
designer.designerConfi	Elasticsearch port ("esPort" in flowsettings ison) For example, "9200". The input should be a string, within double quotes.	Optional	н н
designer.designerConfi	Enable file logging. If not enabled, Designer igwithouseateSoutly weithouse INC logs. Input should be "true" or "false".	G_ <b>MEAIABAEO</b> Ty	"false"
designer.designerFlowS	Set to true to include the contents of the flowsettings yaml file in a separate ConfigMap. Input should be true or false.	Optional	false
designer.designerFlowS	The flowsettings.yaml file should contain these keys, so that the file's contents will be included in the sectioning Mapn Refer to the Updating the flowsettings file section in the Deploy Designer topic for more information on this.	Optional	{}

# 4.2 DAS deployment settings

The following table provides information on the DAS deployment settings. These settings are configured in the **das-values.yaml** file. DAS Deployment Settings

Parameter	Description	Mandatory?	Default Value
das.deployment.replica	Number of pods to be count created.	Mandatory	2
das.deployment.maxrepl	The maximum number of replicas to be created. It is recommended to configure this setting if auto-scaling is used.	Optional	10
	The deployment strategy to follow. This determines which type of resources are deployed. Valid values are: rollingupdate, blue-green, blue-green-ingress, blue-green-service, canary.  • rollingupdate -		rollingupdate
	default Kubernetes update strategy where resources will be updated using the rolling update strategy.	Mandatory	
das.deployment.strateg	blue-green - for deploying and upgrading the DAS service using the blue-green strategy.		
	<ul> <li>blue-green-ingress         <ul> <li>for the blue-green</li> <li>upgrade, this is to</li> <li>create an ingress for</li> <li>the first time.</li> </ul> </li> </ul>		
	blue-green-service     for the blue-green     upgrade, this is to     create a service for     the first time, and     update the service     during a service     cutover.		
	<ul> <li>canary - to deploy canary pods along with the blue-green pods.</li> </ul>		
das.deployment.color	This is to deploy/ upgrade the DAS service using the blue-	Mandatory for blue- green and blue-green- service strategies.	

	green upgrade strategy. Valid values are: blue,		
	green.  Type of Kubernetes		
das.deployment.type	controller. Valid value is: Deployment  • Deployment - if the Designer workspace is stored in the local filesystem (same network where Designer is running) and mounted as NFS.	Optional	StatefulSet
das.image.repository	Docker repository that contains the images for DAS.	Mandatory	
das.image.tag	DAS image version.	Mandatory	
das.image.pullPolicy	DAS image pull policy (imagePullPolicy). Valid values are: Always, IfNotPresent, Never.  • Always - always pull the image.  • IfNotPresent - pull the image only if it does not already exist on the node.  • Never - never pull the image.	Optional	IfNotPresent
das.image.imagePullSec	Secret name containing the credentials for rets authenticating access to the Docker repository.	Mandatory	
das.podVolumes	Provides the name of the volume and name of the persistent volume claim to be attached to the pods	Mandatory	<pre>das: podVolumes: - name: workspace  persistentVolumeClaim:    claimName: designer- managed-disk</pre>
das.volumes.podPvc.cre	This volume is usually created to mount a local	Optional	false

	disk to a DAS container for syncing data in case cloud storage is used for storing Designer files. This value has to be true or false depending on whether the local disk is needed or not		
das.volumes.podPvc.mou	The path where the workspace volume is to in the mounted inside the DAS container.	Optional	
das.volumes.podPvc.cla	Persistent volume claim name for the volume.	Optional	local-workspace
das.volumes.podPvc.cla	Size of the persistent volume claim for the pod. aimSize The persistent volume must be equal to or greater than this size.	Optional	
das.volumes.podPvc.stc	storageClassName provided in the ருஷ்குவிக்கை volume that is created for DAS (example, <b>nfs</b> ).	Optional	
das.volumes.podPvc.acc	The read/write priveleges and mount priveleges of the volume claim with respect to the nodes. Valid types are: ReadWriteOnce, ReadOnlyMany, ReadWriteMany.  • ReadWriteOnce - the volume can be mounted as read-ressivite by a single node.  • ReadOnlyMany - the volume can be mounted as read-only by many nodes.  • ReadWriteMany - the volume can be mounted as read-only by many nodes.	Optional	ReadWriteOnce
	For more information, refer to		

	the access modes topic in the Kubernetes documentation site.		
das.volumeMounts	The name of the volume and the mount path to be used by the pods.	Mandatory	volumeMounts: - mountPath: /das/ www/workspaces name: workspace - mountPath: /das/log name: logs
das.dasSecrets.enabled	Set to true if Kubernetes secrets must be created to store keys/credentials/tokens.	Optional	false
das.dasSecrets.secrets	Key and value pairs containing the secrets, such as a username and password.	Optional	
das.livenessProbe.path	DAS liveness probe API path.	Mandatory	/health
das.livenessProbe.cont	Port running the ainer for t container.	Mandatory	8081
das.livenessProbe.star	The liveness probe will thழைச்பெருப் after a given delay as specified here.	Mandatory	10
das.livenessProbe.chec	The interval between kande live bess probe request.	Mandatory	5
das.livenessProbe.fail	container as unstable or restart.	Mandatory	3
das.readinessProbe.pat	hDAS readiness probe API path.	Mandatory	/health
das.readinessProbe.com	Port running the tainerPort container.	Mandatory	8081
das.readinessProbe.sta	The readiness probe will arte probe will arte properties of the state	Mandatory	10
das.readinessProbe.che	The interval between eddachteeadiness probe request.	Mandatory	5
das.readinessProbe.fai	Number of readiness probe failures after lwheto wotmark the container as unstable or restart.	Mandatory	3
das.service.enabled	Set to true if the	Optional	true

	service must be created.		
das.service.type	Service type. Valid values are: ClusterIP, NodePort, LoadBalancer.	Mandatory	NodePort
das.service.port	The DAS service port to be exposed in the cluster.	Mandatory	80
das.service.targetPort	The DAS application port running inside the container.	Mandatory	http
das.service.nodePort	Port to be exposed in case service type is NodePort.	Mandatory if das.service.type is NodePort.	30280
das.service.terminatio	The period after which Kubernetes starts to of ace the pods in case of deletion.	Optional	30 seconds.
das.ingress.enabled	Set to true to enable ingress.  Ingress should be enabled for all cases except for a lab/ demo setup.	Optional	false
das.ingress.annotation	Annotations added for the ingress resources.	Optional	
das.ingress.paths	Ingress path.	Optional	[/]
das.ingress.hosts	Hostnames to be configured in ingress for the DAS service.	Mandatory if ingress is enabled.	
das.ingress.tls	TLS configuration for ingress.	Optional	[]
das.resources.limits.c	Maximum amount of pupply that K8s allocates for the container.	Mandatory	600m
das.resources.limits.m	Maximum amount of memory that K8s allocates for the container.	Mandatory	1Gi
das.resources.requests	Guaranteed CPU adpocation for the container.	Mandatory	400m
das.resources.requests	Guaranteed memory and the container.	Mandatory	512Mi
das.securityContext.ru	This setting controls which user ID the containers are run with and can be configured	Optional	

	to run DAS as a non-root user. You can either use the <b>Genesys</b> user or arbitrary UIDs. Both are supported by the DAS base image. 500 is the ID of the Genesys user.  For more information refer to the Security Context topic in the Kubernetes documentation site.		
das.securityContext.ru	This setting controls which primary group ID the containers are run with and can be configured to run DAS as a non-root user. You can either use the <b>Genesys</b> userGroup (GID - 500) or arbitrary GIDs. Both are supported by the DAS base image.	Optional	
das.nodeSelector	To allow pods to be scheduled based on the labels assigned to the nodes.	Optional	Default value:  nodeSelector: {} Sample value:  nodeSelector: :
das.affinity	The K8s standard node affinity and anti-affinity configurations can be added here. Refer to the this topic in the Kubernetes documentation site for sample values.	Optional	0
das.tolerations	Tolerations work with taints to ensure that pods are not scheduled on to inappropriate nodes. Refer to the Taints and Tolerations topic in the Kubernetes documentation site for sample values.	Optional	[]
das.podDisruptionBudge	Set to true if a pod etdisnapflied budget is to be created.	Optional	false
das.podDisruptionBudge	The number of pods that should always be available during a disruption.	Optional	1

	The DNS policy that		
das.dnsPolicy	should be applied to the DAS pods.	Optional	
das.dnsConfig	The DNS configuration that should be applied to the DAS pods.	Optional	
das.priorityClassName	The priority class name that the pods should belong to.	Optional	
das.hpa.enabled	Set to true if a K8s Horizontal Pod Autoscaler (HPA) is to be created.	Optional	false
das.hpa.targetCPUPerce	The K8s HPA controller will scale up/down pods based on the target CPU utilization percentage specified. It scale up/down pods between the range deployment.replicaCour to deployment.maxReplicas		75
das.hpa.targetMemoryPe	The K8s HPA controller will scale up or scale down pods based on the target CPU utilization percentage specified riceret It scales up or scales down pods between the range - deployment.replicaCour and deployment.maxReplicas		70
das.labels	Labels that will be added to the DAS pods.	Optional	{}
das.annotations	Annotations added to the DAS pods.	Optional	{}
das.prometheus.enabled	Set to true if Prometheus metrics must be enabled.	Optional	false
das.prometheus.tagName	Label key assigned to the pods/service to filter out.	Optional	service
das.prometheus.tagValu	Label key assigned to the pods/service to filter out.	Optional	designer
das.prometheus.pod		Optional	{{pod}}
das.prometheus.instanc		Optional	{{instance}}
das.prometheus.service	Set to true if a service monitor	Optional	false

	resource is needed to monitor the pods through the Kubernetes service.		
das.prometheus.service	The path in which the metrics are exposed.	Optional	/metrics
das.prometheus.service	The scrape interval specified for the Prometheus server. That elemental at which the Prometheus server will fetch metrics from the service.	Optional	10s
das.prometheus.service	Labels to be specified Moomitherselavoed snonitor resource.	Optional	
das.prometheus.alerts.	Set to true if ePrometheus alerts must to be created.	Optional	false
das.prometheus.alerts.	Labels to be specified for the alerts resource.	Optional	
das.prometheus.alerts.	Any custom alerts that carsetons the specified here.	Optional	
das.prometheus.alerts.	Scenarios for which alerts need to be created.	Optional	das.prometheus.alerts.  containerRestartAlert:

```
AlertPriority:
CRITICAL
rsyncContainerReadyAlert:
        interval: 5m
        readycount: 1
AlertPriority:
CRITICAL
WorkspaceUtilization:
        interval: 3m
threshold: 70
workspaceClaim:
designer-managed-disk
AlertPriority:
CRITICAL
      AbsentAlert:
        interval: 1m
AlertPriority:
CRITICAL
LocalWorkspaceUtilization:
        interval: 3m threshold: 70
AlertPriority:
CRITICAL
      Health:
        interval: 3m
AlertPriority:
CRITICAL
WorkspaceHealth:
       interval: 3m
AlertPriority:
CRITICAL
      PHPHealth:
        interval: 3m
AlertPriority:
CRITICAL
      ProxyHealth:
        interval: 3m
AlertPriority:
CRITICAL
      PhpLatency:
        interval: 1m
        threshold: 10
AlertPriority:
CRITICAL
      HTTPLatency:
        interval: 1m
```

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			threshold: 60  AlertPriority: CRITICAL HTTP4XXCount: interval: 5m threshold:  100  AlertPriority: CRITICAL HTTP5XXCount: interval: 5m threshold:  100  AlertPriority: CRITICAL CRITICAL AlertPriority: CRITICAL
das.grafana.enabled	Set to true if the Grafana dashboard is to be created.	Optional	true
das.grafana.labels	Labels that must be added to the Grafana ConfigMap.	Optional	
das.grafana.annotations	Annotations that must be added to the Grafana ConfigMap.	Optional	
annotations	Enables Kubernetes Annotations and adds it to all the resources that have been created.  For more information, refer to the Annotations topic in the Kubernetes documentation site.	Optional	{}
labels	Any custom labels can be configured here. It is a key and value pair, for example, key:"value". These labels are added to all resources.	Optional	{}
podLabels	Labels that will be added to all application pods.	Optional	{}
podAnnotations	Annotations that will be added to all application pods.	Optional	{}

# 4.2.1 DAS ConfigMap settings

Parameter	Description	Mandatory?	Default Value
das.dasConfig.create	This setting enables	Mandatory	true

	providing environment variables as an input to the DAS pods. It uses a ConfigMap to store the environment variables.		
das.dasConfig.envs.DAS	Enables file logging.  DAS supports only std  out logging This should always be set to false.  Input should be "true"  or "false".	Mandatory	"false
das.dasConfig.envs.DAS	Enables log levels. Valid values are: "FATAL", "ERROR", "WARN", "INFO", "DEBUG", "TRACE".	Optional	"DEBUG"
das.dasConfig.envs.DAS	Enables standard output console logging Input -should be "true" of "false".	Mandatory	"true"
das.dasConfig.envs.DAS	To enable Designer Analytics. This configuration is required for DAS to initialize ES templates. Input should be "true" or "false".	H_CENTABILED	"false"
das.dasConfig.envs.DAS	Elasticsearch server host name with http:// prefix For example SEARCH http://es-service. The input should be a string, within double quotes.	H_ <b>ΦψΩS</b> σ̄nal	п п
das.dasConfig.envs.DAS	Elasticsearch port. For examples "80" sThesearch input should be a string, within double quotes.	Н_ <b>Фр</b> икomal	пп

# 5. Post deployment Designer configuration settings

Post deployment, Designer configuration is managed from the following 3 locations:

## 5.1 Flow settings

Flow Settings is used for controlling global Designer settings that are applicable to all tenants and it contains bootstrap configuration settings such as port, GWS info, and DAS URL.

Configuration path - /workspace/designer/flowsettings.json.

This will be configured using the helm install. Refer to the *Updating the flowsettings file* section under *9. Post deployment procedures* for more information on updating the **flowsettings.json** file.

#### 5.2 Tenant settings

These are tenant specific settings if the Designer service is configured with multi-tenancy.

Configuration path - workspace//config/tenantsettings.json.

The user should logout and log back in after any changes to the **tenantsettings.json** file. The Designer UI will continue to show the older features until the user logs out and logs back in.

Tenant specific settings are configured by directly editing the file in the above path.

#### 5.3 DesignerEnv transaction list

The **DesignerEnv** transaction list is available in Configuration Server (Tenant/Transactions/ DesignerEnv). This is mostly used to control the run-time settings. Any change to the **DesignerEnv** transaction list does not require the application to be published again or a new build for the application.

The user should log out and log back in for the changes to reflect in the Designer UI.

The **DesignerEnv** transaction list is configured using Agent Setup.

#### 5.4 Post deployment configuration settings reference table

Category: Anal	ytics					
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value	
enableAnalytic (optional)	<sup>CS</sup> Yes	Yes	No	This flag enables or disables the analytics feature.	Sample value: true Default value: false	
esUrl (optional)	Yes	Yes	No	Elasticsearch URL	Sample value: http://es- spot.usw1.genhtcc.com	m:80
esServer (optional)	Yes	Yes	No	Elasticsearch server host name (for example, es- service).	Sample value: es- spot.usw1.genhtc	C.COI
esPort (optional)	Yes	Yes	No	Elasticsearch port.	Sample value: 80	
ReportingURL (optional)	No	No	Yes Section: reporting	URL of Elasticsearch where Designer applications will report data.	Sample value: http://es- spot.usw1.genhtcc.com	m:80

esMaxQueryDura (optional)	tion Yes	Yes	No	The maximum time range (in days) to query in Designer Analytics. Each day's data is stored in a separate index in Elasticsearch.	Sample value: 90 Default value: 90
sdrMaxObjCount (optional)	Yes	Yes	No	The maximum count of nested type objects that will be captured in SDRs. When set to -1, which is the default value, no objects will be trimmed. All the <i>milestones</i> or <i>activities</i> visited in runtime are expected to be captured in an SDR.	Sample value: 20
SdrTraceLevel (optional)	Yes	Yes	No	<ul> <li>Value are:</li> <li>100 — Debug level and up. Currently, there are no Debug messages.</li> <li>200 — Standard level and up. This setting will show all blocks that are entered during a call in the blocks array.</li> <li>300 — Important level and up. This setting</li> </ul>	Sample value: 300 Default value: 300

				filters out all blocks from the blocks array, except those containing data that will change from call to call (such as the Menu block and User Input block).	
Category: Audi					
Setting Name	flowsettings.json	tenantsettings.js	onDesignerEnv	Description	Value
enableESAuditL (optional)	ogs Tes	Yes	No	Enable or disable audit logs captured in Elasticsearch.	Sample value: false Default value: false
enableFSAuditL (optional)	ogs Tës	Yes	No	Enable or Disable audit logs captured in the file system under the logs directory or in standard output.	Sample value: true Default value: true
maxAppSizeComp (optional)	are les	Yes	No	The maximum size of data object for which a difference will be captured in the audit logs, value in bytes. That is, the difference between the Designer object's old value and new value.	Sample value: 1000000 Default value: 1000000
enableReadAudi (optional)	tLogs Yes	Yes	No	Control whether reading of Designer objects is	Sample value: false Default value: false

				captured in audit trails. If enabled any Designer object viewed in the UI will be recorded in the audit logs.		
Category: Auth	orization					
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value	
disableRBAC (optional)	Yes	Yes	No	Controls if Designer reads and enforces permissions associated with the logged in user's roles.	Sample value: false Default value: false	
rbacSection (optional)	Yes	Yes	No	In a Role object, the name of the section within the Annex where the privileges are stored.	Sample value: CfgGenesysAdminist Default value: CfgGenesysAdminist	
disablePBAC (optional)	Yes	Yes	No	Controls if Designer allows partitioning of the Designer workspace and restricts a user's access to Designer objects in the user's partitions.	Sample value: false Default value: false	
Category: Colla	boration					
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value	
locking (optional)	Yes	No	No	The type of locking used, in an editing session for applications, modules, or data tables. Valid values are: file, redis, none.  • none - resources	Sample value: file Default value: file	

				locked and can be edited simultaneous by multiple users which can result in one user overwriting another user's changes.  • file - uses files to keep track of locks and relies on shared storage (for example, NFS) to make lock files available to each Designer pod. Lock files are stored in the same location as the user's Designer workspace.  • redis - uses Redis for	ly
Category: DAS					
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value
applicationHos (mandatory)	<sup>t</sup> Yes	No	No	The server name Designer uses to generate the URL to the application. ORS and MCP fetch the	Sample value: das.uswl.genhtcc.com Default value: localhost

				application code and other resources from this URL.		
applicationPor	t Yes	No	No	The corresponding port to be used with applicationHost.	Sample value: 80 Default value: 80	
deployURL	Yes	No	No	This is normally not changed. It is the relative path to the workspace on DAS.	Sample value: /workspace Default value: /workspace	
Category: Digit	al					
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value	
rootsSRL (optional)	Yes	Yes	No	If specified, this is used to filter which Root Categories to display when selecting Standard Responses.	Sample value: Any REGular EXpression (REGEX).	
maxFlowEntryCo (optional)	unt Yes	No	Yes Section: flowsettings	Specify how many times the same application can process a specific digital interaction.	Sample value: 20 Default value: 20	
Category: Exte	rnal APIs					
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value	
httpProxy (optional)	Yes	Yes	Yes Secion: flowsettings	Specify the proxy used for external requests and nexus API calls (if enable_proxy is true).	Sample value: [http://vpcproxy-000-int	geo.genp
redundantHttpP (optional)	rožy	Yes	Yes Section: flowsettings	Specify the backup proxy used for external requests and nexus API calls (if enable_proxy	Sample value: [http://vpcproxy-001-int	geo.genpi

				is true), when httpProxy is down.	
Category: Feat	ures				
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value
features	Yes	Yes	No	This is an object. See the <b>5.5 Features</b> section for a list of supported features.	Default value: {     nexus:     true,     enableBulkAudioIntrue }
Category: GWS					
Setting Name	flowsettings.json	tenantsettings.js	onDesignerEnv	Description	Value
usehtcc	Yes	No	No	Set to true so that Designer works with GWS. If set to false, Designer defaults to a local mode and may be used temporarily if GWS is unavailable.	Sample value: true Default value: false
htccServer	Yes	No	No	GWS Server	Sample value: gws- usw1-int.genhtcc.com Default value: gws- usw1-int.genhtcc.com
htccport	Yes	No	No	GWS port.	Sample value: 80 Default value: 80
ssoLoginUrl	Yes	No	No	URL of GWS authentication UI. Designer redirects to this URL for authentication.	Sample value: https://gws- usw1.genhtcc.com Default value: https://gws- usw1.genhtcc.com
maxConcurrentH (optional)	TÇCRequest Yes	No	No	For batch operations to GWS, the max number of concurrent requests that Designer will send to GWS.	Sample value: 5 Default value: 5

batchOperation (optional)	ResultTTL Yes	No	No	For batch operations to GWS, the time, in milliseconds, for which duration Designer stores the results of a batch operation on the server, before deleting them.	Sample value: 100000 Default value: 100000		
Category: Help	)						
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value		
docsMicroservi (optional)	ceurl Yes	No	No	URL for Designer documentation.	Default value: https://docs.genesys.cor Documentation/ PSAAS/Public/ Administrator/ Designer		
Category: IVR							
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value		
recordingType (optional)	Yes	Yes	No	Specify the recording type to be used in Record block. Set as GIR. If the option is missing or blank, Full Call Recording type will be used.	Sample value: GIR Default value: GIR		
Category: Logg	jing						
Setting Name	flowsettings.json	tenantsettings.js	onDesignerEnv	Description	Value		
<pre>logging: { designer: { level: debug }, audit: { level: trace}, auditdebug: { level: debug }, cli: { level: debug } }</pre>	Yes	No	No	Specify Designer log levels. Each field has valid values: trace, debug, info, warn, error, or fatal.  • designer - log level of Designer.  • audit - log level of	Sample value:  logging: {   designer: {   level:    debug},   audit: {   level: trace   },   auditdebug:   { level:    debug},    cli: {   level: debug   }		

				audit.	}
(optional)				<ul> <li>auditdebug         <ul> <li>log level</li> <li>of audit</li> <li>debug, this</li> <li>will log</li> <li>detailed</li> <li>audit</li> <li>information.</li> </ul> </li> <li>cli - log         <ul> <li>level for cli</li> <li>commands</li> <li>executed</li> <li>on</li> <li>Designer.</li> </ul> </li> </ul>	<pre>Default value: logging: {   designer: {   level: debug   },   audit: {   level: trace   },   auditdebug:   { level:    debug },   cli: {   level: debug   } }</pre>
Category: Next	us				
Setting Name	flowsettings.json	tenantsettings.js	onDesignerEnv	Description	Value
url (optional)	No	No	Yes Section: nexus	URL of Nexus that typically includes the API version path. For example, https://nexus-server/nexus/api/v3.	Default value: http://nex- dev.usw1.genhtcc.com
password (optional)	No	No	Yes Section: nexus	The Nexus x- api-key created by Nexus deployment.	Default value: dc4qeiro13nsof569dfn234s
enable_proxy (optional)	No	No	Yes Section: nexus	Boolean value to indicate if httpProxy is used to reach Nexus. Default value: false	
profile (optional)	No	No	Yes Section: nexus	Enable Contact Identification via Nexus (for example, to enable Last Called Agent routing).	
Category: Proc	ess				
Setting Name	flowsettings.json	tenantsettings.js	ољesignerEnv	Description	Value

port  Category: Prov	Yes	No	No	Designer process port in the container. Normally, the default value should be left as is.	Sample value: 8888 Defualt value: 3000
Setting Name	_	tenantsettings.js	o/DocignorEnv	Description	Value
primarySwitch (optional)	Yes	Yes	No	Specify the primary switch name if more than one switch is defined for the tenant. Designer fetches and works with route points from this switch.	Default value: us-west-1
Category: Rout					
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value
ewtRefreshTime (optional)	°Wō	No	Yes Section: flowsettings	Specify the interval (in seconds) at which to refresh the Estimated Waiting Time when routing an interaction.	Sample value: 5 Default value: 1
Category: Redi	s				
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value
<pre>redis: { host: "", port: "", tlsEnabled: true, lockTimeout: 120, listTimeout: 1800 }</pre>	Yes	No	No	Used by Designer for resource index caching and multi-user collaboration locks on Designer resources.  It is a separate object that contains:  host - Redis	<pre>redis: { host: "", port: "", tlsEnabled: true, lockTimeout: 120, listTimeout: 1800 }</pre>
(optional)				host name. • port - Redis	redis: { host:

port.

#### tlsEnabled

- TLS enabled or not.

#### lockTimeout

- Timeout, in seconds, before a resource lock is released for an editing session of applications, modules, or data tables.

#### listTimeout

- The cache expiry timeout (in seconds) of the application list and shared modules list. By default, it is 30 minutes. That is, any new application/ modules created in the UI will be seen in the listing page after 30 mins. It

can be reduced to a smaller value. This is to improve the page loading performance of the **Applications** and Shared Modules

redis.server.genhtcc.com, port: 6379, tlsEnabled: true, lockTimeout: 120, listTimeout: 1800

Category: Secu	with			page. A better performance is achieved with a higher value.	
				<b>6</b>	\
Setting Name zipFileSizeLim (optional)		tenantsettings.js Yes	omesignerenv No	Description  Defines the maximum zipFile size limit (in megabytes) during bulk audio import.	Value Sample value: 50
disableCSRF (optional)	Yes	Yes	No	Disable CSRF attack protection. For more information, refer to this topic in the CWE site.  By default, CSRF attack protection is enabled. It can be disabled by setting this flag to true.	Sample value: false Default value: false
disableSecureC (optional)	ookie Yes	No	No	Disables the secure cookies header.	Sample value: false Default value: false
Category: Sess	ion				
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value
idleTimeout (optional)	Yes	Yes	No	Idle timeout, in seconds, before a user session is terminated while editing applications, modules, or data tables.	Sample value: 840 Default value: 840
lockTimeout (optional)	Yes	Yes	No	Timeout, in seconds, before a resource lock is released, for an editing	Sample value: 120 Default value: 120

				session of applications, modules, or data tables.	
lockKeepalive (optional)	Yes	Yes	No	Interval, in seconds, before the client sends a ping to the server, to refresh the lock for an editing session of applications, modules, or data tables.	Sample value: 15 Default value: 15
Category: Worl	kflow				
Setting Name	flowsettings.json	tenantsettings.js	on Designer Env	Description	Value
maxBuilds (optional)	Yes	Yes	No	Specify the maximum number of builds allowed per application.	Sample value: 20 Default value: 20
enablePTE (optional)	No	No	Yes Section: flowsettings	Boolean value to indicate if PTE objects are enabled at runtime.	Sample value: true Default value: false

### 5.5 Features

The features specified in this section are configured under the features object in the **flowsettings.json** file or the **tenantsettings.json** file.

For example,

# **Important**

These features are configured only in the **flowsettings.json** file and the **tenantsettings.json** file, and not in the **DesignerEnv** transaction list.

Category Se	eature etting Ma ame	andatory	flowsettings.js	otenantsettings	.j <b>Bæs</b> cription	Default Value
-------------	----------------------------	----------	-----------------	-----------------	------------------------	------------------

	enableBulkAud�����impræntt	Yes	Yes	Enable/ disable the bulk audio import feature.	false
	grammarValida©iptional	Yes	yes	If this feature is enabled, Designer will validate invalid grammar files during grammar upload and you can upload only valid grammar files (GRXML or Nuance compiled binary grammar files).	false
Audio	externalAudio <b>Suptipoonat</b>	Yes	Yes	If this feature is enabled, a new audio type, External Audio, is available in the Play Message block. It accepts a single variable that contains a URL to the audio resource. MCP will fetch this resource directly and play it. The only supported value of Play As is Audio URI. There is no automatic language	false

					switching for this audio type.	
Nexus	nexus	Optional	Yes	Yes	Enable/ disable the Nexus feature.	false
Survey	survey	Optional	Yes	Yes	Enable/ disable the survey feature.	true
UI Plugins	plugins	Optional	Yes	Yes	Plugin configuration details. (Steps are given below the table.)	{}
	plugins	Optional	Yes	Yes	Enable or disable the plugin feature.	false
Milestone	enableImplio	ci <b>CNpt</b> ribunlælMiles	t <b>ĭves</b> es	Yes	Enable reporting each Shared Module call as an internal milestone. If disabled, Shared Module calls will not generate a milestone.	false
Bots	enableDialog	gF <b>O</b> pptiCXBadt	Yes	Yes	When enabled, Dialogflow CX bot type is added to the bot registry and available for selection in the <b>Bot provider</b> drop-down when you configure a new bot.	false

## 5.6 Adding a UI plugin to Designer

Add the plugins array object in the **flowsettings.json** file (/ofs/designer/flowsettings.json).
 The plugins object contains all the input properties for the plugin app. This is a required property. Whenever there is a change in this object, refresh the browser for the changes to take effect. Example:

 Add the csplist array object in the **flowsettings.json** file (/ofs/designer/flowsettings.json).
 The csplist object contains the URL forms to be allowed by Designer's security policy. This is a required property. Whenever there is a change in this object, re-start the node container for the changes to take effect.

Example:

```
If the URL is http://genesysexample.com/, the cspList would be:
"cspList": ["*.genexample1.com:*", "*.genexample2.com:*", "*.genexample3.com:*"]
```

3. Turn on the plugins and nexus feature flags in the Designer **tenantSettings.json** file (/ofs//config/tenantSettings.json).

This is a required property. Whenever there is a change in this object, log out of Designer and log in again for the changes to take effect.

# **Important**

If you want to enable the plugins feature for all tenants, add this feature flag in the **flowsettings.json** file. The feature is enabled for all the tenants under that bucket.

#### Example:

```
{
    "features": {
        "plugins": true,
        "nexus": true
}}
```

4. Add the url\_ property under the plugins section, in Agent Setup. If there is no plugins section, create one. This section is for the tenant URL override. If the DesignerEnv setting (*Transactions/Internal/DesignerEnv*) is not provided, the plugin URL from the **flowsettings.json** file is considered. This is an optional property. Whenever there is a change in this object, log out of Designer and log in

```
again for the changes to take effect.
Example:
{"url_" : "https://plugin-genesysexample.com"}
```

# 6. Logging

Designer and DAS support console output (stdout) logging. Genesys recommends configuring console output logging to minimize the host IOPs and PVCs consumption by using log volumes. Console output logs can be extracted using log collectors like *fluentbit/fluentd* and *Elasticsearch*.

Ensure the below setttings are configured in the respective **values.yaml** overrides for console logging:

```
1. Designer
   designerEnv.envs.DES_FILE_LOGGING_ENABLED = false
```

2. DAS
 dasEnv.envs.DAS\_FILE\_LOGGING\_ENABLED = false
 dasEnv.envs.DAS\_STDOUT\_LOGGING\_ENABLE = true

## 6.1 Log levels

Post deployment, Designer and DAS log levels can be modified as follows:

#### 6.1.1 Designer

- 1. Configure the logging setting in the flowsettings override (**flowsettings.yaml**) Refer to the *5.4 Post deployment configuration settings reference table* section for option descriptions.
- 2. Execute the steps in the *Flowsettings.json update* section (see *Designer* under *8.8 Blue-Green deployment*) for the changes to take effect .

#### 6.1.2 DAS

- 1. Configure the dasEnv.envs.DAS\_LOG\_LEVEL setting in the Helm **das-values.yaml** file. Refer to section 4.2 DAS deployment settings for setting descriptions.
- 2. Execute the steps in the *Upgrade non production color* section (see *DAS* under *8.8 Blue-Green deployment*). The same DAS version running in production can be used for the upgrade,
- 3. Execute the steps in the Cutover section (see DAS under 8.8 Blue-Green deployment).

# 7. Platform / Configuration Server and GWS settings

This section explains the Configuration Server objects and settings required for Designer.

# 7.1 Create Roles for Designer

Designer uses roles and access groups to determine permissions associated with the logged-in user. To enable this, you must make these changes in GAX or CME.

Designer supports a number of bundled roles suitable for various levels of users.

- **Designer Developer** Most users fall into this category. These users can create Designer applications, upload audio, and create business controls. They have full access to Designer Analytics.
- **Designer Business User** These users cannot create objects but they can manage them (for example, upload audio, change data tables, and view analytics).
- Designer Analytics These users only have access to Designer Analytics.
- Designer Admin These users can set up and manage partitions associated with users and Designer objects.
- Designer Operations Users with this role have full access to all aspects of the Designer workspace.
   This includes the Operations menu (normally hidden), where they can perform advanced operational and maintenance tasks.

To create these roles, import the **.conf** files included in the **Designer Deployment** package. They are located in the **packages/roles/** folder.

In addition, ensure the following for user accounts that need access to Designer:

- The user must have read permissions on its own Person object.
- Users must be associated with one or more roles via access groups.
- The on-Premises user must have at least read access on the user, access group(s), and roles(s).
- The access groups must have read/write permissions to the Agent Setup folders Scripts and Transactions.

## 7.2 Create the DesignerEnv transaction list

Designer requires a transaction list for configuration purposes as described in other sections of this document. To set this up:

- 1. Create a transaction list called **DesignerEnv**.
- 2. Import the file **configuration/DesignerEnv.conf**, located in the Designer Deployment Manifest package.
- 3. Edit any values according to the descriptions provided in 5.4 Post deployment configuration settings reference table.
- 4. Save the list.
- 5. Ensure Designer users have at least read access to the **DesignerEnv** transaction list.

## 7.3 Platform settings

The platform settings listed below must be configured if the Designer application is used for voice calls.

Component	Config Key	Value	Description
SIP Switch -> Voip Services -> msml service	userdata-map-format	sip-headers-encoded	Option needs to set to pass JSON data as user data in SIPS.
SIP Switch -> Voip Services -> msml service	userdata-map-filter	*	To allow userdata passing to MSML service.
Service .	divert-on-ringing	false	RONA is handled by the platform.
	agent-no-answer- timeout	12	
	agent-no-answer-action	notready	
SIPServer> TServer	agent-no- answeroverflow	1111	No value, empty.
	after-routing-timeout	24	
	sip-treatments- continuous	true	
	msml-record-support	true	To allow routed calls recording via the Media Server.
Switch object annex> gts	ring-divert	1	
ORS> orchestration	new-session-on-reroute	false	Required for SIPS Default Routing (Default Routing handling (Voice)).
МСР	[vxmli] transfer.allowed	TRUE	Required for Transfer block (allows VXML Transfer in MCP).
МСР	[cpa] outbound.method	NATIVE	Required for Transfer block (allow CPA detection for Transfer ).
UCS	[cview] enabled	TRUE	Enables Customer Context Services.

# 7.4 GWS configuration

Ensure that the following steps are performed in GWS.

### 7.4.1 Create Contact Center

Create a contact center in GWS if it is not already created. Refer to the GWS documentation for more information on this.

#### 7.4.2 Create GWS Client

Create new GWS client credentials if they are not already created . Refer to the GWS documentation for more information on this.

# 8. Deployment

This section describes the deployment process for Designer and DAS.

### 8.1 Preparation

Before you deploy Designer and DAS using Helm charts, complete the following preparatory steps:

- 1. Ensure the Helm client is installed.
- 2. Set up an Ingress Controller, if not already done.
- 3. Setup an NFS server, if not already done.
- 4. Create Persistent Volumes a sample YAML file is provided in the Designer manifest package.
- 5. Download the Designer and DAS docker images and push to the local docker registry.
- 6. Download the Designer package and extract to the current working directory.
- 7. Configure Designer and DAS value overrides (**designer-values.yaml** and **das-values.yaml**); ensure the mandatory settings are configured. If the Blue-Green deployment process is used, Ingress settings are explained in the 8.8 Blue-Green deployment section.

## 8.2 Set up Ingress

Given below are the requirements to set up an Ingress for the Designer UI:

- · Cookie name designer.session.
- Header requirements client IP & redirect, passthrough.
- · Session stickiness enabled.
- · Allowlisting optional.
- TLS for ingress optional (should be able to enable or disable TLS on the connection).

## 8.3 Set up Application Gateway (WAF) for Designer

Designer Ingress must be exposed to the internet using Application Gateway enabled with WAF.

When WAF is enabled, consider the following exception in the WAF rules for Designer:

• Designer sends a JSON payload with data, for example, {profile . {} }. Sometimes, this is detected as OSFileAccessAttempt, which is a false positive detection. Disable this rule if you encounter a similar issue in your WAF setup.

## 8.4 Storage

#### 8.4.1 Designer storage

Designer requires storage to store designer application workspaces. Designer storage is a shared file storage that will be used by the Designer and DAS services.

## **Important**

This storage is critical. Ensure you take backups and snapshots at a regular interval, probably, each day.

A Zone-Redundant Storage system is required to replicate data from the RWX volumes and must be shared across multiple pods:

- · Capacity 1 TiB
- Tier Premium
- · Baseline IO/s 1424
- Burst IO/s 4000
- Egress Rate 121.4 MiBytes/s
- Ingress Rate 81.0 MiBytes/s

#### 8.4.2 Permission considerations for Designer and DAS storage

#### **NFS**

For NFS RWX storages, the mount path should be owned by genesys: genesys, that is, 500:500 with 0777 permissions. It can be achieved by one of the below methods:

- From the NFS server, execute the **chmod -R 777** and **chown -R 500:500** commands to set the required permissions.
- Create a dummy Linux based pod that mounts the NFS storage. From the pod, execute the chmod -R
  777 and chown -R 500:500 commands. This sets the required permissions. However, this method
  might require the Linux based pods to be run as privileged.

#### SMB / CIFS

For SMB / CIFS based RWX storages, for instance, Azure file share, the below mountOptions must be used in the **StorageClass** or the **PersistentVolume** template:

# mountOptions

- dir mode=0777
- file mode=0777
- $uid=\overline{5}00$

- gid=500
- mfsymlinks
- cache=strict

## 8.5 Set up Secrets

Secrets are required by the Designer service to connect to GWS and Redis (if you are using them).

#### **GWS Secrets:**

• GWS provides a Client ID and secrets to all clients that can be connected. You can create Secrets for the Designer client as specified in the Set up secrets for Designer section below.

#### Redis password:

• If Designer is connected to Redis, you must provide the Redis password to Designer to authenticate the connection.

#### 8.5.1 Set up Secrets for Designer

Use the designer.designerSecrets parameter in the **values.yaml** file and configure Secrets as follows:

```
designerSecrets:
   enabled: true
   secrets:
    DES_GWS_CLIENT_ID: xxxx
   DES_GWS_CLIENT_SECRET: xxxx
   DES_REDIS_PASSWORD: xxxxx
```

### 8.6 Deployment strategies

Designer supports the following deployment strategies:

- Rolling Update (default).
- Blue-Green (recommended).

DAS (Designer Application Server) supports the following deployment strategies:

- Rolling Update (default).
- · Blue-Green (recommended).
- Canary (must be used along with Blue-Green and is recommended in production).

## 8.7 Rolling Update deployment

The rolling update deployment is the standard default deployment to Kubernetes. It works slowly, one by one, replacing pods of the previous version of your application with pods of the new version without any cluster downtime. It is the default mechanism of upgrading for both Designer and DAS.

## 8.7.1 Designer

#### Initial deployment

To perform the initial deployment for a rolling upgrade in Designer, use the Helm command given below. The values yaml file can be created as required.

• helm upgrade --install designer -f designer-values.yaml designer-100.0.112+xxxx.tgz --set designer.image.tag=9.0.1xx.xx.xx

The values yaml overrides passed as an argument to the above Helm upgrade command:

designer.image.tag=9.0.1xx.xx.xx - This is the new Designer version to be installed, for example, 9.0.111.05.5.

## Upgrade

To perform an upgrade, the image version has to be upgraded in the **designer-values.yaml** file or can be set using the --set flag through the command given below. Once the **designer-values.yaml** file is updated, use this Helm command to perform the upgrade:

• helm upgrade --install designer -f designer-values.yaml designer-100.0.112+xxxx.tgz -- set designer.image.tag=9.0.1xx.xx.xx

The values.yaml overrides passed as an argument to the above Helm upgrade command:

designer.image.tag=9.0.1xx.xx.xx - This is the new Designer version to be installed, for example, 9.0.111.05.5.

#### Rollback

To perform a rollback, the image version in the **designer-values.yaml** file can be downgraded. Or you can use the --set flag through the command given below. Once the **designer-values.yaml** file is updated, use this Helm command to perform the rollback:

• helm upgrade --install designer -f designer-values.yaml designer-100.0.112+xxxx.tgz -- set designer.image.tag=9.0.1xx.xx.xx

The values yaml overrides passed as an argument to the above Helm upgrade command:

designer.image.tag=9.0.1xx.xx.xx - This is the Designer version to be rolled back to, for example, 9.0.111.05.5.

### 8.7.2 DAS

## Initial deployment

To perform the initial deployment for a rolling upgrade in DAS, use the Helm command given below. The values yaml file can be created as required.

• helm upgrade --install designer-das -f designer-das-values.yaml designer-

```
das-100.0.112+xxxx.tgz --set das.image.tag=9.0.1xx.xx.xx
```

The values.yaml overrides passed as an argument to the above Helm upgrade command:

das.image.tag=9.0.1xx.xx.xx- This is the new DAS version to be installed, for example, 9.0.111.05.5.

#### Upgrade

To perform an upgrade, the image version has to be upgraded in the **designer-das-values.yaml** file or can be set using the --set flag through the command given below. Once the **designer-das-values.yaml** file is updated, use this Helm command to perform the upgrade:

 helm upgrade --install designer-das -f designer-das-values.yaml designerdas-100.0.112+xxxx.tgz --set das.image.tag=9.0.1xx.xx.xx

The values.yaml overrides passed as an argument to the above Helm upgrade command:

das.image.tag=9.0.1xx.xx.xx- This is the new DAS version to be installed, for example, 9.0.111.05.5.

#### Rollback

To perform a rollback, the image version in the **designer-das-values.yaml** file can be downgraded. Or you can use the --set flag through the command given below. Once the **designer-das-values.yaml** file is updated, use this Helm command to perform the rollback:

 helm upgrade --install designer-das -f designer-das-values.yaml designerdas-100.0.112+xxxx.tgz --set das.image.tag=9.0.1xx.xx.xx

The values yaml overrides passed as an argument to the above Helm upgrade command:

das.image.tag=9.0.1xx.xx.xx - This is the DAS version to be rolled back to, for example, 9.0.111.05.5.

# 8.8 Blue-Green deployment

Blue-Green deployment is a release management technique that reduces risk and minimizes downtime. It uses two production environments, known as Blue and Green or active and inactive, to provide reliable testing, continuous no-outage upgrades, and instant rollbacks. When a new release needs to be rolled out, an identical deployment of the application will be created using the Helm package and after testing is completed, the traffic is moved to the newly created deployment which becomes the active environment, and the old environment becomes inactive. This ensures that a fast rollback is possible by just changing route if a new issue is found with live traffic. The old inactive deployment is removed once the new active deployment becomes stable.

### 8.8.1 Designer

Service cutover is done by updating the Ingress rules. The diagram below shows the high-level approach to how traffic can be routed to Blue and Green deployments with Ingress rules.

Error creating thumbnail: Unable to save thumbnail to destination

#### Preparation

Before you deploy Designer using the blue-green deployment strategy, complete the following preparatory steps:

- 1. Create 3 hostnames as given below. The blue service hostname must contain the string *blue*. For example, *designer.blue.example.com* or *designer-blue.example.com*. The green service hostname must contain the string *green*. For example, *designer.green.example.com* or *designer-green.example.com*. The blue/green services can be accessed separately with the blue/green hostnames:
  - designer.example.com For the production host URL, this is used for external access.
  - designer.blue.example.com For the blue service testing.
  - designer.green.example.com For the green service testing.
- 2. Configure the hostnames in the **designer-values.yaml** file under ingress. Annotations and paths can be modified as required.

```
ingress:
   enabled: true
   annotations: {}
   paths: [/]
   hosts:
        - designer.example.com
        - designer.blue.example.com
        - designer.green.example.com
```

## Initial deployment

The resources - ingress and persistent volume claims (PVC) - must be created initially before deploying the Designer service as these resources are shared between blue/green services and they are required to be created at the very beginning of the deployment. These resources are not required for subsequent upgrades. The required values are passed using the -- set flag in the following steps. Values can also be directly changed in the values.yaml file.

- Create Persistent Volume Claims required for the Designer service (assuming the volume service name is designer-volume).
   helm upgrade --install designer-volume -f designer-values.yaml designer-9.0.xx.tgz -- set designer.deployment.strategy=blue-green-volume
   The values.yaml overrides passed as an argument to the above Helm upgrade command: designer.deployment.strategy=blue-green-volume This denotes that the Helm install will create a persistent volume claim in the blue/green strategy.
- 2. Create Ingress rules for the Designer service (assuming the ingress service name will be designer-ingress):

```
helm upgrade --install designer-ingress -f designer-values.yaml designer-100.0.112+xxxx.tgz --set designer.deployment.strategy=blue-green-ingress --set designer.deployment.color=green
The values.yaml overrides passed as an argument to the above Helm upgrade command: designer.deployment.strategy=blue-green-ingress - This denotes that the Helm install will create ingress rules for the Designer service. designer.deployment.color=green - This denotes that the current production (active) color is green.
```

3. Deploy the Designer service color selected in step 2. In this case, green is selected and assuming the service name is designer-green:

```
helm upgrade --install designer-green -f designer-values.yaml designer-100.0.112+xxxx.tgz --set designer.deployment.strategy=blue-green --set designer.image.tag=9.0.1xx.xx.xx --set designer.deployment.color=green
```

#### Upgrade

- 1. Identify the current production color by checking the Designer ingress rules (kubectl describe ingress designer-ingress). Green is the production color in the below example as the production host name points to the green service.
  - Error creating thumbnail: Unable to save thumbnail to destination
- 2. Deploy the Designer service on to the non-production color. In the above example, blue is the non-production color and assuming the service name will be designer-blue: helm upgrade --install designer-blue -f designer-values.yaml designer-100.0.112+xxxx.tgz --set designer.deployment.strategy=blue-green --set designer.image.tag=9.0.1xx.xx.xx --set designer.deployment.color=blue The values.yaml overrides passed as an argument to the above Helm upgrade command: designer.deployment.strategy=blue-green This denotes that the Designer service is installed using the blue-green strategy. designer.image.tag=9.0.1xx.xx.xx This denotes the new Designer version to be installed, for example, 9.0.116.08.12. designer.deployment.color=blue This denotes that the blue color service is installed. The non-production color can be accessed with the non-production host name (for example, designer.blue.example.com). Testing can be done using this URL.

#### **NodePort Service**

The designer-green release creates a service called designer-green and the designer-blue release creates a service called designer-blue. If you are using NodePort services, ensure that the value of designer.service.nodePort is not the same for both the releases. In other words, you should assign dedicated node ports for the releases. The default value for designer.service.nodePort is **30180**. If this was applied to designer-green, use a different value for designer-blue, for example, **30181**. Use the below helm command to achieve this:

```
helm upgrade --install designer-blue -f designer-values.yaml designer-100.0.112+xxxx.tgz --set designer.deployment.strategy=blue-green --set designer.image.tag=9.0.1xx.xx.xx --set designer.deployment.color=blue --set designer.service.nodePort=30181
```

#### Cutover

Once testing is completed on the non-production color, traffic can be moved to the new version by updating the Ingress rules:

- 1. Update the Designer Ingress with the new deployment color by running the following command (in this case, blue is the new deployment color, that is, the non-production color): helm upgrade --install designer-ingress -f designer-values.yaml designer-100.0.112+xxxx.tgz --set designer.deployment.strategy=blue-green-ingress --set designer.deployment.color=blue
   The values.yaml overrides passed as an argument to the above Helm upgrade command: designer.deployment.strategy=blue-green-ingress This denotes that the helm install will create ingress rules for the Designer service. designer.deployment.color=blue This denotes that the current production (active) color is blue.
- Verify the ingress rules by running the following command: kubectl describe ingress designer-ingress

The production host name must point to the new color service.

#### Rollback

If the upgrade must be rolled back, the ingress rules can be modified to point to the old deployment pods (green, in this example) by performing a cutover again.

1. Perform a cutover using the following command:

helm upgrade --install designer-ingress -f designer-values.yaml designer-100.0.112+xxxx.tgz --set designer.deployment.strategy=blue-green-ingress --set designer.deployment.color=green
The values.yaml overrides passed as an argument to the above Helm upgrade command: designer.deployment.strategy=blue-green-ingress - This denotes that the Helm install will create Ingress rules for the Designer service. designer.deployment.color=green - This denotes that the the current production (active) color is green

 Verify the Ingress rules by running the following command: kubectl describe ingress designer-ingress The production host name must point to the green service.

#### 8.8.2 DAS

As with Designer, the Blue-Green strategy can be adopted for DAS as well. The Blue-Green architecture used for DAS is given below. Here, the cutover mechanism is controlled by Service, the Kubernetes manifest responsible for exposing the pods. The Ingress, when enabled, will point to the appropriate service based on the URL.

Error creating thumbnail: Unable to save thumbnail to destination Ingress setup

# Important

Ingress for DAS must be enabled only if DAS has to be reached from outside the Kubernetes cluster. If you don't intend to expose DAS outside the cluster, then ingress need not be enabled and you can skip these steps.

1. Configure Ingress Host names for DAS.

Create 3 hostnames as follows: The blue service host name must contain the string *blue*; for instance, das.blue.example.com or das-blue.example.com, The green service host name must contain the string *green*; for instance, das.green.example.com or das-green.example.com. The green/blue services can be accessed separately with these blue/green hostnames.

- \* das.example.com This is the production host url, and is used for external access.
- \* das.blue.example.com This is for blue service testing.
- \* das.green.example.com This is for green service testing.
- 2. Configure the hostnames in the **das-values.yaml** file under ingress, annotations, and paths (can be modified based on the requirement).

```
ingress:
   enabled: true
   annotations: {}
   paths: ["/"]
   hosts:
        - das.example.com
        - das.green.example.com
```

#### Initial deployment

The Ingress must be created initially before deploying the DAS service since it is shared between blue/green services and it is required to be created at the very beginning of the deployment. The Ingress is not required for subsequent upgrades. The required values are passed using the -- set flag in the following steps. Values can also be directly changed in the values.yaml file.

1. Deploy initial DAS pods and other resources by choosing an active color, in this example, green. Use the below command to create a designer-das-green service: helm upgrade --install designer-das-green -f designer-das-values.yaml designer-das-100.0.106+xxxx.tgz --set das.deployment.strategy=blue-green --set das.image.tag= 9.0.1xx.xx.xx --set das.deployment.color=green
 The values.yaml overrides passed as an argument to the above Helm upgrade command: das.deployment.strategy=blue-green - This denotes that the DAS service will be installed using the blue-green deployment strategy. das.image.tag=9.0.1xx.xx.xx - This denotes the DAS version to be installed, for example, 9.0.111.04.4. das.deployment.color=green - This denotes that the green color service is installed.

2. Once the initial deployment is done, the pods have to be exposed to the designer-das service. Execute the following command to create the designer-das service:
helm upgrade --install designer-das designer-das-100.0.106+xxx.tgz -f designer-das-values.yaml --set das.deployment.strategy=blue-green-service --set das.deployment.color=green
The values.yaml overrides passed as an argument to the above helm upgrade das.deployment.strategy=blue-green-service - This denotes that the designer-das service will be installed and exposed to the active color pods.
das.deployment.color=green - This denotes that the designer-das service will point to green pods.

3. Create ingress rules for the DAS service (assuming the ingress service is das-ingress):

```
helm upgrade --install das-ingress designer-das-100.0.106+xxxx.tgz -f designer-das-values.yaml --set das.deployment.strategy=blue-green-ingress
```

The values.yaml overrides passed as an argument to the above command das.deployment.strategy=blue-green-ingress - This denotes that the helm install will create ingress rules for the DAS service.

# **Important**

Step 3 is required only when ingress is to be created to expose DAS outside the cluster.

#### **NodePort Service**

The designer-das-green release creates a service called designer-das-green and the designer-das-blue release creates a service called designer-das-blue. If you are using NodePort services, ensure that the value of designer.service.nodePort is not the same for both the releases. In other words, you should assign dedicated node ports for the releases. The default value for designer.service.nodePort is **30280**. If this was applied to designer-das-green, use a different value for designer-das-blue, for example, **30281**. Use the below helm command to achieve this: helm upgrade --install designer-das designer-das-100.0.106+xxx.tgz -f designer-das-values.yaml --set das.deployment.strategy=blue-green-service --set das.deployment.color=green --set das.service.nodePort=30281

### 8.9 Canary

Canary is optional and is only used along with Blue-Green. It is recommended in production. Canary pods are generally used to test new versions of images with live traffic. If you are not opting for Canary, skip the steps in this section.

### **Canary deployment**

1. Identify the current production color by checking the designer-das service selector labels (kubectl describe service designer-das). Green is the production color in the below example as the selector label is color=green.

Error creating thumbnail: Unable to save thumbnail to

2. Tedeplayoranary pods, the das.deployment.strategy value must be set to canary in the designer-das-values.yaml file or using the -- set flag as shown in the command below: helm upgrade --install designer-das-canary -f das-values.yaml designer-das-100.0.106+xxxx.tgz --set das.deployment.strategy=canary --set das.image.tag= 9.0.1xx.xx.xx --set das.deployment.color=green
 The values.yaml overrides passed as an argument to the above Helm upgrade command: das.deployment.strategy=canary - This denotes that the Helm install will create canary pods. das.deployment.color=green - This denotes that the current production (active) color is green.

## **Important**

To make sure Canary pods receive live traffic, they have to be exposed to the designer-das service by setting das.deployment.color=, which is obtained from step 1.

3. Once canary pods are up and running, ensure that the designer-das service points to the canary pods using the kubectl describe svc designer-das command.

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#### Clearing up

After completing canary testing, the canary pods must be cleaned up.

The das.deployment.replicaCount must be made zero and the release is upgraded. It can be changed in the **designer-das-values.yaml** file or through the --set flag as follows:

helm upgrade --install designer-das-canary -f das-values.yaml designer-

```
das-100.0.106+xxxx.tgz --set das.deployment.strategy=canary --set das.image.tag=
9.0.1xx.xx.xx --set das.deployment.color=blue --set das.deployment.replicaCount=0
```

## Upgrade

1. Identify the current production color by checking the designer-das service selector labels (kubectl describe service designer-das). Green is the production color in the below example as the selector label is color=green.

Error creating thumbnail: Unable to save thumbnail to

2. DeptoyathenDAS service on to the non-production color. For the above example, blue is the non-production color and assuming the service name is designer-das-blue):
helm upgrade --install designer-das-blue -f das-values.yaml designer-das-100.0.106+xxxx.tgz --set das.deployment.strategy=blue-green --set das.image.tag=
9.0.1xx.xx.xx --set das.deployment.color=blue
The values.yaml overrides passed as an argument to the above Helm upgrade command:
das.deployment.strategy=blue-green - This denotes that the DAS service is installed using the blue-green strategy.
das.image.tag=9.0.1xx.xx.xx - This denotes the new DAS version to be installed, for example,
9.0.111.05.5.
das.deployment.color=blue - This denotes that the blue color service is installed.
The non-production color can be accessed with the non-production service name.

#### Cutover

Once testing is completed on the non-production color, traffic can be moved to the new version by updating the designer-das service.

- Update the designer-das service with the new deployment color by executing the below command. In this example, blue is the new deployment color (non-production color). helm upgrade --install designer-das-service -f designer-das-values.yaml designerdas-100.0.106+xxxx.tgz --set das.deployment.strategy=blue-green-service --set das.deployment.color=blue
- 2. Verify the service by executing the kubectl describe service designer-das command. The type label must have the active color's label, that is, color=blue.

#### Rollback

- 1. If the upgrade must be rolled back, cutover has to performed again to make the service point to the old deployment (green) again. Use the below command to perform the cutover: helm upgrade --install designer-das-service -f designer-das-values.yaml designer-das-100.0.106+xxxx.tgz --set das.deployment.strategy=blue-green-service --set das.deployment.color=green
   The values.yaml overrides passed as an argument to the above Helm upgrade command: das.deployment.strategy=blue-green-service This denotes that the Helm install will create ingress rules for the DAS service.
   das.deployment.color=green This denotes that the current production (active) color is green.
- 2. Verify the service by executing the kubectl describe service designer-das the command. The type label must have the active color's label, that is, color=green.

#### 8.10 Validations and checks

Here are some common validations and checks that can be performed to know if the deployment was

#### successful.

- Check if the application pods are in running state by using the kubectl get pods command.
- Try to connect to the Designer or DAS URL as per the ingress rules from your browser. You must be able to access the Designer and DAS webpages.

# 9. Post deployment procedures

## Upgrading the Designer workspace

## Warning

- It is mandatory to upgrade the Designer workspace for all Contact Center IDs.
- Genesys strongly recommends that you first back up the current workspace before
  performing the upgrade. This ensures that you can rollback to a previous state, if
  required.

Workspace resources must be upgraded after cutover. This will upgrade the system resources in the Designer workspace:

- 1. Login to one of the Designer pods using the kubectl exec -it bash command.
- Execute the following migration command (this will create new directories/new files introduced in the new version): node ./bin/cli.js workspace-upgrade -m -t
- 3. Execute the workspace resource upgrade command (this will upgrade system resources, such as system service PHP files, internal audio files and callback resources): node ./bin/cli.js workspace-upgrade -t In the above command, contact\_center\_id, is the Contact Center ID created in GWS for this tenant (workspace resources are located under the Contact Center ID folder (/workspaces//workspace)).

## **Important**

The above steps will also be used for further upgrades.

# Updating the flowsettings file

Post deployment, the **flowsettings.json** file can be modified through a Helm install as follows:

- Extract the Designer Helm Chart and find the flowsettings.yaml file under the Designer Chart > Config folder.
- 2. Modify the necessary settings (refer to the *Post deployment configuration settings reference table* for the different settings and their allowed values).
- 3. Execute the below Helm upgrade command on the non-production color service. It can be done as part of the Designer upgrade by passing the **flowsettings.yaml** file using the --values flag. In this case, a new Designer version can be used for the upgrade. If it is only a **flowsettings.json** update, the same Designer version is used.

```
helm upgrade --install designer-blue -f designer-values.yaml -f flowsettings.yaml designer-9.0.xx.tgz --set designer.deployment.strategy=blue-green --set designer.image.tag=9.0.1xx.xx.xx --set designer.deployment.color=blue
```

4. Once testing is completed on the non-production service, perform the cutover step as mentioned in the Cutover section (Designer Blue-Green deployment). After cutover, the production service will contain the updated settings. The non-active color Designer must also be updated with the updated settings after the cutover.

# 10. Enabling optional features

## 10.1 Enable Designer Analytics and Audit Trail

Post Designer deployment, features such as Analytics and Audit Trail can be enabled by performing the below steps.

# **Important**

Ensure Elasticsearch is deployed before proceeding.

#### 10.1.1 Designer changes

- 1. Configure the following settings in flowsettings override (**flowsettings.yaml**) Refer to the *5.4 Post deployment configuration settings reference table* section for option descriptions.
  - · enableAnalytics: true
  - enableESAuditLogs: true
  - esServer
  - esPort
  - esUrl
- 2. Configure the below setting in the DesignerEnv transaction list: ReportingURL in the **reporting** section.
- 3. Perform the steps in the *Updating the flowsettings file* section under *9. Post deployment procedures*.

### 10.1.2 DAS changes

1. Configure the following settings in the helm **das-values.yaml** file. Refer to the *4.2 DAS deployment settings* section for setting descriptions.

```
dasEnv.envs.DAS_SERVICES_ELASTICSEARCH_ENABLED = true
dasEnv.envs.DAS_SERVICES_ELASTICSEARCH_HOST
dasEnv.envs.DAS_SERVICES_ELASTICSEARCH_PORT
```

- 2. Perform the steps in the *Upgrade non production color* section (see *DAS* under *8.8 Blue-Green deployment*). The same DAS version running in production can be used for the upgrade.
- 3. Perform the steps in the *Cutover* section (see *DAS* under *8.8 Blue-Green deployment*).

### 10.2 Enable Personas

You can enable the Personas feature in Designer by following the below steps.

#### 10.2.1 Deploy personas.json

- Deploy the personas.json file in the workspace location, /workspace/{tenantID}/workspace/ personas/personas.json.
- · Create the **personas** directory if it does not exist.

## Given below is a sample **personas.json** file:

```
"id": "1".
"name": "Samantha",
"gender": "female",
"tags": ["female", "middle-age", "default"],
"displayPersona": "female, 30-40s, professional, calm",
"voice": [{
            "name": "samantha",
            "language": "en-US",
"ttsname": "Samantha",
"ttsengine": "NuanceTTS",
"displayName": "Samantha"
     }, {
             "name": "karen",
            "language": "en-AU",
"ttsname": "Karen",
             "ttsengine": "NuanceTTS",
            "displayName": "Karen"
             "name": "amelie"
            "language": "fr-CA", "ttsname": "Amelie",
            "ttsengine": "NuanceTTS",
            "displayName": "Amelie"
     }, {
    "name": "paulina",
    "==="" "es-MX"
            "language": "es-MX",
"ttsname": "Paulina",
            "ttsengine": "NuanceTTS",
            "displayName": "Paulina"
      }
```

```
"digital": {},
      "email": {},
"chat": {},
      "web": {}
},
{
      "id": "2",
"name": "Tom",
      "gender": "male",
"tags": ["male", "middle-age"],
"displayPersona": "male, 30-40s, polite, professional",
      "voice": [{
                  "name": "tom",
                  "language": "en-US",
"ttsname": "Tom",
                   "ttsengine": "NuanceTTS",
                  "displayName": "Tom"
           }, {
    "name": "lee",
    ""ane": "e
                  "language": "en-AU",
"ttsname": "Lee",
                  "ttsengine": "NuanceTTS",
"displayName": "Lee"
           }, {
    "name": "felix",
    "sae": "fr-
                  "language": "fr-CA",
"ttsname": "Felix",
                   "ttsengine": "NuanceTTS",
                  "displayName": "Felix"
            }, {
    "name": "javier",
    "es-M
                  "language": "es-MX",
"ttsname": "Javier",
"ttsengine": "NuanceTTS",
"displayName": "Javier"
            }
      "digital": {},
"email": {},
      "chat": {},
"web": {}
      "id": "3",
      "name": "Gabriela",
      "gender": "female",
"tags": ["female", "young", "engaging"],
"displayPersona": "female, 20-30s, engaging",
      "ttsengine": "GTTS",
                  "displayName": "Gabriela"
            }, {
    "name": "sheila",
    "aca": "en-A
                  "language": "en-AU",
"ttsname": "en-AU-Standard-A",
                   "ttsengine": "GTTS",
                   "displayName": "Sheila"
            }, {
    "name": "lili",
```

```
"language": "fr-CA",
"ttsname": "fr-CA-Standard-A",
           "ttsengine": "GTTS",
           "displayName": "Lili"
     }
],
"digital": {},
"email": {},
"chat": {},
"web": {}
"id": "4",
"name": "Michael",
"gender": "male",
"tags": ["male", "young"],
"displayPersona": "male, 20-30s, curious, geeky",
"voice": [{
           "name": "michael",
           "language": "en-US",
"ttsname": "en-US-Standard-B",
            "ttsengine": "GTTS",
           "displayName": "Michael"
     }, {
    "name": "royce",
    "338": "en-,
           "language": "en-AU",
"ttsname": "en-AU-Standard-B",
           "ttsengine": "GTTS",
"displayName": "Royce"
     "language": "fr-CA",
"ttsname": "fr-CA-Standard-B",
            "ttsengine": "GTTS",
           "displayName": "Alexandre"
     }
"digital": {},
"email": {},
"chat": {},
"web": {}
"id": "5",
"name": "Diane",
"gender": "female",
"tags": ["female", "mature"],
"displayPersona": "female, 40-50s, soothing, silky",
"voice": [{
            "name": "diane",
           "language": "en-US",
"ttsname": "en-US-Standard-C",
           "ttsengine": "GTTS",
           "displayName": "Diane"
     }, {
    "name": "muriel",
    "en-A
           "language": "en-AU",
"ttsname": "en-AU-Standard-C",
           "ttsengine": "GTTS",
           "displayName": "Muriel"
     }, {
    "name": "chloe",
    "??"    "fr-
           "language": "fr-CA",
```

```
"ttsname": "fr-CA-Standard-C",
                    "ttsengine": "GTTS",
                    "displayName": "Chloe"
               }
          "digital": {},
          "email": {},
          "chat": {},
"web": {}
          "id": "6",
          "name": "David"
          "gender": "male",
"tags": ["male", "mature"],
          "displayPersona": "male, 40-50s, professional, confident",
          "voice": [{
                    "name": "david",
                    "language": "en-US",
"ttsname": "en-US-Standard-D",
                    "ttsengine": "GTTS",
                    "displayName": "David"
               }, {
    "name": "austin",
    "austin",
                    "language": "en-AU",
"ttsname": "en-AU-Standard-D",
                    "ttsengine": "GTTS",
                    "displayName": "Austin"
               }, {
    "name": "pierre",
    "aname": "fr-0
                    "language": "fr-CA",
"ttsname": "fr-CA-Standard-D",
                    "ttsengine": "GTTS",
                    "displayName": "Pierre"
               }
          ],
          "digital": {},
          "email": {},
          "chat": {},
"web": {}
     }
]
```

### 10.2.2 Update Designer flowsettings.json

• Enable the persona feature flag in the **flowsettings.json** override file.

```
"features": {
   "persona": true
```

## Update application settings

Perform the following steps to enable the persona in the required Designer application:

- 1. Open the required Designer application and navigate to the **Settings** tab.
- 2. In Application Settings, select the Enable Persona checkbox in the Persona tab.
- 3. Re-publish the application and create a new build.

# 11. Cleanup

## 11.1 Elasticsearch maintenance recommendations

To help you better manage your indexes and snapshots, and to prevent too many indexes from creating an overflow of shards, Genesys recommends that you set up a scheduled execution of Elasticsearch Curator with the following two actions:

- Delete indexes older than the given threshold according to the index name and mask.
  - sdr-\* (3 months)
  - audit-\* (12 months)
- Make a snapshot of each index:
  - sdr-\* (yesterday and older)
  - audit-\*
  - kibana-int-\*

# 12. Limitations

Designer currently supports multi-tenancy provided by the tenant Configuration Server. That is, each tenant should have a dedicated Configuration Server, and Designer can be shared across the multiple tenants.