

# **GENESYS**

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# Callback User's Guide

Set up URS Strategy for Queuing

# Set up URS Strategy for Queuing

## Enable HTTP Interfaces in URS

#### Create a Listening HTTP Port in URS

URS will listen on this port for incoming HTTP requests. Basically, this steps turns URS into an HTTP server.

ne > Applications > App	lications > Ur	niversal_Routing_Server Prop	perties	Ľ	Clone	💼 Delete		Move To
General	Ports 🔺						Add	Rem
Connections		ID	<u>م</u>	Port	Å	Connection	Å	HA S
Ports		dofault		7202				
Tenants				7202		hate.		
Options		nttp		5590		nttp		
Permissions								
Dependencies								
Application Options								
	•				-			

In Genesys Administrator Extension, edit your URS application.

Add an HTTP listening port with a port ID http in the **Ports** tab. Make a note of this port number as you will need it later when configuring GMS and ORS-based services.

e > Applications > App	lications > Un	iversal_Routing_Server Properties			Clone	Delete	Move To
General	Applicat	tion Options			Q Quick Filter	Delete A	.dd 🌣 Mor
Connections		Кеу	Å	Value			¢.
Ports		▶ default		Do not confi	aure this port in the	http section	on
enants		▼ http		if you alre	ady added it to the	, Ports tab!	
Permissions		_verbose		3			
Dependencies		log_file		C:\logs\Universal_Routing_Server\U	R_Server_HTTP.log		
Application Options		http_port راس		5590			
		▼ log					_
		alarm					

You can also do this by creating the http\_port option in the http section of your **Application Options** tab.

#### Warning

This HTTP port needs to be created in one place only.

#### Enable Web HTTP Replies in URS

URS uses the httpbridge module to send target information back to GMS. To make this possible, create a web HTTP port that will be used to reply. URS will be able to perform external HTTP requests, for example, to submit timetodial events to GMS, and so on.

#### Important

The listening **http** port created in the previous section and the **web** port defined below MUST have different values.

ie > Applications > App	olications > U	niversal_Routing_Server Pro	perties			E	Clone 💼 I	Delete Move To
General	Ports A							Add Rem 4
Connections		ID	<b>☆</b>	Port	Connection	∆ ⊽	HA Sync	Listening Mode
Ports		default		7202				Unsecured
Tenants		http		5590	http			Unsecured
Dettions		web		5580	http			Unsecured
Dependencies								

In Genesys Administrator Extension, edit your URS application. Add an HTTP port with a port ID web in the **Ports** tab.

#### Set up URS Strategy for Queuing

General	Applica	tion Options		Filter	Delete Add	💏 Mor
Connections			C Culor			
Ports		Кеу	\ ▼	Value		<b>₽</b>
Tenants		► http	Do not co	onfigure this p	ort in the web	
Options		► log	section if	you already a	dded it to the	
Permissions		▼ web		Ports tab	!	
Dependencies		_verbose		3		
Application Options		enable_web_access		true		
		http_log_buffering		false		
		http_log_file		C:\logs\Universal_R	outing_Server\UR_Serve	er
		http_port		5580		
		wfm_polling_interval		1	)	
	4					×.

You can also do this by creating the http\_port option in the **web** section of your **Application Options** tab.

http\_port = 5580 (or some other port, used internally)

#### Warning

This HTTP port needs to be created in one place only.

## Configure URS Delay Strategies

You must deploy URS delay strategies. This step is required because when a service request is received by GMS, the request is sent to ORS for execution. ORS then sends a request to URS to create a virtual interaction and to place it in the specified virtual queue. When an agent is available, URS sends an asynchronous response containing the selected target information to GMS, via a URL specified at the time of the creation of the virtual interaction. For samples, you will create a new virtual queue in which to place the interactions, however, for a real-world scenario, the virtual queue must be selected appropriately.

To deploy URS delay strategies, open Genesys Administrator Extension.

#### Create a dedicated Virtual Queue

X Dashboard Ag	ents <b>Configuration</b> Routing Parameters	Reports Administr	ation Centraliz	ed Logs
Web Engagement e > DNs > Switches >	SIP_Switch > DN > Virtual	Clone	💼 Delete	default Move To
General				
	Number *	Туре*		
Default DNs	GMS_VQ	Virtual Queue		~
Options	Switch *			
Dormissions	SIP_Switch			
Pennissions	Association	Register *		
Dependencies		True		~
	Alias	Route Type*		
	GMS_VQ_SIP_Switch	Default	à	~
	DN Group			
	•			
		Override		
	✓ Use Override			
	Login ID	Switch-specific Typ	e	
		1		
	Number Of Trunks			
	0			
	Cost Contract	Site		
	Tenant			
	Environment	✓ State Enabled		
	Cancel		Apply	Sava
	Galicel		Apply	Save

Navigate to Switching > DNs > Switches > SIP\_Switch > DN > Virtual Queue and create a virtual queue GMS\_VQ. Save and configure the alias GMS\_VQ\_SIP\_Switch. You will need this alias when you

will configure the \_urs\_virtual\_queue option of your Callback service.

Enable ORS to pull interactions and URS to receive routing requests.

						_		
General	Applicat	tion Options			Q Quick Filter	Delete	Add	🌣 Mor
Connections		Kev	Ą	Value		_		4
Ports		▼ default	•					•
Fenants		use jur info		true				
Options		use agent canacity		true				
Permissions		automatic attach		true				
Dependencies		compat treatments		true				
Application Options		call_tracking		true				
		report_targets		true				
		route_consult_call		true				
		#event_arrive	շիդ	ringing				
		targets_order	$\Box$	random				
		strategy		ORS				

Edit the Universal Routing Server Application and select the **Options** tab. Enable ORS to pull interactions by setting the strategy option to ORS in the default section.

Now, you can download the URS Strategies and import them into IRD. See the download section below to manage the downloadable files.

## Configure Multiple Targets

The option \_target in the URS Queuing section of your callback service allows you to configure one or

more URS targets (as detailed in the option's description).

To configure multiple targets, you must create a JSON array of targets (maximum 15) and for each target, you provide a statistic condition that the system will check. This condition specifies when to switch to the next target. If the condition is not matched, the interaction will be queued. Otherwise, the system will test the condition of the next target, as detailed in the diagram below.



The condition is defined by the parameters stat\_to\_check, stat\_operator (< or >) and stat\_value.

```
For example, if you set:
```

```
{
    "target": "GMS_AG_Kilfoil@Stat_Server.GA",
    "timeout": "15",
    "clear": false,
    "stat_to_check": "StatAgentsAvailable",
    "stat_operator": "<",
    "stat_value": "1"
}</pre>
```

- The system will change to the next target in the list if StatAgentsAvailable < 1 (no agent is available).
- The system will queue the interaction to the target GMS\_AG\_Kilfoil@Stat\_Server.GA only if StatAgentsAvailable >= 1 (which means that at least one agent is available). If the duration specified in the target timeout has passed, and if the agent is not selected, then the statistic condition for the next target is checked before queuing the interaction for the next target. You can also expand to the next target if clear = false.

#### Important

If you do not set a condition by using stat\_to\_check, stat\_operator, and stat\_value, then the tested condition is set by default to no logged in agents. That means that the interaction is queued to a target only if at least one agent belonging to the target is logged in.

The stat\_to\_check property can be set to any of the values supported by the Statistics parameter passed to the IRD function SData(Target, Statistics), unless target is a skill expression. If target is a skill expression, you must choose one of the following values:

- RStatAgentsReadyvoice—agents ready for voice media.
- RStatAgentsReady—agents ready for any media.
- RStatAgentsTotal—agents logged in.

The JSON code below is a sample of value for the \_target option and includes 5 different targets.

```
[
    {
        "target": "GMS AG Kilfoil@Stat Server.GA",
        "timeout": "15",
        "clear": false,
        "stat to check": "StatAgentsAvailable",
        "stat operator": "<",
        "stat_value": "1"
   },
{
        "target": "GMS_AG_Milburn@Stat_Server.GA",
        "timeout": "10",
        "clear": false,
        "stat_to_check": "StatAgentsAvailable",
"stat_operator": "<",</pre>
        "stat_value": "1"
   },
        "target": "GMS_AG_Monique@Stat_Server.GA",
        "timeout": "30",
        "clear": false,
        "stat_to_check": "StatAgentsAvailable",
        "stat operator": "<",
        "stat_value": "1"
   },
{
        "target": "GMS AG Oladipo@Stat Server.GA",
        "timeout": "15",
        "clear": false,
        "stat_to_check": "StatAgentsAvailable",
        "stat_operator": "<",
"stat_value": "1"
   },
        "target": "GMS_AG_Sippola@Stat_Server.GA",
        "timeout": "15",
        "clear": false,
        "stat_to_check": "StatAgentsAvailable",
        "stat operator": "<",
```

```
"stat_value": "1"
}
]
```

## Use of EWT\_VQ\_TARGET in the WaitForTarget IRD Strategy

In Estimated Wait Time scenarios, you can use the \_EWT\_VQ\_TARGET variable to peg a nonconfigured Virtual Queue (VQ) to access the URS LVQ function for this VQ from your inbound routing application.

The **\_EWT\_VQ\_TARGET** parameter is a copy of the \_urs\_ewt\_virtual\_queue that you can configure in this purpose.

# Important Since the VQ is not configured, it is internal to URS, no EventQueued or EventDiverted events will be issued.

To peg the VQ, proceed to the following changes:

- 1. Configure the \_urs\_ewt\_virtual\_queue option with a non-configured virtual queue name.
- 2. Download the GMS Callback WaitForTarget strategy available in the URS Strategies for Download section below.
- 3. Open Interaction Routing Designer (IRD), select the **Routing Design / Strategies** tab, then load and compile the GMS Callback WaitForTarget strategy.
- 4. Add a function block to the WaitForTarget workflow as following:

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		· · · · · · · · · · ·	Contract Contract	UKS 8.1.400.47	
			<mark>.</mark>	GMS 8 5 201 04	
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	CAU		Check i	f already routable	
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				Mark no	on routable
				skip setting non routable	
				• • • • • • • • • • • • • • • • • • •	

- 5. Edit the function block:
  - Under Select expression, enter a new expression name.
  - Under Data > Name, select **SelectDN**.
  - In the parameters' table, configure:
    - Virtual Queue Name = \_EWT\_VQ\_TARGET
    - Priority = 0
    - SelectionFlag = StatSelectMin
    - Target = LOSTFOREVER@.Q **Note:** In this example, LOST\_FOREVER is the name of the non-configured VQ.

temp_string	= SelectDN [_EWT_VQ_TARGET,0,",StatS VER@.Q1]	electMin,'L	OST_FORE
Data Type	Name		
All Functions	RouteCall	^	Add
CallInfo	Routed	_	
Configuration Options	RouteDelay		Verify
Data Manipulation	Router ByoData		
Force	SData		
List Manipulation	SDataInTenant		
Miscellaneous	SelectDN		Variables
🛎 🗙			
Parameter	Value		
Virtual Queue Name			
Priority	U		
Statistics	Ch. 10 11 11 11		
Selection Flag	StatSelectMin		
larget	LOSI_FOREVER@.Q		
Retum value type: STRING operation of a Target-Select prescribed virtual queue, inq	(target). This function corresponds object: creating an internal router qu uiring from Stat Server on the availa	to the initia Jeue as a j bility of any	al steps of the part of a y of the listed

• Save and compile the block. The **WaitForTarget** block is now available and ready in the **Strategies** tab.

Of course, if you do not use the block, it does not affect the existing WaitForTarget strategy.



#### EWT Usage

This configuration ensures that you can use the lvq URS HTTP request using the connid parameter of your callback as max to get the URS calculation results for the Estimated Waiting Time and the position in the Virtual Queue.

curl -v http://<URS\_host>:<URS\_http\_port>/urs/call/max/lvq?<parameters>

To get detailed information about this query, check the following URL: http://<URS host>:<URS http port>/urs/help/call/lvq

## URS Strategies for Download

#### Important

When you upgrade GMS, you need to import the Callback Template from your GMS installation directory. Start the Service Management UI, upload the <GMS Installation Directory>/service\_templates/callback.zip file, and restart ORS.

GMS version	ZIP	Instructions
8.5.200.09 and higher	GMS_URS_Strategy_85200_v2.64.1.zip	1. Download and unzip the zip file containing the URS
8.5.207.05 and higher	GMS_URS_Strategy_85200_v2.66.zip	strategies.
8.5.208.09 and higher	GMS_URS_Strategy_85208_v2.72.zip	<ol> <li>Open Interaction Routing Designer (IRD).</li> <li>Import the strategy</li> </ol>
8 5 230 06 and higher	GMS URS Strategy 85230 v2 73 zin	WaitForTarget.zcf, and subroutine SetRouteDelay.zcf, using File > Import From File on the respective tabs.
	o. 10_0.10_0.10099_00200_12110121p	<ol> <li>Open the strategy and subroutine.</li> </ol>
		5. Compile and save.

- Starting in 8.5.109.08, the URS Dial Success Rate is set to 85% when new callbacks are created to improve the callback performance.
- Starting in 2.64.1, the DialOutSuccessRate function of the WaitForTarget strategy is no longer invoked to allow the enhanced VCB algorithm within Universal Routing Server to work properly. If your application requires the legacy VCB algorithm to work, change the strategy to invoke the DialOutSuccessRate function as in earlier versions of the strategy.

#### Important

You do not need to load the strategy in ORS because ORS will request it when needed. See the Interaction Routing Designer help file for information about using IRD.

#### Additional Deployment Steps

#### **Prerequisites:**

If you are upgrading Callback from GMS 8.5.004.xx and earlier, make sure that you have the following components and versions installed:

- Interaction Routing Designer (IRD) 8.1.400.26
- Universal Routing Server (URS) 8.1.400.39

#### Deployment Changes

- 1. Uninstall your existing IRD.
- 2. Install IRD 8.1.400.26.
- 3. Delete the existing WaitForTarget strategy.
- 4. Delete the existing SetRouteDelay subroutine.
- 5. Download the strategies for GMS versions 8.5.114.09 and higher.
- 6. Import into IRD.
- 7. Compile both strategy and subroutine.
- 8. Uninstall your existing URS.
- 9. Install URS 8.1.400.39.

#### Important

Do not skip step 7. This step is mandatory to ensure that the strategy and subroutine are properly saved and loaded into IRD.