

GENESYS

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

iWD Deployment Guide

Stat Server Extensions

Contents

- 1 Stat Server Extensions
 - 1.1 Installing Stat Server Extensions
 - 1.2 Stat Server Configuration Options
 - 1.3 Creating iWD Virtual Queues automatically
 - 1.4 Report Stats for each Dimension on its own Virtual Queue
 - 1.5 Configure Stat Extensions for separate iWD Solutions using one Stat Server

Stat Server Extensions

After you have installed iWD, you can install the iWD Stat Extensions, which provide access to the aggregated data in the Data Mart.

Important

iWD Setup Utility is not supported in release 9.0.

Installing Stat Server Extensions

Important

If the Data Mart is not used, Stat Extensions are not required and the solution will work fine.

Purpose

To provide access to the aggregated data in the Data Mart.

Prerequisites

- An instance of Stat Server is installed, dedicated for use with iWD. Refer to the *Stat Server 8.5 Deployment Guide* for more information.
- ORS 8.1.400.48 is installed if you wish to use the Stat Server Extensions features implemented in iWD release 8.5.106.03.

Procedure

- 1. From the server that is running Stat Server, navigate to the **iWD Stat Extensions** folder of the iWD CD. Locate and double-click **Setup.exe**.
- 2. Click Next on the Welcome screen.
- 3. Select the appropriate Stat Server instance from the list that is displayed and click Next.
- 4. Click Install to install iWD Stat Extensions. Click Finish when the installation has been completed.

Stat Server Configuration Options

[java-extensions] section

During installation, a new option—**BPR_iWD_Extension.jar**—is added to the [java-extensions] section, with a default value of true.

[java-extensions-bpr-iwd] section

The **[java-extensions-bpr-iwd]** section contains options which specify the JDBC connection driver and parameters for access to the iWD Data Mart database. Most options are managed by the Stat Adapter job of iWD Data Mart and are rewritten each time the Stat Adapter is run. For reference, those options are listed below:

- jdbc-driver-jar—The .jar file with the JDBC driver. The path is relative to the directory specified as java-libraries-dir in the Stat Server configuration (which defaults to ./java/lib in the Stat Server installation directory). Valid values include:
 - mssql-jdbc-6.1.0.jre8.jar (for MS SQL)
 - ojdbc8.jar (for Oracle)
 - postgresql-9.4.1212.jar (for PostgreSQL)
- **jdbc-driver**—The class name for the corresponding JDBC driver. Valid values include:
 - com.microsoft.sqlserver.jdbc.SQLServerDriver (for MS SQL)
 - oracle.jdbc.OracleDriver (for Oracle)
 - org.postgresql.Driver (for PostgreSQL)
- jdbc-url—The JDBC URL, which describes RDBMS-specific access parameters. Below are some sample values:
 - jdbc:sqlserver://hostname:1433;databaseName=databasename (for MS SQL)
 - jdbc:oracle:thin:@//hostname:1521/databasename (for Oracle)
 - jdbc:postgresql://hostname:5432/databasename (for PostgreSQL)
- **user**—The user name for database access.
- **password**—The password for database access.
- **verbose**—The level to control debug information, provided in the Stat Server log file. Possible values are debug, trace, or standard.
- **refresh-interval**—The interval (in minutes) for data updates from the database.
- **service-id-1**—The runtime ID of the Statistics Adapter service in the iWD configuration.
- **service-tenant-1**—The name of the configuration tenant—this is linked to the iWD managed tenant where the Statistics Adapter service is configured.

- virtual-queue-name-1—
 - If Dimension Mapping is set to Filter, it is the name of the single Genesys virtual queue to which statistics are distributed.
 - If Dimension Mapping is set to Virtual Queue, it is the prefix to be added to the names of Genesys virtual queues to which statistics are distributed.
- **dimension-mapping-1**—The type of the dimension mapping between iWD Data Mart and Stat Server. Valid values are Filter and Virtual Queue.

You can set a small subset of options manually:

- **java-extension-jar**—Name of the BPR iWD extension file. Defaults to BPR_iWD_Extension.jar. This must match the option in **java-extensions** section in the Stat Server configuration.
- **jdbc-properties-file**—Path to JDBC driver properties file relative to directory specified as javalibraries-dir in Stat Server configuration (defaults to ./java/lib in Stat Server installation directory). Can be used to specify optional driver-specific JDBC options. Please consult driver documentation for further information.
- reconnection-timeout—Delay in milliseconds between database reconnection attempts performed by the BPR iWD extension. Defaults to 10000.
- **tenant-ids**—A list of Configuration Server/Genesys Administrator tenant names mapped to iWD tenant IDs, separated by a comma. For a system with one tenant with name TenantA and ID T2, this option should be set to value:Environment=1,TenantA=2.

Creating iWD Virtual Queues automatically

The Statistics Adapter job can automatically create Virtual Queues for statistics to be reported. This feature is disabled by default.

For every unique value stored for the tenant in the **gtl_stat** table in the **dimensionId** column, the Statistics Adapter job does the following:

- 1. Checks whether the Virtual Queue with the defined name exists.
- 2. If the Virtual Queue does not exist, the Statistics Adapter job creates the Virtual Queue.
- 3. If the Virtual Queue does exist, the Statistics Adapter skips Virtual Queue creation.

These steps are continuously performed on each run of the Statistic Adapter job. No automatic update or delete is implemented.

Configuring Virtual Queues creation

To enable this feature, the following options in iWD Runtime Node application must be set:

- stat-server \ dimension-mapping = Virtual Queue
- stat-server \ virtual-queue-name = <VQ_name_prefix> (iWD_ by default)
- virtual-queues \ create-vqs = true

• virtual-queues \ switch = <switch_name> (name of the switch where VQs will be created)

You can configure these options in a more convenient way by using Data Mart settings in the iWD Plug-in for GAX, as described in this article.

Virtual Queues naming convention

Virtual Queues are created according to the following naming convention:

<VQ prefix> + <dimensionId value>

where:

- <VQ prefix> is taken from iWD Runtime Node options > **stat-server\virtual-queue-name** option.
- <dimensionId value> is taken from dimensionId column of gtl_stat table.

Report Stats for each Dimension on its own Virtual Queue

The iWD Stat Server Java Extension can be configured to report statistics in two different ways:

- All statistics for all dimensions can be reported on one Virtual Queue, or;
- Each dimension can have its statistics reported on its own Virtual Queue.

Manual setup of IWD configures the Stat Server to use the iWD Stat Server Java Extension to report each statistic on its own Virtual Queue. If you want to change this, you must make the change manually.

Procedure

To report each dimension on its own Virtual Queue:

- 1. Set the the option **dimension-mapping-1** to the value Virtual Queue.
- Instead of using the Virtual Queue name as a value for the option virtual-queue-name-1, indicate the prefix that will be used for Virtual Queue names. For example, if virtual-queue-name-1=dim-, then Virtual Queues with the names dim-CNT_T2_C106, dim-CNT_T2_C107 and so on, have to be created.

To report all statistics on one Virtual Queue:

- 1. Set the option **dimension-mapping-1** to the value Filter.
- 2. Set the Virtual Queue name as the value for the option virtual-queue-name-1.
- 3. Create the Virtual Queue using the name value from step 2.

Configure Stat Extensions for separate iWD Solutions using one

Stat Server

- 1. Copy the iWD SSJE binary on the back-end for each solution to provide statistics. In this example they are put into separate directories:
 - \$ mkdir statserver/java/ext/iwd1 statserver/java/ext/iwd2
 - \$ mv statserver/java/ext/BPR_iWD_Extension.jar statserver/java/ext/iwd1
 - \$ cp statserver/java/ext/iwd1/BPR_iWD_Extension.jar statserver/java/ext/iwd2/

\$ ls statserver/java/ext/*

statserver/java/ext/iwd1:

BPR_iWD_Extension.jar

statserver/java/ext/iwd2:

BPR_iWD_Extension.jar

Reflect these changes in each iWD Solution by using iWD Plug-in for GAX (Configuration > iWD > Datamart > [tenant] > [solution] > Stat Server). Ensure that the Extension File Name is unique for each solution:

		B Grow Dashiboard Co	mingulation nouting rataliteters Au	ministration Centralized Logs	
General	Application Home > Datamart > IWD-8705_slt				
ogging	statserver	General	indication \	Dimension Manajar	
Database	Virtual Queue Name	Logging	statserver	Virtual queue (postfix)	
Stat Server	iWD_Test_	Database	Virtual Queue Name	Service Index	
Schedules	Extension File Name	Stat Server	iWD_Second_	1	
Expirations	iwd1/BPR_iWD_Extension.jar	Cabadalas	Extension File Name	Extension Section Name	
anant Attributes	JDBC Driver Class	acheuures	iwd2/BPR_iWD_Extension.jar	java-extensions-bpr-iwd-second	
enant Pathoates	The same as for Datamart	Expirations			
epartment Attributes	JDBC URL	Tenant Attributes	JDBC Driver Class	JDBC Driver JAR File	
Process Attributes	The same as for Datamart	Department Attributes	JDBC URL The same as for Datamart		
ask Attributes	Create Virtual Queues	Process Attributes			
imension Mapping		Task Attributes	Switch 1		
		Task Attributes	 Create Virtual Queues 	Switch_102	

3. Run the **Stat Adapter** job for each Data Mart you have configured (**Configuration** > **iWD** > **Datamart Dashboard** > **[tenant]** > **[solution]** > **Stat Adapter** > **Start**):

S GAX Dashboard Configu	ration Routing Pa	arameters Adminis	stration Centralized Logs				
Home > Datamart Dashboard > q	a_solution						
Q. Quick Filter							
Service Name	Inactive 🕀	Active 👌	Status Message				
Configuration Server Con		Started					
Configuration Monitor		Started	Configuration status: OK				
Initialize		Scheduled	Manual execution mode				
Load Config		Scheduled	Next execution scheduled for Wed Jan 01 10:15:00 MSK 2025				
Load Intraday		Scheduled	Next execution after service: Load Config				
Aggregate Intraday		Scheduled	Next execution after service: Load Intraday				
Aggregate Stats		Scheduled	Next execution after service: Aggregate Intraday				
Stat Adapter		Scheduled	Next execution after service: Aggregate Stats				
Load Historical		Scheduled	Next execution scheduled for Wed Jan 01 10:15:00 MSK 2025				
Aggregate Historical		Scheduled	Next execution after service: Load Historical				
Maintain		Scheduled	Next execution after service: Aggregate Historical				

- 4. Open your Stat Server application object, open **Application Options** and export them to either a cfg or csv file.
- 5. Within these options there are Stat Types (options sections) with names starting with GTL_; such as GTL_ACTIVE, GTL_NEW_15MIN, and more. Clone these sections while providing some unique affix to them, like _iwd1 and _iwd2, for each solution. You should end up with sections GTL_ACTIVE_iwd1, GTL_ACTIVE_iwd2, and so on.
- 6. Within each such section amend option **JavaSubCategory** with the name of the Java Extension name. Please refer to the sample configuration file for two IWD solutions below.
- 7. Import the amended configurations to the Stat Server application object.
- 8. Restart Stat Server.
- 9. Open Pulse and clone the default iWD widget templates for each solution:

Pulse GAX			tiud,admin + ?		
ank Dashboard 👔 🔹 Widget Template : 👔					
inet Template Management					
inv Template 🕴 🍦 👔 🙆 37 Templates		Q, Search v	200 Datamart New Teals		
Name Type		Modified	The Decement New Task		
🔮 Facebook Media Activity	Agent, Place, Agent Group, Place Group		Modified December 19, 2019 by		
🔮 IFRAME			iwd_admin		
🛫 TWD Agent Activity	Place, Agent, Agent Group, Place Group		✓ 601 (1)		
😻 WD Datamart Active and Pending Task	Queue	12/19/2019			
🔮 WD Datamart Active vs Held	Queue	12/19/2019	Object Types (1): Queue		
🔹 WD Datamart Completed Task	Queue	12/19/2019	Statistics (3):		
🔮 WD Datamart New Completed 15 min	Queue	12/19/2019	GTL_NEW_15MIN GTL_NEW_30MIN		
🔹 WD Datamart New Completed 30 min	Queue	12/19/2019	GTL_NEW_60MIN		
👷 WD Datamart New Completed 60 min	Queue	12/19/2019			
🔮 WO Datamart New Task	Queue	12/19/2019			
😴 WD Datamart New Task (iwd1)	Queue	03/11/2020			
🔮 WO Datamart New Task (wd2)	Queue	03/11/2020			
na iwo Datamant New Task 162 mixed	Queue	03/13/2020			
🔹 WD Datamart New Task 182 mixed Formula	Queue	03/13/2020			

10. In the templates, change the **Statistics Type** for each Statistic to match with the section names given in Stat Server:

Pulse GAX					0 ivd_admin = ?
Widget Template Management > iWD Data	mart New Task (iwd2) Template				
Objects/Statistics Display Options	Alerts				
Object Type *	Statistics*	Add			
E Select All	GTL_NEW_15MIN_iwd2	/ 0 1	Display Name		
Agent	0TL_NEW_30MIN_iwd2	/ @ 8	GTL_NEW_15MIN_jwd2		
Agent Group	GTL_NEW_60MIN_iwd2	/ 0 8	Description New tasks in 15MIN		
Piace			Alias	Display Format	
 Place Group 			015060010000000	avergen	
D DN			Notification Mode Time-Based	Notification Prequency (seconds) 300	
DN/Queue Group			Statistic Type	Time Profile	
Gueve			GTL_NEW_TSMMV_Wd2	Denaut	
Routing Point			1		
Calling List					
Campaign					
Campaign Calling List					
Campaign Group					
Cancel					Save As Save

11. With new templates created, you can now add widgets and assign proper Virtual Queues to them, depending on the solution. Here's the result of a sample configuration:

				:			-	
HS Datamart New Task (ind2)				iND Datamart New Task (ived1)				
Name	 GTL_NEW_15MIN_iwd2 	GTL_NEW_30MIN_iwd2	GTL_NEW_60MIN_iwd2	Q,	Name *	GTL_NEW_15MIN_iwd1	GTL_NEW_30MIN_iwd1	GTL_NEW_60MIN_iw
WD_Second_DPT_T1_C9@Switch_102	10	10	10		iWD_Test_OPT_T1_C4@Switch_101	0	0	0
WD_Second_DPT_Unclassified@Switch_102		0	0		iWD_Test_DPT_T1_C5@Switch_101	0	0	0
WD_Second_SLT_SLT4@Switch_102	10	10	10		iWD_Test_DPT_T1_C6gtSwitch_101	0	0	0
					iWD_Test_OPT_T1_C7@Switch_101	0	0	0
					iWD_Test_DPT_T1_C8g/Switch_101	11	11	11
					iWD_Test_DPT_UnclassifiedgSwitch	0	0	0
					WD Test SLT SLT30Switch 101	11	11	11

Sample configuration file for two IWD solutions

```
[java-config]
java-extensions-dir=./java/ext
jvm-path=/usr/java/jre-1.8/lib/amd64/server/libjvm.so
[java-extensions-bpr-iwd-test]
service-id-1=STAT 1
service-tenant-1=selenium
virtual-queue-name-1=iWD Test
dimension-mapping-1=Virtual Queue
java-extension=iwd1/BPR_iWD_Extension.jar
java-extension-jar=iwd1/BPR_iWD_Extension.jar
jdbc-driver-jar=mssql-jdbc-6.1.0.jre8.jar
jdbc-driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
jdbc-url=jdbc:sqlserver://<db_host>:1433;databaseName=<iwd_dm_1_db_name>
user=<iwd dm 1 db user>
refresh-interval=15
verbose=debug
[java-extensions-bpr-iwd-second]
service-id-1=STAT 1
service-tenant-1=selenium
virtual-queue-name-1=iWD_Second_
dimension-mapping-1=Virtual Queue
java-extension=iwd2/BPR iWD Extension.jar
java-extension-jar=iwd2/BPR_iWD_Extension.jar
jdbc-driver-jar=mssql-jdbc-6.1.0.jre8.jar
jdbc-driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
jdbc-url=jdbc:sqlserver://<db host>:1433;databaseName=<iwd dm 2 db name>
user=<iwd_dm_2_db_user>
refresh-interval=15
verbose=debug
[GTL_NEW_15MIN_iwd1]
Objects=Queue
Category=JavaCategory
JavaSubCategory=iwd1/BPR_iWD_Extension.jar:BPR iWD Statistics
Description=BPR iWD Statistics
measure-id=NEW 15MIN
```

[GTL_COMPLETED_15MIN_iwd1] Objects=Queue Category=JavaCategory JavaSubCategory=iwd1/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=COMPLETED 15MIN [GTL NEW 30MIN iwd1] Objects=Queue Category=JavaCategory JavaSubCategory=iwd1/BPR_iWD_Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=NEW_30MIN [GTL COMPLETED 30MIN iwd1] Objects=Queue Category=JavaCategory JavaSubCategory=iwd1/BPR_iWD_Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=COMPLETED 30MIN [GTL_NEW_60MIN_iwd1] Objects=Queue Category=JavaCategory JavaSubCategory=iwd1/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=NEW 60MIN [GTL COMPLETED 60MIN iwd1] Objects=Queue Category=JavaCategory JavaSubCategory=iwd1/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=COMPLETED 60MIN [GTL OVERDUE 15MIN iwd1] Objects=Queue Category=JavaCategory JavaSubCategory=iwd1/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=OVERDUE 15MIN [GTL_PENDING_15MIN_iwd1] Objects=Queue Category=JavaCategory JavaSubCategory=iwd1/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=PENDING 15MIN [GTL ACTIVE iwd1] Objects=Queue Category=JavaCategory JavaSubCategory=iwd1/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=ACTIVE [GTL HELD iwd1] Objects=Oueue Category=JavaCategory JavaSubCategory=iwd1/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=HELD

[GTL NEW 15MIN iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=NEW 15MIN [GTL COMPLETED 15MIN iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=COMPLETED_15MIN [GTL NEW 30MIN iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR_iWD_Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=NEW 30MIN [GTL COMPLETED 30MIN iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=COMPLETED 30MIN [GTL_NEW_60MIN_iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=NEW 60MIN [GTL COMPLETED 60MIN iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=COMPLETED 60MIN [GTL OVERDUE 15MIN iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=OVERDUE 15MIN [GTL PENDING 15MIN iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=PENDING 15MIN [GTL ACTIVE iwd2] Objects=Oueue Category=JavaCategory JavaSubCategory=iwd2/BPR iWD Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=ACTIVE

Stat Server Extensions

[GTL_HELD_iwd2] Objects=Queue Category=JavaCategory JavaSubCategory=iwd2/BPR_iWD_Extension.jar:BPR iWD Statistics Description=BPR iWD Statistics measure-id=HELD

[java-extensions] iwd1/BPR_iWD_Extension.jar=true iwd2/BPR_iWD_Extension.jar=true