



*Teleopti WFM Connector
Integration Requirements
and
Functional Design Document*

Version 01

June 07, 2019

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Version History

<i>Date</i>	<i>Version</i>	<i>Author</i>	<i>Description</i>
	01		Created the draft



1.0 Introduction

The objective of this document is to provide a detailed functional design of statistical data integration between the Genesys/Cisco Contact Routing System and Teleopti® Workforce Management System within Customer's Contact Center environment.

To enable functionality of the Teleopti Workforce Management System within Contact Center environments, the Teleopti Workforce Management server must receive various historical contact and agent statistics from the Contact Center contact routing system.

Customer has requested that Teleopti Workforce Management be configured to extract data from their Genesys/Cisco contact routing environment to therefore properly enable functionality to their Teleopti Workforce Management system for the following contact centers.

2.0 Definitions

The following terms and definitions apply to this document:

Agent Login Id – The numeric digit sequence used to identify an agent within the Genesys framework, and within TotalView. The PBX Logon ID.

Queue ID – The alphanumeric digit sequence used to identify a *Virtual Queue* within the Genesys framework, and to identify a *Queue* within the TotalView system.

RTA – TotalView Real time Adherence

ACD – Automatic Call Distributor

Routing Strategy – A programmatic script utilized by the Genesys/Cisco Enterprise Routing Server to distribute interactions (contacts) to agents.

Target – A routing object, such as a Skill, Agent, or Agent Group that can be comprised of one or more agents but is always resolved to a specific agent (the one that will receive the interaction) based on some criteria such as agent availability.

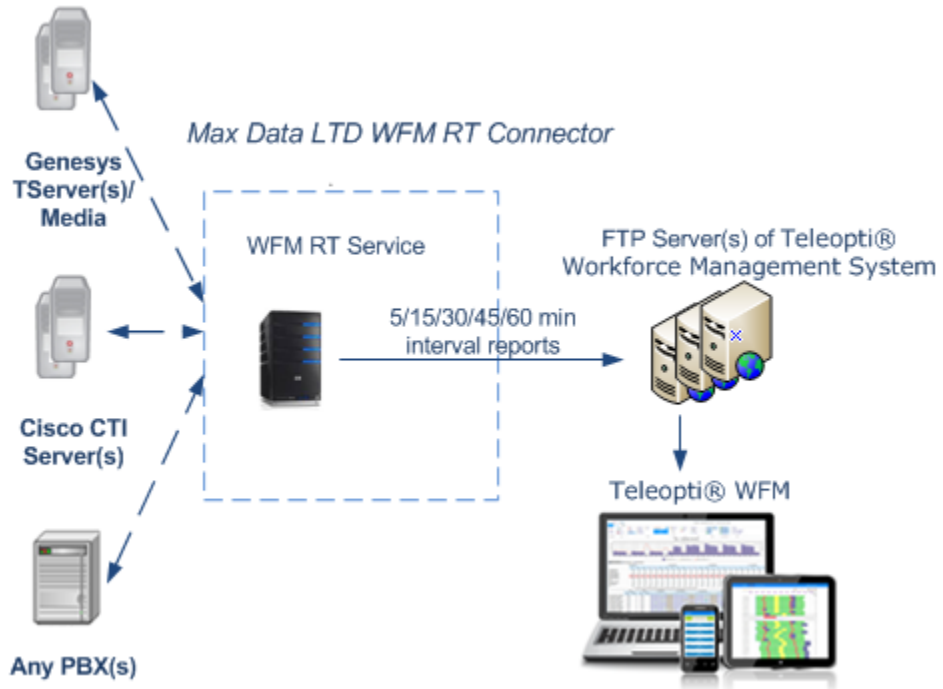
Virtual Queue – A virtual object created in the Genesys environment and used solely for reporting purposes. Virtual Queues do not actually queue interactions to agents. Instead, they provide a means by which a Routing Strategy can generate queuing events to provide custom statistics in the WFM Connector application.

Genesys/Cisco softphone Agent States – The Genesys/Cisco CTI agent phone states used to control Agent activities as defined within the Genesys/Cisco CTI communication messaging.

3.0 System Architecture

Below is the Max Data WFM Connector architectural diagram showing connectivity between *Customer's* Genesys/Cisco/Any PBX(s) framework, the Max Data WFM Connector, and Teleopti® Workforce Management System.

3.1 General System Architecture



4.0 WFM Connector Configuration

4.1 Historical Adherence

WFM Service Configuration

Service Level: Abandoned SRV: Interval: Daily

WFM Vendors

Teleopti NICE Aspect Verint GMT

Max Data LTD WFM Connector will derive the necessary historical statistics within (5/15/30/45/60) min time interval that enable the Aspect Workforce Management System.

4.2 FTP/Folder Configuration

Remote FTP Configuration

IP/Folder	FTP Directory	Port
<input checked="" type="checkbox"/> C:\2002\FTP		
<input checked="" type="checkbox"/> 127.0.0.1	WFM	0

FTP

FTP

IP Address: Directory: Port:

User Name: PSW:

Folder:

5.0 Teleopti Data Collection from WFM Connector

5.1 Historical Statistical Integration

The following section describes interval report generation and delivery, and how it is accomplished by the WFM Connector.

5.2 Report Generation

The following section describes interval report generation and delivery, and how it is accomplished by the Max Data LTD WFM CONNECTOR INTERFACE.

Max Data WFM Connector will generate the following (5/15/30/45/60) minutes interval reports for the Teleopti® Workforce Management System:

- [Agent Data Report](#)
- [Agent Queue Data Report](#)
- [Queue Data Report](#)
- [Queue Distribution Data Report](#)

The reporting format, including report headers and trailers, column names, and report content, conform to Teleopti® WFM Historical Data Collection specifications.

Interface report files generated by the WFM Connector and delivered to the Teleopti® WFM server will be named according to the format MMDDYY.hhmm where *hhmm* represents the hour and minute in which the reporting interval began. The completed reports for one interval will be concatenated into a single file for delivery to the Teleopti® WFM server.

All report file name and internal report header time stamp information will be based on the system time (in the local time zone) of the server where the WFM CONNECTOR INTERFACE report generator is running. This is configured within the WFM Connector Configuration Tool.

For each interval, the three (5/15/30/45/60) minutes interval reports will be generated and sent by the WFM Connector to the Teleopti® WFM server.

5.3 Report Delivery

The WFM Connector will support both anonymous and username/password FTP transfers. *Customer* is expected to indicate the FTP username/password at the time of the WFM Connector implementation.

Remote FTP Configuration

IP/Folder	FTP Directory	Port
<input checked="" type="checkbox"/> C:\2002\FTP		
<input checked="" type="checkbox"/> 127.0.0.1	WFM	0

FTP

FTP

IP Address: Directory: Port:

User Name: PSW:

Folder:

Remote FTP Configuration

IP/Folder	FTP Directory	Port
<input checked="" type="checkbox"/> C:\2002\FTP		
<input checked="" type="checkbox"/> 127.0.0.1	WFM	0

FTP

FTP

IP Address: Directory: Port:

User Name: PSW:

Folder:

Name	Date modified	Type	Size
080616.0920	8/6/2016 9:20 AM	0920 File	2 KB
080616.0925	8/6/2016 9:25 AM	0925 File	2 KB
080616.0930	8/6/2016 9:30 AM	0930 File	2 KB
080616.0935	8/6/2016 9:35 AM	0935 File	2 KB
080616.0940	8/6/2016 9:40 AM	0940 File	2 KB
080616.0945	8/6/2016 9:45 AM	0945 File	2 KB
080616.0950	8/6/2016 9:50 AM	0950 File	2 KB
080616.0955	8/6/2016 9:55 AM	0955 File	2 KB
080616.1000	8/6/2016 10:00 AM	1000 File	2 KB
080616.1005	8/6/2016 10:05 AM	1005 File	2 KB
080616.1010	8/6/2016 10:10 AM	1010 File	2 KB
080616.1015	8/6/2016 10:15 AM	1015 File	2 KB
080616.1020	8/6/2016 10:20 AM	1020 File	2 KB
080616.1025	8/6/2016 10:25 AM	1025 File	2 KB
080616.1030	8/6/2016 10:30 AM	1030 File	2 KB
080616.1035	8/6/2016 10:35 AM	1035 File	2 KB

6.0 Genesys/Cisco to Aspect WFM System Statistics Mapping

The following section provides a list of the data items that have been identified as necessary to produce the (5/15/30/45/60) minutes interval reports required by Aspect WFM and a description of how each data item will be mapped to a corresponding statistic within the Genesys/Cisco environment.

6.1 Agent Data Report

The Agent Productivity Report is often an optional report that is generated at the end of each day or within (5/15/30/45/60) minutes interval. The report includes information regarding agent status information.

6.1.1 Sample Report

```

|Teleopti.Agent.Data
08/06/16 09:20
interval date      time  agentid agent_name      avail_dur tot_work_dur pause_dur
5      20160806 09:20 1002   Alexander sachin 103      116      13
|End Teleopti.Agent.Data

wait_dur wrap_up_dur direct_out_call_cnt direct_out_call_dur direct_in_call_cnt direct_in_call_dur
97      9      1      4      1      2
    
```

6.1.2 Data Elements

Field	Data Type	Description
Interval	mm	Length of the reported interval (5,15,30,45,60 supported)
Date	YYYYMMDD	Date of the reported interval
Time	hh:mm	Start time of the reported interval
agent_name	char(50)	Agent description, typically name for easy identification.
agent_id	integer	Agent's Login ID within the PBX
avail_dur	integer	Duration Available for calls, including talk, wrap and idle. Calculated as tot_work_dur minus pause_dur.
tot_work_dur	integer	Worked (logged on) duration
pause_dur	integer	sum of NotReady (AUX)
wait_dur	integer	Wait duration (Idle)
wrap_up_dur	integer	Wrap up duration (after call work) not related to one specific queue
direct_out_call_cnt	ushort	Direct out calls from extension.
direct_out_call_dur	integer	Direct out call duration.
direct_in_call_cnt	ushort	Incoming direct calls on agent extension
direct_in_call_dur	integer	Incoming direct call duration on agent extension.

6.2 Agent Queue Data Report

6.2.1 Sample Report

```

Teleopti.AgentQueue.Data
08/08/16 18:20
interval date    time    agentid agent_name    queue    queue_name
5      20160808 18:20  1002    Alexander Sachin  671005   ACD Queue
End Teleopti.AgentQueue.Data

talking_call_dur wrap_up_dur answ_call_cnt transfer_out_call_cnt
      35             67             4             0
    
```

6.2.2 Data Elements

Field	Data Type	Description
Interval	mm	Length of the reported interval (5,15,30,45,60 supported)
Date	YYYYMMDD	Date of the reported interval
Time	hh:mm	Start time of the reported interval
agent_name	char(50)	Agent description, typically login id and name for easy identification.
agent_id	integer	Unique agent identifier
queue_name	char(50)	Queue/VQ Type Example: 'Virtual Queue'
queue	char(50)	Unique queue identifier
talking_call_dur	integer	ACD calls (this queue) talk duration. Talk+ hold during this interval
wrap_up_dur	integer	Wrap up duration (after call work) (this queue). Total ACW of all answered calls during this interval. Triggered by the agent pressing not ready during the call to enter Workmode=3 and then finish the call. I.e. this is the same rule as for Queue Stat
answ_call_cnt	ushort	ACD calls (this queue) answered.
transfer_out_call_cnt	ushort	Calls (this queue) transferred to another queue.

6.3 Queue Data Report

6.3.1 Sample Report

```

Teleopti.Queue.Data
08/08/16 18:20
interval date      time  queue  queue_name offd_direct_call_cnt overflow_in_call_cnt aband_call_cnt
5      20160808 18:20  671005   ACD Queue      4              0              2

talking_call_dur wrap_up_dur  queued_answ_longest_que_dur  queued_aband_longest_que_dur  avg_avail_member_cnt
      35          67              35              10              0
End Teleopti.Queue.Data

overflow_out_call_cnt answ_call_cnt  queued_and_answ_call_dur  queued_and_aband_call_dur
      0              4              35              15

ans_servicelevel_cnt wait_dur  aband_short_call_cnt  aband_within_sl_cnt
      100              50              2              2
    
```

6.3.2 Data Elements

Field	Data Type	Description
Interval	mm	Length of the reported interval (5,15,30,45,60 supported)
Date	YYYYMMDD	Date of the reported interval
Time	hh:mm	Start time of the reported interval
queue_name	char(50)	Queue / VQ Type Example: 'Virtual Queue'
queue	char(50)	Unique queue identifier
offd_direct_call_cnt	ushort	Number of calls offered to this queue during this interval. All calls that have been entered onto the queue during the interval. They will then either be answered or abandoned. No overflow can occur. Including short abandoned.
overflow_in_call_cnt	ushort	Number calls redirected to this Queue/VQ from another Queue.
aband_call_cnt	ushort	Number of abandoned calls for this queue. All calls that have been abandoned on queue during the interval. Triggered by an abandon event in Genesys or in the softphone.
overflow_out_call_cnt	ushort	Number of calls redirected from this Queue/VQ to another Queue/VQ.
answ_call_cnt	ushort	Number of answered calls for this queue. All calls that have been answered on queue during the interval. Triggered by an answer event from the softphone
queued_and_answ_call_dur	integer	Total queue time all answered calls. Total Speed of answer. Referring to the calls answered during the interval. Queue time meaning from the time the call entered the queue until it is answered.
queued_and_aband_call_dur	integer	Total queue time all abandoned calls. Total time of abandoned. Referring to the calls abandoned during the interval. Queue time meaning from the time the call entered

		the queue until it is answered.
talking_call_dur	integer	Total talk time for this queue. Only talk time that has occurred during the interval, i.e. a call that begins in one interval and has talk time also in the next, will have talk time divided over two intervals
wrap_up_dur	integer	Total wrap up (after call work) duration for this queue. Total ACW of all answered calls during the interval. Triggered by the agent pressing not ready during the call to enter Workmode=3 and then finish the call. i.e. this is the same rule as for agent' stat.
queued_answ_longest_que_dur	integer	Maximum queue time for answered calls. Max time to answer
queued_aband_longest_que_dur	integer	Maximum queue time for abandoned calls. Max time to abandon.
avg_avail_member_cnt	ushort	Average number of available (not paused) agents for this queue.
ans_servicelevel_cnt	ushort	Number of calls answered within defined service level threshold. Threshold is set in the ACD system. Number of calls answered with a queue time within the set service level.
wait_dur	integer	Total idle duration for this queue.
aband_short_call_cnt	ushort	Number of calls abandoned within defined short call threshold. Threshold is set in the ACD system.
aband_within_sl_cnt	ushort	Number of calls abandoned within defined service level threshold. Threshold is set in the ACD system.

6.4 Queue Distribution Data Report

6.4.1 Sample Reports

```
Teleopti.QueueDist.Data
08/08/16 18:20
interval date    time    queue    queue_name threshold answ_call_cnt aband_call_cnt
5      20160808 18:20  671005  ACD Queue      600         4           2
End Teleopti.QueueDist.Data
```

6.4.2 Data Elements

Field	Data Type	Description
Interval	mm	Length of the reported interval (5,15,30,45,60 supported)
Date	YYYYMMDD	Date of the reported interval
Time	hh:mm	Start time of the reported interval
queue_name	char(50)	Queue/VQ Type Example: 'Virtual Queue'
queue	char(50)	Unique queue identifier
threshold	ushort	Typically 5,10,20,30,40,60,90,120,180 etc. up to 9999 as infinity.
answ_call_cnt	ushort	Calls answered between previous threshold and this threshold.
aband_call_cnt	ushort	Calls abandoned between previous threshold and this threshold.

7.0 Revision & Sign-off Sheet

7.1 Change Record

Date	Author	Version	Change Reference

7.2 Reviewers

Name	Version Approved	Position	Date

7.3 Distribution

Name	Position

7.4 Document Properties

Item	Details
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