SuperQ™ Manual

12/2009 4413-0011-6.5 Update1

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AltiGen Communications, Inc.
410 East Plumeria Dr.
San Jose, CA 95134
Telephone: 888-AltiGen (258-4436)
Fax: 408-597-9020
E-mail: info@altigen.com
Web site: www.altigen.com

TRADEMARKS

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Contents

CHAPTER 1

About AltiGen SuperQ

AltiGen SuperQ is a Java-based application designed to queue and distribute calls for call centers with workgroups located in different geographic locations or across multiple MAXCS ACM systems. Each server can have one or more local workgroup queues. All locations and servers are tied together over an internet protocol (IP) network and voice over IP (VoIP) SIP tie trunk. AltiGen SuperQ optimizes efficiency by controlling calls in the carrier's network termination site before they travel through the IP network and reach local automatic call distributors (ACDs).

AltiGen SuperQ enables call centers to combine teams of workgroups from multiple locations into one virtual team, providing the following benefits:

- Superior customer service
- Reduced operating costs
- Optimized operations effectiveness, achieved by eliminating imbalance of agent call load

Larger virtual teams increase efficiency, allowing call centers to handle more calls with the same number of people. Calls can be delivered with faster service, shorter hold times, balanced work load, and fewer abandoned calls.

A SuperQ agent may belong to multiple workgroups.

AltiGen SuperQ provides separate graphical user interfaces (GUIs) for **configuration** and **monitoring**. AltiGen SuperQ call detail reporting (CDR) data is also available.

AltiGen SuperQ requires the registration and activation of the AltiGen SuperQ License in each MAXCS ACM System that will be connected to SuperQ.

System Requirements

Run SuperQ on a separate system from MAXCS.

The system with *SuperQ* running must meet the following minimum requirements:

- Windows Server 2003 SP2 or Windows Server 2008 SP1

- Dedicated Pentium 4, 2 GHz computer
- 40 GB available hard drive disk space
- 1 GB RAM
- Java Virtual Machine (Java VM) 1.5 (SuperQ installation program will install this)

The system with *SuperQ Manager* and *SuperQ Monitor* running must meet the following minimum requirements:

- PC running Windows 2003 SP2 or Windows XP with SP3 or Windows Vista Business Edition or Windows 7 (32-bit or 64-bit) or Windows 2008 (32-bit and 64-bit) or Windows 7 (32-bit or 64-bit)
- Java 2 Runtime Environment 1.5
- Pentium 4, 1GHz with 256 M

The *MAXCS* system should have the following:

- MAXCS ACM 6.5 Update1 or higher
- AltiGen SuperQ License (each MAXCS requires an AltiGen SuperQ license)

Important WAN Considerations

Administrators should consider bandwidth availability and usage among sites. If the bandwidth is insufficient, it may degrade voice quality. In this case, the SuperQ may not be usable.

If many calls will be placed over the wide area network (WAN), administrators should also ensure the WAN is reliable. If the WAN is not reliable, administrators should take the following steps:

1. Enable the option **Dispatch calls to local workgroup first if local agent(s) available** (under SuperQ Manager/Call Distribution).
2. For each server, set **Maximum In-use IP Channels** to a smaller value.

In SuperQ, administrators can configure a maximum of IP trunks. The WAN bandwidth requirement can be calculated using the following formula:

Maximum IP trunks x G.723/G.729 bandwidth usage x 1.5 = bandwidth requirement

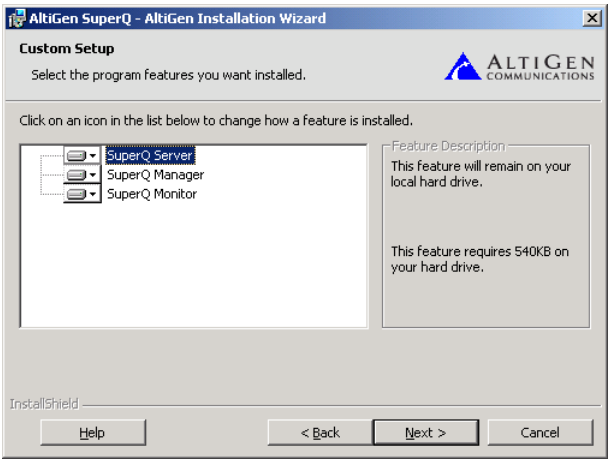
If G.723/G.729 usage is around 25 Kbps, G.711 is not recommended (~80 Kbps), unless 2Mbs+ bandwidth is available among sites.

Installing SuperQ

For SuperQ Server Administration

Note: During the installation process, Java 2 VM 1.5 is installed on your system.

To install SuperQ for server administration, run the **Setup** program and follow the installation instructions as they appear on the screen. In the **Custom Setup** screen, choose to install **SuperQ Server** on the system, then click **Next**.



After installation, restart the system.

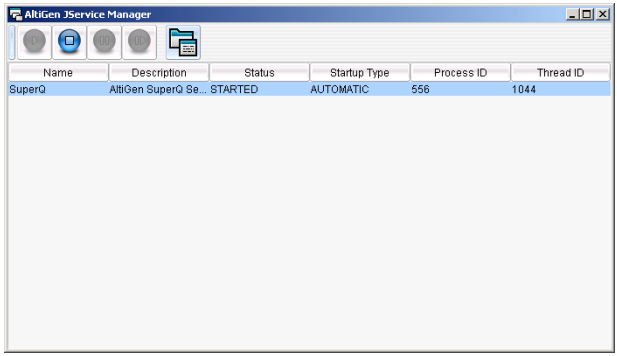
Additional Server Setup

- SIP tie trunks should have access codes set in MaxAdministrator.
- Music settings should be set in MaxAdministrator, if music is needed for a queue.
- An entry should be added in the IP dialing table for each server. Select SIP for the protocol and select a codec type.

Note: Do not select “default” as the codec type. This would cause remote call failure.

SuperQ Service

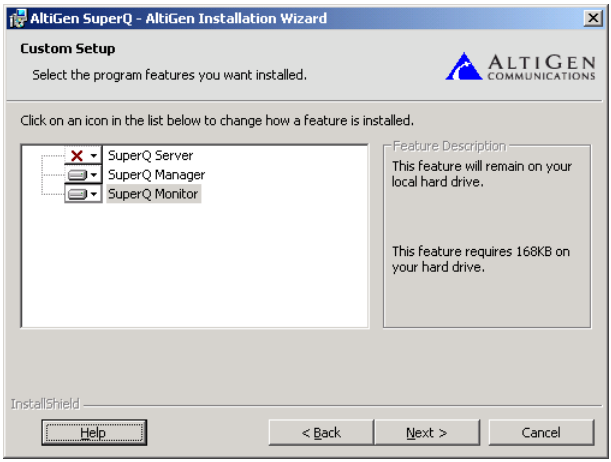
SuperQ Service is an automatic startup service running as a background process for SuperQ. This service is controlled by AltiGen Java Services Manager. To stop or start the service, or to change SuperQ Service properties, go to AltiGen Java Services Loader, located at **Start > Programs > AltiGen Java Services Loader > AltiGen Java Services Manager**.



If SuperQ Service is stopped, all calls to the SuperQ will follow the Application Extension Configuration’s application failover plan.

For SuperQ Manager and SuperQ Monitor Clients

To install SuperQ Manager or SuperQ Monitor, run the **Setup** program and follow the installation instructions as they appear on the screen. In the **Custom Setup** screen, install **SuperQ Manager** and **Super Queue Monitor** on the system.



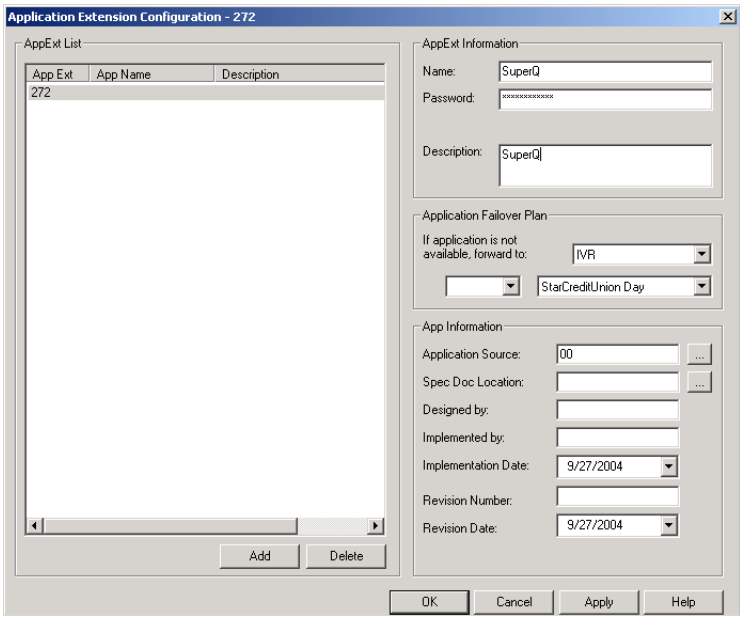
After installation, you can run SuperQ Monitor or SuperQ Manager from **Start > Programs > AltiGen SuperQ > SuperQ Monitor** or **SuperQ Manager**.

Application Extension Configuration

A SuperQ pilot number is assigned by creating an application extension on the MAXCS system. The application extension number is used to route the calls to SuperQ from IVR/AA, Trunk In Call Routing, DNIS Routing, and so on.

Before configuring AltiGen SuperQ, the administrator needs to add an application extension to each AltiGen system that will be part of the super queue. AltiGen SuperQ will log in to the application extension in each AltiGen system to create a data link to process call events. All calls to this application extension will be under AltiGen SuperQ control, which will assign the call to a queue or transfer the call to an available workgroup agent.

The application extension number in each system must be the same as the SuperQ number. The administrator must make sure the application extension number and password in all AltiGen systems are the same, in order to ensure that the application extensions act for a particular SuperQ logon as one SuperQ.



Application Extension Page, MaxAdministrator

If the SuperQ cannot determine how to transfer the call (for example, SuperQ Server is not running or the data link to the SuperQ Server is down), the SuperQ will follow the **Application Extension Failover Plan** specified in the Application Extension Configuration dialog box.

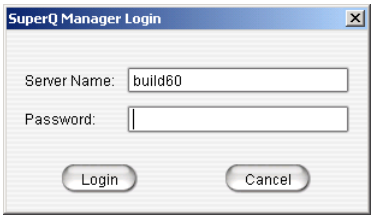
Important: The password used for the application extension should be the same as the SuperQ password, so that SuperQ can log into each application when service is starting up.

CHAPTER 3

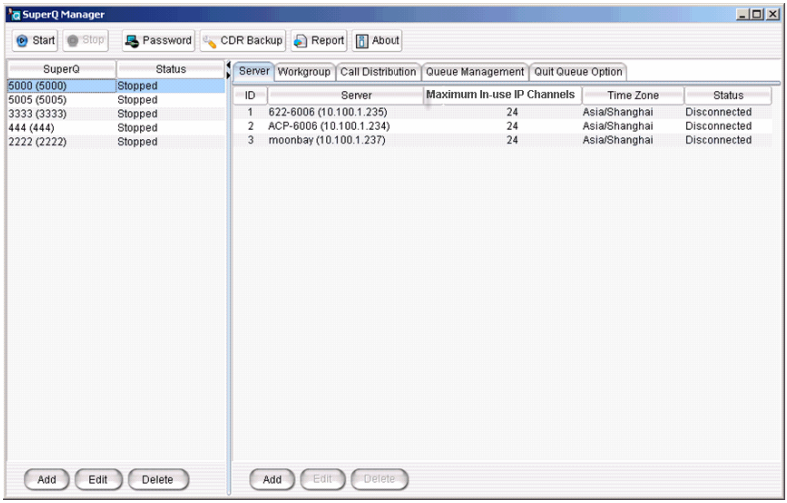
Using AltiGen SuperQ Manager

Login

To log in to SuperQ Manager, go to **Start > Programs > AltiGen SuperQ > SuperQ Manager**. In the login window, **Server Name** field, enter the SuperQ Service server name or IP address, enter the **Password**, and click the **Login** button. The default password is `22222` to log into SuperQ Manager.



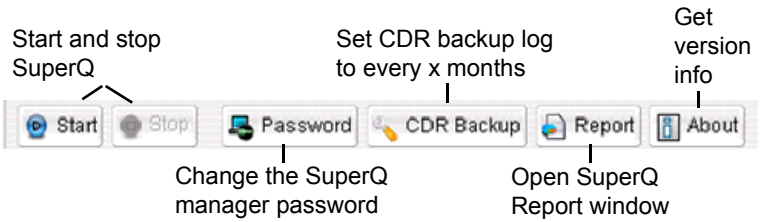
After login, the SuperQ Manager main configuration window appears:



Using AltiGen SuperQ Manager, the administrator can set up AltiGen SuperQ routing rules, add and delete workgroups, and start and stop AltiGen SuperQ.

Toolbar

The toolbar contains buttons to access SuperQ functions.



Network Configuration

Adding a SuperQ

To add a SuperQ:

1. Click the **Add** button in the SuperQ list pane, or right-click on the pane and select **Add**.
2. In the **Add SuperQ** dialog box, enter the **Name**, **Application Extension Number** and **Password** for the SuperQ. Select the **Auto start when service restarted** option to have the SuperQ start automatically the next time the AltiGen SuperQ Service is restarted.

Important: The **password** used here must be the same application extension password used for all systems

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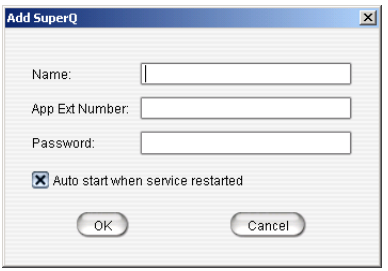
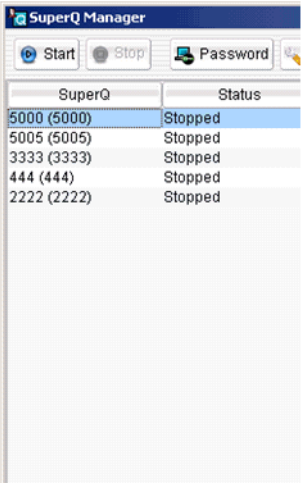


3. Click **OK**.
4. Repeat steps to add additional SuperQs. (Up to 10 SuperQs may be added.)

Once added, the SuperQ appears in the **SuperQ List** displayed in the left pane.



Use the **Edit** or **Delete** buttons to modify or delete a selected SuperQ, or right-click on the SuperQ List pane and select **Edit** or **Delete**.

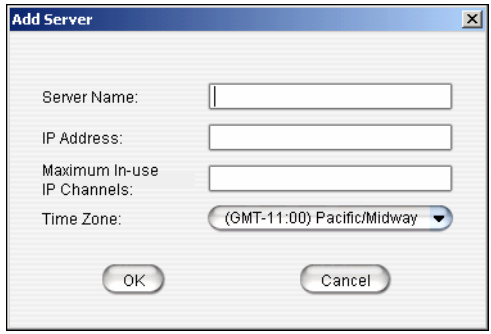
Adding a MAXCS Server to SuperQ

To add a MAXCS server to a SuperQ:

1. Select a SuperQ from the **SuperQ List**, then click the **Add** button at the bottom of the pane, or right-click on the blank space of the SuperQ List pane and click **Add**.
2. In the **Add Server** dialog box, enter the **Server Name**, **IP Address**, **Maximum In-use IP Channels**, and use the drop-down box to select the local **Time Zone** for this MAXCS server.

   Note: **Maximum In-use IP Channels** is the maximum number of VoIP trunks that can be used simultaneously in this server (due to network bandwidth considerations). "In use" includes all calls, not only the calls distributed by SuperQ.

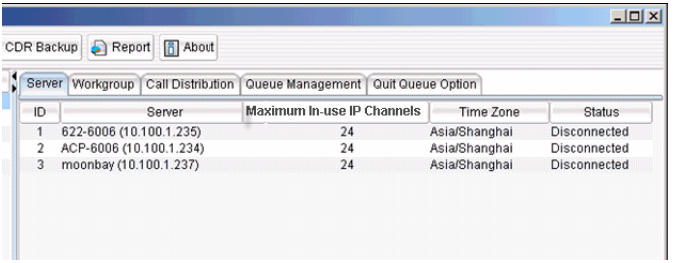
   If not enough VoIP trunks are available, calls will not be dispatched from SuperQ to that server.



3. Click **OK**.
4. Repeat steps to add additional MAXCS servers to the SuperQ.

Use the **Edit** or **Delete** buttons to modify or delete a server.

Once added, the MAXCS server appears in the server list displayed in the right pane.



Workgroup Configuration

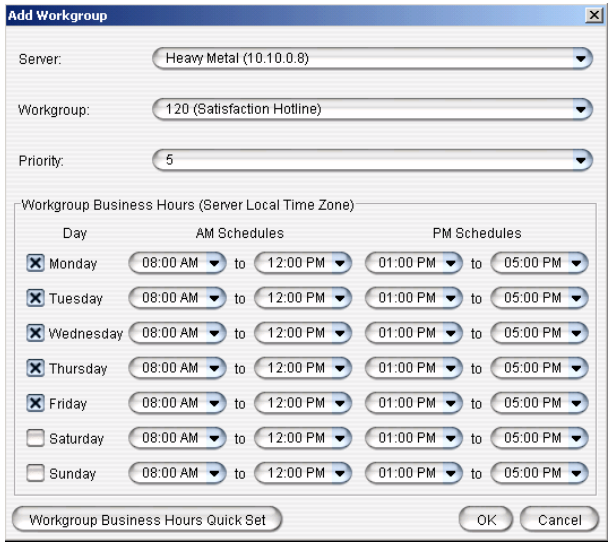
An administrator can add multiple workgroups in one server or the workgroups in different servers to a SuperQ. When the SuperQ receives a call from an application extension with the same workgroup number, SuperQ will dispatch the call to a workgroup based on call distribution rules or queue the call if no agent is available.

Adding a Workgroup to SuperQ

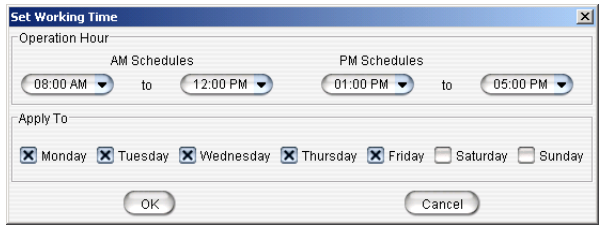
To add a workgroup to a SuperQ:

1. Click the **Workgroup** tab, select a SuperQ from the **SuperQ List** pane, then click the **Add** button in the **Workgroup** page.
2. In the **Add Workgroup** dialog box, use the drop-down arrow to select the workgroup **Server Name**, **Workgroup Number/Name**, and **Priority** (for SuperQ call distribution purposes).

Important: If two workgroups have the same priority, the first available workgroup will get the call.

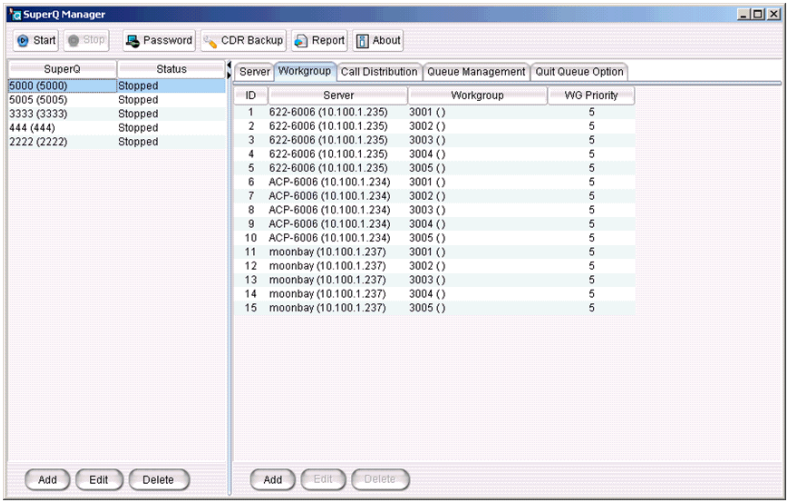


3. In the **Workgroup Business Hours** field, select the workgroup's operating hours. The workgroup's time zone is the same as the time zone of its own server. It may or may not be the same time zone of SuperQ Server.
4. You can also click the **Workgroup Business Hours Quick Set** button as a quick way to set the **Workgroup Business Hours** for the workgroup.



5. Click **OK**.
6. Repeat steps to add additional workgroups to the SuperQ.

Once added, the **Workgroup** appears in the **Member List** displayed in the **Workgroup Configuration** pane.



Use the **Edit** or **Delete** buttons or right-click on the workgroup list pane and select **Edit** or **Delete** to modify or delete a Workgroup.

Important Workgroup Configuration Note

When configuring a SuperQ group on a MAXCS system that already has a well-known workgroup number, the administrator should consider replacing the old workgroup number with the SuperQ pilot number.

For example, suppose a MAXCS system has *300* as the existing Technical Support workgroup number and *400* is assigned as the new SuperQ number. Customers are already familiar with workgroup *300*, so when calling in, they most likely will directly dial *300* to reach the Technical Support group. In this case, calls directly to *300* will not be handled by SuperQ *400*.

To replace the old workgroup extension with the new SuperQ extension:

1. Delete workgroup *300* and set the same configuration to a new replacement workgroup, such as *301*.

Important: All existing voice mails for the workgroup will be deleted once the workgroup has been deleted. Please make sure to transfer or note any important workgroup voice mail before deleting the workgroup.

2. Create an application extension for *300* (instead of *400*).

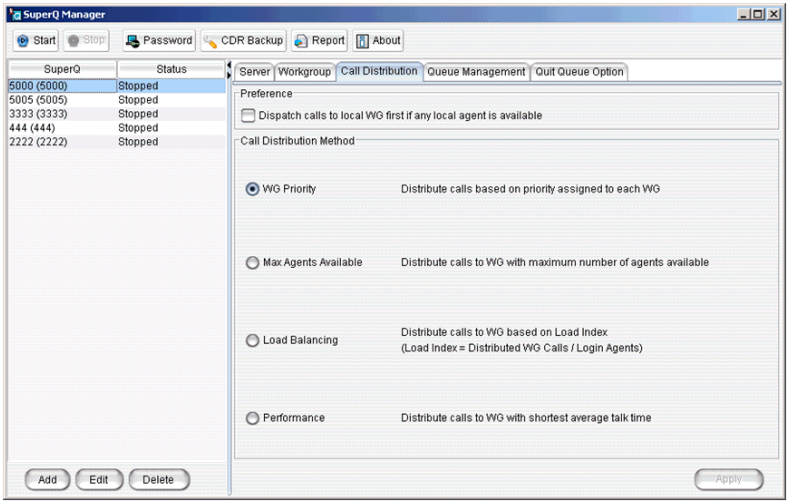
3. Create SuperQ *300* to control the application extension *300* (instead of *400*).
4. Also, set the **Application Extension Fail Over Plan** to Workgroup 301.

Call Distribution

After workgroups have been added to the SuperQ, the administrator can configure call distribution rules for each SuperQ.

When configuring call distribution for a SuperQ, consider workgroup business hours and time zone first. If all workgroups in the SuperQ are out of working hours, AltiGen SuperQ will follow the application failover plan in the system's application extension configuration.

To apply call distribution settings, select a SuperQ from the **SuperQ List** window, then select from the following options:



- **Preference** - if selected, delivers SuperQ calls to the call entry point's local workgroup first, if a local agent is available. This reduces VoIP trunk usage and saves IP bandwidth.
- **Call Distribution Methods**: select from one of the following call distribution options that will apply when multiple remote workgroups have agents available at the same time:

— **Priority** - distributes call based on priority assigned to each workgroup; 1 is the highest priority, 9 is the lowest priority.

— **Max Agent Avail** - distributes call to workgroup with maximum number of agents available (login and idle); this option disregards priority.

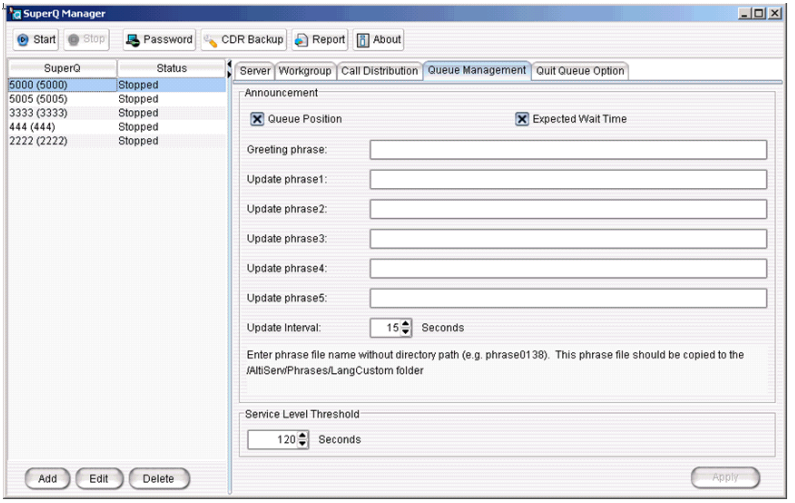
— **Load Balancing** - distributes call to workgroup with smallest Load Index. (Load Index = Distributed WG calls / Login agents.)

— **Performance** - distributes call to workgroup with highest Performance Index, calculated from the shortest average talk time since midnight. The workgroup with the shortest average talk time will be the highest performing workgroup.

Note: The call with highest call priority will leave the queue first. If call priority is the same, the call with the longest queue time will leave the queue first. Call priority is assigned by the entry point's server.

Queue Management

The administrator can set up queue announcements for a SuperQ.



To set up queue announcements:

1. Select a SuperQ from the **SuperQ List** window to set up queue announcements.
2. Enable or disable the options to announce the **Queue Position** and **Expected Wait Time**.
3. Then enter a phrase number in the fields for the **Greeting Phrase** and **Update Phrase 1-5**, then select **Update interval** in seconds, or highlight the field and enter the numbers.

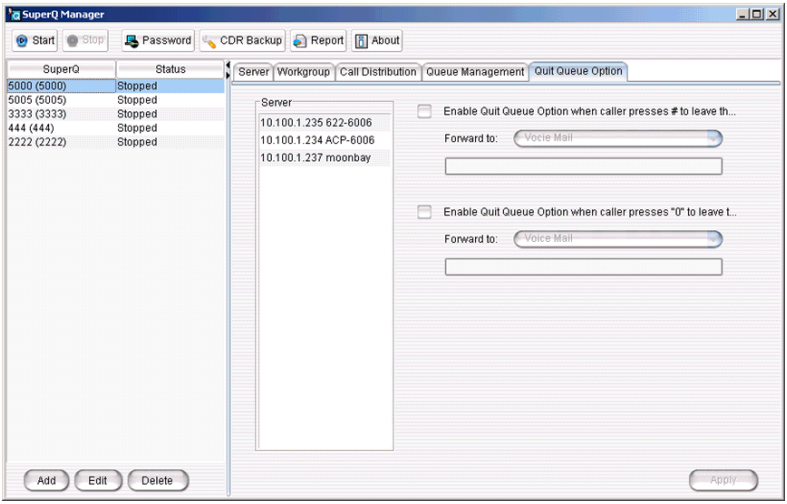
Note: All phrases selected for the SuperQ must be available on all servers, in the AltiServ\Phrases\LangCustom directory. The valid entry must be the entire phrase file name, not just the phrase number. If the phrase file does not exist on a particular system, the caller on that particular system will not hear the phrase.

The **Service Level Threshold** field allows you to select the length of time in seconds that a call can be in queue before the call is logged in SuperQ statistics as having exceeded the allowable service level limits. You can set the value to any number between 1-1200 seconds.

Quit Queue Option

The administrator can configure one of two methods for callers to quit Super Queue: pressing "**0**" or "**#**". With either method, the administrator can specify the target to forward the call to:

- Voice Mail
- Extension
- IVR
- Group
- Operator



To specify a quit queue option:

1. Select a server from the server list.
2. Click one of the following options:
   - **Enable Quit Queue Option when caller presses # to leave the queue**

     or

   - **Enable Quit Queue Option when caller presses 0 to leave the queue**
3. Click **Apply**.

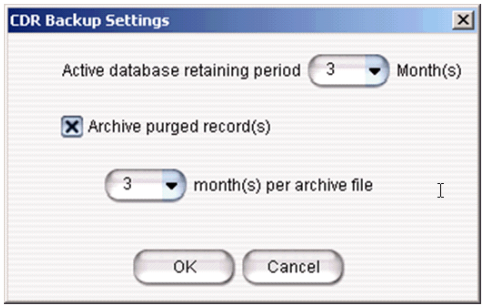
Note: Quit Queue Option only defines the option in the caller's entry system. For example, if the caller enters SuperQ via system A, when the caller presses # or 0, only the configuration for system A will apply to this caller.

CDR Backup Settings

There are two kinds of databases for SuperQ CDR: active and backup.

To change CDR backup settings:

1. Click the **CDR Backup** button on the SuperQ toolbar.



2. In the **Active Database Retaining Period** field, specify how many months you want the active database to keep data.

   Note: The active database will actually keep data for one month longer than specified. For example, if at the beginning of the year you set the retaining period to 3 months and now it is April, the data in the active database is from Jan. 1 to present, and the data before Jan. 1 will be deleted or moved to backup files (as you specify in steps 3 and 4).

   Note: Only the records in the active database can be searched by SuperQ Report.

3. Check **Archive Purged Record(s)** if you want SuperQ to move out-of-date records to the backup database. If **Archive Purged Record(s)** is not checked, out-of-date records will be deleted.

4. In the **Month(s) Per Archive File** field, specify for how long you want SuperQ to collect backup data in one file before starting a *new* backup file.

5. Click **OK**.

If you want to delete backup files, you must do this manually. Backup files are located at `<SuperQ install folder>\bk\`.

CHAPTER 4

Running SuperQ Reports

To launch SuperQ Report, click the **Report** button in the SuperQ Manager toolbar.

SuperQ provides the following detailed reports by SuperQ group or by server:

- **Call Detail**—shows the call detail information of SuperQ activity
- **SuperQ Group Activity**—shows the information about how many calls enter into a SuperQ, how many have been distributed or abandoned, and total/average queue time.
- **Distributed Calls Activity**—shows the number and the percentage of calls distributed to each server/workgroup from SuperQ.
- **Call Source**—shows information about the call entry point and the result of calls processed by SuperQ
- **Queue Time**—shows queue time by different intervals
- **Daily Longest Queue Time**—shows longest queue time in every 15 minutes
- **Cumulative SuperQ Activity**—shows accumulated number of call activities in each time period
- **Cumulative Server and Workgroup Activity**—shows the number of calls received by each local workgroup in different periods
- **Call Priority**—shows number of calls by different call priority

Note: Any change of Workgroup priority will not affect the Call Priority Reports. Call priority is assigned by MAXCS at the call entry point.

Query/Print Reports

To access a report:

1. From the SuperQ Report window, select a category from the tab choices.
2. Once the report is chosen, use the mouse to select one or more SuperQs from the Group list (window pane on the left side).
3. Where applicable, select the **Summary Interval** for the report.
4. In the **Report Range** field, select either:
   - **Time Period** (use the drop-down menu to select, for example, *This Week*, *Last Month*, and so on)

     or
   - **From** (specified date: day/month/year format) **To** (specified date: day/month/year format)
5. In the **Filtered By** field, select the day(s) of week for the report and/or the **Time** period for each day (use the drop-down menu to select Hour and Minute).
6. In the **Options** field, group the report by selecting one of the following radio buttons: **SuperQ Group** or **Server**.

   Where applicable, you may also have the following options:
   - A checkbox to **Show Empty Results** or **Show Empty Record**.
   - **Increment** in seconds.
   - Radio buttons to show **All Calls**, **Distributed Calls** or **Abandoned Calls**.
7. Click the **Next** button to view the report results. The generated report appears in a new window.

From the report results window, you can **Print** the call data, **Save** the data to another format, or **Close** the window.

Call Detail

Shows the call detail information of SuperQ activity.

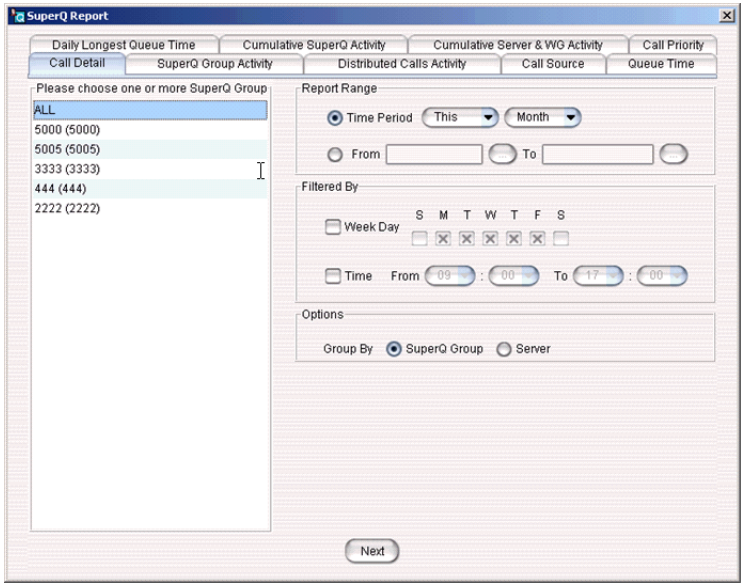


Figure 1. Call Detail Report

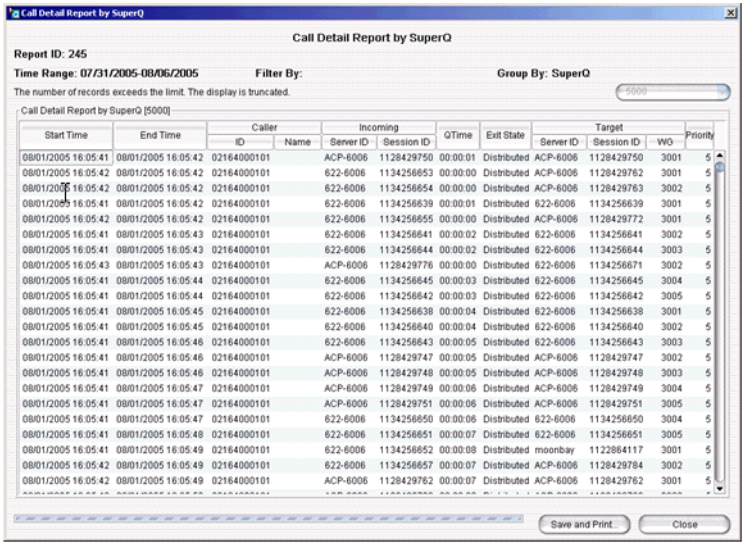


Figure 2. Call Detail Report Results

SuperQ Group Activity

Shows how many calls enter a SuperQ, how many have been distributed or abandoned, and total/average queue time.

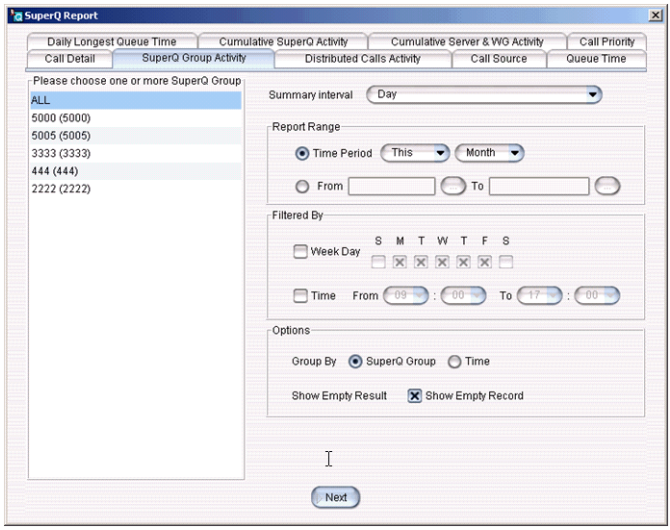


Figure 3. SuperQ Group Activity

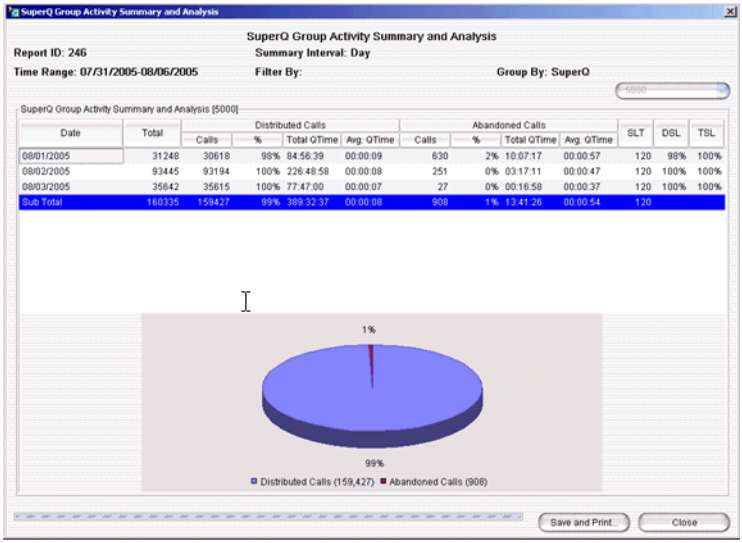


Figure 4. SuperQ Group Activity Report Results

Distributed Calls Activity

Shows the number and percentage of calls distributed to each server/workgroup from SuperQ.

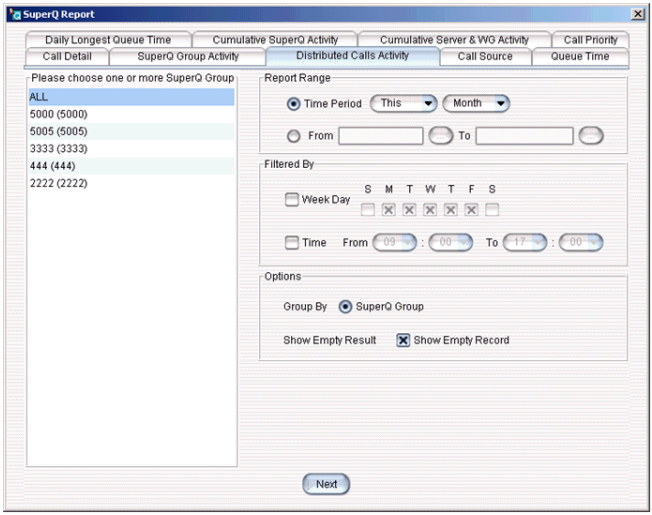


Figure 5. Distributed Calls Activity Report

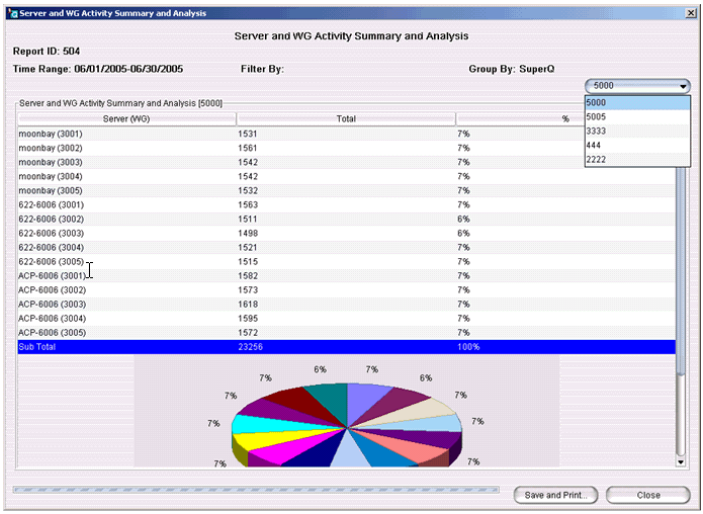


Figure 6. Distributed Calls Activity Results

Call Source

Shows information about the call entry point and the result of calls processed by SuperQ.

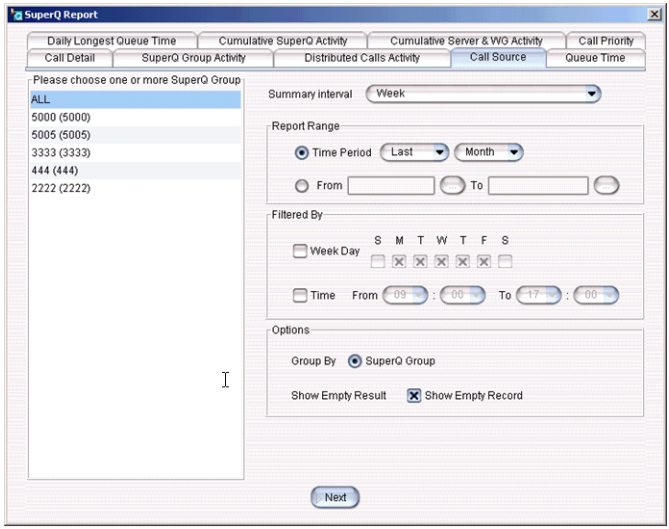


Figure 7. Call Source Report

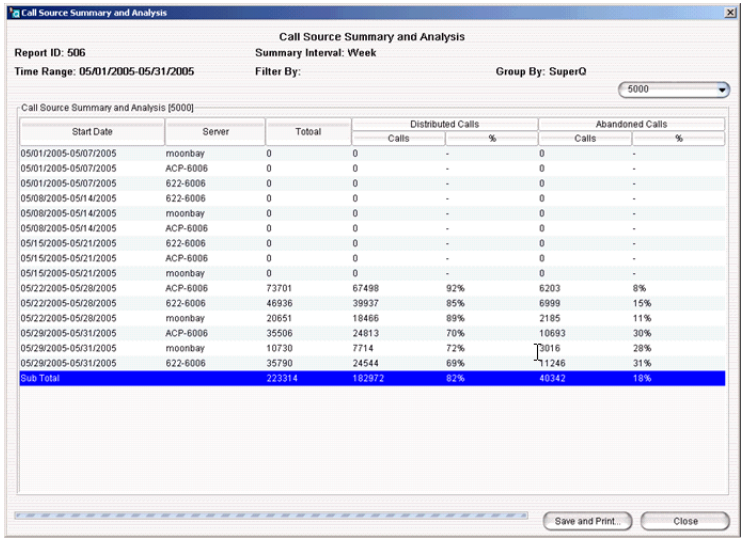


Figure 8. Call Source Report Results

Queue Time

Shows queue time by different intervals.

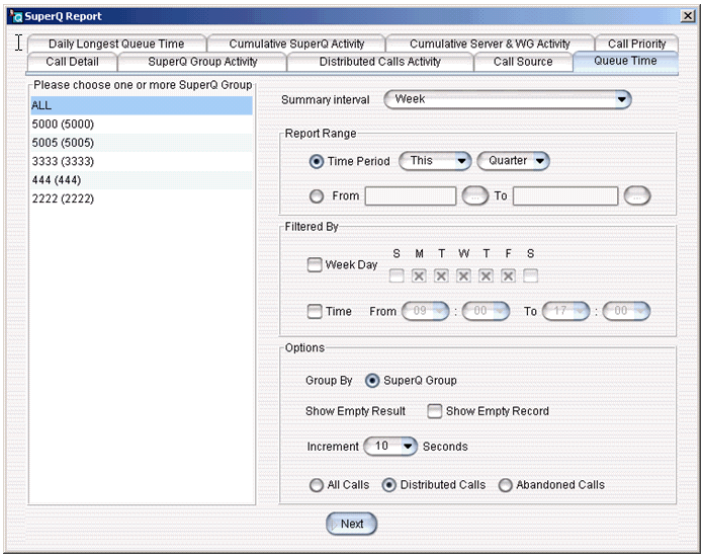


Figure 9. Queue Time Report

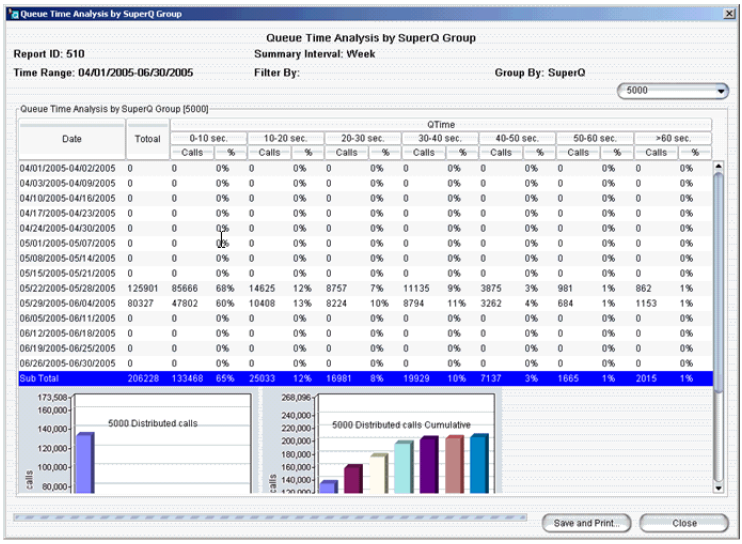


Figure 10. Queue Time Report Results

Daily Longest Queue Time

Shows longest queue time in every 15 minutes.

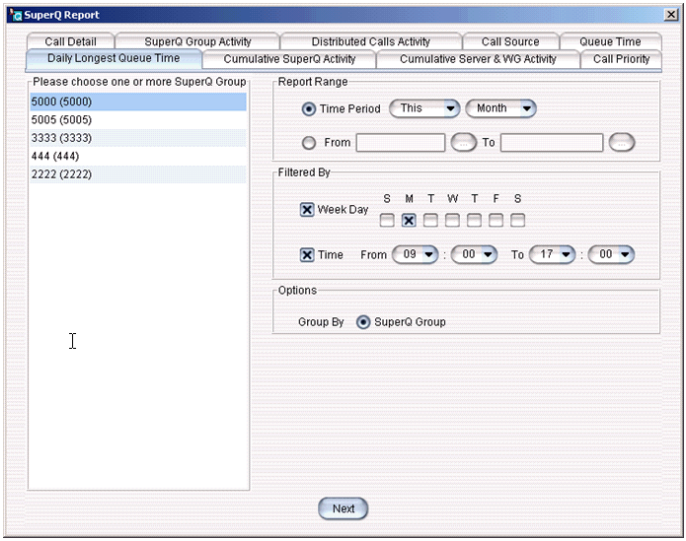


Figure 11. Longest Queue Time Report

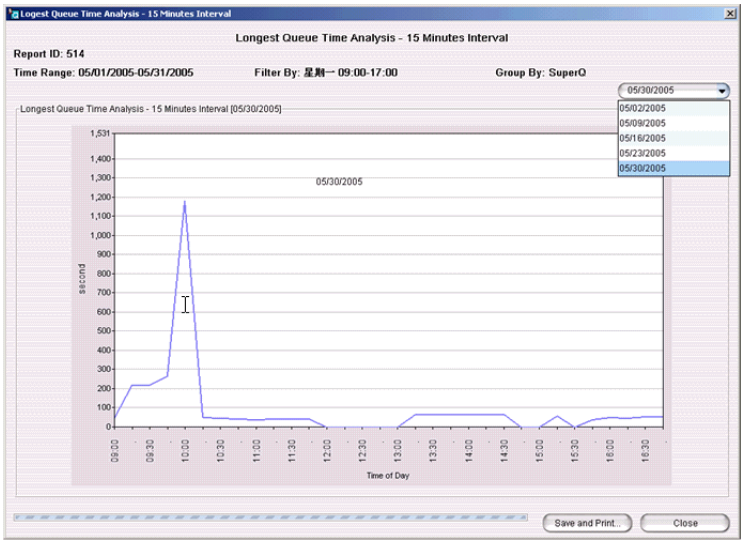


Figure 12. Longest Queue Time Report Results

Cumulative SuperQ Activity

Shows accumulated number of call activities in each time period.

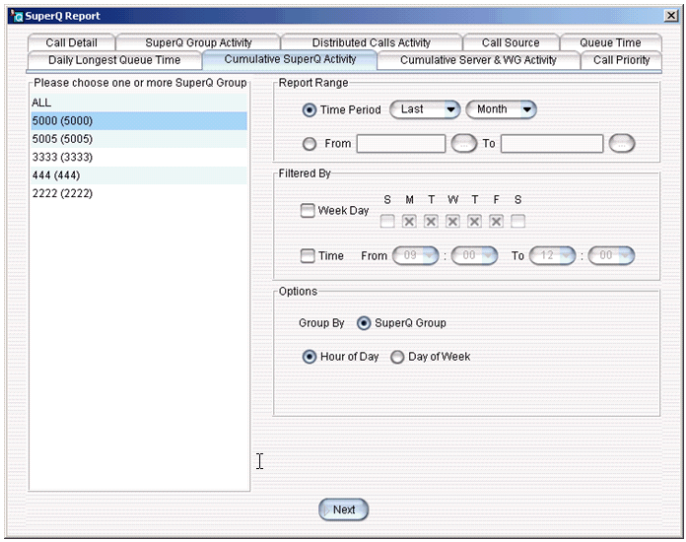


Figure 13. Cumulative SuperQ Activity Report

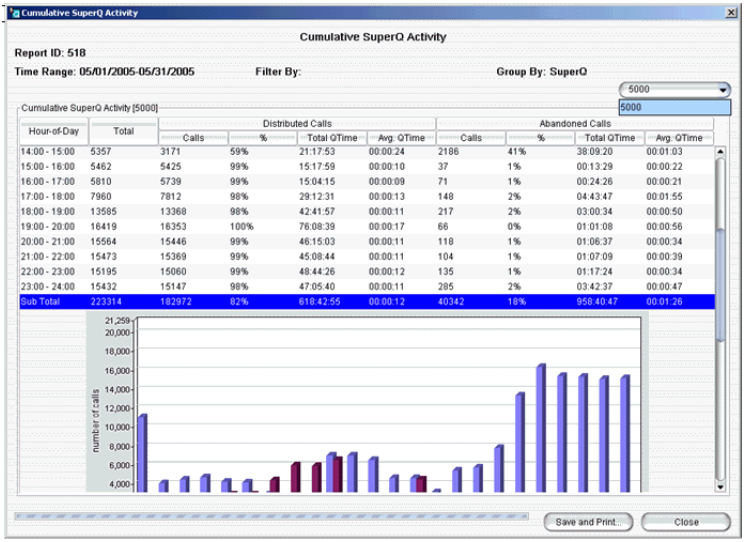


Figure 14. Cumulative SuperQ Activity Report Results

Cumulative Server & Workgroup Activity

Shows the number of received calls by each local workgroup in different time periods.

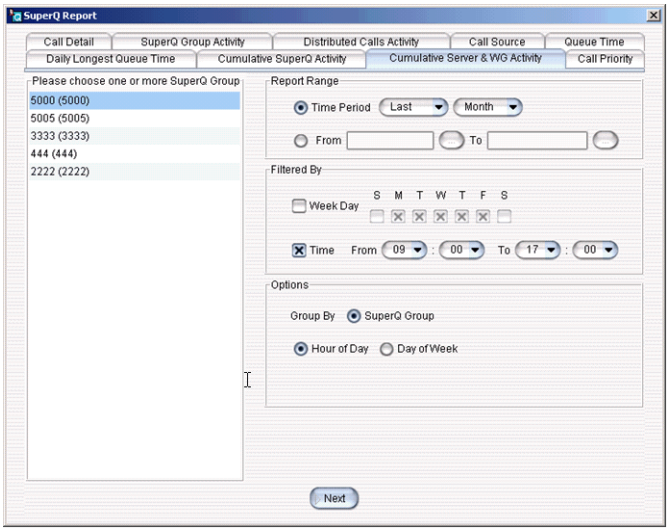


Figure 15. Cumulative Server & Workgroup Activity Report

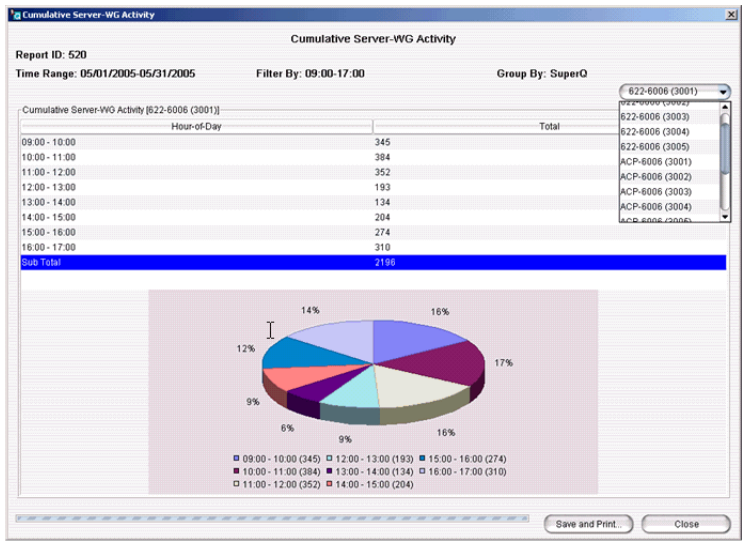


Figure 16. Cumulative Server & Workgroup Activity Report Results

Call Priority

Shows the number of calls by different call priority.

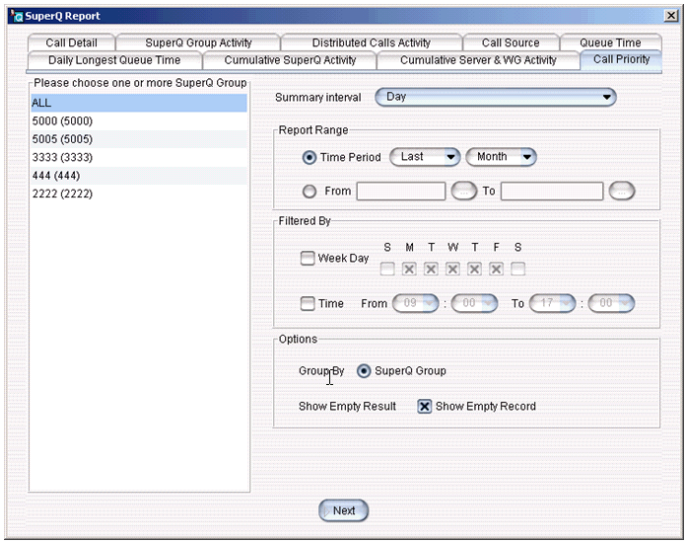


Figure 17. Call Priority Report

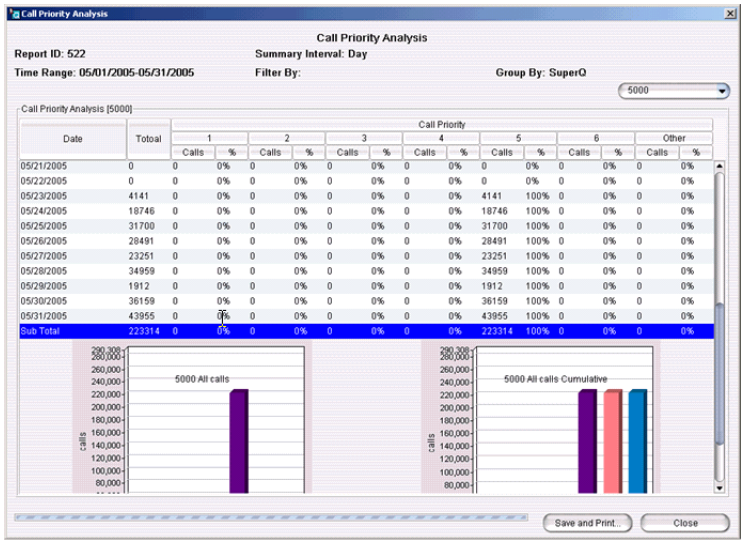


Figure 18. Call Priority Report Results

CDR Files

Currently, CDR records only save call information into files located at \program files\Altigen\AGJServices\SuperQ\CDRLogofxxxx.csv.

Call Table

SuperQ call information is saved in the following format:

Field Name	Field Type	Memo
SessionId	integer	Session ID of source site
SiteId	integer	ID of source site
SuperQNum	integer	SuperQ number
InQTime	integer	Real Time of entering queue
InQDate	integer	Date of entering queue
InQDaytime	integer	Time of entering queue (HHMMSS)
InQWeekday	integer	Day of entering queue
InQTimeZoneOffset	integer	The Timezone offset between source site and SuperQ service
DestSiteId	integer	ID of target site
DestWgNum	integer	Target workgroup number
DestSessionId	integer	Session ID of target site
OutQTime	integer	Real Time of quitting queue
OutQDate	integer	Date of quitting queue
OutQDaytime	integer	Time of quitting queue (HHMMSS)
OutQWeekday	integer	Day of quitting queue
OutQTimeZoneOffset	integer	The Timezone offset between target site and SuperQ service
CallerId	varchar(50)	Caller ID
CallerName	varchar(50)	Caller Name
Type	integer	Quit queue state
Priority	integer	Call priority
InQHour	integer	Hour of entering queue

Summary Table

SuperQ summary information is saved every 15 minutes in the following format:

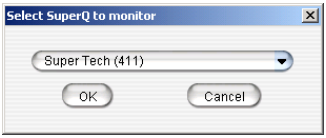
Field Name	Field Type	Memo
SuperQNum	integer	SuperQ workgroup Number
OutQDate	integer	Date of quitting queue
OutQDaytime	integer	Time of quitting queue
OutQWeekday	integer	Day of quitting queue
CallInQueue	integer	Number of calls in queue
LongestQueueTime	integer	Longest waiting time
AvgQueueTime	integer	Average waiting time

Using AltiGen SuperQ Monitor

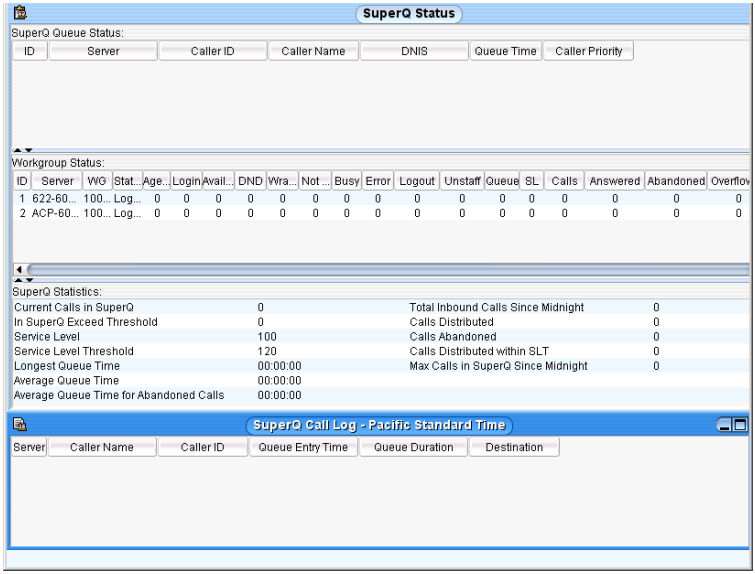
A separate tool for monitoring AltiGen SuperQ service status is automatically installed with the AltiGen SuperQ program.

To run **AltiGen SuperQ Monitor**, to go **Start > Programs > AltiGen SuperQ > SuperQ Monitor**. Enter the server name or IP address, and password (can be different from SuperQ Manager).

In the next dialog box, select the SuperQ workgroup to monitor, then click **OK**.



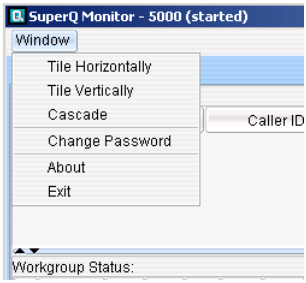
Use the **SuperQ** drop-down list to select which SuperQ to monitor in an AltiGen SuperQ.



The top section displays the **SuperQ Workgroup Queue Status**. The second section displays **Local Workgroup Status**. The third section displays **SuperQ Statistics**. The bottom section displays **Call Log View Status**.

Window Button

Use the **Window** button to select how to view the SuperQ display window: **Tile Horizontally**, **Tile Vertically** or **Cascade**. You can also use the button to change the SuperQ Monitor password or exit SuperQ Monitor.



SuperQ Status

The **SuperQ Status** window displays the following fields for each SuperQ: *ID*, *Server, Caller ID, Caller Name*, *DNIS, Queue Time* and *Caller Priority.*

Local Workgroup Status

The **Workgroup Status** window displays—for *each* workgroup—real time workgroup activity and performance, workgroup performance since midnight, and a summary of workgroup data. The statistics displayed are for workgroup calls only.

These statistics are reset every night at midnight.

Most of the statistics are self-explanatory, but you may want to note the following:

- **Wrapup**—whether or not to allow wrap-up time, and the duration that can be used to wrap up after hanging up a workgroup call, are determined in MaxAdministrator. The statistic shows the number of agents that are currently in the wait state. The Agent Statistics window displays the average wrap-up time per agent.
- **Busy**—the number of agents whose phones are off hook, or the extension is in the **Forward All Calls** or **Do Not Disturb** state.
- **SL (Service Level)**—the percentage of queued calls within the service level threshold.
- **Abandoned**—the number of calls abandoned in the local workgroup since midnight.
- **Average talk time**—the average amount of time workgroup agents are actually talking to callers.

SuperQ Statistics

The **SuperQ Statistics** window displays—for each workgroup—real time workgroup activity and performance, workgroup performance since midnight, and a summary of workgroup data. The statistics displayed are for workgroup calls only.

These statistics are reset every night at midnight.

Most of the statistics are self-explanatory, but you may want to note the following:

- **Service level**—the percentage of queued calls within the service level threshold.
- **Average Queue Time** (for answered calls)—the average amount of time a caller is in queue before being answered.
- **Average Queue Time for Abandoned Calls**—the average amount of time calls were in SuperQ before they were abandoned. *Abandoned* means that the caller has hung up before the call was answered.
- **Calls abandoned**—the number of calls abandoned in SuperQ since midnight.

Call Log View

The **SuperQ Call Log** window displays the following fields:

- **Server**—name of server, and server IP address
- **Caller Name**—name of caller
- **Caller ID**—ID of caller
- **Queue Entry Time**—the time that the call entered SuperQ
- **Queue Duration**—length of time call in SuperQ
- **Destination**—shows the workgroup where the queued call went; if the call did not go to a workgroup, the field will either show "App Ext nnn Call Handling" or "Dropped by User."

  — App Ext nnn Call Handling — the call follows the MAXCS application extension's Application Failover Plan setting when all agents are logged out from all workgroups or all workgroups are out of business hours.

  — Dropped by User — call abandoned from SuperQ.

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