



Product Overview and Release Notes for Arc Express Console v2.1.1

Revised: June 2009

These release notes describe the new features and caveats for Arc Express Console Version 2.1 SR1

You can access the most current Arc Express documentation at this URL:

<http://www.arcsolutions.com/EMEA/Support/SupportArcExpress.html>

<http://www.arcsolutions.com/NorthAmerica/Support/SupportArcExpress.html>

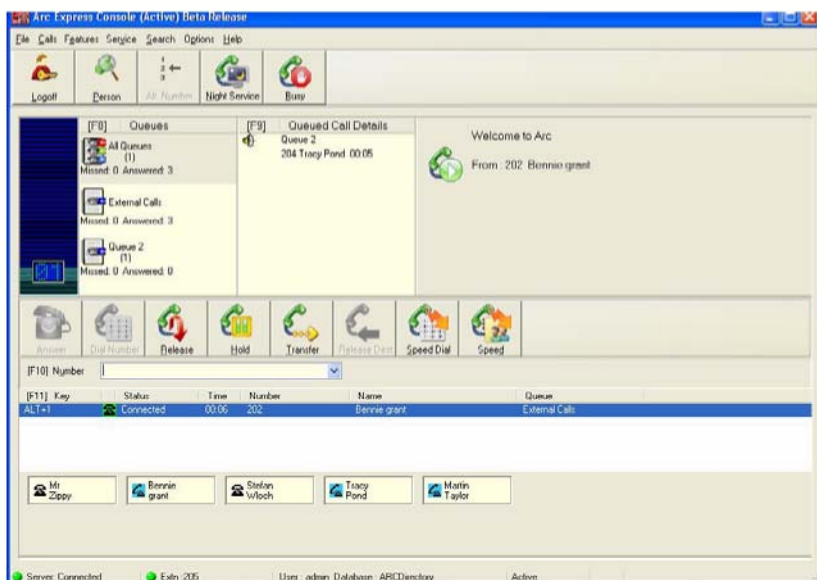
<http://www.arcsolutions.com/AsiaPacific/Support/SupportArcExpress.html>

You can access the Arc Solutions website via:

<http://www.arcsolutions.com>

1.1 Introduction

Arc Express is the only approved attendant console on Cisco Unified Call Manager Express. As Cisco's chosen attendant console partner for this communications platform, Arc is focused on constantly developing and improving this product. Since its first interoperability testing pass in 2005, the product has enjoyed several upgrades including a powerful installation wizard, user interface updates and new features.



Now, with version 2.1 of this application, Arc introduces a host of new features aimed at improving easy of configuration, easy of use and visibility of information to the attendant operator.

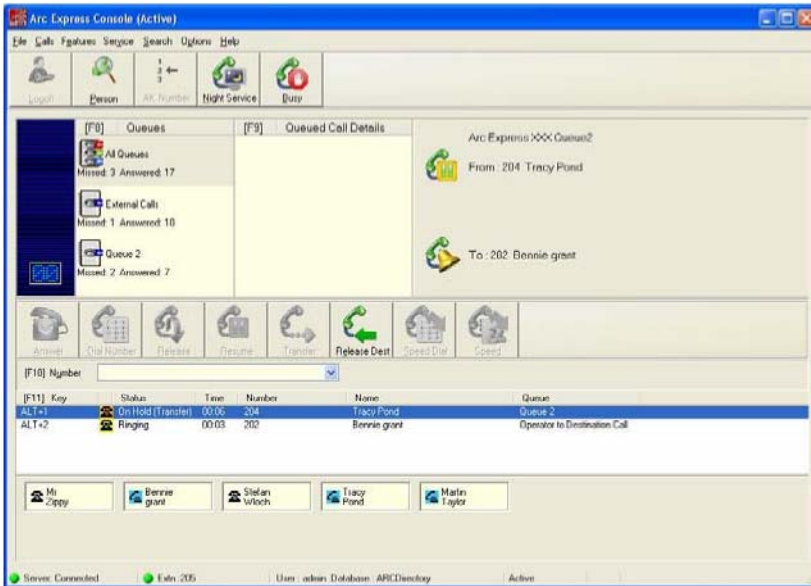
1.2 Key changes in this new release are:-

User interface updates

Those familiar with Arc's Enterprise level attendant console will recognize some of the components now built into Arc Express 2.1. Now, better keyboard navigation around the user interface, improved mouse control of calls and more logical behaviour of buttons and call item objects make the application a more intuitive and enjoyable one to use.

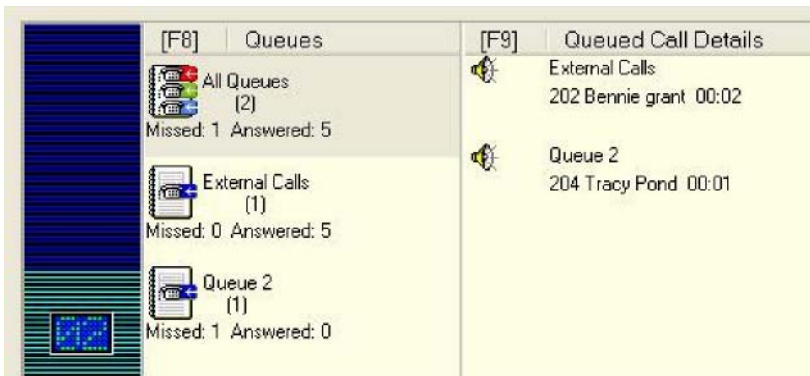


[F11] Key	Status	Time	Number	Name	Queue
ALT+1	On Hold (Transfer)	00:05	202	Benny grant	External Calls
ALT+2	Ringing	00:03	204	Tracy Pond	Operator to Destination Call



Call details

Within the call queue panes, additional detail is now visible on calls queuing to the attendant application. Now, highlighting each queue shows the calls within, along with their Calling Line ID (CLID) or ANI and the queuing time. A 'Show all queues' option allows the queued calls list to show calls in every queue.

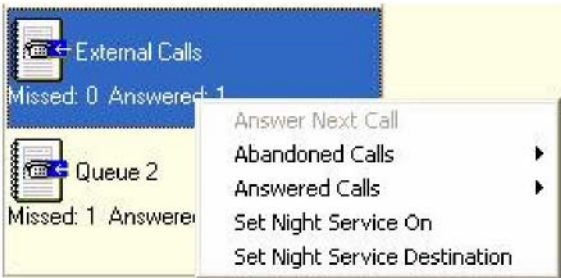


Pick calls from queue

It is now possible for the operator to answer calls in more than one way. By pressing the answer key or choosing the answer toolbar button the operator can answer the highest priority call as before. This allows the application to decide which call has highest priority and is a time saving and powerful way to answer calls. Now, the attendant can override this functionality by simply picking calls from the queue – perhaps choosing which call to answer by its CLID/ANI. Drag and drop or clicking the call allows easy call control.

Queue summary

New queue summary features make the queue display more intuitive. As well as showing calls in the queue, the Abandoned and Answered calls summary shows call activity per queue.



Queue call activity

It is now possible to see a log of missed (abandoned) and answered calls per queue. By right clicking on the queue itself, a popup menu allows these call lists to be displayed.

Abandoned Calls			
Options			
Abandoned Date Time	Called Number	Ringling Time	Queue Name
10/05/07 14:47:19	1003 - Stefan Wloch	00:63	Queue 1
10/05/07 14:47:16	1002 - Rupert Adair	00:90	Queue 1
10/05/07 14:46:14	1003 - Stefan Wloch	01:78	Queue 1
10/05/07 14:41:54	1002 - Rupert Adair	00:05	Queue 1

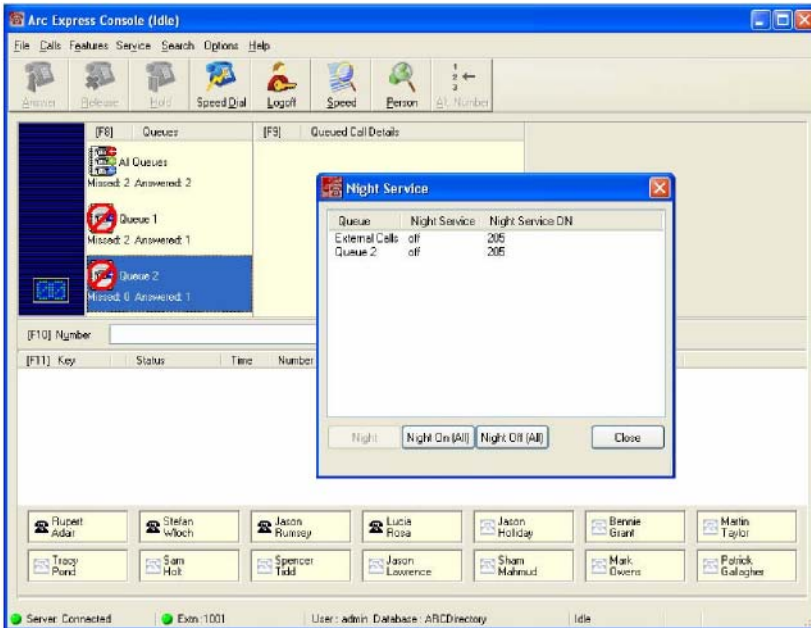
The operator can see the call time, duration, CLID/AND, the queue and the name of the caller (if in the Arc Express database). The operator can then choose to call the person back, offering a convenient way of returning missed calls and a useful 'recent calls' list.

Abandoned Calls			
Options			
Dial Selected Number	Number	Ringling Time	Queue Name
Remove Selected Item	Stefan Wloch	00:63	Queue 1
Clear List	Rupert Adair	00:90	Queue 1
Copy Selection To Clipboard	Stefan Wloch	01:78	Queue 1
	Rupert Adair	00:05	Queue 1

Additional menu options visible: Save Call Data To File, Load Call Data From File, Setup Printer..., Print, Close.

Queue night service

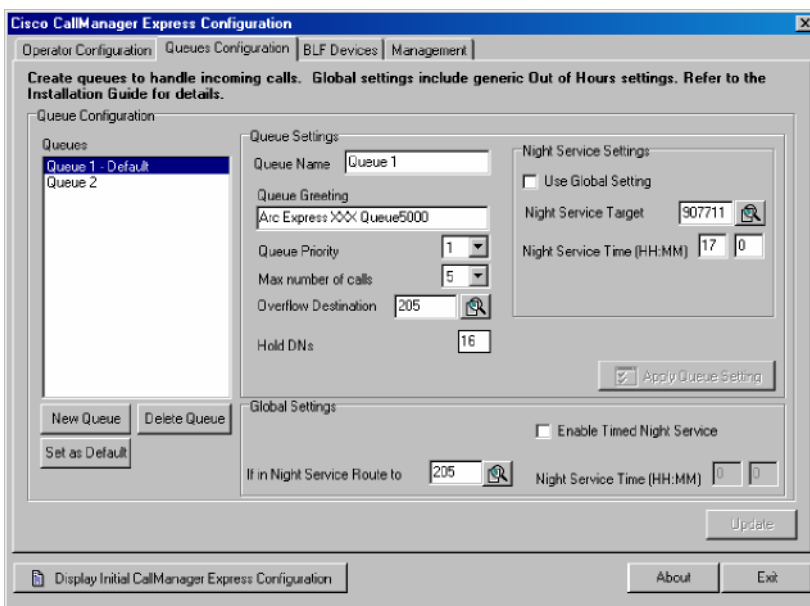
It is now possible to put an individual queue into night service. To do this the operator needs simply to right click on the queue and choose 'Night Service'. The queue icon then shows a red 'no entry' symbol indicating that that queue is in night service.



Improved installation and configuration

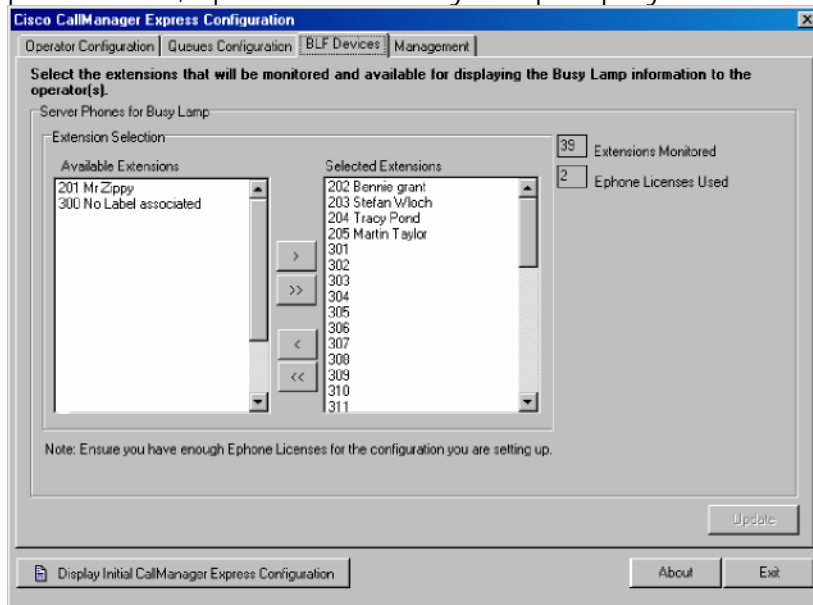
As well as these powerful new features, improved stability and faster operation, Arc has also developed the Arc Express installation wizard to allow administrators easier configuration of the application. Now, users can easily make changes to the configuration of Arc Express and the relevant settings in Cisco Unified Communications Manager Express after installation.

To do this the **Mettoni Console Server service** and the **Mettoni Busy Lamp service** must be stopped for 2 minutes. The configure tool can be found in the Arc Express Directory. By default this is [C:\Program Files\Mettoni\Arc Express\Server](#) and double click on the **CMEConfig.exe**. Enter the **CME IP address** to connect, and **passwords** if required.



The configuration wizard will now appear in a similar way to the installation process with the exception that the steps are now broken down into tabs, Operator Configuration,

Queues Configuration, BLF Devices and Management. This provides functionality to allow for addition of new queues, new directory entries from the CME phone list and new operators. Furthermore, it will allow the modification of queues, night service, prioritization, operators and Busy Lamp displays.



This powerful application makes Arc Express even easier to administer and powerful to use for the small business.

1.3 Reconfiguration of Arc Express

This version has introduced an improved method of reconfiguring Arc Express.

1.4 Key features in Arc Express 2.1

Installation and configuration

- Easy installation of Arc Express application using wizard
- Easy first-time configuration of CUCME platform using wizard
- Import of CUCME phones via set up wizard
- Easy reconfiguration of all settings after install using wizard application

Attendant Console

- Single key answer of highest priority call
- Multiple queues supported, with priority per queue
- Set night service on/off per queue from console
- Set night service destination per queue from console
- Global night service
- Overflow destinations per queue

- Pick calls from queue using mouse or keyboard
- See CLID of calls before answer
- See name (if in Arc database) of caller before answer
- See duration of queued calls before answer
- Speed dials (separate from main database)
- Abandoned call list per queue with dial-back
- Answered call list per queue with dial-back
- Save abandoned/answered call list to file
- Screen pop application on new call
- Application runs minimized allowing multitasking
- Support for Cisco 7931 IP phone

Busy Lamp / Line state monitoring

- Busy Lamp monitoring of up to 240 phones on CUCME
- Offhook, onhook, inactive status shown
- Busy Lamp list sort by name or extension
- Transfer of calls by click on Busy Lamp Display
- Un-dock of Busy Lamp display outside of console window

Database

- Speed search of database from console; no hot key, just type
- Combo search on Firstname, Lastname, Department, Extension
- Search on up to 3 fields at once using General Search
- Set 'absence' per person for unavailable people
- Set up and see company hierarchy within database
- Virtual 'groups' with hot key selection

Benefits of Arc Express 2.1

- Reduce call wait time
- Increase call throughput
- Customer calls delivered to correct destination, faster
- Attendants more informed = better customer service
- Company directory is kept up to date
- Attendants do not have to use 7960 plus sidecars for operator function
- Administrators save time in configuration and management of console application
- Attendants may continue to use their other PC applications – can multitask
- Reduced repetitive strain, improves work environment

1.5 System Requirements

Console Server and Client (Console) Computer

The following specification is given as a guide only. It is recommended as a base specification to allow Arc Express to run at its optimum. You should try to supply this specification of machine or better.

- Operating System, Microsoft Windows XP Professional Service Pack 2 or later.
- Processor: 1 .6Mhz minimum.
- Memory: 256 Mb minimum
- Disk space: 500MB space or more available
- SVGA display: 1024 x 768 resolution or better, 1 6m colours
- Recommended 102 key PS2 keyboard

CME

- No previous Installations of Arc Express should be present on the **CME**.
- One or more real phones must be set up and active on the **CME** including all **Operator Phones**.
- Space for at least **42** more **DNs** available.
- At least two **Ephone Licenses** needs to be free for **Server** and **Busy Lamp Soft phones** to be used for **Queues** and **Busy Lamp Functionality** respectively.
- **100 contiguous free Extension Phone Numbers** for **Server Phones**.

Operator Phone Pre-Requisites

The **Operator Phone** is the telephone used by each Operator or Attendant to speak to callers once the console has delivered the call. Depending on your requirements, you may have purchased up to **4 Arc Express positions**, so you will need **4 Cisco Phones** that meet the following Pre-Requisites.

- Operator Phone(s) must be standard Cisco phones.
- Operator Phones must not have any additional Lines configured
- Operator Phones must have the appropriate **Class of Service (COS)** setup. For example **International** and **Mobile** calls allowed.
- Operator Phones must not have a **Username, Password** or **label** configured.
- Operator Phones must not be used by another **CTI** application such as a **Dialler**.
- Operator Phones must be installed and configured before running the **Wizard**, or **new phones can be created by the wizard if you have the MAC address ready and the phone has never been assigned to the CME**.
- Operator Phones must never be unplugged or reprogrammed after installation of Arc Express and the corresponding configuration of **CME**.

- Operator Phones must be Dual Line, if a Single Line phone is selected the Wizard will delete it and recreate it as a Dual Line phone.
- The Park button on an Operator Phone is not supported.
- Hunt Group DNs will not be available for use as Operator Phones. They will be displayed in the list but X'd out.

Client (Console)

- The Arc Express Console Server must be installed and configured.
- The required phone must have been specified at the time of installation.
- Network connectivity to the Arc Express Console Server and the **Cisco Call Manager Express**.
- If you have a **Firewall** between the **Client Console** and the Arc Express Console Server you must make sure certain **Ports** are open. For details see Client Console Firewall Settings .
- VNC** must be installed if remote administration required. Refer to your support agreement for further details.

Console Server

- A named instance of **MSDE Server** (named **Arc Solutions**) must be installed (supplied on the Arc Express Installation CD/Download).
- MSDE Server** accessibility including suitable User/Machine Access rights and licenses.
- MSDE Client Access Licenses** for all Arc Express Clients (Consoles) and Administration machines.
- Network connectivity to **Cisco Call Manager Express**.
- If you have a **Firewall** between the Arc Express Console Server and/or the Arc Express Console(s) or **Call Manager Express** you must make sure certain **Ports** are open. For details see Console Server Firewall Settings .
- Static Server IP Address**.

VNC must be installed if remote administration required. Refer to your support agreement for further details.

1.6 Known issues in 2.1.1 release

Ref#	Description of issue
1a	Calls come in to a queue whose night service mode is directed to an extension with absence enabled. Call will override the absence. Design intent no fix planned. Customer needs to ensure that suitable night service provisions are made.
2	After removing the operator extension, BLF status of the operator extension is not updated. No fix planned currently, there is no way of obtaining the line state information using the skinny protocol
3	Calls to night service extension if the extension is busy then call goes into hold and cannot be retrieved. Nothing can be done given this scenario. Customer needs to ensure that suitable night service provisions are made.
4	Auto-answer: Existing call in queue is not auto-answered when current call is kept on hold. This is answered only if a new call comes in. Design intent, to allow operator control if dealing with call on hold. no fix planned
5	Call kept on hold is present as Hold even after console re-login, but doesn't appear in the console. This is most relevant if console has unfriendly shut down e.g. power failure . There is no way of obtaining the line state information for the holding ephone-dn slot(s) using the skinny protocol.
6	Install Wizard is pre-populated with default CUCM IP address =10.1.1.2 Installer must ensure the correct IP address for local CUCME is entered.
7	A call coming to a queue appears in second console with a starting timer at <1 hour (this is appearing in random like 59:58 / 59:57 / 59:55..) and continues to increase (00:03 / 00:02 / 00:00...). If you observe the timer at admin console and second console there is a difference of 2-5 seconds for the same call. Only solution is to synchronise timers on the servers

1.7 Previous interim versions prior to 2.1.1 SR 1

Interim Software Version	Version Content
2.1.1.44	Rebrand About box and application splash screen with new company logo and build revision. Resolved call control issues. Auto-Answer option fixed.

2.1.0.43	SepConsole call handling layer updated so as not to remove server held calls upon operator's phone disconnection
2.1.0.42	Night Service screen resolved where numerous Night Service items were being listed
2.1 .0.4 1	Disable console buttons upon operator's handset disconnecting from CUCME
2.1 .0.40	"Resume" button disabled and "Release" button enabled when operator presses Trnsfer key on operator's phone (falls in line with handset display)
2.1.0.39	Prevent connected call on operator's handset being dropped when console first starts up and operator logs in
2.1 .0.38	Update "ShowMainForm" and "BringToForeGround" functions so as not to bring application window to desktop surface when iconized or background window; currently, when the console is set in "Busy" mode and a call stops ringing in the call queue, console window surfaces to the top
2.1 .0.37	**Specific branched version removing "Busy" feature from console - not in this code stream**
2.1 .0.36	Bring Wizard version inline with product ArcExpress Suite
2.1 .0.35	Fix Queue Answering Priority feature
2.1.0.34	Don't allow calls to be answered whilst call(s) are held on local hold.
2.1 .0.33	A new "Call In Progress" property has been added to distinguish between server hold and local handset hold. A call held on the operator's handset won't initiate the "answer ringing call in queue" process when lifting the handset since allowing another call to be connected to the handset will not allow the operator to perform a consult transfer for that call (dual line handset). Additionally, operators wouldn't be able to perform a "New Call" softkey action to dial out since this generates a "DialTone" which is the same as lifting the handset which traditionally implies "Answer Call" functionality. Therefore, to answer the next call ringing in a queue, all calls must be held on the server otherwise the console will NOT answer the next ringing queued call in the event of the + key being pressed via the keyboard.

2.1 .0.32	Using the "Trnsfer" softkey on the operator's physical handset to transfer the connected call would drop the connected call and connect to the next call ringing in the queue. Additionally, placing the connect call "Hold" via the handset softkey and then pressing the "NewCall" softkey would also connect to the next call ringing in the queue.
2.1 .0.31	Setting night service for an individual queue via the Night Service dialog box would not display night service destination number against the queue name on the first request.
2.1 .0.30	Upon answering a queued call, queue name now filters through correctly to calls in progress grid.
2.1.0.29	Improvement to installation procedure allow previous releases to be "Patched" to the latest version.
2.1 .0.29	Transfer button now transitions between several states when transferring a call. States are initiate transfer, blind transfer and complete transfer each with corresponding icon. Initiate transfer is to ring the specified number; once the target number begins to ring, transfer button changes to blind transfer where operator can transfer the call to that extension without waiting for that extension to be answered. If, on the other hand, the operator wishes to perform a consult transfer, the operator must wait until the contact at that extension answers the phone. At that point, the transfer button changes to complete transfer which will connect the original caller to the connected extension number.
2.1.0.29	Console now records the number of overflowed calls to NightService destination when a queue is in NightService mode.
2.1.028	Improvement to Log facility to include any application exceptions that may occur.
2.1.0.28	Person and Absence modules now minimize to task bar upon attempting to close down application.
2.1 .0.27	Improvement to genuine "offhook" detection which provides the ability to answer a queued call by lifting the phone's handset.
2.1 .0.26	Prevent multiple "answer queued call" requests being sent to server. Causes call count to initially decrement by one and then to zero and back again

2.1 .0.25	Resolve BLF icon synchronisation issues.
2.1 .0.24	Fix Person BLF refreshing issue, prevent large blank area being added to the top of the BLF panel.
2.1.0.23	New server debug logging introduced to the "console server".
2.1 .0.21	Resolved an issue with the BLF panel flickering when docked in the Console.
2.1 .0.20	Resolution to an issue on a multi-console setup site where an answered call on one Console was displayed on another as unanswered. A new timer component was added to resolve this.
2.1 .0.19	<p>Improvements to call handling functionality including resolution of "calls stuck on hold".</p> <p>Real-time "SepConsole.dll" debug information introduced; COM interface updated as a result which means SepConsole.dll and PBXClient.dll require re-registering when upgrading from previous installs. This feature available via the "Enable Tracing" option setting the appropriate "Skinny Debug Level"</p>
2.0.0.13	Resolved an issue where multiple calls to a specific function were causing an intermittent freezing the console.

1.8 Previous interim versions prior to 2.1.0

2.0.0.11	Resolve BLF icon synchronisation issues.
2.0.0.10	Fix Person BLF refreshing issue, prevent large blank area being added to the top of the BLF panel.
2.0.0.9	<p>New feature to set the Night Service destination number by right clicking on the required queue. RequestSetNSRedirectionNumber passing "queue_id" and "destination number" will inform the server to set the NS destination number for the requested queue. This takes immediate effect with calls being diverted to the new destination when switching to NS. Changes are not written to the registry and revert back to previous settings (destination number) upon restarting the service.</p> <p>Introduced new FMsgClient.On RequestGetNS Redirection Number function which returns the Night Service Redirection number for the specified queue. A request is sent to the server to request the Night</p>

	<p>Service destination number when switching into Night Service, in order to display the correct number; another operator can change the destination on another machine therefore this function needs to be server based.</p>
2.0.0.8	<p>Introduced new SWCallList.OnCallRemoved event. This event is fired when a "call in progress" is ended. The call is added to the queue AnsweredCallsObject for call statistics and redial.</p>
2.0.0.7	<p>Introduced new OnCallAbandoned event. This event filters through from the console server via TMsgClient messaging. This event differs from OnEndCall event since OnEndCall event is raised for both Abandoned calls and calls the are picked-up - you still receive an OnEndCall event when a call is answered - ie changing call id as call ends on ringing device and appears on operator's handset as a new call with a different call id.</p> <p>Calls that filter into the OnCallAbandoned event are added to the queue AbandonedCallsObject for call statistics and redial.</p>
2.0.0.6	<p>Introduced new OnGetRequestedQueueCallData event. This event is in response to the RequestQueuedCallDetails call and returns the calls ringing in the specified queue. DoCallQueueChange calls the RequestQueuedCallDetails server function to update calls in queue information.</p>
2.0.0.5	<p>Introduced new TSWActionState object, which will allow an action type to be specified (eg smTransfer, smHold etc) and then reset back to smIdle after x milliseconds. This will allow the current state to be checked for before performing certain functions (an example being DoOffHookDetected() function. If you DO NOT check for state information here, then calls in the queue will be attempted to be answered whilst transferring a connected call since multiple skinny events are fired as part of the transfer process.</p>
2.0.0.4	<p>DoOffHookDetected() updated to answer calls via handset</p>
2.0.0.3	<p>Modified Calls In Progress grid to update the Queue field with the correct action as listed below.</p> <ul style="list-style-type: none"> • Queue Name (for queued calls) • Operator to Destination Call • Direct Call to Operator • Operator Outbound Call
2.0.0.2	<p>Added new WMMenuChar function to capture the message wm_MenuChar and stop the systems beeping on an Alt keypress, indicating that this message has not been dealt with.</p>

2.0.0.1	Remove Popup with Focus. Enable application to be minimized incorporating relevant functionality to support this. Taskbar icon will flash with the number of ringing calls if minimized or in Busy mode etc.
2.0.0.0	Branched from version v1 .3.12 SR1 c

© 2003 - 2008 Arc Solutions (International) Ltd. All rights reserved

No part of this documentation may be reproduced in any form or by any means or used to make any derivative work (such as translation, transformation, or adaptation) without permission from Arc Solutions (International) Limited.

Arc Solutions (International) Limited reserves the right to revise this documentation and to make changes to its content from time to time without obligation on the part of Arc Solutions (International) Limited to provide notification of such revision or change.

Cisco is a registered trademark of Cisco, inc.

Unless otherwise indicated, Arc Solutions (International) Limited registered trademarks are registered in the United Kingdom and may or may not be registered in other countries.

All trademarks acknowledged

Arc Solutions (International) Ltd.

Innovation House
 Turnhams Green Park
 Pincents Lane, Tilehurst Reading,
 Berkshire
 RG31 4UH
 UK

A Mettoni Limited Company

t: +44(0) 870 220 2203
 f: +44(0) 870 220 2208

e: cti@arcsolutions.com
 w: www.arcsolutions.com

3rd Edition, June 2009