

# **Icecom SwitchBoard**

Version 3.0

*Switchboard Attendant's Manual*

**ICECOM**

**SwitchBoard**



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This manual was made for Icecom SwitchBoard version 2.0.

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## TERMINOLOGY



## INTRODUCTION

This manual was made for Icecom SwitchBoard version 3.0 and is directed to switchboard attendants. This manual gives instructions for using the system.

The pages of this manual describe the operations of the Icecom SwitchBoard and give instructions on using them. The manual includes clear and detailed instructions as well as pictures for illustrating the instructions.

At the end of the manual there is a vocabulary with a collection of the most essential concepts and terminology used in the manual.

In the manual, the names of buttons have been written with Verdana font, and the names of windows and pages have been written in *italics*.



## 1 ACCESS LEVELS

There are three kinds of access levels:

- System administrator
- Switchboard attendant
- Virtual Switchboard attendant

**System administrator** has the rights to connect the system to the Asterisk server, add new users and set up number messages and number groups. The system administrator can also make additions to the phonebook from files, set up the CallCenter service for the switchboard attendant's use and change the night switch number.

**Switchboard attendant** has certain defined number groups for internal and external numbers. Two phone numbers must be defined for the switchboard attendant, an individual number for each switchboard and a common, general switchboard number for all of them. This is the number that is called from outside the company. Besides the normal switchboard operations, the switchboard attendant has the rights to edit the contents of the phonebook. In addition, he/she can monitor phone call data and edit his/her own presence information.

**Virtual Switchboard attendant** is configured only for retransferring the calls that are arriving to the main switchboard number to switchboard attendant(s). Calls made to the switchboard number can then be redirected to different switchboard attendants. Virtual Switchboard attendant operates only in the background of the system and is in no way visible to the users of the system.

## 2 LOGGING IN TO THE SYSTEM

When the system's *Login* page (Figure 1) is opened, the user is asked to type in the username and password to the respective fields. After typing them in, the LOGIN button is pressed.

The users of all the access levels log in similarly through the *Login* page.



Figure 1. Login page

The *Login* page also includes the instructions for the system administrator and the switchboard attendant.



### 3 SETTINGS

In the *Settings* window, it is possible to add phone numbers to the phonebook, edit them or delete them from the phonebook. In this window it is also possible for the attendant to edit files (e.g. Excel tables) that will then show in common additions in his/her phonebook. The *Settings* window also allows editing attendant's own presence information (Available, Busy, Out to lunch, Do not disturb or Will be right back), and selecting the clear queue function as either semiautomatic or out of use.

In the *Timed Transfer Settings* it is possible to change the default settings on how many times the system will try to transfer the call to the selected number before returning the call back to the attendant. One try lasts up to 10 seconds.

In the *Settings* window the attendant can also choose whether the incoming calls will come through even if the attendant is not logged in.

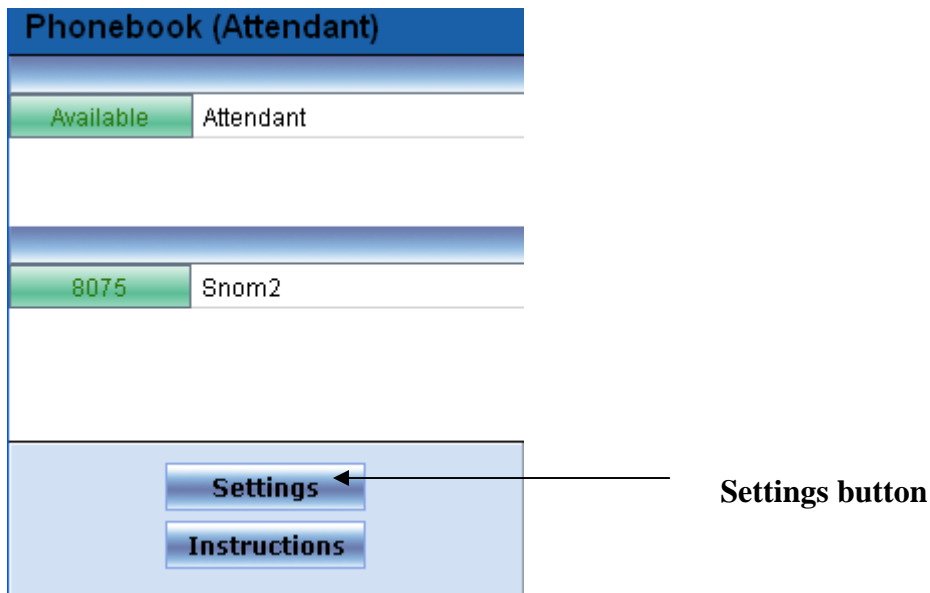


Figure 2. Settings button on the switchboard table

The *Settings* window (figure 3) is opened by clicking the Settings button on the switchboard table (Figure 2).



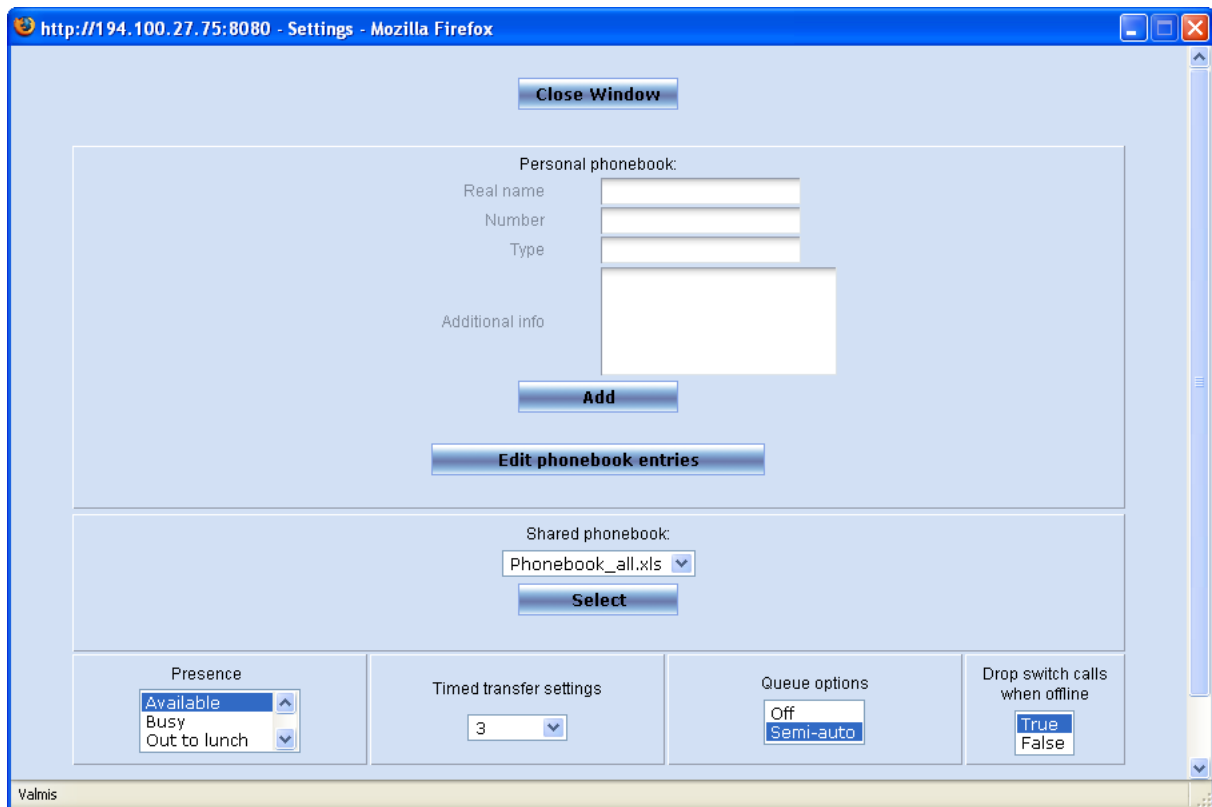


Figure 3. Settings

### 3.1 Adding, editing and deleting a phone number in the personal phonebook

Through the *Settings* window, a switchboard attendant can edit the contents of his/her phonebook. When **adding** a new number to the phonebook the person's name, number and type of the number (e.g. GSM) are typed in the fields under the header "Personal phonebook". Information about the person's skills and status can be written in the "Additional info" field. The information helps the switchboard attendant who may have to connect the call to an expert of a certain field. The information is shown on the phonebook when clicking the mouse once on the name of the person. When the information has been added to the fields, click the Add button.

A phone number can be **edited** or **deleted** from the phonebook by selecting the Edit phonebook entries button. In the window that opens (Figure 4), select the number to be edited or deleted from the phonebook. The information can be changed in the opening fields and the change(s) made can be accepted by clicking the Change button (Figure 5). To delete a selected number from the phonebook, click the Remove button.



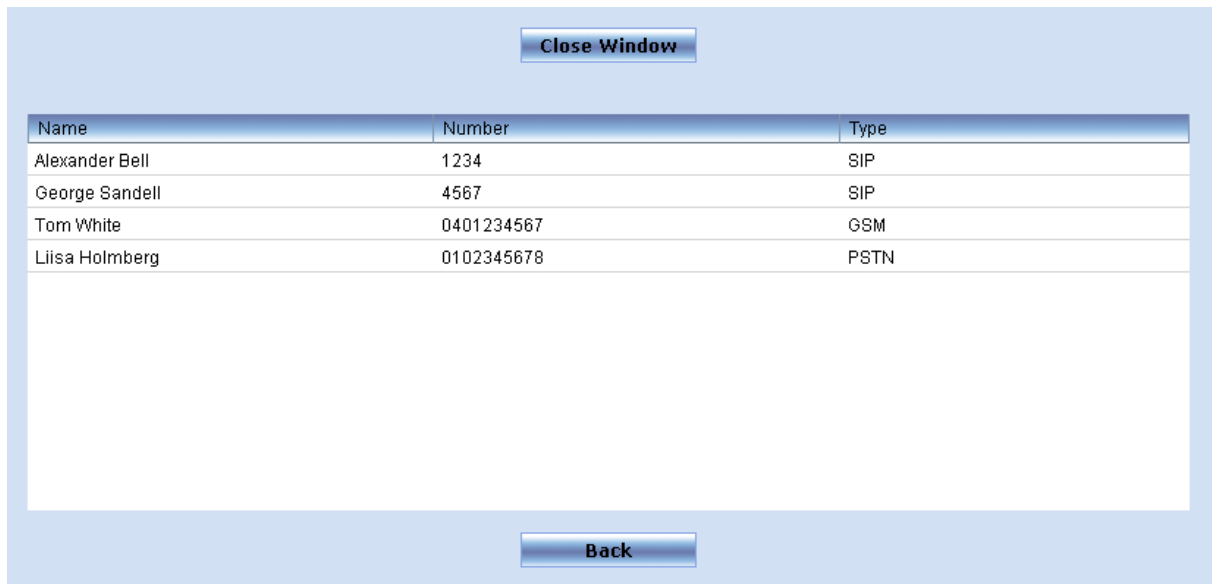


Figure 4. Edit phonebook entries window

### 3.2 Adding, editing and deleting a phone number in the shared phonebook

Shared phonebooks are files that are shown in the switchboard attendant's common additions in his/her personal phonebook. The system administrator chooses which files are shown to which user. In the *Settings* window the attendant can edit files that are shown to him/her. The files can be edited by choosing a file from the drop-down-menu (figure 3) and clicking the Select button. Information of the file will then display on the screen (figure 5).



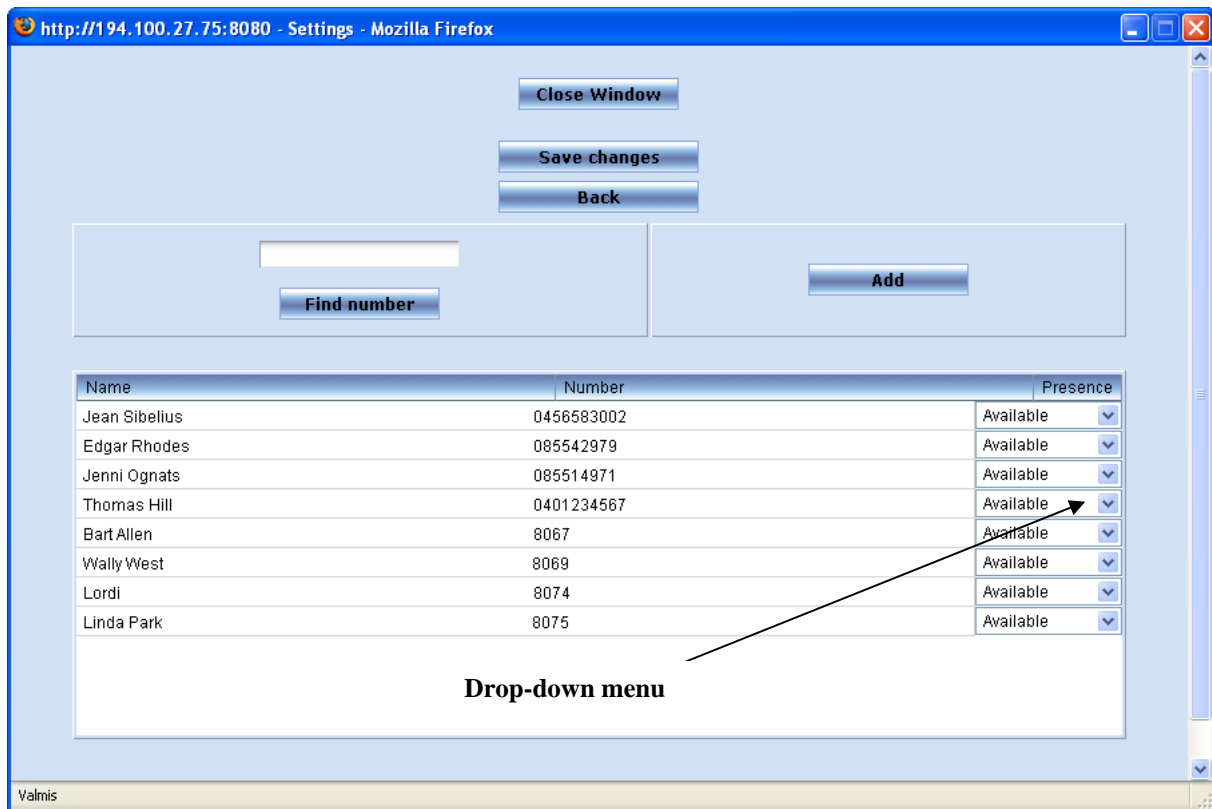


Figure 5. Editing file

When needed numbers can be searched from the files by inserting a number or a part of a number in the text field and clicking the Find Number button. After the search all numbers will be displayed again by clicking the Show All button.

The attendant can edit presence information of different persons directly in the drop-down-menus (figure 5). If the attendant wishes to edit other information shown on the list, a person has to be selected from the list first. The information of the person in question will then display on the screen. The changes made are accepted by clicking the Change button. All information of a person can be deleted by clicking the Remove button. If the attendant does not wish to make any changes or save the changes made, the Cancel button is clicked.

New person's can be added by clicking the Add button (figure 5). The new person's information is then written in the text fields and the Add button is clicked again.

When all the changes and additions to the file have been made the Save Changes button is clicked to update the file and the updated information will be displayed also to other users.



## 4 PLACING AND ANSWERING CALLS

A phone call can be **placed** alternatively with a phone or through the switchboard table. The call appears on the switchboard table also when calling with a phone.

Placing a call through the switchboard table (Figure 7) can be done in two alternative ways:

- **Method 1:** By clicking twice on the name of a person in the phonebook (clicking only once will display the person's presence information)
- **Method 2:** By entering the phone number of the person in the text field at the bottom right corner of the page and clicking twice the Call button (When clicking only once, the person's presence information will display (figure 6). If the phone number is not in the phonebook, the notice "Number not found in phonebook" will display.)

Calling '0456583002'	
Number	0456583002
Name	IceGsm
Status	Available
Redirect	False
Additional info	Jerry

*Figure 6. Additional information*



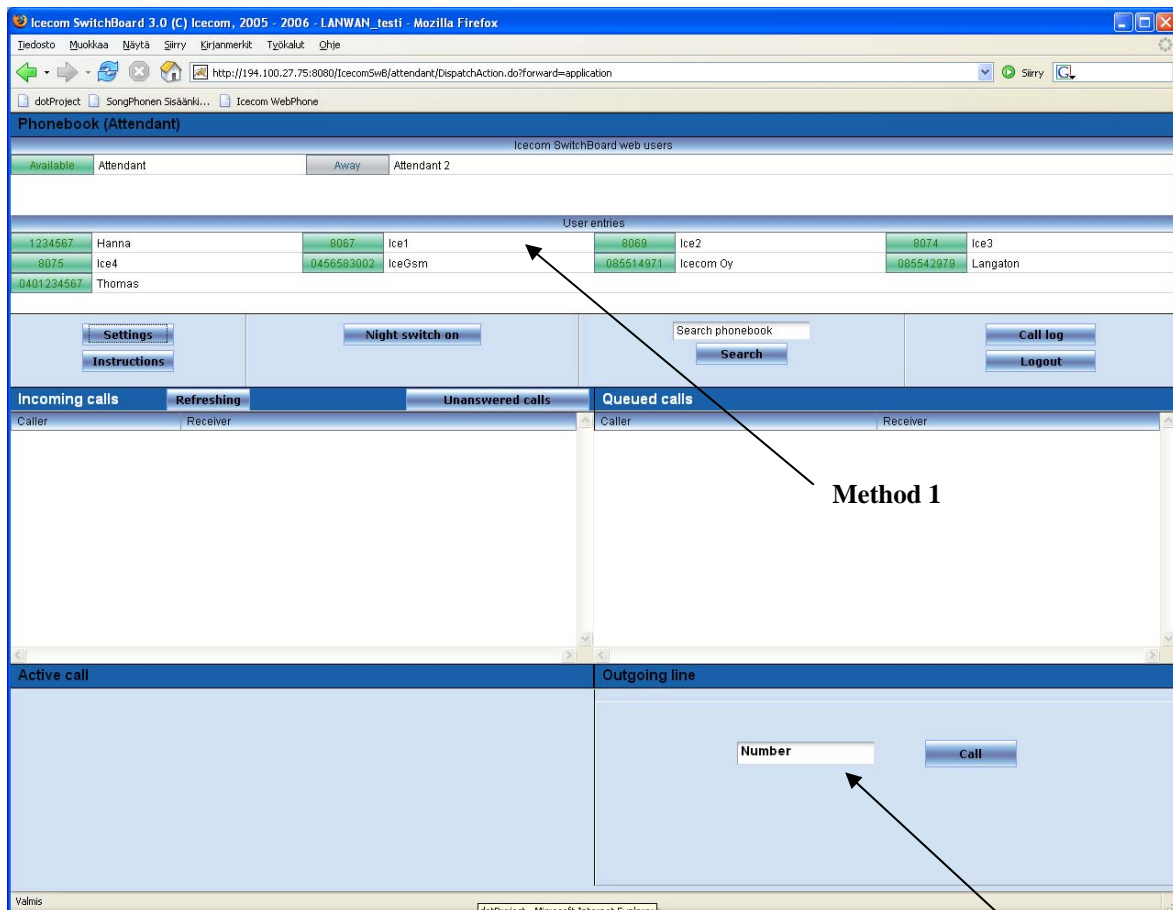


Figure 7. Switchboard table

Method 2



Figure 8. Call placed through the switchboard table by using method 2

Status information of an active call tells to the switchboard attendant the status of connecting the phone call. A status can be either Ringing, Up or Dialing user (Figure 8, Dialing user). A status is shown in context of incoming calls and placed calls.



**Please note!**

When placing a call through the switchboard table the receiver of the phone must be in place. When the receiver is off the hook the status of the phone is **Busy** and no calls can be either placed or received through the switchboard.

When the receiver is in place and there are no active calls, the status of the phone is **Available**.

An incoming call can be answered by picking up the phone receiver. The call is shown in the *Active call* window (Figure 9), which also shows the buttons for the functions to cut off a call, transfer it to another number, or put it on hold.

## 5 CALL QUEUE OPERATION

When the switchboard is occupied, all new calls are transferred to the **Incoming calls queue**. Calls already handled by the switchboard attendant are transferred to the **Queued calls queue**. These calls are queuing to a transferred number or back to the switchboard attendant, if the attendant has put the call on hold without answering it.

Both the call queues have music playing on the background. With the call queue function, a caller can wait for his/her turn when the switchboard is occupied. The caller will also stay on line when his/her call is about to be connected to another number.

The Incoming calls queue has a Refreshing/Not Refreshing button. Normally it is advisable to keep the button set on "Refreshing", which will automatically update the Incoming calls queue. When the button is set on "Not refreshing", the system does not update the queue. This works as an aid when there is a very large number of calls coming in simultaneously and a scroll bar has already appeared by the call queue due to its length. Then the call queue will not bounce up and down with the incoming calls.

**Please note!**

The system administrator can change the Clear queue timer settings. The timer can be set from 3 to 10 seconds. This is the time the system waits after an active call has ended before it connects a new call to the switchboard attendant from the queue.

### 5.1 Putting a call on hold

An **incoming call**, which the switchboard attendant has selected as active, can be put on hold by clicking the HOLD button located in the *Active call* window (Figure 9). Then the call is moved to the Queued calls queue. When a call is queuing back to the attendant, "Attendant" is displayed as the receiver in the queue.

A placed call can be put on hold in a similar way by clicking the HOLD button in the *Outgoing line* window.



Active call	
<b>Attendant</b>	
<b>Caller</b>	<b>IceGsm</b>
<b>Number</b>	<b>0456583002</b>
<b>Status</b>	<b>Ringing</b>
<input type="button" value="Drop"/>	<input type="button" value="Hold"/>
<input type="text" value="Number"/>	<input type="button" value="Transfer"/>

Figure 9. Active call window on the switchboard table

## 5.2 Answering and cutting off a call on hold

A call is answered in the **Incoming calls queue** by selecting a number in the queue, which changes the call into an active call, and the phone will ring. The call is answered by picking up the receiver of the phone. The call can be cut off in the queue by clicking the Drop button or putting down the phone receiver.

A call in the **Queued calls queue** (Figure 10) is answered in the same way by first picking up the call from hold. A call on hold is cut off by clicking the Drop button in the *Active call* window.

Queued calls		
Caller	Receiver	
<b>0456583002</b>	<b>Attendant</b>	<input type="button" value="Assist"/>
<b>8067</b>	<b>Attendant</b>	<input type="button" value="Assist"/>

Figure 10. Queued calls window

## 5.3 Clearing a queue

The Clear queue function is a tool that makes a switchboard attendant's job easier. A queue can be cleared semi-automatically, in which case the next call rings automatically after the previous call has ended, when the receiver has been put down.

The Clear queue function can be set in the *Settings* window (Figure 3) alternatively:

- **Off:** all incoming calls are automatically transferred to the Incoming calls queue, where they can be answered.
- **Semi-auto:** the first incoming call will ring, and other calls are automatically transferred to the Incoming calls queue. When the receiver is put down, the next call becomes active and the phone starts to ring. **(N.B!** The system administrator can change the time the system waits before connecting a new call from the queue. The time can be set from 3 to 10



seconds.)

**Please note!**

If one or more calls have been put on hold (Queued calls queue), semiautomatic queue clearance will not make a new call active until the user him/herself selects the call from the Incoming calls queue.

## 6 CALL TRANSFER

### 6.1 Normal transfer

An active call is transferred to another number in two ways:

- **Method 1:** By clicking twice in the phonebook on the name of the person to whom the call is to be transferred (clicking only once will display the person's presence information)
- **Method 2:** By entering the phone number of the person in the respective text field in the *Active call* window and clicking twice the Transfer button (Figure 11). (When clicking only once, the person's presence information will display (figure 12). If the phone number is not in the phonebook, the notice "Number not found in phonebook" will display.)

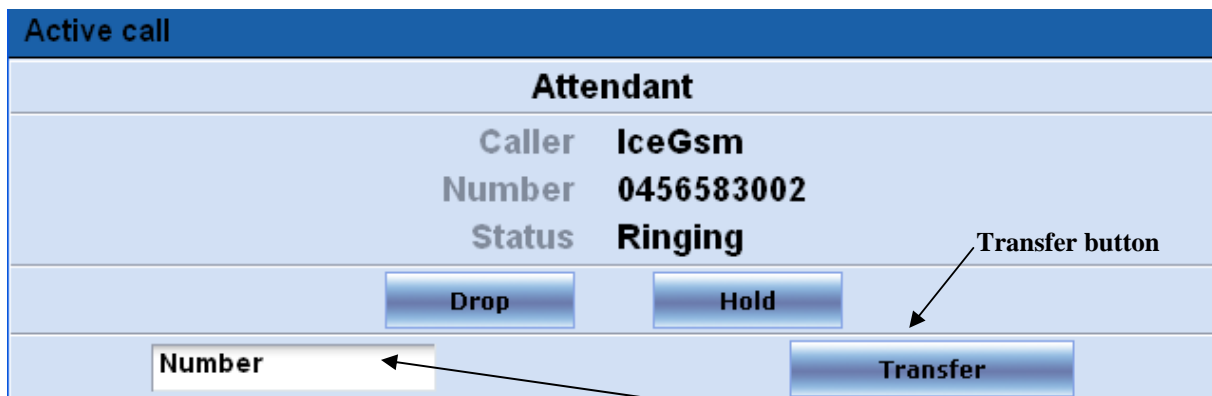


Figure 11. Transferring an active call

Text field for the number to which the call is to be transferred

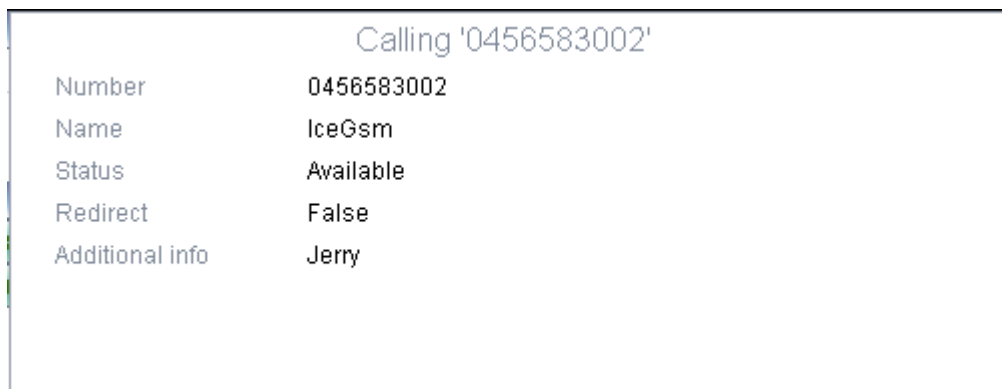


Figure 12. Additional information

The call is moved to the Queued calls queue. The system tries to transfer the call to the



selected number in ten second intervals as many times as is defined in the timer settings. If the call cannot be connected to the transferred number, the call is returned to the switchboard attendant and moved to the Incoming calls queue.

When the receiver is not answering the call that the attendant has transferred or the receiver is occupied, a star and the number to which the call has been transferred to will be displayed in brackets after the name of the intended receiver in the incoming calls queue. When a call that was placed directly to the receiver's number is redirected to the switchboard attendant, the letter **U** and the number to which the call has been transferred is displayed in brackets after the name of the receiver. The letter **B** is displayed in the brackets when the direct number has been busy. When a letter **R** is displayed in the brackets after the name of the receiver, calls have been transferred from that phone directly to the switchboard attendant.

When the word "Busy" is displayed in brackets after the name of the receiver in the queued calls queue the number that the call has been transferred to is occupied.

**Please note!**

A transfer can also be made on the phone by using the phone's own transfer features (Timed transfer or Always transfer) or the Call group and Pickup group features of the Icecom SwitchBoard server. For more specific instructions, see the phone's own manual.

However, the switchboard attendant must not make the transfer on the phone to his/her own number group, for then the transfer would be directed to his/her own number!

## 6.2 Attended transfer

The transfer is made as an attended transfer, when an incoming call is put on hold and the switchboard attendant calls the receiving person before the transfer. The transfer can be made when the switchboard attendant has an active call with the number to which the transfer will be made. The transfer is made by clicking the Transfer button on the person on hold. This will transfer the call to the active number.

## 7 UNANSWERED CALLS

Information on the switchboard attendant's unanswered calls can be displayed by clicking the Unanswered calls button at the top of the switchboard table.

Unanswered calls can be searched by choosing the date(year, month, day) on which the data is to be searched and choosing "After" and/or by typing a certain callers number in the text field and choosing "Caller" (figure 13). Then click the Submit button and the system will list all unanswered calls that meet the criteria.

**Please note!**

**The duration of the call is written in seconds.**



The screenshot shows a web interface for viewing unanswered calls. At the top is a 'Close Window' button. Below it, there is a label 'Select the number of rows to show (10 - 50)' followed by a text input field containing '50'. There are two radio buttons: 'Caller' (unchecked) and 'After' (checked). An arrow points to the 'After' radio button with the text 'Select the point "After"'. To the right of the radio buttons is a large text input field for the caller's number, with an arrow pointing to it from the text 'Text field for the caller's number'. Below these are date selection fields: 'Year' (2006), 'Month' (September), and 'Day' (1). A 'Submit' button is at the bottom center.

Figure 13. Unanswered calls window

The time and the date, the duration and the phone numbers of the receiver and the caller are listed in the unanswered calls list.

The screenshot shows a table of unanswered calls with navigation buttons. Above the table are buttons for 'Close Window', 'Reset', 'Previous rows', and 'Next rows'. The table has five columns: Date, Time, Duration, Caller, and Called. The data rows are as follows:

Date	Time	Duration	Caller	Called
2006-09-19	12:17:15	3	8062	XXXX
2006-09-19	12:17:11	2	8067	XXXX
2006-09-19	12:17:08	1	8074	XXXX
2006-09-19	12:17:02	2	8075	XXXX
2006-09-19	12:16:38	3	8067	XXXX
2006-09-19	12:16:30	5	8074	XXXX

Figure 14. List of unanswered calls

When a call arrives to the switchboard number and none of the switchboard attendants are logged in to the system the call will go to the night switch or the call will go through and not be answered. If the night switch is on the letters “NS” will be displayed in brackets after the number of the caller in the unanswered calls list. The letters “NS” signify that the night switch has been activated and the call has been directed to the night switch number.

## 8 CALL INFORMATION

A switchboard attendant can monitor the call information of him/herself or other users in the *Call Log* window (Figure 15). The window is opened by clicking the Call LOG button at the right side of the switchboard table.

In the *Call log* window the information of calls after a certain date can be searched by choosing the date (year, month, day) after which the information is needed and by choosing “After” or of a certain user by writing the number of the user in question in the text field and



choosing “Caller”. Then click the Submit button and the system will display information after the date that was selected (figure 15).

**Please note!**  
**The duration of the call will be displayed in seconds.**

Figure 15. Call log window

Date	Time	Duration	Caller	Called
2006-09-19	12:17:15	3	8062	XXXX
2006-09-19	12:17:11	2	8067	XXXX
2006-09-19	12:17:08	1	8074	XXXX
2006-09-19	12:17:02	2	8075	XXXX
2006-09-19	12:16:38	3	8067	XXXX
2006-09-19	12:16:30	5	8074	XXXX
2006-09-19	11:58:52	3	8072	XXXX
2006-09-19	11:58:46	3	8072	XXXX
2006-09-19	11:58:37	5	8074	XXXX
2006-09-19	11:58:27	5	8074	mXXXX
2006-09-19	11:58:21	9	8075	XXXX
2006-09-19	11:57:26	5	8075	mXXXX
2006-09-19	10:34:47	22	8074	XXXX
2006-09-19	10:30:45	58	8074	XXXX
2006-09-19	10:25:50	35	8074	XXXX
2006-09-19	10:25:24	15	8074	XXXX
2006-09-19	09:16:02	8	8074	XXXX
2006-09-18	14:38:41	77659	LANVoiceCaller	mXXXX
2006-09-19	11:58:52	3	8072	XXXX

Figure 16. Call log window

When the letter **m** (m=music) is in front of the receiver’s number in the call log view, the incoming call has been in the queue, but the call was not answered.



## 9 PRESENCE INFORMATION

An Icecom SwitchBoard web user can select either **Available**, **Busy**, **Out to lunch**, **Do not disturb** or **Be right back** as his/her presence status, so that other users know if the user is available. When the status of an Icecom SwitchBoard web user is **Away**, he/she is not logged in to the system.

Updated presence information is shown in the phonebook. The presence is shown in the "Additional info" field opening for every name (Figure 17, Available) when clicking the mouse once on the name of the user.

Number	085514971
Name	Icecom Oy
Status	Available
Redirect	False
Additional info	Icecom's telephonenumber
<b>085514971</b>	<b>Icecom Oy</b>

Figure 17. Additional information

Information about the person's skills and status are also shown in the "Additional info" field (Figure 17, Product manager and Computer Expert). The information helps the switchboard attendant who may have to connect the call to an expert of a certain field.

The presence information for Icecom SwitchBoard web users is also shown in coloured boxes before the names of the users. In the coloured boxes of the users in the user entries is shown the type of phone number (figure 17, SIP) replacing the presence information.

The colours of the boxes before the names describe the presence information of the users. The colour is **green**, when the user is available. The colour changes from green to **yellow**, when the user is busy. When the colour is **grey**, the user is not available.

The attendant can change his/her own presence information in the *Settings* window. The presence information is changed under the header "Presence Information" by choosing the desired alternative. The system administrator can change the presence information of others when needed.

## 10 NIGHT SWITCH

The switchboard attendant who leaves work last has the possibility to activate the Night switch function when leaving work. When the function is activated, all the calls coming to the switchboard number are automatically directed to the night switch number. If necessary, the system administrator can change the night switch number being used.

The Night switch function is activated by clicking the Night switch on button on the switchboard table. Then the text "Night switch has been turned on! (number)" will appear. The number where the calls are directed is shown in brackets after the text. When the night



switch is turned on, the button reads “Night switch off”. Then the night switch can be turned off by clicking the button.

## **11 LOGGING OUT**

Logging out is done by clicking the LOG out button at the top right corner of the switchboard table. After logging out, the Login page will open (Figure 1), and a new user can log in.



## TERMINOLOGY

Active call	Call that is active on the switchboard table.
Additional info field	Displayed when the mouse is clicked once over the name of a person in the phonebook.
Asterisk server	Server, where the switchboard software resides.
Attended transfer	Switchboard attendant transfers a call to another number by putting the call on hold and calling the number first.
Available status	User is logged in to the system and is not occupied at the time.
Away status	User is not logged in to the system at the time.
Busy status	User is logged in to the system but is occupied at the time either by phone or for some another reason.
Bypass	Queued calls.
Call group	Asterisk server feature, meaning call group.
Call queue	The term comprises both the Incoming calls queue and Queued calls queue.
Hold	Call can be placed on hold to wait for further actions.
Icecom SwitchBoard web user	All switchboard attendants.
Incoming call	New call coming to the system.
Incoming calls queue	All new calls are transferred to this queue along with calls that were unsuccessfully redirected to another number.
Number message	Number message is an extra qualifier created to help the switchboard attendant, containing additional info on the number to which a call was placed. System administrator defines the number messages.
Normal transfer	Switchboard attendant transfers a call to another number without calling it first.
Number group	Numbers under the supervision of a switchboard attendant (specified by system administrator).
Phonebook	The phonebook is used to save the information about the users.



Pickup group	Asterisk server feature, referring to call pickup group.
Presence status	User's presence status is shown in the phonebook on the switchboard table. The possible presence statuses are: Available, Busy, At lunch, Do not disturb, Be right back, and Away.
Queued calls queue	Queue to which calls handled by the switchboard attendant are transferred.
Switchboard attendant	User with defined number groups for internal and external numbers.
Switchboard number (Global number)	Phone number that is called from outside of the company; the number is common to all switchboard attendants.
Switchboard table	Switchboard attendant's WWW browser based user interface.
System administrator	User with rights to connect the system to the Asterisk server, add new users, set up call messages and number groups, make additions to the phonebook from Excel tables, activate the CallCenter service for the switchboard attendant and change the night switch number.
Timed transfer	Feature of the phone, allowing definition of how many times the system will try to transfer the call before returning the call to the switchboard attendant.
User	The term is used in this manual to refer to all users.
Virtual Switchboard attendant	The user level that is configured only for retransferring the calls that are arriving to the main switchboard number, to switchboard attendant(s).



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