



Call Server Help File

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Table of Contents

Foreword	0
Part I Call Server Help	2
1 Call Server application	3
2 CDR database	19
3 Connecting to the system	25
4 Network settings	27
5 PABX settings	32
6 General settings	33
7 About	34
Part II Online mode	35
1 Viewing CDR´s	36
Part III Offline mode	38
1 Viewing CDR´s	39
2 Reading CDR´s from the system	41
3 Deleting CDR´s on the system	43
4 Deleting CDR´s from the database	44
5 Exporting CDR´s	45
Part IV What´s new	46
Index	0

1 Call Server Help

Call Server Help

The NovaTec Call Server application allows you to analyse the CDR's of a NMG system. This help file will guide you through the usage of the Call Server software.

[Using the Call Server application](#)

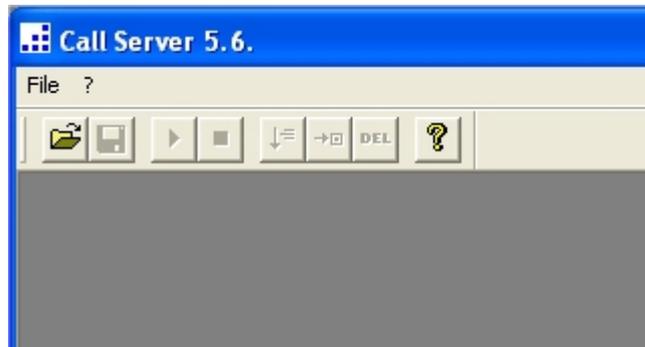
[Online mode](#)

[Offline mode](#)

[The CDR database](#)

1.1 Call Server application

Call Server application

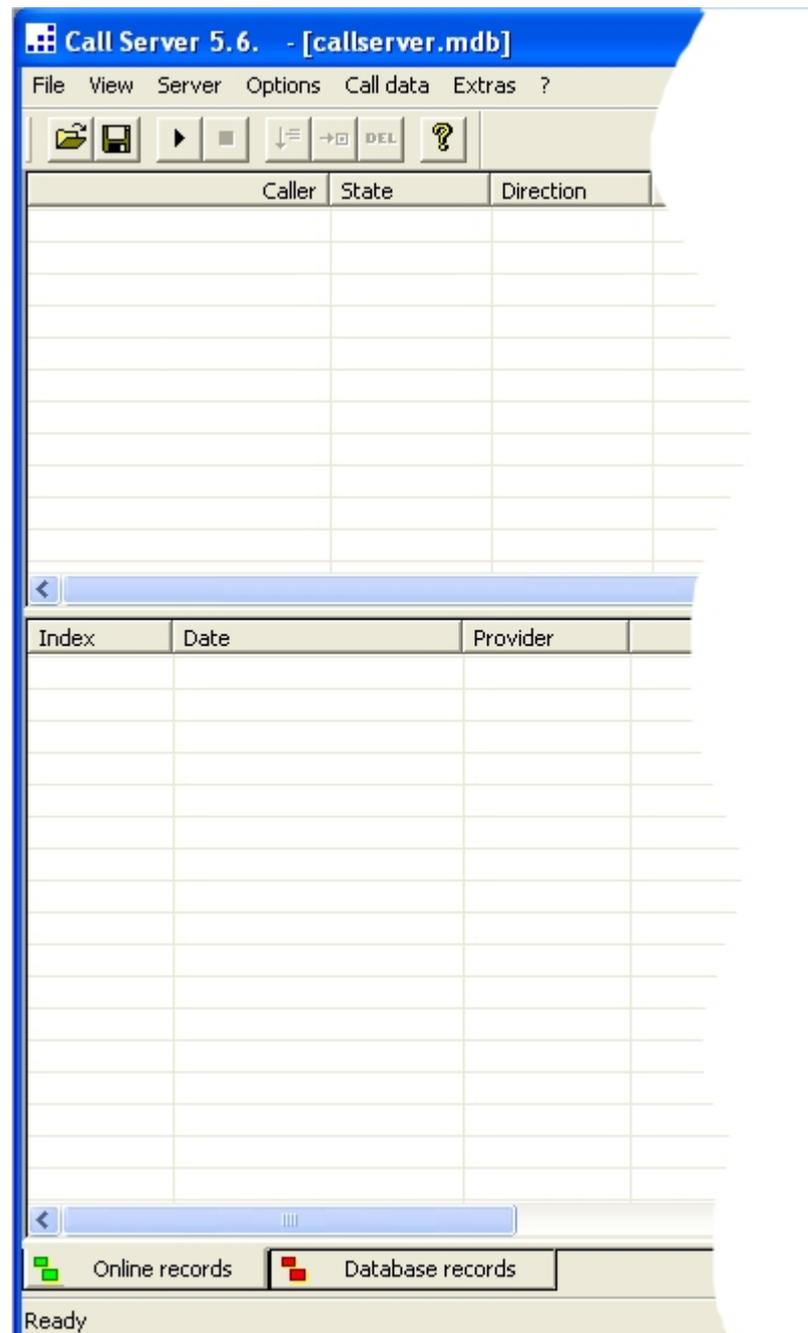


On starting the Call Server application, the only available choices in the menu are **File | Open** and the **About** entry's. To use the Call Server, a CDR database must first be loaded.

As of version 6.1.5 the CDR database format has changed to allow the use of the various information (NLP, SIP, T.38,...) provided by the NMG.

The **Open** function, creates, if necessary, a backup of the CDR database and converts any existing entries in the database to be able to use the new information. For more information regarding the automatic update procedure, please read the [CDR database](#) section.

After loading a CDR database, the view of the applications changes to that below

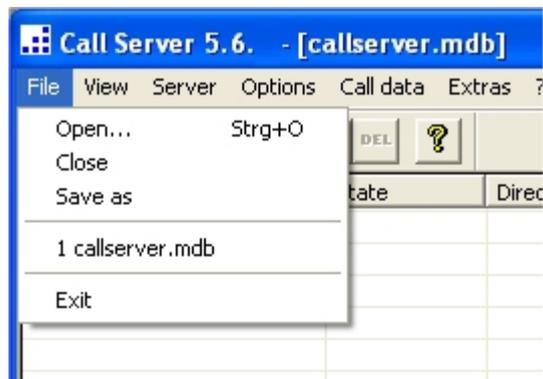


Note

The right hand side of the application window has been cut to allow for a better overview

As you can see, the application has one main window, that is switchable between two modes (as seen at the very bottom with the two tabs), [Online records](#) and [Database records](#). The default view when opening a database is [Online records](#). Once a database is loaded, various menu items are available for selection.

File



Open...

Opens an existing [CDR database](#)

Close

Closes the currently open [CDR database](#)

Save as

Allows the saving of the current [CDR database](#) under a different file

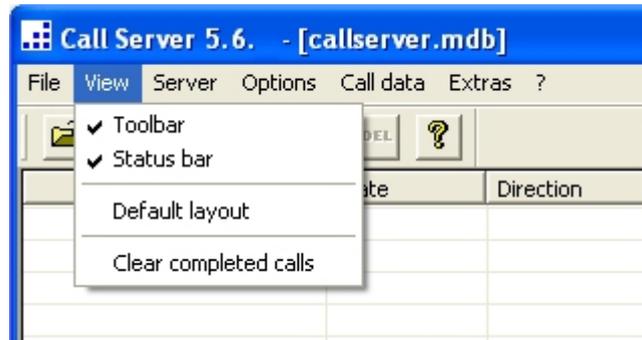
1 XXX

A list of the last five [CDR databases](#) that have been opened (Must Recently Used)

Exit

Exits the application. Closes the currently opened [CDR database](#)

View



Toolbar

Toggles the toolbar between the states visible / hidden. The check mark next to the text indicates the current state

Status bar

Toggles the status bar between the states visible / hidden. The check mark next to the text indicates the current state

Default layout

Sets the various list view headers (in both the [Online records](#) and [Database records](#)) to the default orders and widths

Clear completed calls

Clears the completed calls from the lower list. These **are not** deleted from the database

Server



Connect...

Initiate connection to the target system (only available when there is no connection to the target system). See [this section](#) for more information

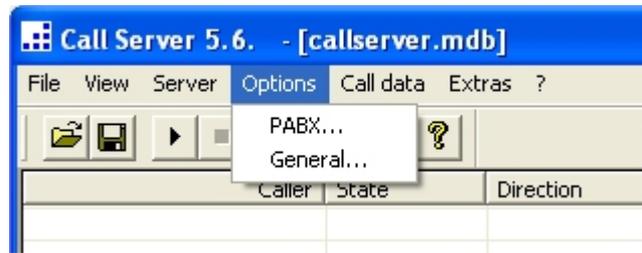
Disconnect

Disconnect from the target system (only available when the connection to the target system is active)

Network settings...

Opens the [Network settings dialog](#). Only available when there is no connection is to the target system)

Options



PABX...

Opens the [PABX settings dialog](#) (only available when there is no connection to the target system)

General...

Opens the [General settings dialog](#) (only available when there is no connection to the target system)

Call data



Read...

Reads CDR information from a NMG system. This item is only available in the Offline mode, and the Database records view is active. For more information please read [this section](#)

Export...

This option is currently unavailable

Delete...

Deletes CDR information from the currently opened CDR database. This item is only available in the Offline mode, and the [Database records](#) view is active. For more information please [read this section](#)

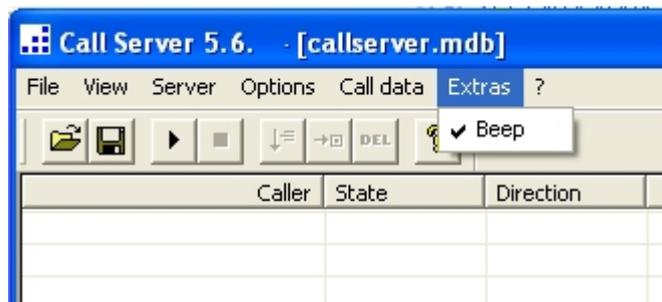
Show...

Shows CDR information from the currently opened CDR database. This item is only available in the Offline mode, and the [Database records](#) view is active. For more information please read [this section](#)

Note

The various items contained within the menu Call data are only available for selection when the [Database records view](#) is active, and a valid [CDR database](#) is loaded

Extras



Beep

Toggles an extremely irritating BEEP sound on and off when a pending call is completed, and this information is to be shown in the completed calls view in the Online records view. The check mark next to the text indicates the current state

?



Help

Opens this help file

About

Opens the [About dialog](#)

Online records view

The Online records view is divided into two "halves". An upper "half" (known as the upper view, or pending calls view) which shows pending calls, (i.e. real time call information) and a lower "half" (known as the lower half, or completed calls view) that shows completed calls (i.e. CDR data that has been saved on the target system). The completed calls are automatically saved into the currently opened CDR database, but only if this has been set up to do so using the NovaTec configuration utility. For more information about this subject, please read the section Call data profile in the corresponding help file. Each (successful) connection consists of at least two legs, the outgoing leg (from the initiator) and the incoming leg (from the partner). Different types of call may have varying numbers of legs.

The pending calls view

Caller	State	Direction	Partner	Call forwarding	Call type	Line	Duration	Charge	Alias	Info	ID
676	••	IN	675		←	1	00:00:15	0.00			1
676	••	OUT	8675		←	1	00:00:15	0.00			1

Caller

The number of the caller (initiator) of the connection

State

Indicates the current state of the of the leg. This is show graphically. The flowing symbols are used to indicate the various states.

Dialing



Alerting (ringing)



Connected



Call on hold



Direction

Indicates the direction of the leg (in relation to the NMG). Possible directions are **IN** and **OUT**

Partner

The number called by the Caller (initiator)

Call forwarding

This entry is not used

Call type

The type of call for this leg. The call type is represented using a symbol. The following symbols are used to represent the various call types.

Subscriber

This leg is a subscriber leg

Subscriber (encrypted)

This leg is an encrypted subscriber leg

Cross connection

This leg is a cross connection

Cross connection (encrypted)

This leg is an encrypted cross connection

Trunk line

This leg is a trunk line

Trunk line (encrypted)

This leg is an encrypted trunk line call.

SMS

This leg is an SMS call (SMS to Email for example)

Client Call back Initiation

This leg is a Client Call back Initiation call. This is only visible on CBS clients and in there CDR's. This is the Initiator of the call

Client Call back Activation

This leg is a Client Call back Activation. This is only visible on CBS clients and in there CDR's

Server Call back Activation

This leg is a Server Call back Activation. This is only visible on CBS servers and in there CDR's

Call back Target

This leg is the Call back Target (i.e. the partner of the Client Call back Initiator). This is only visible on CBS servers and in there CDR's

Server Call back Call

SCC

This leg is the Server Call back Call. This is only visible on CBS servers and in there CDR's

Client Call back Call

CCC

This leg is the Client Call back Call. This is only visible on CBS clients and in there CDR's

GSM Call back Activation

GCA

This leg is a GSM Call back activation. This is visible on any NMG that is set up to use GSM Call back

GSM Call back Call

GCC

This leg is a GSM Call back Call.(i.e. the Call back call to the number that activated the GSM Call back). This is visible on any NMG that is set up to use GSM Call back

GSM Call back Target

GCT

This leg is a GSM Call back Target. (i.e. the actual partner of the GSM Call back activator). This is visible on any NMG that is set up to use GSM Call back

SIP

SIP

This leg is a SIP call. This is visible on any NMG that is configured to use SIP

SIP (encrypted)

SIP

This leg is an encrypted SIP call. This is visible on any NMG that is configured to use encrypted SIP

NLP

NIP

This leg is a NLP call. This is visible on any NMG that is configured to use NLP

NLP (encrypted)

NIP

This leg is an encrypted NLP call. This is visible on any NMG that is configured to use encrypted NLP

TR6 (1TR6 German national ISDN protocol)

TR6

This leg is a 1TR6 call. This will be visible when using the NMG as a protocol converter

DSS (DSS1)

DSS

This leg is a DSS1 call. This will be visible when using the NMG as a protocol converter

Line

The ID (number) of the trunk group used for this leg

Duration

The current duration of this call. Please note that this value only represents the "real" duration of calls that have commenced since the Call Server has connected to the system. If calls where in progress when the Call Server has connected to the system, this values represents the duration since connection. For any new calls monitored, this values represents the correct duration of the call. Only calls that have the [state](#) connected have a duration value.

Charge

The current cost of this leg. A value will only be shown here if the system has been configured correctly to calculate and show costs for calls. Also note that this value represents the "real" cost of calls that have commenced since the Call Server has connected to the system. If calls where in progress when the Call Server has connected to the system, this values represents the cost since connection. Dependant on how the charges are generated / received by the system, the charge may be shown during all [states](#)

Alias

Not used

Info

Not used

ID

Internal identifier for this call leg

The order of each of the above columns, as well as the width can be individually changed to suite your own needs. To hide any information that is not required, size the column so this is no longer visible. To set the columns to the default order and widths, choose the menu item [Views | Default layout](#)

The completed calls view

The completed calls view, as the name suggests, shows the various completed calls. The actual calls show here is dependant on the CDR profile used for the systems whose calls are being monitored. For more information on this subject, please read the NovaTec configuration help file. As the information contained in this view is rather large, there will be no screen shot. The description below assumes that the default view is still set.

Index

The index consists of the main index, and a sub index. The index is the main ID for the call, and the sub index is the ID of the call legs that make up the call. The lowest sub index is usually the initial leg of the call

Date

The date and time of the call(when the call was initiated)

Provider

The dialing code of the network service provider (if applicable)

Caller

The number of the caller (initiator) of the connection

Direction

The direction of this leg

Partner

The partner of this leg (the target number the caller dialed)

Duration

The duration of the leg

Charge

The cost incurred by this leg. This is only present if the system has been configured to create/receive charging information. Please read the various sections on charge information in the NovaTec help file

State

The last [state](#) of the leg

Line

The ID (number) of the trunk group used for this leg

Call type

The [type of call](#) of this leg

CAL-REDPN

Calling Redirected Party Number, only set if the call is redirected or forwarded. This is the call number of the subscriber redirecting the call

CED-REDPN

Called Redirected Party Number, only set if the call is redirected or forwarded. This is the call number of the partner the call is redirected to

Service

Service of the call. The value represents the value of octet 4 of the High Layer Compatibility information element of the DSS1 protocol.

The field has the value 0 if the service is unknown. Other values are

1	Voice call
4	Fax Group 2/3
33	Fax Group 4 Class 1
36	Teletex (basic and mixed mode)
40	Teletex (basic and processable mode)
49	Teletex (basic mode)
50	Syntax based videotext
51	International videotext
53	Telex
56	Message Handling Systems (MHS)
65	Data
129	OSI Application

Cause

Reason for the clearing of the call. It represents the cause value of the cause information element of the DSS1 protocol

Port-ID

The ID identifying the physical port used on the NMG. The **Port-ID** is the same number as used in the TracelInfo Client to identify a physical port

B-Channel

The B-Channel used as the ISDN connection, otherwise 1

SIM-ID

The ICC-ID of the SIM used for the actual call. Only applies to calls made over a GSM network

Backplane ID

The back plane ID of the system that created this leg

UUID

Unique User Identification. Used internally, usually 0 or empty

IMEI

IMEI of the GSM interface used. At this moment in time this is not sent by the system

Signal RX

The number of IP bytes received, for signaling (if applicable)

Payload RX

The number of IP bytes received, as payload (if applicable)

Signal TX

The number of IP bytes transmitted, for signaling (if applicable)

Payload TX

The number of IP bytes transmitted, as payload (if applicable)

Own IP

The IP address of the system (if applicable)

Own Port

The IP port of the system (if applicable)

Dest. IP

The destination IP address of the leg (if applicable)

Dest. Port

The destination IP port of the leg (if applicable)

RTP IP

The IP address used for RTP packets (if applicable)

RTP Port

The IP port used for RTP packets (if applicable)

Proxy IP

The IP address of the proxy server used (if applicable)

Proxy Port

The IP port of the proxy server used (if applicable)

Proxy name

The name of the proxy server used (if applicable)

SIP caller

The name / number of the SIP caller (if applicable)

SIP partner

The name / number of the SIP partner (if applicable)

POD (current)

The current POD (**Play Out Delay**) of this leg (if applicable)

POD (max.)

The maximal POD (**Play Out Delay**) of this leg (if applicable)

POD (min.)

The minimal POD (**Play Out Delay**) of this leg (if applicable)

Jitter (current)

The current size of the jitter buffer in milliseconds (if applicable)

Jitter (max.)

The maximal size of the jitter buffer in milliseconds (if applicable)

Jitter (min.)

The minimal size of the jitter buffer in milliseconds (if applicable)

Bad packets (discarded)

The total number of discarded packets (if applicable)

Bad packets (early)

The total number of early packets (if applicable)

Bad packets (late)

The total number of late packets (if applicable)

Resyncs

The total number of re syncs between two NMG systems (if applicable)

T.38 Flags**T.38 Standards****Lost Packets**

The total amount of lost packets.

Recovered Packets

The total amount of recovered packets.

Max. lost Pcks Grp**FTT Count**

The total amount of failures to train the adapted transmission speed

Pages transfered

The total amount of pages transfered.

Line breaks

The total amount of line breaks.

V.21 Form breaks

The total amount of V.21 form breaks.

ECM Form breaks

The total amount of ECM form breaks.

Major Version

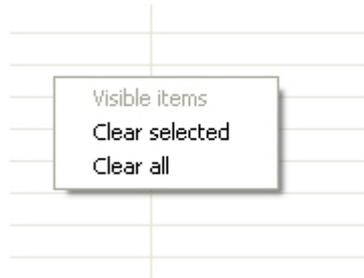
The major version of T.38

Minor Version

The minor version of T.38

Context menu

Right clicking the mouse when the mouse pointer is within the boundaries of the completed calls view, brings up the following menu:



Visible items

At present, this function is not activated

Clear selected

Clears the selected CDR legs from the completed calls view. The CDR information **is not** deleted from the data base

Clear all

Clears **all** CDR legs from the completed calls view. The CDR information **is not** deleted from the data base

Alternatively, pressing the Delete key on the keyboard clears any selected legs from the completed calls view

Database records view

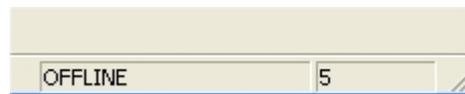
The Database records view displays CDR information already contained within the currently opened [CDR database](#). The information shown, is exactly the same as that shown in the completed calls view, with the exception that the Index and Sub index are shown separately.

Status bar

The status bar shows information about the current state of the Call Server application. For example, the following picture shows the connection state, and the number of CDR legs shown in the [completed calls view](#). Also the IP address (if using TCP/IP) of the system is shown



And this one shows the Call Server as not connected, but with 5 CDR legs in the [completed calls view](#)



If the Database records view is active, then the status bar will be the same as shown above, the only difference being the number shows the number of loaded records from the CDR database.

1.2 CDR database

CDR database

The CDR information that is downloaded from a NMG system is saved in a Microsoft Access database. To access this database, the application CDR Evaluation, and the Call Server are available, whereby the Call Server application can be used to administer the contents of the database, and the CDR Evaluation application (like the name suggests) is used to evaluate the contents.

As all NovaTec applications use a MS Access database in some form or other, the correct drivers are required for the applications to work correctly. Usually if Microsoft Access 2000 is installed on the PC from which the NovaTec applications are started, there should be no problems, however if this is not the case, the ODBC, and MDAC drivers are supplied on the installation CD.

The CDR database has three formats.

The format preceding the version 5.6.3 contains the following information:

L_Nr	The main index number	LONG
L_Index	The sub index of the CDR leg	LONG
D_Date	The time and date of the start of the particular leg	COLEDATETIME
T_Calpn	The number of the initiator of the call	TEXT
T_CallType	The direction of the call	TEXT
T_Cedpn	The called party number	TEXT
L_Callstate	The last state of the call	LONG
L_AOC	The actual cost of the call (calculated by the NMG)	LONG
L_VO	The type of call	LONG
L_Service	The service type	LONG
L_Cause	The cause value of this call	LONG
L_LIBU	The internal ID of the trunk group used for this call	LONG
T_Calred	Caller (initiator) redirection number	TEXT
T_Cedred	The called partner redirection number	TEXT
T_Provider	The provider (pre selection) prefix (if applicable)	TEXT
L_Port	The internal port ID of the interface used for this call	LONG
C_B_Channel	The B-Channel used for this call (if applicable)	BYTE
C_SIM_ID	The SIM ID of the SIM used during this call (if applicable)	TEXT

The format preceding the version 6.1.5 contains the following additional information:

T_BackplaneID	The back plane ID of the system which generated the CDR	TEXT
T_UUID	Unique User Identification. Used internally.	TEXT
S_UTC_Offset	UTC offset in minutes	SHORT
B_DLS_Active	Flag to indicate if Daylight Savings is activated on the system	BOOLEAN
T_IMEI	The IMEI of the interface that made the call (if applicable)	TEXT
L_Signal_RX	The number of IP bytes received, for signaling (if applicable)	LONG
L_Payload_RX	The number of IP bytes received for the actual payload (if applicable)	LONG
L_Signal_TX	The number of IP bytes transmitted, for signaling (if applicable)	LONG
L_Payload_TX	The number of IP bytes transmitted, for the actual payload (if applicable)	LONG
L_Own_IP	The IP address of the system (if applicable)	LONG
L_Own_Port	The IP port of the system (if applicable)	LONG
L_Destination_IP	The IP address of the destination system (if applicable)	LONG
L_Destination_Port	The IP port of the destination system (if applicable)	LONG
L_RTP_IP	The IP address used for RTP packets (if applicable)	LONG
L_RTP_Port	The IP port used for RTP packets (if applicable)	LONG
L_Proxy_IP	The IP address of the proxy server used for this call (if applicable)	LONG
L_Proxy_Port	The IP port of the proxy server used for this call (if applicable)	LONG
T_Proxy_Name	The name of the proxy server used for this call (if applicable)	TEXT
T_SIP_Caller	The SIP number/name of the SIP caller (if applicable)	TEXT
T_SIP_Partner	The SIP number/name of the SIP partner (if applicable)	TEXT
L_POD_Current	The current POD at the time of this call (if applicable)	LONG
L_POD_Max	The maximal POD at the time of this call (if applicable)	LONG
L_POD_Min	The minimal POD at the time of this call (if applicable)	LONG
L_Jitter_Current	The size of the current jitter buffer at the time of this call in milliseconds (if applicable)	LONG
L_Jitter_Max	The maximal size of the jitter buffer at the time of this call in milliseconds (if applicable)	LONG
L_Jitter_Min	The minimal size of the jitter buffer at the time of this call in milliseconds (if applicable)	LONG
L_Bad_Packets_Discarded	The total number of discarded packets at the time of this call (if applicable)	LONG
L_Bad_Packets_Early	The total number of early packets at the time of this call (if applicable)	LONG
L_Bad_Packets_Late	The total number of late packets at the time of this call (if applicable)	LONG
L_Resyncs	The number of re-syncs between two NMG systems since the last statistic reset (if applicable)	LONG

Also the format of the AOC (D_AOC instead of L_AOC) value has been changed. It is now a DOUBLE value, and is written into the database in the correct format, and no longer as an integer value.

The new format version 6.1.5 contains the following additional information:

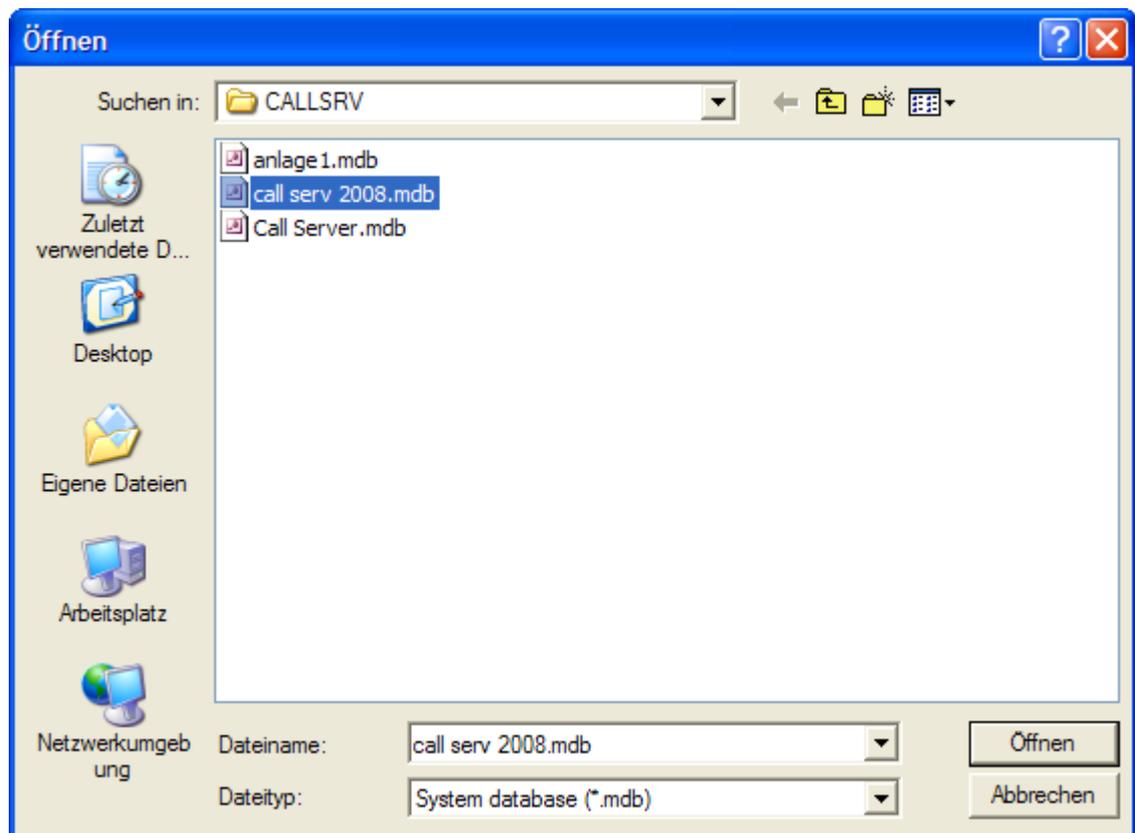
L_T38_Flags	Vinetic T.38 Flags	LONG
L_T38_Standards	T.38 Standard	LONG
L_T38_Lost_Packets	Total amount of lost packets	LONG
L_T38_Recovered_Packets	Total amount of recovered packets	LONG
L_T38_Max_Lost_Pcks_Grp	Total amount of Max. lost Pcks. Grp.	LONG
L_T38_Stat_FTT_Count		LONG
L_T38_Pages_Transfered	Total amount of transfered pages	LONG
L_T38_Line_Breaks	Total amount of line breaks	LONG
L_T38_V21_Frm_Breaks	Total amount of V.21 form breaks	LONG
L_T38_ECM_Frm_Breaks	Total amount of ECM form breaks	LONG
L_T38_Major_Version	The major version of T.38	LONG
L_T38_Minor_Version	The minor version of T.38	LONG

Converting an existing database into the new format

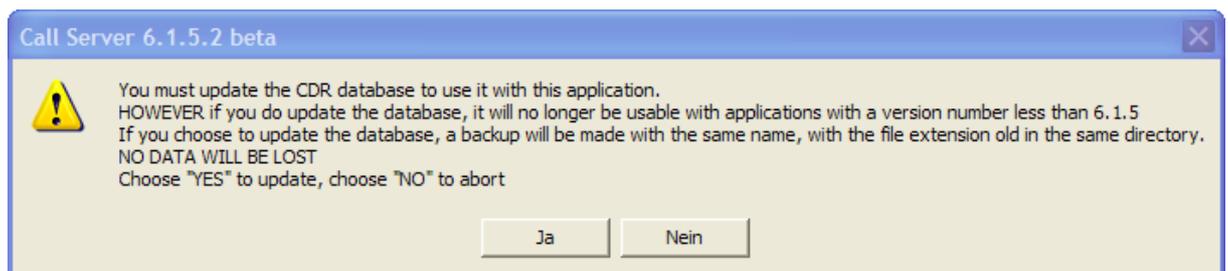
The Call Server application, allows the automatic conversion of existing database's into the new format, however the following points should be adhered to:

- Before converting an existing database, please ensure that it is closed, and that it will not be accessed by the NMS
- Ensure that the database is not larger than 512 MB. If this is the case, export older data and delete the exported data from it.

To update an existing database, just open the database. The program recognizes the version of the database and if necessary, converts and updates this database.

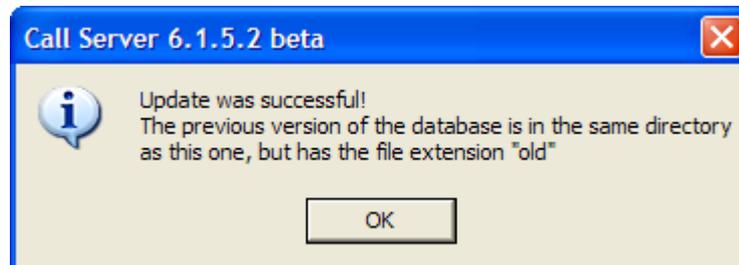


After you have selected the desired database, the program asks you, if you wish to update the "old" database.



The database will be updated and converted. The conversion process can take up to 20 minutes to complete, dependant on how many entries are present. All existing data is converted into the new format, no data is lost.

A backup copy of the database is created before the conversion process is started in the same directory as the existing database.



The succesfull conversion will be indicated by an information dialog.

Compatibility between Firmware and CDR database versions

Here is a simple diagram to show the compatibility issues between system firmware and CDR database versions.

	Pre 00.05.02.00 firmware	Post 00.05.02.00 firmware
Pre 5.6.3 Call Server software	No changes	The extended data is not saved in the database.
Post 5.6.3 Call Server software	The extended data is not present, therefore the database values will be filled with default values (zero or empty, dependant on the data type)	The extended data (if sent) is saved in the CDR database

Tables contained within the CDR database

Note: This only applies to the **new** CDR database format.

CIS_Call_Data_Records

Contains the CDR datasets.

CIS_Filtered_Call_Data_Records

Container for the evaluated CDR datasets.

CIS_Overflow_Call_Data_Records

Container for the overflow CDR datasets.

All three tables have the same structure as described [here](#).

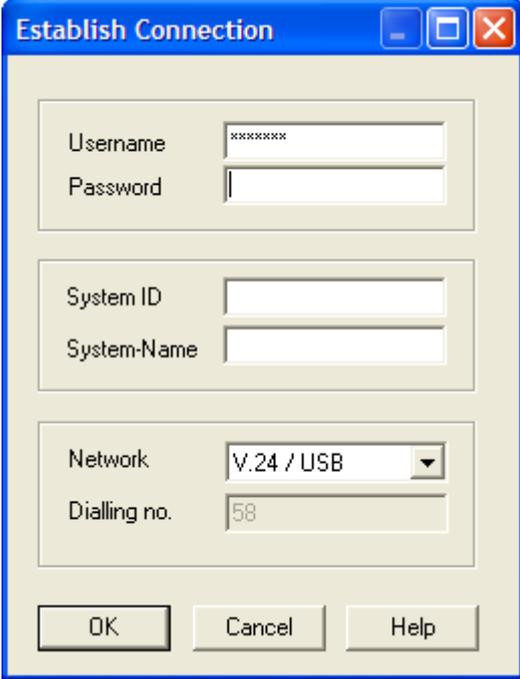
Directly accessing any of the above mentioned tables could seriously damage the CDR database, and cause loss of data. If you chose to access the above tables directly, you do so at your own risk!

1.3 Connecting to the system

Connecting to the system

Before trying to connect to the target system, please make sure that the Network Service are correctly configured and running. for more information on the Network Services, please read the section [Network settings](#), and the Network Services help file.

When the menu item **Server | Connect...** has been chosen the following dialog appears...



Using the information provided from this dialog, the Call Server application connects to the target NMG system

Username

The username required for connecting to the target system. This is usually **technik**

Password

Enter the password for the target system here. If you have not previously changed this, no password is required.

To change the password first enter the old password, followed by a semi-colon(;), then the new password followed by another semi-colon and, for confirmation, the new password once again. For example

oldpassword;newpassword;newpassword

If you have forgotten the password, to delete the password in the target system enter into the password the following text

NOPASSWD

The password **AND** the configuration will be deleted in the target system. The target system will then run in the default mode.

System ID

The back plane ID of the system to be contacted (optional)

System-Name

The name of the system to be contacted (optional)

Network

Choose the type of network connection that is to be used to contact the Network Services. The available choices are

V.24 / USB

ISDN

TCP/IP

Dialing no.

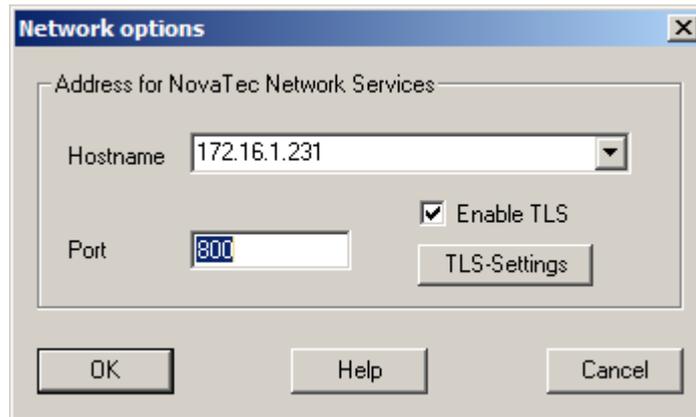
Enter the number of the target system. This option is only available when the **Network** is set to ISDN

Once the required information has been entered, the application will then try to contact the target system with the information provided. If the connection is unsuccessful, then the taskbar in windows will flash, and the [status bar](#) will continually show **Connecting...**

1.4 Network settings

Network settings

For communication with the target system either via V.24, USB, ISDN or TCP/IP all NovaTec PC software products use a proprietary transmission protocol called MMX.
On choosing the menu point Network settings... the following dialog will be shown



Network services

Host

The host name of the PC running the NovaTec Network services. If the Network Services are running on the same PC as the Call Server, then the IP address of the PC may be entered here, or the standard IP address (127.0.0.1) or the text "**localhost**" (without the quotes). If a TCP/IP connection is to be used to connect directly to the target system, then the public IP address of the target system should be entered here.

Port

The port on which the Network Services are running. The standard is 800, which should not be changed unless otherwise stated by the NovaTec support team

Depending on the [connection scenario](#) that applies, the value of Host name should be set as follows

Your PC is connected directly to the target system via the **V24** interface or **Universal Serial Bus (USB)**

Host name	localhost
Port	800

Your PC is connected directly to the target system via **ISDN** and the ISDN adapter is also installed on the local machine

Host name	localhost
Port	800

The PC running the Network Services is only accessible via LAN or internet. This remote PC is in turn connected via the V24 interface to the target system.

Host name	The IP address of the PC running the Network Services
Port	800

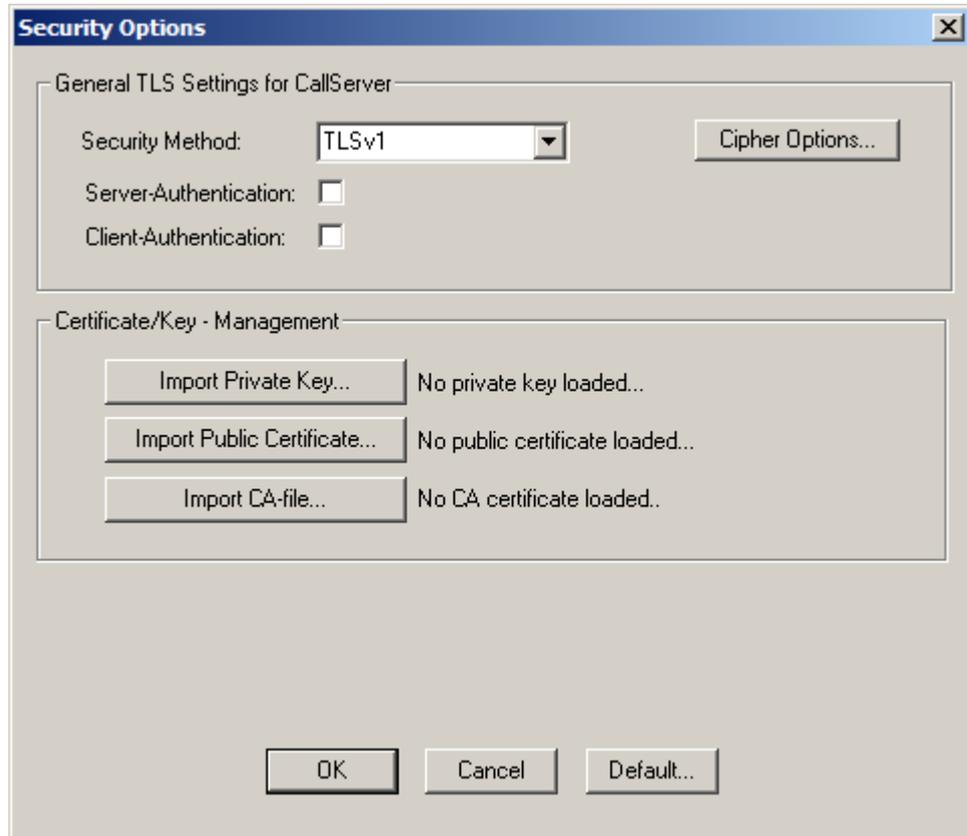
Enable TLS

If you want use secured TCP/IP-communication with the NovaTec-system, i.e. SSLv3 or

TLSv1 over TCP/IP, enable secure-communication by activating the check mark "Enable TLS". The button "TLS-Settings" will be enabled.

TLS

To configure and set up secure-communication, press the button "TLS-Settings". The following dialog appears.



Security Method

Choose the required security protocol for secure communication, either SSLv3 or TLSv1.

Server-Authentication

If you want the server to prove his identity to the client during the communication setup, enable the check mark "Server-Authentication".

Client-Authentication

If you want the client to prove his identity to the server during the communication setup, enable the check mark "Client-Authentication".

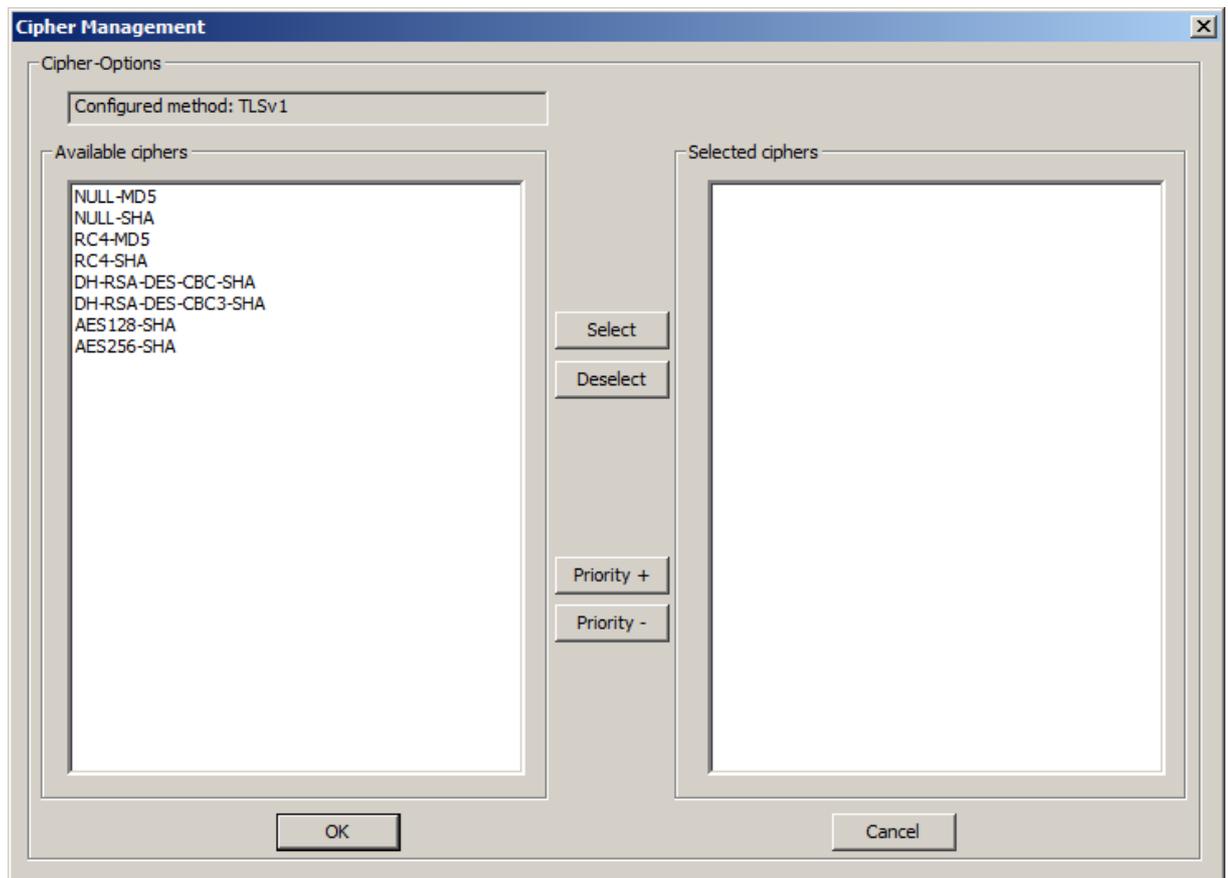
Note:

Server- and Client-Authentication are used to prevent "man-in-the-middle-attacks".

Cipher Options

By clicking on "Cipher Options..." a dialog appears, displaying in the left part of the dialog a selection of available ciphers for secure communication. The selection of available ciphers depends on the configured security method.

The right part display the selected ciphers, used in your configuration for secure communication.



If none of the available ciphers is listed in the right window and you decide not to select at minimum one of the available ciphers in the left window, i.e. the right window remains empty, the system determines itself the "best" cipher respectively the most secure and compatible cipher during communication setup.

In the case you want to restrict the selection of the used ciphers, select the desired cipher in the left window and press "Select". The selected cipher will be removed from the list of available ciphers and will be added to the selected ciphers in the right window. Repeat this step for every desired cipher.

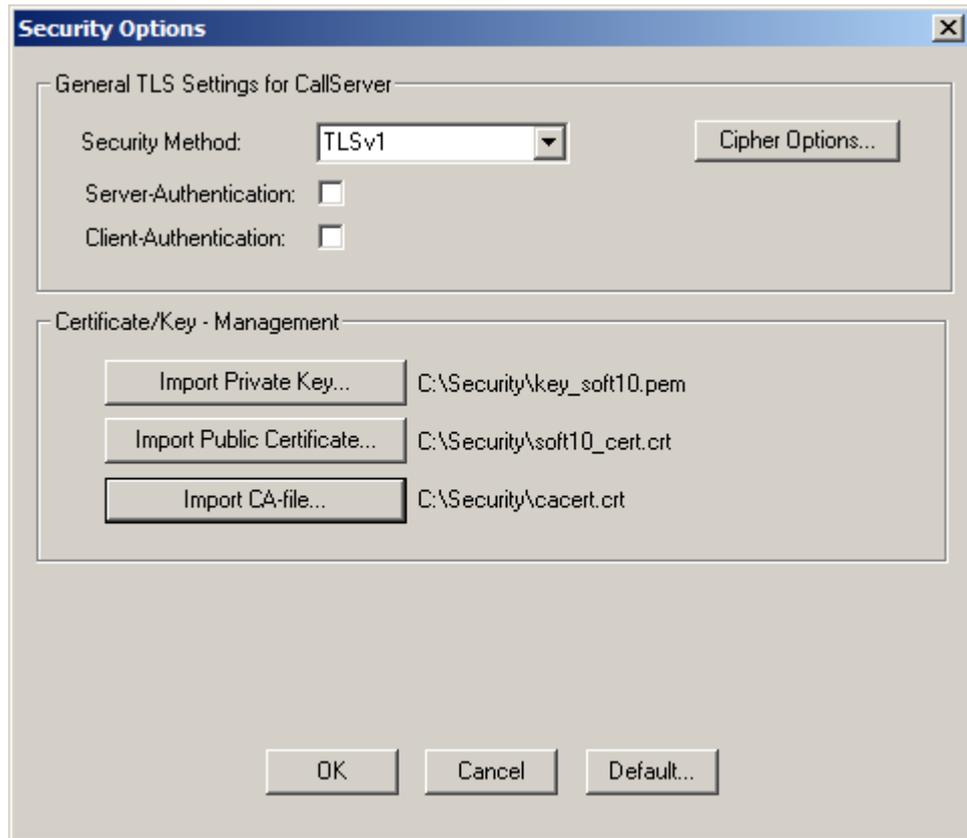
After making your selection of ciphers, it is necessary to define the priority of the several selected ciphers. This will be done by rearranging the order of the selected ciphers in the right window. The higher the position of the cipher in the list the higher is the priority of the cipher to be elected to communicate.

To change the priority of a cipher, select the cipher in the right window and press the button "Priority +" respectively "Priority -".

After making your settings, leave this dialog by pressing "OK".

Certificate/Key-Management

SSL/ TLS uses keys and certificates to identify the communication partners and to encrypt/decrypt the communication with these keys and certificates between the involved communication partners. The first communication partner is the NovaTec-System, the second will be represented by the PC-Application, in this case the application "CallServer". For this reason, it is necessary to declare the required keys and certificates for "CallServer".



To declare the private-key, dedicated for use with "CallServer", press the button "Import Private Key...". A file-dialog appears allowing you to locate the private-key file within your filesystem. By selecting and opening it, the path to the private-key file will be stored in the configuration.

To declare the public-certificate, dedicated for use with "CallServer", press the button "Import Public Certificate...". A file-dialog appears allowing you to locate the public-certificate file within your filesystem. By selecting and opening it, the public-certificate file will be stored in the configuration.

To declare the public-certificate of the desired CA (certification authority), press the button "Import CA-file...". A file-dialog appears allowing you to locate the public-certificate file within your filesystem. By selecting and opening it, the path to the public-certificate file will be stored in the configuration.

Note:

To reset the TLS-Settings to default, press the button "Default...".

Attention:

If SSL/TLS is **not** already activated in the NovaTec-System and you try to connect with SSL/TLS enabled, no connection to the system will be available.

Vice versa if SSL/TLS is already activated in the NovaTec-System and you try to connect with SSL/TLS disabled, no connection will be available.

After making your changes, leave the dialog by pressing "OK". Now you have set up "CallServer" to communicate in a secure way with the NovaTec-System.

Settings for sending the message

Port

This port is used for sending internal message within the various NovaTec PC application. Please leave the setting as it is (23)

Note

This software protocol is provided by the NovaTec network services. Thus, before any communication between a PC software module and a NovaTec target system can take place, the Network Services must be running. They have been installed together with the configuration application and can be found in the same start menu folder

Usually the Network Services will run on the same machine as this application. But it is also possible to use Network Services running on a remote machine that is accessible via TCP/IP. The Network Services have to run on the system connected with the target system

Connection scenarios

There are various connection scenarios

Your workstation is connected directly to the target system via

The V.24 interface

ISDN (if the respective ISDN adapter is located on your local PC)

USB

A virtual V.24 port provided by a target-side PC coupled with your local workstation via TCP/IP. In this case the default network settings (Hostname localhost, port 800) are correct. Also the network services have to run on the local PC and must be configured to work with the correct communication port

Another connection scenario may be that a host PC is running the Network Services, which in turn is connected directly via V.24 to the target system. In this case, the IP address of the host PC needs to be known, so that the Call Server application contacts the host PC, which in turn contacts the target system

If the target system is fitted with a CCU-3, then a direct connection can be made to the target system using the TCP/IP protocol, without the need to run the Network Services. The IP address of the target system must be known

Note

For more information on the Network Services, please read the corresponding help file that is installed in the same directory as the Network Services application.

1.5 PABX settings

PABX settings

The PABX settings are used when exporting the CDR data from the Call Server application. They are optional, but are useful when dealing with more than one NMG system. When the PABX settings menu item has been chosen, the following dialog will be shown.



The screenshot shows a standard Windows-style dialog box titled "PABX settings". It features a blue title bar with a close button (red X) in the top right corner. The main area is a light beige color and contains a "System" section. This section includes two text input fields: "Client" with the text "NovaTec" and "Location" with the text "Paderborn". At the bottom of the dialog, there are two buttons: "OK" on the left and "Cancel" on the right.

System

Client

The name of the Client (customer) to whom the PABX/NMG system belongs (optional)

Location

The location of the PABX/NMG system (optional)

1.6 General settings

General settings

The general settings dialog will be shown after selecting the menu item **General settings...** This information is used when exporting CDR data sets from the Call Server application



VAT

The current VAT value, this value is used when exporting the CDR data from the Call Server application.

Currency

The textual currency identifier, this value is used when exporting CDR data from the Call Server application

Fractional digits

The number of digits, after the decimal point to be exported with the CDR data. This must correspond with that of the configuration for system. As the AOC for each call is stored as a whole number (integer) within the system, the value saved in the system divided by **this number** is the real AOC of a particular call.

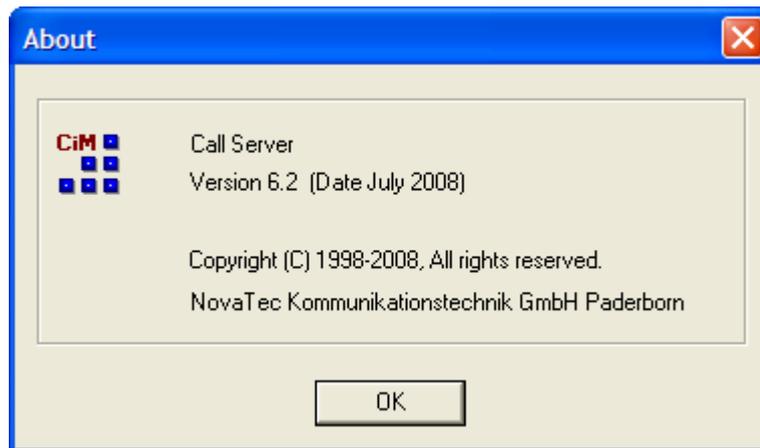
Note

For more information about exporting CDR data from the Call Server application, please read the section [Exporting CDR's](#)

1.7 About

About

When the about menu item has been chosen, version and copyright information is displayed



In this example, the version number of the application is 6.1.5.2 b. The Date (in brackets) is the release date of the current version.
If you have any problems related to the Call Server application, this information will be needed by the NovaTec support team

2 Online mode

Online mode

The online mode is very useful for maintenance and fault finding within the NMG system. The call routes through the system can be examined, and the various states of the calls can be monitored in "real time". The online mode is when the Call Server is connected to the target system, and the [Online records view](#) is active.

Note

The menu items in [Call data](#) are not available

2.1 Viewing CDR's

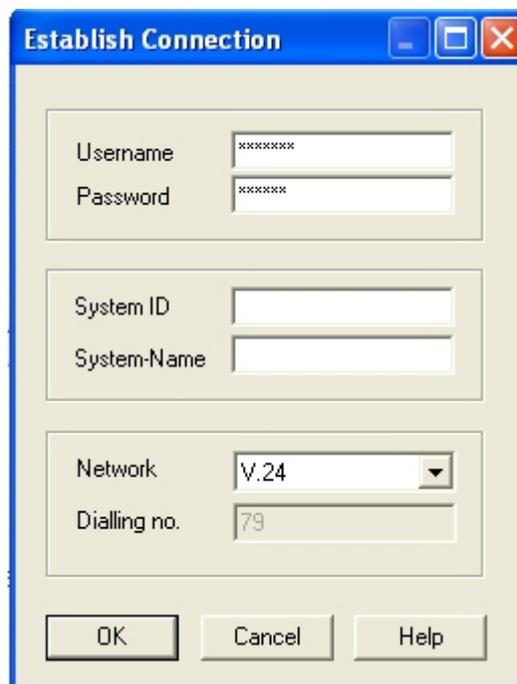
Viewing CDR's

The CDR information shown in the online mode is dependant on the CDR options that have been configured for the target system using the NovaTec configuration application. For more information, please read the corresponding help file.

Note

A valid CDR database needs to be opened in the Call Server application before any "real time" viewing of CDR information is possible

To view the CDR information in "real time" the Call Server application needs to be connected to the target system. To do this choose the menu item [Server | Connect...](#) and the [Establish Connection](#) dialog will be shown



Once the connection has been established successfully, the status bar will show the connected status, and (if there are calls being processed by the system) the pending calls will appear in the upper view

Caller	State	Direction	Partner	Call forwarding	Call type	Line	Duration	Charge	Alias	Info
05251158974198	♪	OUT	8641		☒	1		0.00		
052518729154	●●	IN	655		☒	0	00:00:15	0.00		
05251158974198	☒	OUT	643		☒			0.00		
05251158974198	♪	OUT	8643		☒	1		0.00		
052518729154	●●	OUT	8655		☒	1	00:00:15	0.00		
05251158974198	♪	IN	643		☒	0		0.00		
74198	♪	OUT	052511589643		☒	0		0.00		
74198	♪	IN	0052511589643		SIP			0.00		

Index	Date	Provider	Caller	Direction	Partner	Duration	Charge	State	Line	Call ty
6136 - 0	18.01.2006, 09:38:03		74198	IN	641	00:00:01	0.00	●●	0	SIP
6136 - 2	18.01.2006, 09:38:03		74198	OUT	8641	00:00:01	0.00	●●	1	☒
6136 - 1	18.01.2006, 09:37:58		74198	OUT	641	00:00:05	0.00	☒	0	☒
6137 - 1	18.01.2006, 09:37:59		052518729154	OUT	655	00:00:03	0.00	♪	0	☒
6135 - 8	18.01.2006, 09:37:22			OUT	643	00:00:04	0.00	☒	0	☒
6135 - 2	18.01.2006, 09:37:03			OUT	8643	00:00:23	0.00	♪	1	☒
6135 - 0	18.01.2006, 09:37:03			IN	643	00:00:23	0.00	♪	0	☒
6134 - 0	18.01.2006, 09:37:03		641	IN	0052511589643	00:00:22	0.00	♪	1	☒
6134 - 1	18.01.2006, 09:37:03	0190098	641	OUT	052511589643	00:00:22	0.00	♪	4	☒
6135 - 9	18.01.2006, 09:37:22			OUT	8641	00:00:01	0.00	☒	1	☒
6135 - 7	18.01.2006, 09:37:17			OUT	8641	00:00:01	0.00	☒	1	☒
6135 - 5	18.01.2006, 09:37:12			OUT	643	00:00:06	0.00	☒	0	☒
6135 - 6	18.01.2006, 09:37:12			OUT	8641	00:00:01	0.00	☒	1	☒
6135 - 4	18.01.2006, 09:37:07			OUT	8641	00:00:01	0.00	☒	1	☒
6135 - 1	18.01.2006, 09:37:02			OUT	643	00:00:06	0.00	☒	0	☒
6135 - 3	18.01.2006, 09:37:02			OUT	8641	00:00:01	0.00	☒	1	☒

The [upper view](#) shows the currently active calls being processed by the system. Once they have been processed dependant on the CDR profile used by the system, the details are saved into the currently opened CDR database, and are show in the [lower view](#). If for some reason, you do not see any CDR information in the lower view, please check the CDR profile settings in the configuration for the system.

3 Offline mode

Offline mode

The offline mode can be used to administer the CDR's of calls that the system has already processed (i.e. those that have been saved in the [CDR database](#)).

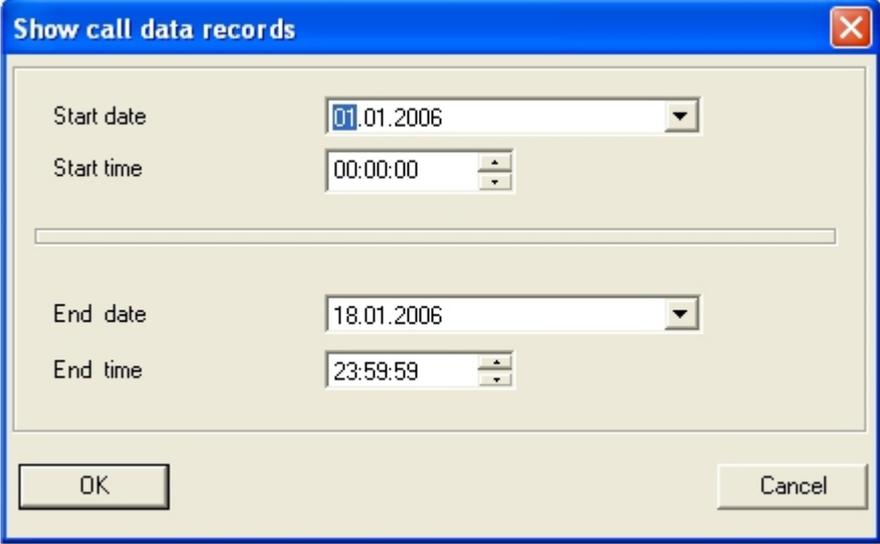
Note

Only CDR information already contained in the [database](#) that is opened can be viewed in the offline mode

3.1 Viewing CDR's

Viewing CDR's

To view CDR's from the loaded database, choose the menu item **Call data | Show...** and the following dialog will be shown. This allows you to confine the CDR's to be shown using the dates supplied in the dialog shown below



The screenshot shows a dialog box titled "Show call data records". It has a blue title bar with a close button in the top right corner. The dialog contains four input fields: "Start date" (a dropdown menu showing "01.01.2006"), "Start time" (a time spinner showing "00:00:00"), "End date" (a dropdown menu showing "18.01.2006"), and "End time" (a time spinner showing "23:59:59"). At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Start date

All CDR's contained within the [database](#), whose date is the same as or later than this date will be shown

Start time

All CDR's contained within the [database](#), whose time is the same as or later than this time will be shown

End date

All CDR's contained within the database, whose date is the same as or earlier than this date will be shown

End time

All CDR's contained within the database, whose time is the same as or earlier than this time will be shown

After clicking the **OK** button, (and providing you have entered valid dates and times) the CDR data will be retrieved from the [CDR database](#), and a dialog box will appear, showing the number of records that will be shown, that match the Date / Time criteria entered



After closing this dialog box, the respective CDR information (if present) will be shown as in the Database records view. Please be aware of the fact, that when there are many CDR data sets to be shown, this may take some time. The actual progress of the updating of the various views is shown in a progress bar at the bottom of the Call Server applications main window

The information shown, corresponds with that shown in the [Completed calls view](#), with the exception that the Index and Sub index are shown individually. Each column can be sorted, so that the analysis of the CDR information is possible

Index	Sub index	Date	Duration	Caller
4369	0	01/17/06 12:39:15	00:00:03	682
4369	1	01/17/06 12:39:15	00:00:03	682
4369	2	01/17/06 12:39:15	00:00:02	682
4370	0	01/17/06 12:39:21	00:00:14	682
4370	1	01/17/06 12:39:22	00:00:12	682
5938	0	01/17/06 11:50:30	00:00:19	0525169
5938	1	01/17/06 11:50:30	00:00:19	0525169
5938	2	01/17/06 11:50:23	00:00:07	0525169
5939	0	01/17/06 11:50:30	00:00:02	631
5940	0	01/17/06 11:52:39	00:00:00	620
5941	0	01/17/06 11:53:41	00:02:03	620
5941	1	01/17/06 11:53:41	00:02:03	620
5951	0	01/17/06 12:18:11	00:02:40	069348
5951	1	01/17/06 12:18:11	00:02:40	069348
5952	1	01/17/06 12:22:11	00:00:08	06146
5955	0	01/17/06 12:40:28	00:00:22	676
5955	1	01/17/06 12:40:21	00:00:07	676

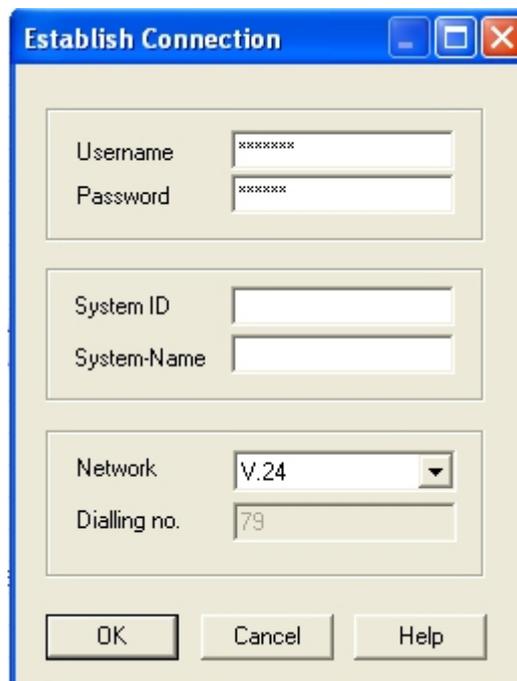
Navigation: < [Progress Bar] |||

Buttons: Online records Database records

3.2 Reading CDR's from the system

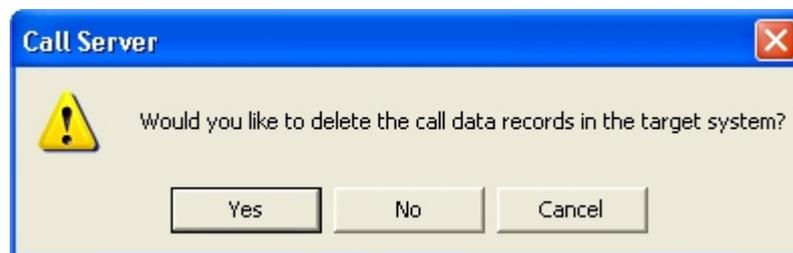
Reading CDR's from the system

This function is only available when not connected to a target system, i.e. in the [offline mode](#), and the [Database records view](#) is active. To read CDR information from the target system, choose the menu item [Call data | Read...](#) Once you have chosen to read the CDR information from the target system, the **Establish Connection** dialog will be shown, in which you must enter the information required for connecting to the target system. For more information about the **Establish Connection** dialog, please read the section [Connecting to the system](#)



The 'Establish Connection' dialog box is a standard Windows-style window with a blue title bar. It contains several input fields and buttons. The fields are: 'Username' (masked with asterisks), 'Password' (masked with asterisks), 'System ID' (empty), 'System-Name' (empty), 'Network' (a dropdown menu showing 'V.24'), and 'Dialling no.' (containing '79'). At the bottom, there are three buttons: 'OK', 'Cancel', and 'Help'.

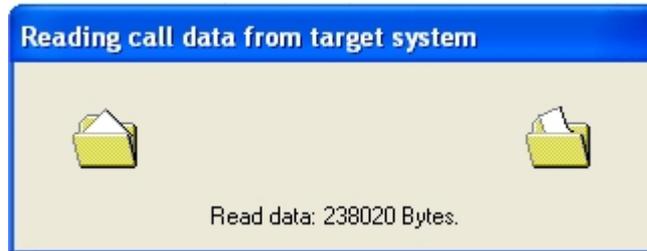
Once you have entered the required information and clicked **OK**, the following dialog will be shown



The 'Call Server' dialog box is a smaller window with a blue title bar and a yellow warning icon on the left. The text inside asks: 'Would you like to delete the call data records in the target system?'. At the bottom, there are three buttons: 'Yes', 'No', and 'Cancel'.

This is a confirmation dialog, which must be answered with either **Yes**, or **No** to obtain CDR information from the target system. If you choose **Yes**, then all CDR information will be deleted from the target system once it has been downloaded to the Call Server application. If you choose **No**, then the CDR information will be downloaded, and the CDR information on the target system will remain there. If you choose **Cancel**, then the reading of the CDR's from the target system will be aborted.

Once you have confirmed the downloading of the CDR information from the target system, a dialog is shown which shows the actual status of the download...



The CDR data (in its raw form) is saved to a temporary file on the PC, and then written into the database. The progress is shown in a dialog box, which shows the current CDR data set being saved into the database.

Once the CDR's have been downloaded to the Call Server application, and inserted into the presently opened database, they are displayed in the [lower view](#). Please read the section [Call Server application](#) for more information about the [lower view](#)

Note

Doublet information is not stored in the database

3.3 Deleting CDR´s on the system

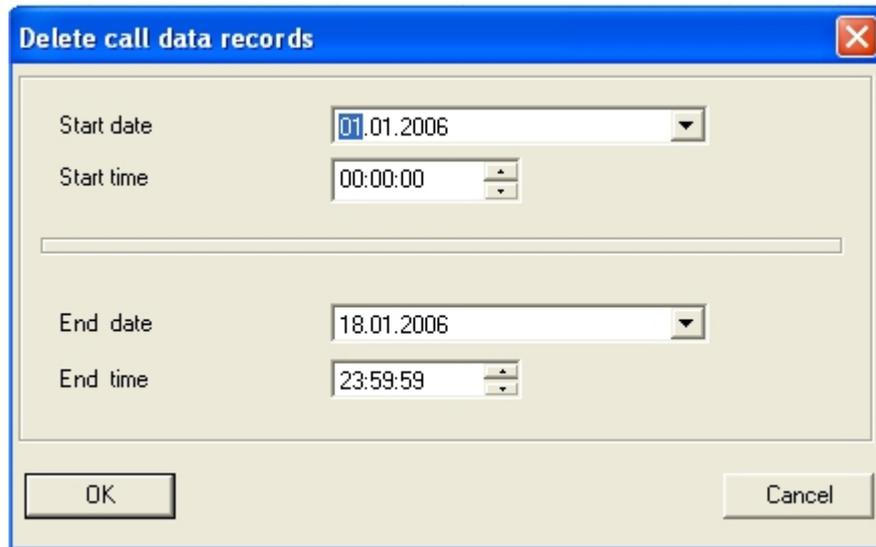
Deleting CDR´s on the system

To delete the CDR´s from the target system, follow the same procedure as describe in the section [Reading CDR´s from the system](#). In the confirmation dialog that is shown after connecting to the system, please answer the question **Would you like to delete the call data records in the target system?** with yes. The CDR information will be read from the system, saved to the current database and deleted from the target system

3.4 Deleting CDR's from the database

Deleting CDR's from the database

To delete CDR information from within the database, the Call Server must not be connected to a target system i.e. in **offline mode**, and the database from which the CDR information is to be deleted from must be opened. To delete CDR information, choose the menu item **Call data | Delete ...** and the following dialog will be shown



Start date

CDR information contained within the database that is time stamped on this date and later will be deleted until the date specified at the **End date**

Start time

CDR information contained within the database that is time stamped on this time and later will be deleted until the time specified at the **End time**

End date

CDR information contained within the database that is time stamped on this date and earlier will be deleted

End time

CDR information contained within the database that is time stamped on this time and earlier will be deleted

After choosing **OK**, a confirmation dialog will be opened, in which you must answer **Yes** so that the CDR information will be deleted from the currently opened database. This action is **final!** There is no way of reconstructing the CDR information once it has been deleted. Choosing **Cancel** aborts the deleting of any CDR information. After the deletion process is complete, a dialog will be shown stating how many data sets have been deleted from the database



3.5 Exporting CDR's

Exporting CDR's

This function is only available when not connected to a target system, i.e. in the [offline mode](#) and the [Database records](#) view is active. To export data from the currently opened CDR database, choose the menu item **Call data | Export...** and the following dialog will be shown



Export format

There are three export formats available

CSV (txt)

A CSV file containing the CDR data sets is created

Access (mdb)

The contents of the current CDR database are exported into a new CDR database

Excel (xls)

The contents of the current CDR database are exported into an Excel spreadsheet

Start date

CDR information contained within the database that is time stamped on this date and later will be exported up until the date specified at the **End date**

End date

CDR information contained within the database that is time stamped on this date and earlier will be exported

To export choose **OK**, you will then be required to supply the name and destination of the file that the CDR information is to be exported to. The chosen CDR information will then be exported, after which a dialog will appear showing the number of exported data sets.



4 What's new

What's new

What's new in version 6.4

- SSLv1/ TLSv3 supported

New Features

None

Changes

None

Bug fixes

None

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