NovaTec Network
Services Help File

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NovaTec Network Services Helpfile 6.4

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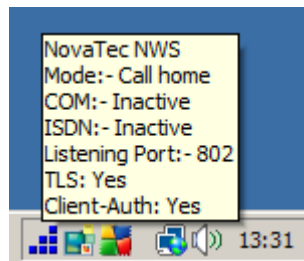   **Fax. +49 5251 1589-11**

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1.1   Introduction

Introduction

NovaTec Network Services 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. 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. The only exception to this rule is when a PC application connects directly using TCP/IP

The NWS are installed together with the NovaTec software and can be found in the same start menu folder. The running network services can be found as a symbol in the system tray as seen below.

If the mouse is moved over the tray icon the following information will be shown in the tool tip (the small window shown above).

NovaTec NWS
> The name of the application

Mode:-
> This will show the current mode of the Network Services. The modes are:
> Normal: This is the normal mode when used to connect to a target system.
> Call home: This is the mode that is required for the NMS.

COM:-
> This shows the current state of the COM port.
> Inactive: The COM port is not in use with the Network Services.
> Active: The COM port is in use with the Network Services.

ISDN:-
> This shows the current state of the CAPI (ISDN) interface.
> Inactive: The CAPI interface is not in use with the CAPI (ISDN) interface.

Listening Port:-
> This shows the (IP) listening port on which the Network Services are expecting to receive Call home information from the NMG systems. The standard value is
> port 802. This setting is only relevant when more than one instance of the Network Services are started on a single PC.

TLS:
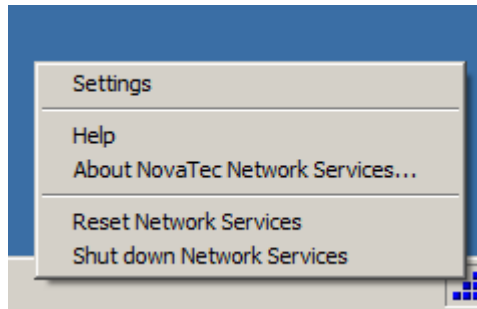> This shows the current state of the secure-mode.
> No: Communication is not secure, i.e. no encryption or security-procedures are used.
> Yes: Communication is secure, i.e. the data is transfered will be encrypted and protected by the use of SSLv3/TLSv1.

Client-Auth:

This indicates, if the client (in most cases the NovaTec system) must identify himself to the network services (in this case the server), i.e. transmitting all information (for example the certificate-chain) to the server is necessary to prove his identity.

Usually the network services will run on the same machine as the PC software itself, but there are several connection scenarios and it is possible to use network services running on a remote machine that is accessible via TCP/IP. The **NovaTec Network Services** provide the low level communication settings. Additional settings as on which PC to search for the **Network Services** can be carried out in the application being used in a Network Options dialog or when you connect to the target system. To make any changes to the Network Services, or see information about them, click on the tray icon with the **right** mouse button and the following menu will appear

Settings
Opens the settings dialog. In this dialog the various options for the NovaTec Network Services are set.

Help
Opens the help file (this file)

About NovaTec Network Services...
Opens the about dialog information is shown about this application

Shut down Network Services
Exits the NovaTec Network Services. Any connections to a target system will be lost. Any active transfers will be aborted

1.2   Connection scenarios

Connection Scenarios

For communication with the target system either via V.24, ISDN or TCP/IP all NovaTec PC software products use a proprietary transmission protocol called MMX. 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 the configuration application or the TraceInfo Client itself. 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. Use the **Network Options dialog** in the application to modify the IP address of the computer that is running the **NovaTec Network Services** .

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) 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 TraceInfo Client contacts the host PC, which in turn contacts the target system.
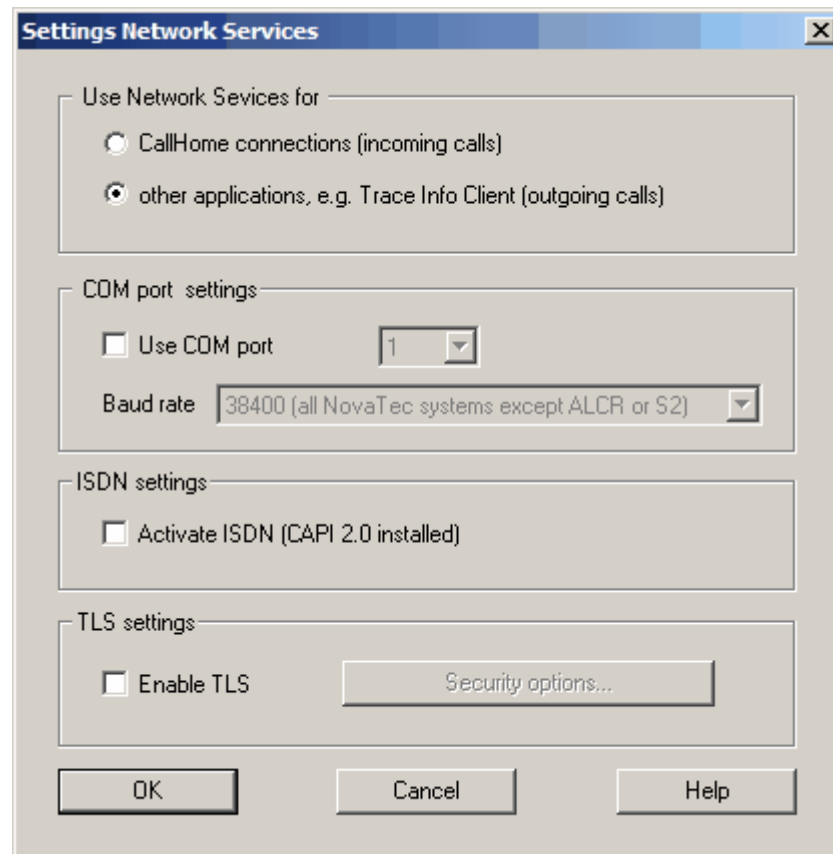
Note
If the target system is fitted with a CCU-3, then a direct connection can be made to the target system using the TCP/IP protocol, **without** the need to run the Network Services. The IP address of the target system must be known.

1.3   Settings

Settings

The settings dialog allows you to change the various options available for the NovaTec Network Services.

Use Network Services for

> **CallHome connections (incoming calls)**
>> Select this option if the PC on which the Network Services are running is being used in conjunction with the Network Management System (NMS).
>> The NMS takes incoming Call home events from the various target systems that are registered to the NMS and are configured to use Call home.
>> For more information on the NMS application, please see the corresponding help file.

> **other applications, e.g. TraceInfo Client (outgoing calls)**
>> This is the standard setting. With this option set, the various NovaTec applications can communicate with the various target systems.

COM port settings
> These settings affect the usage of the COM port by the Network Services.
> **Use COM port**
>> Check this option to use a COM port on the PC. Once this option is active, the COM port to be used can be selected from the combo box to the right.

Baud rate
Choose the baud rate for the communication to and from the target system. This option is only available when the **Use COM port** option has been activated. For the following systems the baud rate **must** be 38400
S5
S6
S10
S20

For all other systems (S2 and ALCR) the baud rate **must** be set to 19200

ISDN settings
Activate ISDN (CAPI 2.0 installed)
Check this option if the PC system on which the Network Services are running has a ISDN card installed are correctly configured, and you require that a connection via ISDN is needed to contact a target system. If no valid CAPI driver can be found, then an error message will be shown and this
option de-activated. The CAPI driver **must** be compatible with version 2.0 of the CAPI standard.

Enable TLS
By enabling this option, the Network Services will communicate in a secure way, i.e. SSL/TLS over TCP/IP will be used to communicate. Further security-settings could be edited by pressing the button "Security options...".

OK
Saves any changes made, and closes the dialog. We recommend that you do not make any changes during an active connection as
this can lead to data loss.

Cancel
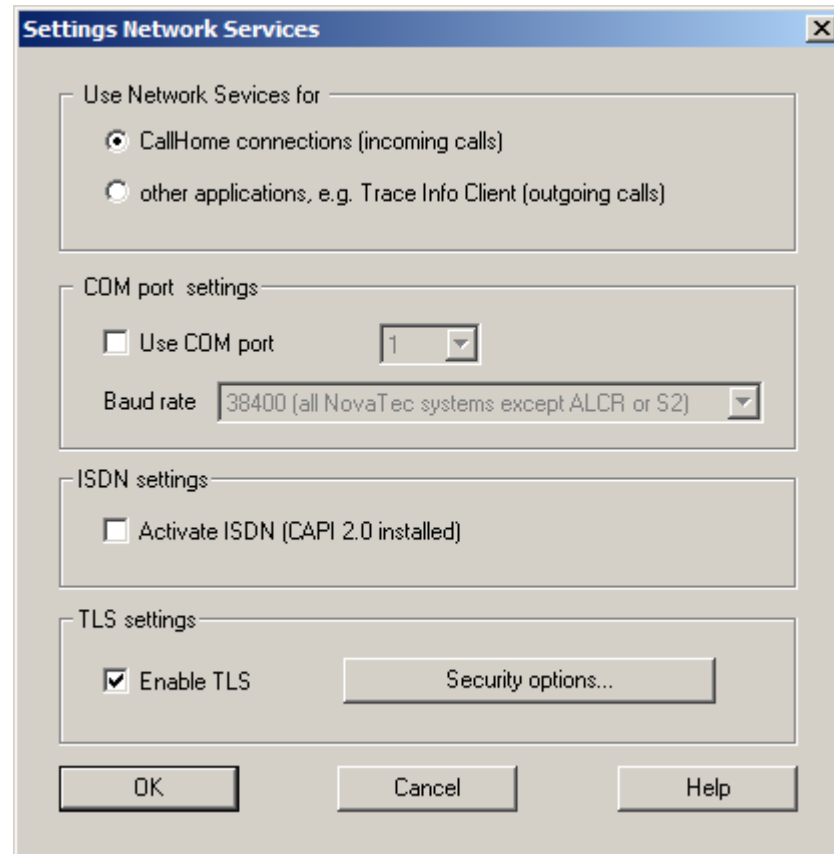Cancels any changes made and closes the dialog
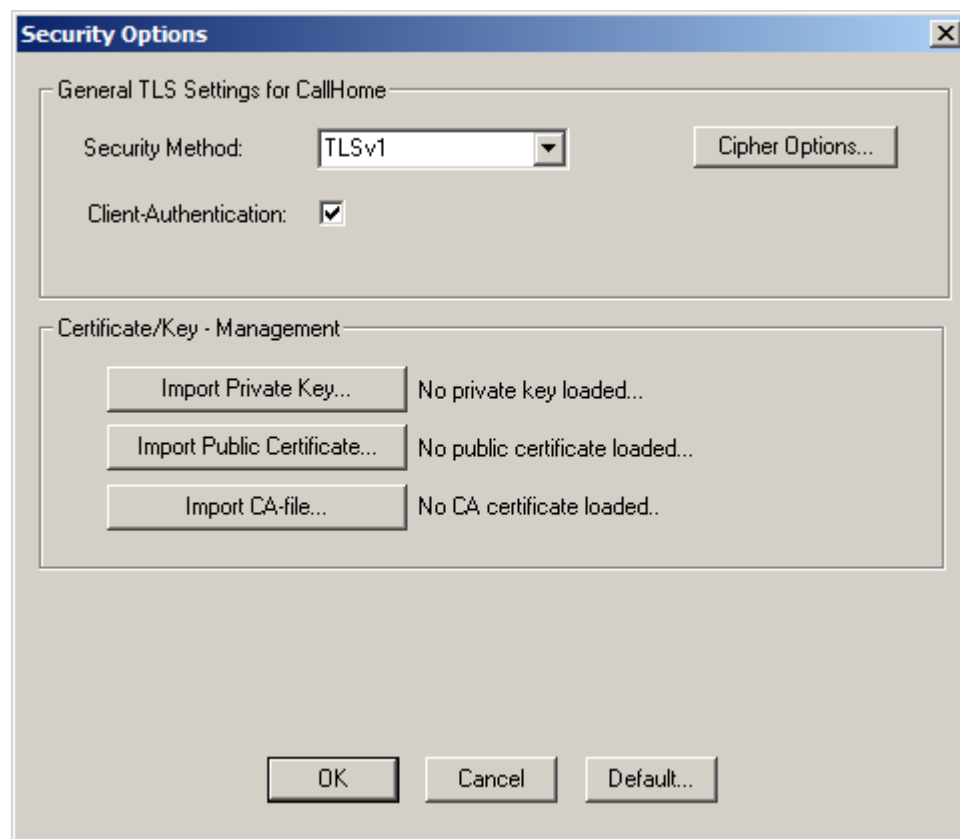
Help
Opens the help (this file)

Note
If any changes are made to the Network Service during a transfer to or from a target system, information may be lost. We recommend that no
changes are made to the Network Services settings during an active connection.

TLS-Settings

To enable the secure-mode, check the mark at "Enable TLS". The button "Security options" will be enabled.

By clicking on "Security options..." the following options dialog will appear.

General TLS Settings for CallHome

Security Method
This selection-box allows you to choose the desired security-method, either SSLv3 or TLSv1.

Client-Authentication
If you want the client to prove his identity to the server during the communication setup, enable the check mark "Client-Authentication".
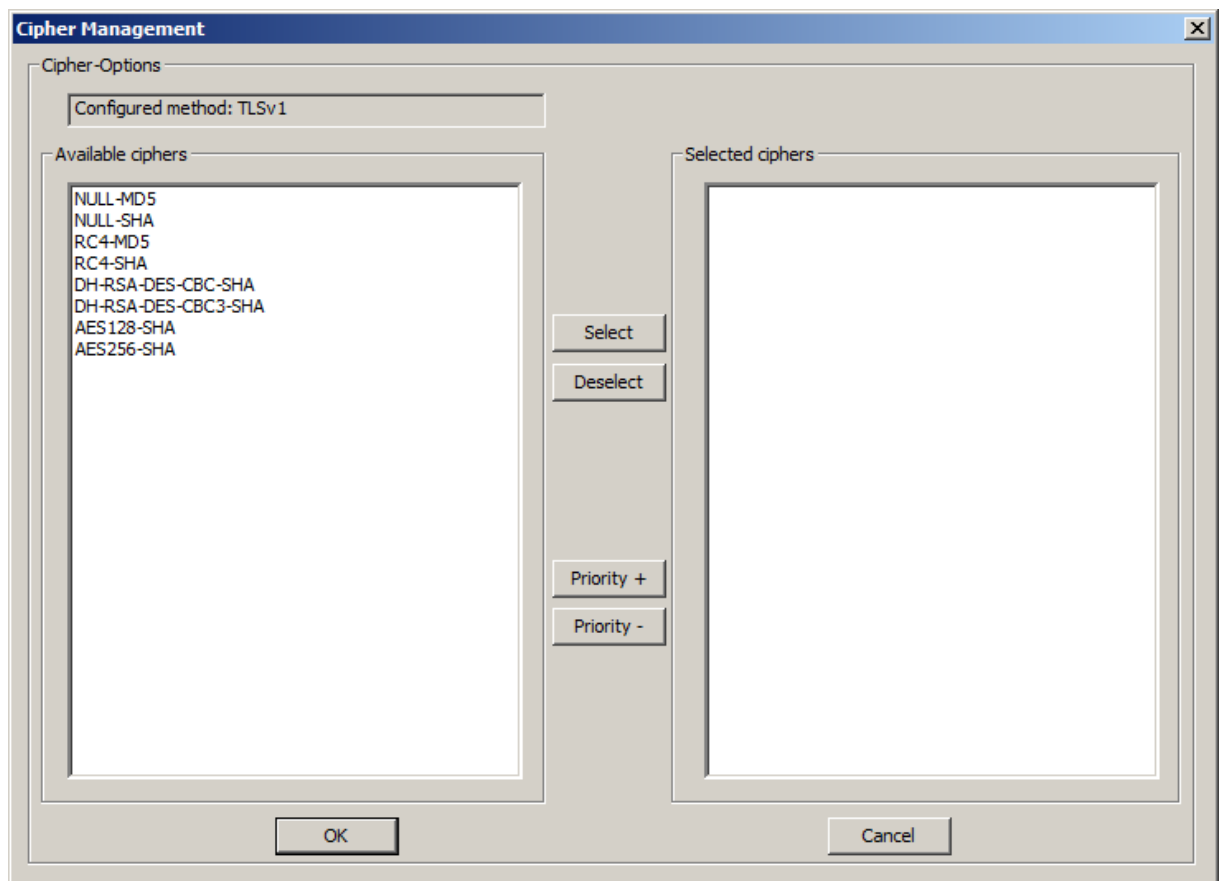
Note:
Client-Authentication is used to prevent "man-in-the-middle-attacks".

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.
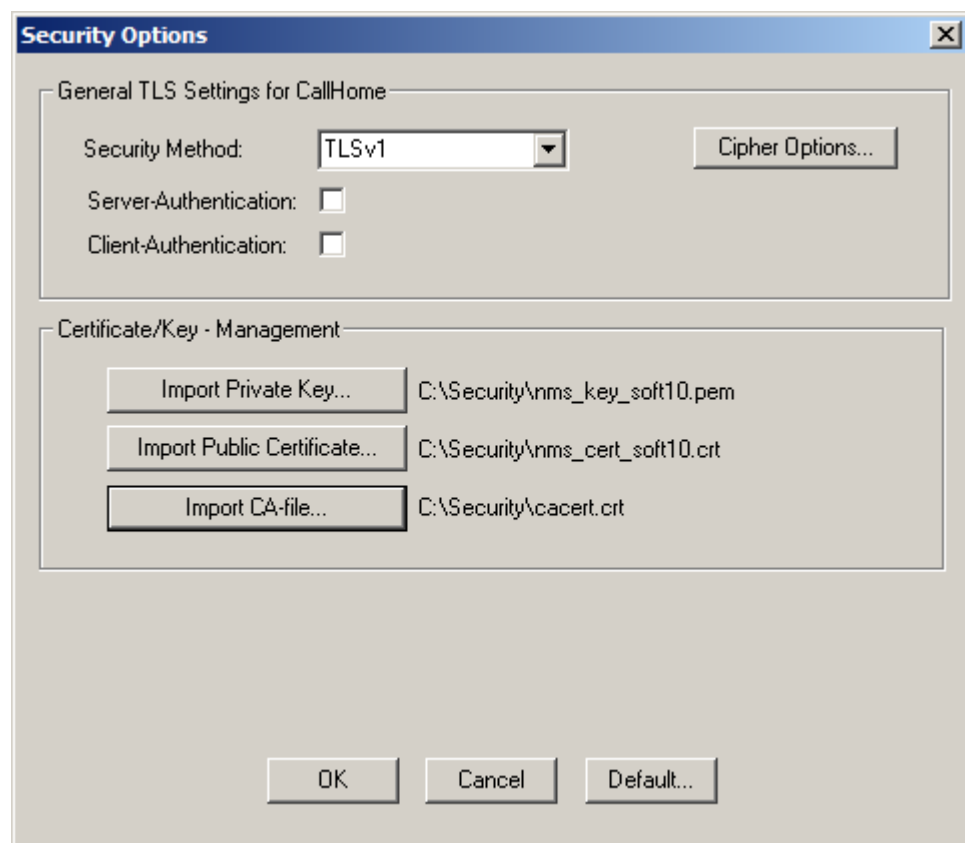
After making your selection of ciphers, it is necessary to define the priority of the several selected ciphers. This will be done by rearranging the order of the selected ciphers in the right window. The higher the position of the cipher in the list the higher is the priority of the cipher to be elected 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 "Network Services". For this reason, it is necessary to declare the required CallHome-keys and CallHome-certificates for the "Network Services".

Import Private Key
To declare the private-key, dedicated for CallHome, 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 for the Network Services.

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

Import CA-file
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 for the Network Services.

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.

OK
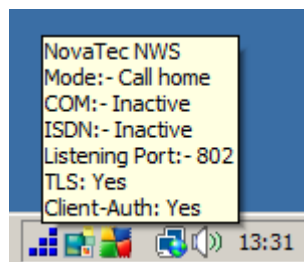Saves any changes made and closes the dialog.

Cancel
Cancels any changes made and closes this dialog.

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

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

You can check the main-settings for "Network Services" by driving your mouse-pointer over the tray icon. A ballon-tip pops up, displaying the main-settings.

1.4 About

About

The about dialog shows the Novatec Network Services version information

Ok

Closes the NovaTec Network Services dialog

Exit

Exits the NovaTec Network Services. Any connections to a target system will be lost. Any active transfers will be aborted

2 What´s new

What´s new

What´s new in version 6.4
- SSL/TLS supported

New Features

None

Changes

None

Bug fixes

None

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