estos ECSTA for OpenScape 4000

7.0.1.1179

1 Introduction

estos ECSTA for OpenScape 4000 makes available several Telephony Service Providers for Microsoft® Tapi 2.1 (also 2.2 and 3.0). These Tapi drivers produce a central communication between a PC and the telephone system. On this server all devices on the telephone system are available as Tapi lines.

All estos ECSTA for OpenScape 4000 drivers use the efficient interface CSTA in order to communicate with the telephone system.

For the installation and management of the driver see Driver Management.
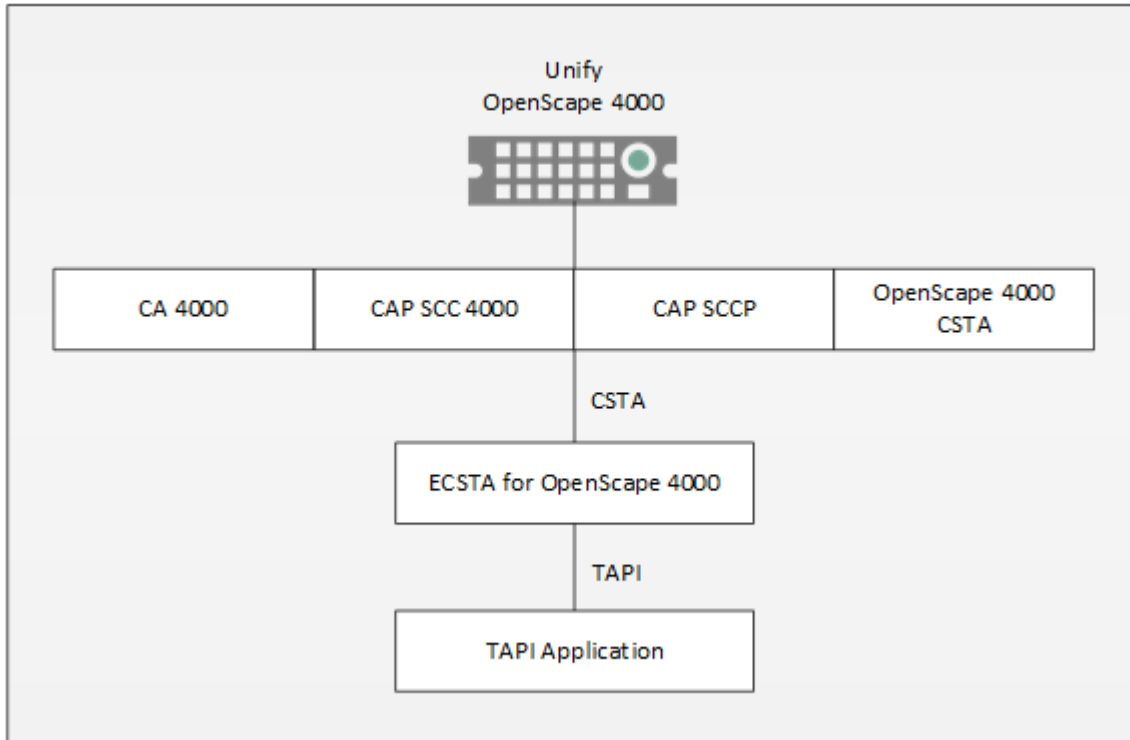
Supported Telephone Systems

Driver	PBX	Telecom identification
ECSTA for OpenScape 4000	Unify OpenScape 4000	Telekom Octopus F900
ECSTA for OpenScape 4000	Unify CAP General	Telekom Octopus F CAP

Using the driver in the network
After installing the driver, you may use all configured line devices on the server as TAPI-lines. If you are using a server based CTI Software, you may install it now to have the TAPI-devices available on all workstations. For example, the estos UCServer.

- **estos UCServer**
The estos UCServer is a CTI/UCC server software which distributes the telephony information across the network using a graphical client or a multi-line TAPI driver. Workgroups, domains, Active Directory® and Terminal Server are supported.

1.1 Connecting to CAP General

The ECSTA for Unify CAP requires a CAP-S license for each line. You may enter the CAP license, the ECSTA should use when connecting to the CAP server.

The operation of CAP is independent of the related telephone system and takes place via the CAP Multidomain SCCP in "Harmonized Mode". See also Connecting via SCCP.

When setting up the driver, follow these steps:

1. **Install and configure CAP**
   Install the CAP Server, the Connectivity Adapter and the SCCP.
2. **Add a user in CAP**
   Add and configure a user in the CAP server.
3. **Driver installation**
   See also Settings

2 Unify OpenScape 4000

You can switch on the driver on the following modes at the telephone system:

1. **OpenScape 4000 - Native Mode OpenScape 4000 CSTA**
   The driver will be connected to the OpenScape 4000 CSTA middleware. The software OpenScape 4000 CSTA is included inside the OpenScape 4000 V6 and does not require a PC installation. For connecting a OpenScape 4000 V5 or lower the middleware must be installed on a Windows® PC (stand alone). See also Connecting to OpenScape 4000 CSTA

2. **OpenScape 4000 - Native Mode CA4000 (CAP Version 2)**
   At the Connectivity Adapter CA4000, the driver in the "Native Mode" with CSTA Phase 3 can be switched on directly at a OpenScape 4000. See also activation at CA 4000

3. **OpenScape 4000 - Native Mode CAP Call Control**
   At the CAP Call Control, the driver in the Single domain "Native Mode" with CSTA Phase 3 can be switched on at a OpenScape 4000. See also activation at SCC 4000

4. **Harmonized Mode SCC Proxy**
   At the CAP Multi domain SCC proxy, the driver can either be operated in the "Harmonized" or in the "Native Mode".
   In "Native Mode", only the OpenScape 4000 is supported. The setup takes place correspondingly to Connection to SCC 4000. In the "Harmonized mode", all CAP connected telephone systems are supported according to the compatibility of CAP. See in addition General connection to CAP.

When setting up the driver, follow these steps:

1. **Install and configure CAP**
   Install the necessary Connectivity Adapter or the CAP server.

2. **Driver installation**
   See also Settings

2.1 General Settings

The connection between the ECSTA and the CSTA middleware is established using a TCP/IP network connection. The driver may be operated using different modes:

- **OpenScape 4000 - Native Mode OpenScape 4000 CSTA**
  This mode directly uses the OpenScape 4000 CSTA. The OpenScape 4000 CSTA is integrated into the OpenScape 4000 V6. For HiPath 4000 V5 and lower this middleware is installed on a PC. See also Connecting to OpenScape 4000 CSTA.

- **OpenScape 4000 - Native Mode CA4000**
  This mode directly uses the Connectivity Adapter CA4000 (CAP2). This mode can only be used with the OpenScape 4000. See also Connecting to CA4000.

- **OpenScape 4000 - Native Mode CAP Call Control**
  This mode uses the Cap Call Control SCC 4000: This mode can only be used with the OpenScape 4000. It is required to have a valid CAP license (Default CAP-S). It is required to configure a user for CSTA access in the CAP user management. See also Connecting to SCC 4000.

- **Harmonized Mode SCC Proxy**
  This mode uses the CAP SCC proxy. This mode can be used with all telephone systems supported by CAP. It is necessary to input the employed CAP license (Default CAP-S) and install the user in the CAP User management. See also CAP general.

Connection using a network (TCP/IP)

- Enter the host name or the IP address of the computer where the CAP server, the CA4000 or the OpenScape 4000 CSTA is installed. The TCP port for the connection should be the same as configured in CAP or CA4000.

- **Please note the following**
  A CAP server, Connectivity Adapter CA4000 or OpenScape 4000 CSTA is required for the connection to the PBX system.
  See also activation in OpenScape 4000

2.2   Advanced Settings

Readout trunk lines from the PBX system
If this option is enabled, the available trunk lines are requested from the telephone system.

Report incoming calls on busy extension
If an extension is busy any incoming call is notified.

Indicate calls on a diverted extension
If the driver shall signal incoming calls on a forwarded extension, activate this option.

Use handsfree mode for outgoing calls
Normally, the end-user device for outgoing calls is transferred to handsfree mode. If you only want to proceed with the call when the telephone receiver is picked up, or the outgoing call is confirmed, deactivate this option.

Node numbers
If your PBX system is using node numbers you can enter these numbers semicolon seperated. These node numbers are removed from numbers presented by the pbx.

Provide ACD Agent functions
Activate this option when the driver should provide functions for the logging on/off of agents or for setting or determining the agent status.

Rules for detecting SIP lines
Choosing "Edit Rules" takes you to a dialog box that allows you to specify whether SIP lines should be detected by the ECSTA via a set of rules, filtered out and thus not forwarded to the TAPI's line management (See Set of Rules for Filtering Out SIP Lines).

Non-unique numbering plan
If the connected OpenScape 4000 pbx system is using a "non-unique numbering plan" this option has to be enabled. Otherwise leave it disabled.

Snapshot for active calls
The driver can validate existing calls. This prevents that calls are displayed on the PC that do no more exist in the PBX system.
Enter a time interval in seconds.
The higher this value the longer it takes for the driver to detect a hanging call. The lower this value the higher is the load on the PBX.

Retry MonitorStart
In the event that the driver cannot start monitoring an extension because, for example, the extension has not been connected to the PBX, the driver will attempt to start monitoring at periodic intervals.
Enter a time interval in seconds.

2.3   TAPI Lines

Enter the lines that the driver should make available through TAPI. The numbers are the internal phone numbers for your devices. The names will be used to display the TAPI lines.

Phone Number Format

The lines can optionally be indicated as an internal phone number, for example *123* or canonical *+49(30)12345-123*.

You should use canonical phone numbers if you use several instances of Tapi driver and thus switch on several telephone systems at the same time. A canonical phone number consists as follows:

+Country code (prefix) Local prefix-extension

In the dialogue Location You can configure the country code, area code and local dialing prefix.

Load Lines

The available lines are determined automatically from the telephone system.

Manual addition of a line

Give the internal phone number of the phone. Optionally, a name can also be given.

Import text

You can import a list of lines from a text file. The file must begin every line with the phone number. Optionally, the name can also be split with a comma.

Export text

You may export the actual line configuration to a text file.

Attention

After the installation of the driver it may be necessary to restart the computer.

2.4 Connecting to OpenScape 4000 CSTA

The OpenScape 4000 CSTA is a Unify product that allows to connect the ECSTA to the OpenScape 4000. The OpenScape 4000 CSTA is the successor of the HiPath CAP Inside V1. The middleware is integrated into the OpenScape 4000 V6 (Scenario 1) and does not require a PC installation. For connecting a OpenScape 4000 V5 or lower the middleware will be installed as Windows® Application (stand alone) on a PC.
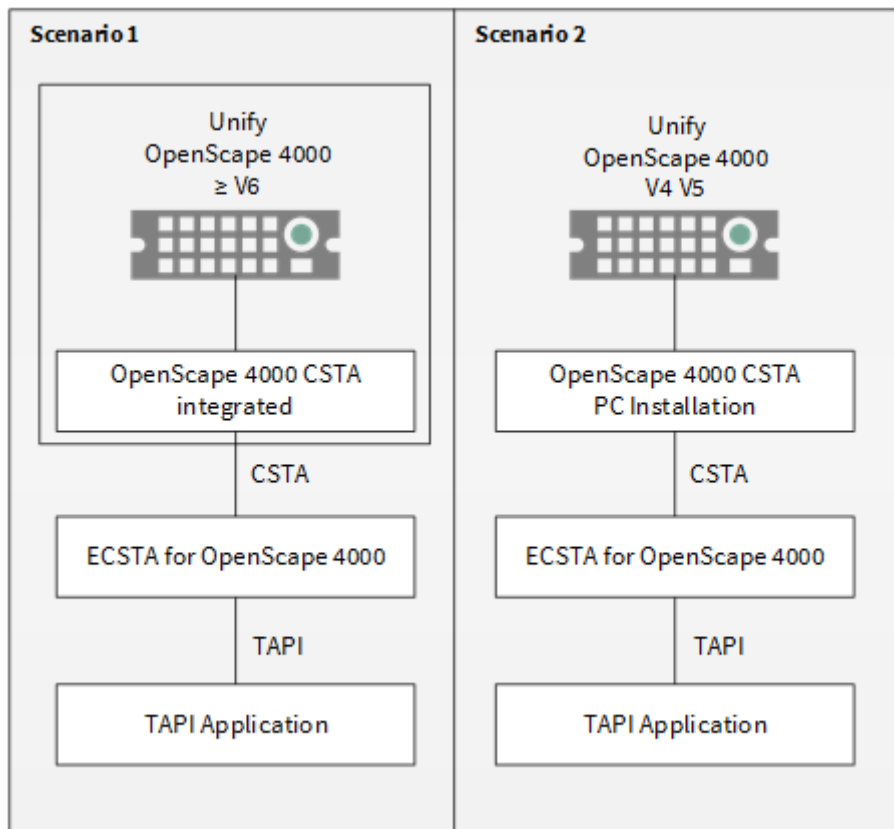
Licensing for the OpenScape 4000 CSTA
The Application (ECSTA) identifies itself using an Application-ID. The Application-ID can be configured in the ECSTA connection options. In the OpenScape 4000 CSTA Administration you can configure an appropriate license option for this application.

When using a OpenScape 4000 V6, the OpenScape 4000 CSTA is integrated into the PBX system and does not require a PC installation. The OpenScape 4000 CSTA is configured on the the PBX system.

When using a OpenScape 4000 V4 or V5, the OpenScape 4000 CSTA must be installed on a PC.

Installation and Configuration
The installation and configuration of the OpenScape 4000 CSTA is described in the document 'OpenScape 4000 CSTA V1 Installation and Problem Determination Guide'. It can be found in the Internet.

Licensing
The Software OpenScape 4000 CSTA requires a license if more then 10 lines will be used. The licensing is configured for each application in the Web based Administration.

Application settings
In the Web based Administration add a new application. Enter the name (ECSTA) and the TCP Port (Default 1040).

The ECSTA connects to the OpenScape 4000 CSTA during the lines are read out and as soon as a Tapi line is opened.
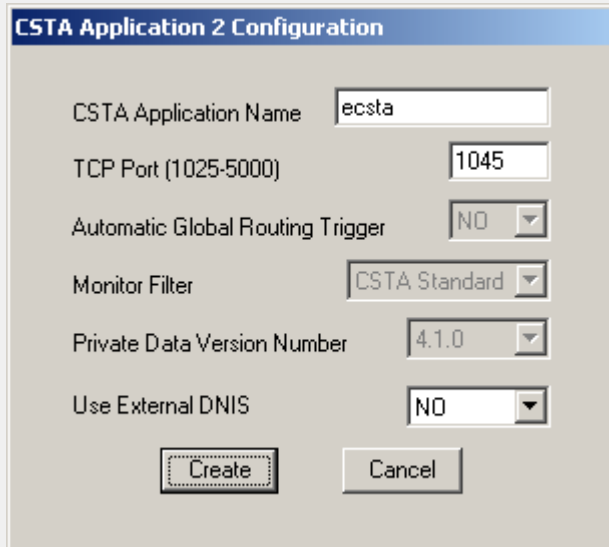
2.5 Connecting to CA4000

Install the Connectivity Adapter CA4000. It is part of the Unify CAP Software. The CA4000 Version 6.1.0.1 (CAP2) may be used without installing the CAP server.

Add a new ACSE Application in the configuration of the CA4000 Administration.	
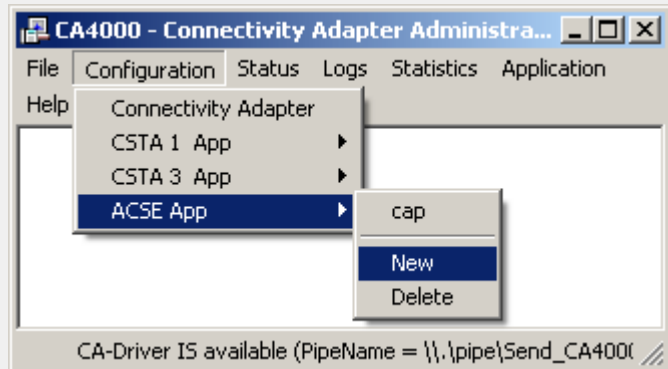
Enter the name (ECSTA) and TCP port (default 1045).

You may watch the status of the CSTA link between the ECSTA and the CA4000 using the Connectivity Adapter Link Status window. As soon as the ECSTA is connected to the CA4000, the Link changes to Active. Hint: Please verify that the 'Connectivity Adapter' service is running.
The ECSTA connects to the CA4000 during the lines are read out and as soon as a Tapi line is opened.
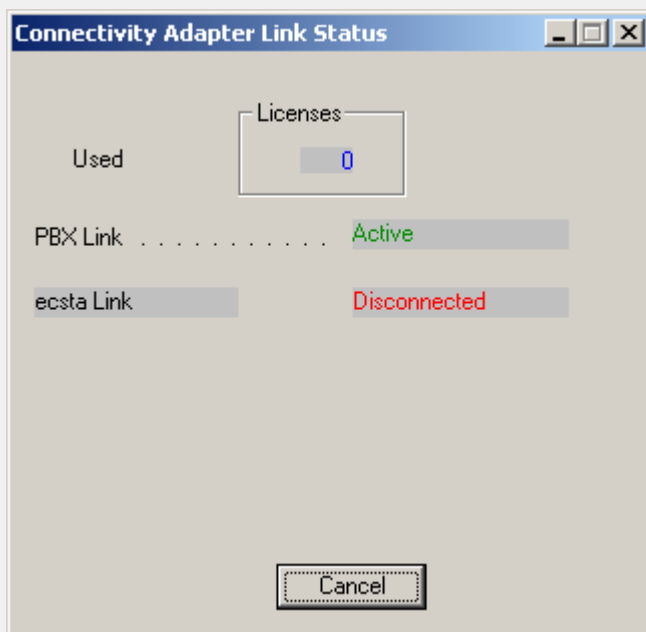
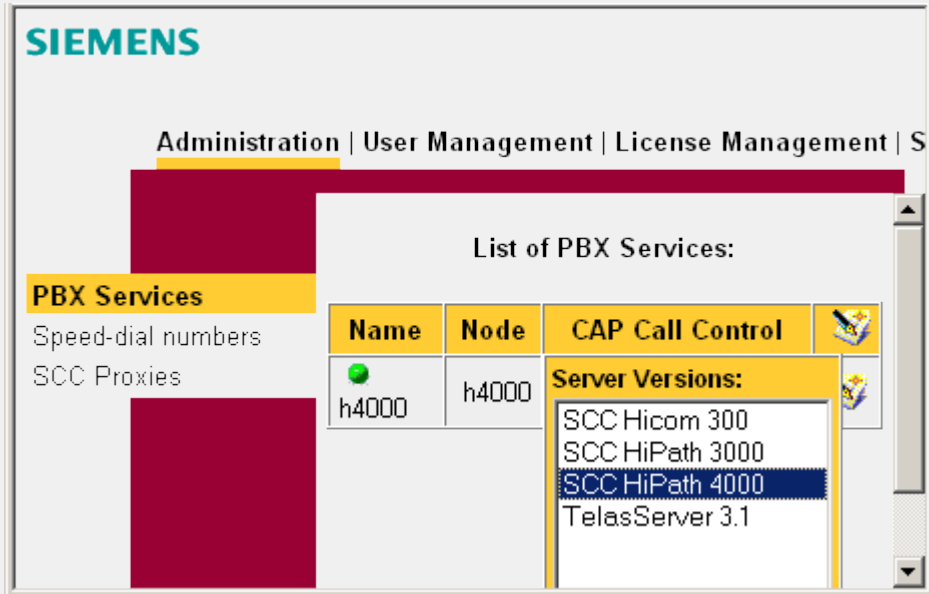Install the ECSTA. At CAP Login use the option **OpenScape 4000 - Native Mode CA4000**. In network conections use the host, where the CA4000 is installed and use the TSP port (default 1045) that you configured in the CA4000.
See also General Settings.

2.6   Connecting to CAP SCC 4000

Install the CAP Call Control SCC 4000. It is part of the Unify CAP software. In CAP Version 2, the SCC 4000 requires a CA4000.

If there is no SCC installed in the CAP Administration, add a SCC OpenScape 4000 in PBX Services.	
Enter the details using the CAP help file. Remember the CAP Call Control Port (default: 26535).	

Install the ECSTA. At CAP Login use the option **OpenScape 4000 - Native Mode CAP Call Control**. For the Network connection use the host, where the CAP Server is installed and use the TCP port (default 26535), that you configured in the SCC 4000.
See also General Settings.

2.7   Connecting to CAP SCCP

The multi domain SCCP is part of the Unify CAP Software. After installing a Connectivity Adapter and the CAP CAP Call Control Service, install the multi domain SCC Proxy.

If there is no SCC Proxy installed, add one in the CAP Administration. Enter the details as described in the CAP elp. Remember the SCCP Port (default: 27535).

```
Service Name:          sccp4000
Service Identifier:    sccp4000
SCC Proxy hostname:    caphost
SCC Proxy IP address:  192.168.2.150
SCC Proxy port:        27535
                       ☐ Disable SCC Proxy
```

Install the ECSTA. At CAP Login use the option **Harmonized Mode SCC Proxy**. For the network connection use the host where the CAP server is installed and use the TCP port (default 27535), that you configured in the SCCP.
See also General Settings.

2.8   Supported TAPI operations

The driver offers the following TAPI call control operations.

Action:	Corresponding TAPI function:
Dial	TSPI_lineMakecall
Hang up	TSPI_lineDrop
Answer call	TSPI_lineAnswer
Hold call	TSPI_lineHold
Retrieve call	TSPI_lineUnhold
Redirect call	TSPI_lineRedirect
Blind transfer	TSPI_lineBlindTransfer
Setup transfer	TSPI_lineSetupTransfer
Swap hold	TSPI_lineSwapHold
Complete transfer	TSPI_lineCompleteTransfer (LINETRANSFERMODE_TRANSFER)
Create conference	TSPI_lineCompleteTransfer (LINETRANSFERMODE_CONFERENCE)
Add to conference	TSPI_lineAddToConference

Remove from conference	TSPI_lineRemoveFromConference
Callback busy	TSPI_lineCompleteCall (LINECALLFEATURE2_COMPLCALLBACK)
Pickup	TSPI_linePickup
DTMF dialing	TSPI_lineGenerateDigits
Dial in dial tone mode	TSPI_lineDial
Forwarding	TSPI_lineForward TSPI_lineGetAddressStatus • LINEFORWARDMODE_UNCOND • LINEFORWARDMODE_UNCONDEXTERNAL • LINEFORWARDMODE_UNCONDINTERNAL • LINEFORWARDMODE_BUSY • LINEFORWARDMODE_NOANSW
Do not disturb	TSPI_lineForward TSPI_lineGetAddressStatus
Message waiting	TSPI_lineSetLineDevStatus TSPI_lineGetLineDevStatus

The following TAPI functions are implemented due to requirements of the TAPI subsystem.

Other functions exported by the driver:
TSPI_lineSendUserUserInfo
TSPI_lineClose
TSPI_lineCloseCall
TSPI_lineConditionalMediaDetection
TSPI_lineDevSpecific
TSPI_lineDevSpecificFeature
TSPI_lineGetDevConfig
TSPI_lineSetDevConfig
TSPI_lineGetAddressCaps
TSPI_lineGetAddressStatus

TSPI_lineGetAddressID

TSPI_lineGetCallAddressID

TSPI_lineGetCallInfo

TSPI_lineGetCallStatus

TSPI_lineGetDevCaps

TSPI_lineGetExtensionID

TSPI_lineGetIcon

TSPI_lineGetID

TSPI_lineGetNumAddressIDs

TSPI_lineNegotiateExtVersion

TSPI_lineNegotiateTSPIVersion

TSPI_lineOpen

TSPI_lineSelectExtVersion

TSPI_lineSetDefaultMediaDetection

TSPI_lineSetStatusMessages

TSPI_lineSetAppSpecific

TSPI_lineSetCallData

TSPI_providerCreateLineDevice

TSPI_providerEnumDevices

TSPI_providerFreeDialogInstance

TSPI_providerGenericDialogData

TSPI_providerInit

TSPI_providerShutdown

TSPI_providerUIIdentify

TSPI_lineGetCallIDs

TUISPI_lineConfigDialog

TUISPI_lineConfigDialogEdit

TUISPI_providerConfig

TUISPI_providerInstall

TUISPI_providerRemove

TUISPI_providerGenericDialog

TUISPI_providerGenericDialogData

3   Set of rules for filtering out SIP lines

You can enter rules that determine whether lines should be filtered out during readout or not. If "no detection of SIP lines" is selected, all read-in lines will be included in the line management. If "Rules for detecting SIP lines" is selected, a set of rules is applied when reading in lines, which determines whether a line should be filtered out or included in the line management. This set of rules consists of individual rules created by the user.

For each rule it can be defined whether a configurable character string can be searched for in the name or call number, in order to filter out the line in the case of a match. Alternately, a regular expression can also be defined via which a search pattern is determined which is then applied in the search in the line name or the line number. If the search is successful the line will be filtered out.
The following rules can be configured:

- Filtering out of lines via a character string in line names
  When reading in the lines, those lines are not included in the line management whose line name contains the character string entered in the "Search for:" column.
  Example: If lines whose line name contains the character string "Paul" should be filtered out, all lines having the line names "Paul Sample", "Pauline Sample", "Lukas Paulsen"... will be filtered out.

- Filtering out of lines via a character string in the line call number
  When reading in the lines, those lines are not included in the line management whose line call number contains the character string entered in the "Search for:" column.
  Example: If lines whose line number contains the character string "897" should be filtered out, lines with the line numbers "897", "089123456897", "0897123456", would be filtered out.

- Filtering out of lines via a search pattern in line names which is configured via a regular expression
  The character string in the "Search for:" column must be a regular expression. When reading in the lines, those lines for which the search was successful by means of the regular expression in the line name are not included in the line management.
  Examples of regular expressions are listed further below.

- Filtering out of lines via a search pattern in the line call number which is configured via a regular expression
  The character string in the "Search for:" column must be a regular expression. When reading in the lines, those lines for which the search was successful by means of the regular expression in the line call number are not included in the line management.
  Examples of regular expressions are subsequently listed.

Here is a brief overview about the syntax of some regular expressions:A brief overview of the permitted expressions:

Character	regular expression	Description

^	^0 or ^Max	The circumflex character (^), followed by a character string in a regular expression, checks whether the character string is at the beginning of the call number or name. Using the regular expression "^0" causes the program to check whether the digit '0' is at the beginning of the call number, or with the regular expression "^Max", whether the name begins with the character string "Max". In both cases the line would be filtered out.
$	15$ or mann$	A character string followed by a dollar sign ($) in a regular expression checks whether the character string is at the end of the call number or name. The regular expression "15$" checks whether the character sequence "15" appears at the end of the call number, or the regular expression "mann$" checks whether the name ends with the character string "mann". In both cases the line is filtered out.
|	64|72|73 or Max|mann|lich	The vertical pipe character (|) separates two or more alternative character strings in the search. A match occurs when one of the alternatives applies. With the regular expression "64|72|73" a search for the numerical sequence 64 or 72 or 73 is performed anywhere in the call number. With the regular expression "Max|mann|lich" a search in the character string "Max" or "mann" or "lich" is performed anywhere in the name. If the search is successful the line is filtered out.
.	5.6 or M..er	The dot (.) in the regular expression is a placeholder for any character in this position. A search with the regular expression "5.6" will find the digit sequences 506, 516, 526… in the call number. A search with the regular expression "M..er" will find the character sequences "Meyer", "Meier", "Mayer",… in the name. If the search is successful the line will be filtered out.
[]	[123] or [asd]	The square brackets ([) and (]) indicate a quantity of characters to be searched for in the call number or name. A search with the regular expression "[123]" will filter out all call numbers in which the digits 1, 2 or 3 occur. A search with the regular expression "[asd]" will filter out all names in which the letters a, s or d occur.

Check:
You can directly check your set of rules in the "Rules for detecting SIP lines" dialog box. Enter a character string in the Search Text field that you want to test with the set of rules. In the "Detected as SIP line:" field, you can see whether a rule for filtering was successfully applied to the search text.

See also Advanced Settings.

4 Licenses

The driver can be licensed in 2 different ways:

Via the estos UCServer:
The estos UCServer assigns a licence for each line activated in the UCServer. The number of lines licensed in estos UCServer is divided between the SIP lines and TAPI lines entered in UCServer. If additional line licences are required, the licences in estos UCServer must be increased.

With a registered licence
A licence can be entered in the driver and/or a test licence can be downloaded. With a test licence, 25 lines are available without restriction for 45 days. Several licences can be entered to increase the number of line licences.

The following applies to both types of licences:
If the existing licences are used up, opening additional lines will fail.
If you have added several driver instances, all instances share the licences entered. You can allocate the lines to different instances as required.

5 Location Settings

The phone numbers of the telephone system are defined in the Location Settings

Exension Range
Indicate here which internal phone numbers exist in the phone system. This information is used to determine the available lines from the phone system. The internal phone numbers of the telephone system and the phone number information of a call are used to determine whether it is an internal or an external call. In addition, when lines are generated automatically, estos UCServer checks whether the number of the line to be generated automatically lies within the range of internal numbers. Only then is the line generated by estos ECSTA for OpenScape 4000 and the TAPI notified.

Location
Indicate here which international phone numbers precede the internal extension numbers.
The input of this location information should only be carried out if you use several driver instances and have connected several telephone systems. This location information can only be configured when the option Use Location is switched on. If you enter a location here, all extension phone numbers are entered fully international.
Example: With location information '49(89)1234' the extension '100' is formatted as '49(89)1234-100'.

Phone Number Format
The phone number registered from the driver at the application can be changed with rules. Moreover, you can also change phone numbers sent by the PC to the telephone system. See Phone number formatting.

6 Phone Number Format

You may enter rules for formatting the phone numbers.

The phone numbers that are reported from the PBX system to the PC and the numbers that are send from the PC to the PBX system may be modified with a Search and Replace function.

The phone numbers that are sent from the Tapi Application to the PBX (make call) may be modified as well.

Each line in the list contains an option if direct text compare or a regular expression is used.

The Search and Replace function uses regular expressions. If a search pattern matches, the result from replace with will be used as output. It the search pattern does not match, the original number will be reported unchanged. The entries in the list are processed one after each other. If one match is found the remaining enties will be ignored.

There are three categories:

- o **Incoming**
  This section is for phone number from incoming calls that are reported from the PBX system to the PC.
- o **Outgoing**
  This section is for phone number from outgoing calls that are reported from the PBX system to the PC.
- o **PC Dialing**
  This section is for phone numbers that are dialed on the PC and send to the PBX system

Search for:
Enter the regular expression that will be used to find a phone number.
Hint: The caret (^) can be found on the upper left key of a keyboard with German layout.
An overview of allowed expressions:

Character	Description
^	The beginning of the phone number. The expression "^o" matches 'o' only at the beginning of a phone number.
^	The caret (^) immediately following the left-bracket has a different meaning. It is used to exclude the remaining characters within brackets from matching the target string. The expression "[^o-8]" indicates that only digits between o and 8 are allowed.
$	The dollar sign ($) will match the end of the string. The expression "152$" will match the sub-string "152" only if it is at the end of the string.
|	The (|) character allows both characters between which it is located. The expression "8|9" allows '8' or '9'.
.	The dot (.) allows any character (or any digit).
*	The asterisk (*) indicates that the character to its left must be present o times or more.

+	The Plus sign (+) is similar to the asterisk, only the character to the left must be present at least once.
?	The question mark (?) indicates that the character to the left must be present 0 or 1 times.
()	The parenthesis affects the order of pattern evaluation and also serves as a tagged expression that can be used when replacing the matched sub-string with another expression.
[]	The corner brackets ([]) indicates the amount of signs that are permitted at this point.

Replace with:
Enter the expression that defines how the number is to be formatted.
\1 represents the first matched expression enclosed by parentheses '( )' from the *search pattern* field.
\2 the second...

Check:
You can check your input directly here. Enter a call number in the Call Number field that you wish to test with the Search/Replace. In the Output field the modified call number is displayed. If there is an error in the regular expression, it is indicated here. If the expression from Search for is not found, the call numbers will be output directly without any changes.

Examples:

Result	Search for	Replace with
Remove a leading 0 from the phone number	^0(.*)	\1
Replace a leading 80 at the beginning of the phone number by a 0	^80(.*)	0\1
Remove a private pin number that may be identified by a 50 followed by a 3 digit pin.	^50[0-9][0-9][0-9](.*)	\1
Suppress all internal numbers having a 3-digit extension.	^[0-9][0-9][0-9]$	
Add an access code (leading 0) to all numbers with more than 3 digits (e.g. all external numbers).	^([0-9][0-9][0-9].+)	0\1
Add the PBX system root number (03012345) to all internal numbers (with 1 to 3 digits)	^([0-9][0-9]?[0-9]?)$	03012345\1
Adding an area code to all numbers not beginning with 0 and containing at least 4 digits (thus not internal).	^([^0][0-9][0-9][0-9].*)	08151\1

See also Location.

7   Driver Management

Installation
The driver is installed on the system with the Windows® Installer (msi) package. If the set-up package contains several drivers, you can select which drivers should be installed during the set-up.

Driver instance
The driver can be used to connect one or several phone systems. For this purpose one or several driver instances are registered in Windows® Tapi System.

Register at Tapi System
During the installation, an instance from the selected driver is already registered at the Tapi system. Thereby, you select the necessary data in a Wizard in order to connect the driver with the telephone system.

Configuration of Driver instance
The configuration of the driver instances takes place either over *Telephone and Modem option* in the Control Panel or over the standard program *Advanced Telephone Driver option*that can be found in the Control Panel or in the Start Menu.

Add further driver instances
If you want to connect the computer with a further telephone system, you must add a further instance of the driver to the Tapi system. This takes place with Help in the standard program *Advanced Telephone Driver options* that can be found in the Control Panel or in the Start Menu.

Updates
To install an Update start the Windows® Installer Package (msi).
If a driver instance is configured, this is deleted during the Update and is automatically added again after the Update is completed. If several driver instances are configured, the computer must be restarted after the Update.

De-installation
The Deinstallation takes place via the Windows® Software Administration. In the Deinstallation, all instances of the driver are removed from the Tapi system and the software uninstalled.

8 PBX systems

Driver	PBX	Telecom identification
ECSTA for OpenScape 4000	Unify OpenScape 4000	Telekom Octopus F900
ECSTA for OpenScape 4000	Unify CAP General	Telekom Octopus F CAP

9   Info about estos ECSTA for OpenScape 4000

estos ECSTA for OpenScape 4000 is a product of estos GmbH.

Copyright (C) 2024 estos GmbH.

Product updates can be found under https://www.estos.de/

Please find FAQ's and support under https://support.estos.de

Active Directory®, Microsoft®, Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

All brands and product names used in this document are for identification purposes only and may be trademarks or registered trademarks of their respective owners.