eLux RP

Administrator's Guide

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0. Legal information

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1. Representation

The following representations and conventions for instructions are used throughout the documentation:

Representation	Description
Control element	All graphical user interface controls are displayed in bold
Menu > menu command	Whenever running a command involves clicking a series of menus, the single GUI controls such as menu commands or dialog tabs are linked by >.
Value	All data that have to be entered by the user or data that represent a field value are displayed in Courier New. Also, file names and path names are displayed in Courier New.
STRG	Keys to be pressed are displayed in CAPITAL LETTERS.
<placeholder></placeholder>	Placeholders in instructions and user input are displayed in <i>italics</i> and in <angle brackets="">.</angle>
1. Instruction	Procedures to be carried out step by step are realized as numbered steps.
Result	System responses and results are displayed in <i>italics</i> .

Abbreviations and acronyms

Abbreviation	Description
AD	Active Directory, directory service of Microsoft Windows Server
EBKGUI	Interface of the eLux Builder Kit (component of Scout Enterprise)
EPM	eLux package module (.epm, software package)
FPM	Feature package module (. fpm, part of a software package)
FQDN	Fully qualified domain name
GB	Gigabyte
GHz	Gigahertz (processing speed)
HDD	Hard disk drive (flash memory)
IDF	Image Definition File (.idf)
IIS	Internet Information Services: Microsoft Web server
MB	Megabyte
OU	Organizational unit Unit or group within the organizational structure
VPN	Virtual Private Network



2. Overview and general information

2.1. About eLux RP

eLux[®]RP is a hardware-independent operating system designed for cloud-computing environments. It can be run by both, common PCs and Thin Clients. eLux is based on Linux and provides a write-protected file system which makes it secure against computer viruses and other malware.

This guide supports the system administrator in setup, maintenance and operation of Thin Clients and PCs running eLux RP, hereafter referred to as **eLux**. The documentation refers to the current version eLux RP 6.x. Documentation for earlier versions can be found as PDF on our download page PDF downloads.

This guide assumes knowledge of

- installation, maintenance and operation of computer networks and peripherals
- operating system skills of the server machines in use



Note

eLux RP 6 clients can be centrally managed through the Scout Enterprise Management Suite version 15.x. For further information, see Compatibility client platform and Scout Enterprise Management Suite in our **Releases** Whitepaper.

Beginning with Scout Enterprise Management Suite 15.1 and eLux RP 6.1, the management protocol for communication between Scout Server and eLux client offers end-to-end encryption via TLS 1.2. TLS-encrypted communication is done via port 22125. Older clients communicate with the server via port 22123 with AES-256 encryption.

For support periods and the compatibility matrix, see the Whitepaper Releases, Lifecycles and Compatibility.

2.2. Keyboard shortcuts

Shortcut	Function
CTRL+ALT+↓	Switch between open applications to the left.
CTRL+ALT+↑	Switch between open applications to the right.
CTRL+ALT+←	Switch between desktops to the left
CTRL+ALT+→	Switch between desktops to the right.
CTRL+WIN	Switch from other applications to eLux: The eLux taskbar/system bar with open applications is shown.
WIN+ALT+I	Open the device information
CTRL+ALT+H OME	Unlock the Configuration panel): Requests the local device password

Shortcut	Function
CTRL+ALT+END	Lock the client screen If user authentication is active, the user password is required for unlocking.
CTRL+ALT+F Switch between the consoles, if the Console switch option is enabled. For unction Key ther information, see "Keyboard dialog" on page 48.	
	The following consoles are available: F1: eLux desktop F4: Message console

2.3. Touchpad gestures for mobile devices

Mobile devices often need to be operated via a touchpad and do not always have hardware mouse buttons.

By default, mouse actions are mapped to the following touchpad gestures:

Mouse action	Touchpad gesture
Click with left mouse button	Tap one finger on the touchpad (single-tap)
Right-click (right mouse button)	Tap two fingers on the touchpad (single-tap)
Middle-click (wheel button)	Tap three fingers on the touchpad (single-tap)
Move cursor	Drag your finger on the touchpad
Scroll	Slide two fingers at the same time



3. Installation

eLux can be installed directly on the flash memory of a Thin Client or on a hard disk. The installation procedure is a kind of recovery installation and can be performed in two ways:

- from USB stick: For all supported operating system versions, we provide an eLux USB Stick image, available for download on our portal www.myelux.com and suited to create a stick for installation.
- via PXE recovery: For large environments, PXE-capable devices can be installed through the network if the eLux software container and Scout Enterprise Management Suite are already installed.

Both procedures are described in detail in our short guide **eLux Recovery procedures**.

3.1. System requirements

Hardware requirements

	Minimum requirements	Recommended requirements
Processor	x86, 1 GHz (dual-core), 64- bit capable	x86, 2 GHz (quad-core) or more, 64-bit capable
RAM	1 GB available for operating system	4 GB or more
HDD	4 GB (2 GB for limited functionality)	16 GB or more (8 GB for current functionality/partitions)
GPU (Graphics processing unit)	AMD or Intel graphics chipset	AMD or Intel chipset
Network	Ethernet or WLAN	Ethernet or WLAN
I/O ports	USB 2.0	USB 3.0 or USB 2.0, USB boot support
Resolution	1024 x 768 (XGA)	1920 x 1080 (Full HD) or higher

The recommended hardware requirements are minimum hardware requirements for the upcoming eLux major release to take advantage of the new functionalities.

Hardware Compatibility List

The supported hardware models (Hardware Compatibility List) for each operating system version are published on our technical portal www.myelux.com within the relevant eLux container under **Supported Hardware**.

For support periods and the compatibility matrix, see the Whitepaper Releases, Lifecycles and Compatibility.

3.2. First boot procedure

The first boot procedure for a Thin Client in initial state, after a factory reset or after a Recovery installation, is processed as follows:

- a. Scan BIOS
- b. Make a DHCP server request



Note

To enable the client to connect to the Scout Server, either DHCP or DNS must be configured. For further information, see Self-registration of devices in the **Scout Enterprise** guide.

c. Start the eLux operating system

If either DHCP or DNS has been configured for the Scout Server, the device is automatically registered in the Scout infrastructure and receives a new configuration.

If the client cannot retrieve the IP address of the Scout Server, the First Configuration Wizard opens and leads you through the first configuration.

3.3. First configuration

During the first boot procedure, a Wizard is launched which helps you through the first configuration. The First Configuration Wizard is also started when you reset the device to factory state.

The First Configuration Wizard offers the following options:

- Manage the device through the Scout Console
 The configuration data are transferred from the Scout Server.
- Connect the device through the Scout Cloud Gateway and manage it via the Scout Console
 The configuration data are transferred from the Scout Server.
- Configure eLux manually, which means locally on the device

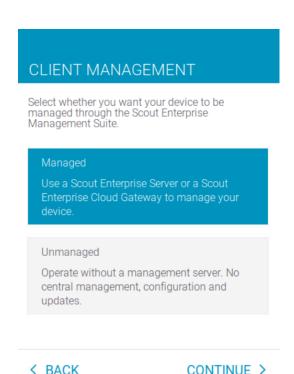
Going through the first configuration and connecting to a Scout Server

- Select the display and keyboard language.
 The following languages are supported: English, German, French¹ and Spanish²
- 2. Read and accept the license terms.
- 3. To manage the device via Scout, click Managed.

¹for eLux RP 6.9 and later versions

²for eLux RP 6.9 and later versions





4. Enter the address of the Scout Server as FQDN or IP address.

If your device is to be connected via Scout Cloud Gateway, enter the address of the Scout Cloud Gateway.

- 5. Select the destination OU for the device in the Scout Console.
- 6. Optionally, modify the device name and enter further details.
- 7. Confirm with Finish.

The device is registered in the Scout infrastructure, added to its destination OU, and is restarted. The client contacts the Scout Server and downloads the configuration and application data of the destination OU.

If a profile for this device has already been created in the Scout Console, the device is assigned the configuration of the existing profile.

For further information on connecting via the Scout Cloud Gateway, see Integrating new devices in the Scout Cloud Gateway guide.

For further information on managing devices with Scout, see the **Scout Enterprise** guide.

3.4. Device password

All Thin Clients managed by a Scout Server receive the same device password. There is only one device password for all clients of the same infrastructure which is defined in the base device configuration.

The device password is used for unique assignment and authentication to the Scout Server, so that no other Scout Server can manage this device.

In the initial state, the device password is elux.



Note

The device password has nothing to do with a user password, which is used for example for AD user authentication.

For further information on passwords, see also Passwords in the Scout Enterprise guide.

3.5. Self-administration on the device

With administrator rights, users can change the configuration locally on the device or completely disconnect from the Scout infrastructure. To prevent abuse, we recommend that you change the initial device password and do not release it. For further information, see Local device password in the **Scout Enterprise** guide.

Logging on with full access on the device

- 1. Open the Configuration panel.
- 2. Press CTRL+ALT+HOME.
- 3. Enter the device password.

You are provided with full access rights to the device configuration and application definitions on the device.



4. eLux RP 6 user interface

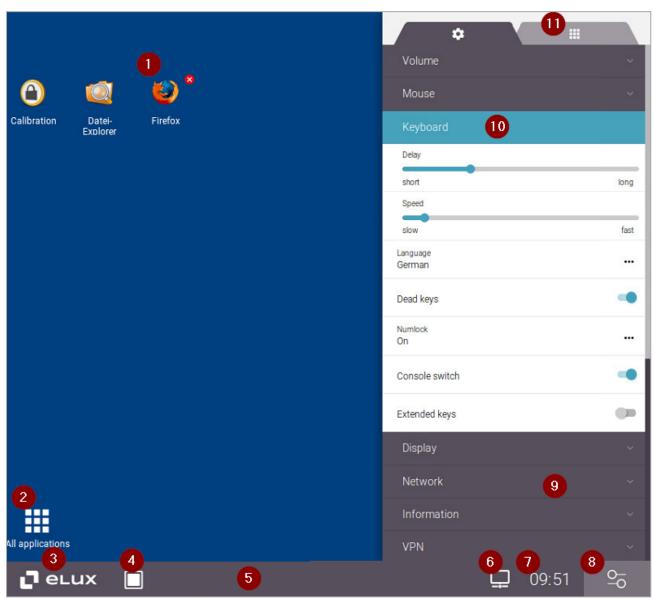


Note

eLux RP 6 clients can be centrally managed through the Scout Enterprise Management Suite version 15.x. For further information, see Compatibility client platform and Scout Enterprise Management Suite in our **Releases** Whitepaper.

Users can choose between a personalized desktop view and the All Applications view.

The eLux RP 6 user interface provides the following elements:



Legend to numbers

- 1 Running application, indicated by a red close icon (x)
- 2 Switch to All applications view

Legend to numbers		
3	Command panel	
	Provides commands such as Shut down and Log off	
4	Show desktop	
5	System bar	
	Includes the Command panel , Task panel , Live-Information , time and a button for opening the Configuration panel	
6	Live-Information: In the figure, the current LAN connection is shown.	
7	Time and date	
8	Show Configuration panel	
9	Opened Configuration panel	
	Contains the device configuration and application definitions	
10	Opened Configuration dialog in the Configuration panel	
11	Switch to Applications tab	

4.1. Desktop views

The desktop offers two views. To switch between views, click the desktop icon in the lower left section of the screen:

View	Click	Description
All Applications	All Applications	Shows all defined applications as application icons on the desktop
Desktop		Shows only few predefined applications and user-selected application icons on the desktop (Personal Desktop)

As soon as the user has set up a personal desktop and defined applications for it, the **Desktop** view is displayed by default after start-up. Otherwise, the **All Applications** view is displayed.¹

Specifics for Citrix StoreFront

When you use Citrix StoreFront, each store is also displayed as a separate view:

After the user has successfully connected to a store, a separate view is created with the applications provided by the Citrix backend in that store. The StoreFront applications are additionally shown in the

¹for eLux RP 6.4 and later versions



All Applications view. The separate Store view is closed when the user disconnects from the store. The Citrix icon changes the appearance depending on the connection status.

4.2. Setting up a personal desktop

Selecting applications for a personal desktop

1. In the All Applications view, right-click an application icon.



At the top left of the application icon, a black symbol with a check mark is displayed.

2. Click the black check mark symbol.



The check mark symbol is shown in green and the application name is underlined. From now on, the relevant application is displayed additionally in the **Desktop** view.

Deleting applications from a personal desktop

- In the Desktop view, right-click the relevant application icon.
 At the top left of the application icon, a green symbol with a check mark is displayed.
- 2. Click the green check mark symbol.

The application icon is hidden and only shown in the All Applications view.



Note

Application icons that have been configured via the Scout Console cannot be deleted from the desktop.

4.3. System bar

The System bar provides various functions and can be configured.



Legend to numbers

- 1 Show Command panel (see below)
- 2 Show the desktop

Minimizes all open windows and hides the Configuration panel if open

- 3 Task panel with open application
- 4 Quick Config ¹
 - For quick access to a Configuration panel dialog, click the relevant live information icon such as Information, Display, Volume...
- 5 Request device identifier for support²

For further information, see Device identifier for support in the **Scout Enterprise** guide.

- 5 Live information
 - To show current status information, right-click³ a live information icon:
 - Connected USB devices
 - Current network connection
 - Battery level for mobile clients
 - Locally connected printers⁴
 - To show information on active third-party software such as Citrix, Zoom, Cisco Anyconnect, click the **more** icon
- 6 Time and date
 - To show the date, move the mouse pointer over the time.
- 7 Show the **Configuration panel**⁵

¹for eLux RP 6.8 and later versions

²from Scout Enterprise 15 2101 and eLux RP 6 2101

³for eLux RP 6.8 and later versions

⁴for eLux RP 6.5 and later versions

⁵for eLux RP 6.4 and later versions



4.3.1. Command panel

eLux commands such as **Shut down** and **Restart** are located on the system bar, in the Command panel.

Which commands are displayed depends on whether the devices are managed by Scout, whether user authentication is configured, and the user rights the administrator has defined.

To show the Command panel, on the left of the system bar, click the eLux icon



Available eLux commands



Legend to numbers

1 Managed devices: Starting a firmware update

The system checks if a firmware update is required. If the image definition file on the server is newer than the one on the device, the user can start the update process.

2 Managed devices: Synchronizing the device configuration

The current device configuration and the current application definitions for this device or OU are reloaded from the Scout Server and the device is restarted.

Local configuration changes are overridden unless they are protected.

3 Managed devices: Resetting the client to initial state (factory reset)

The device configuration is set back to the factory status. Local application definitions and locally stored configuration data are deleted. The firmware image with all software packages is retained.

- 4 The device is set to sleep mode (Suspend to RAM).²
- With AD authentication: The screen is turned off by the system. To unlock it, users have to enter their password.
- With AD authentication: The logged-on user is logged off and the logon dialog is displayed.

Before logoff, the confirmation dialog provides an option for users to change their AD password.

- 7 The device is shut down and turned off.
- 8 The device is shut down and restarted immediately.

¹from eLux RP 6.8

²from eLux RP 6.4

For further information, see eLux commands.



Note

Before a command is executed, the user receives a confirmation message (except for the **Lock** command).

For eLux RP 6.7 and earlier versions

To show the **Command panel**, click the eLux button:



To show the extended Command panel, click the eLux button while holding down the SHIFT key:



(only for devices managed through Scout)



4.3.2. Live information

The live information icons on the system bar show current status information, for example about the network connection and connected USB devices. In addition, most of them offer quick access to the corresponding Configuration dialog (Quick Config).¹

Whether the live information icons are displayed² and allowed for **Quick Config**³ depends on the device configuration set by the Scout Enterprise administrator (Advanced desktop settings).

Showing live information details

Right-click⁴ the relevant live information icon.

Jumping to Configuration dialog / Quick Config

Click the relevant live information icon.⁵

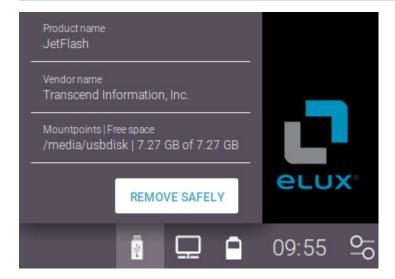
The following section describes a few types of live information.

Connected USB devices



Note

Devices managed by Scout Enterprise must be configured to allow local use of USB devices via mountpoints (**Device configuration > Hardware**). Otherwise, connected USB devices will not be displayed.



¹from eLux RP 6.8

²from Scout Enterprise 15.7 and eLux RP 6.7

³from Scout Enterprise 15.8 and eLux RP 6.8

⁴for eLux RP 6.8 and later versions, for earlier versions left-click

⁵for eLux RP 6.8 and later versions

Before you remove a USB device, click Remove safely. This is to ensure that all data are saved on the USB device.



Note

In the Scout Console, you can define a key combination that allows users to remove all connected USB mass storage devices safely. For further information, see Safe removal of USB devices in the Scout Enterprise guide.

To view the current free space at run-time, click the USB icon again.¹

Current network connection



- Profile name of LAN, VPN, WWAN² or SSID of the WLAN network
- Bitrate
- Signal strength (only WLAN and WWAN)

The network icon in the figure above shows a WLAN including approximate signal strength.



Note

If the network connection is interrupted, the network icon is displayed with an exclamation $\mathrm{mark.}^3$

VPN connections

Each active VPN connection is displayed as a live information icon . Using the context menu, you can open the user interface of the VPN application or disconnect the connection.

¹for eLux RP 6.7 and later versions

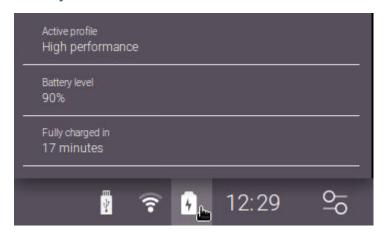
²for eLux RP 6.5 and later versions

³for eLux RP 6.5 and later versions

⁴for eLux RP 6.10 and later versions



Battery level for mobile clients



Information	Description
Active profile	Shows whether the <code>High performance</code> or the <code>Power saver</code> (Eco) profile is active. If <code>Auto</code> is configured, the active profile depends on whether the device is connected to the power supply.
Battery level	Shows the current battery status in percent
Remaining time on battery (on battery power)	Shows the remaining minutes on battery power if the device is not connected to the power supply
Fully charged in (plugged in)	Shows the time in minutes until the battery is fully charged when the device is connected to the power supply.

The battery icon in the figure above indicates that the device is connected to the power supply. Without power supply, the icon shows the approximate battery status.

Locally connected printers

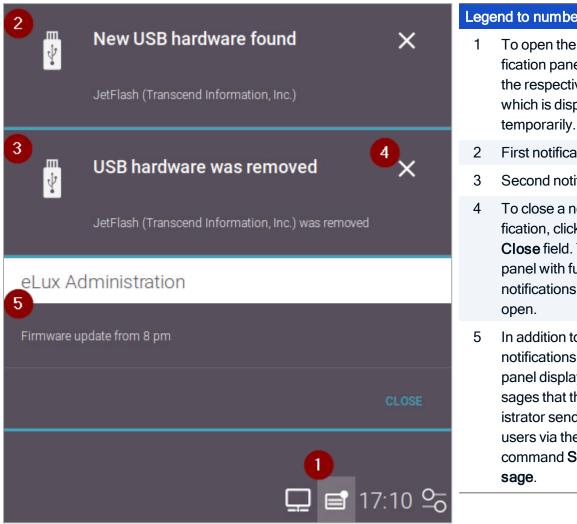
A live information icon is also shown for local printers. 1

¹for eLux RP 6.5 and later versions

4.3.3. Notifications

System notifications inform users about a changed network status or the connection or removal of peripheral devices, for example. Notifications are shown in a small message window at the bottom right of the screen and are removed after a few seconds.

To make it easier for users to read several messages, especially if they arrive at short intervals, an additional icon allows you to show all notifications in a separate panel. ¹ This panel displays the notifications one under the other and remains active until you close it with a click.



Legend to numbers

- To open the notification panel, click the respective icon which is displayed
- First notification
- Second notification
- To close a notification, click the Close field. The panel with further notifications remains
- In addition to system notifications, the panel displays messages that the administrator sends to the users via the Scout command Send mes-

¹for eLux RP 6.7 and later versions



4.4. Configuration panel

You can show the Configuration panel in the right section of the screen. It is used for

- Device configuration
- Application definitions

Showing the Configuration panel



Requires

The option Show Configuration panel in Desktop > System bar is enabled. 1

On the System bar, click the button. Alternatively, click the time or one of the live information icons.

or

On the keyboard, press WINDOWS+ALT+C.

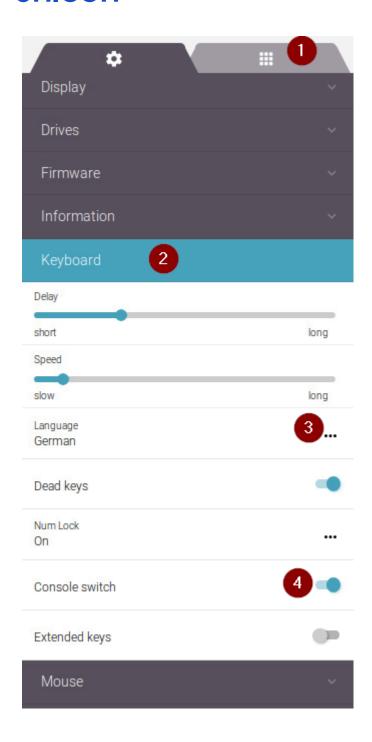
The Configuration panel with the Configuration dialogs is shown.

The recently used Configuration dialog is opened. If you click the time or a live information icon, the corresponding dialog is opened.

The dialogs are displayed alphabetically² or sorted by content. Sorting can be defined in the Scout Console.

¹for eLux RP 6.4 and later versions

²for eLux RP 6.9 and later versions



Legend to numbers

- 1 Switch to Applications tab
- 2 To open a dialog, click the dialog title.

You can open only one dialog at a time.

- 3 Opens a drop-down list or context menu
- 4 Enables or disables an option

Using the configuration and application dialogs

- To view all dialog titles or all dialog options, you might have to scroll down the frame.
- Many options are applied directly after you have set them. Some dialogs require you to click buttons such as **Apply** or **Cancel** before they are closed.
- When you enable an option, further entries might be required.
- Text fields are characterized by a line under the field.
- To pick a file from the file system, click i...



Mandatory fields are characterized by an asterisk* on the right. If you have missed to fill in a mandatory field, it is displayed in red.

For further information about the content of the dialogs, see

Device configuration and

Defining applications

4.5. Applications in the eLux RP 6 interface

Starting applications

In one of the desktop views, click an application icon.



At the top right of the application icon, a red close icon (x) is shown.

Disconnecting applications

On the desktop, click the red close icon at the top right of the application icon.

or

On the system bar, right-click the open application and then click **Close**.



Note

To close a session completely, the user must log off. In addition, the administrator can define a timeout on the server to close any inactive sessions.

Searching for applications

- 1. Press STRG+F or click into the search field or press STRG+F
- 2. Enter the first characters of the application name.
- 3. Press RETURN or click the magnifier icon.

The desktop view is switched to **All Applications** and displays the matching applications. As long as the search filter is active, the magnifier icon flashes.

To deactivate the search filter, switch to the **Desktop** view.

Sorting applications

In the All Applications view, click the AZ button once or repeatedly.

The applications are sorted alphabetically (ascending, descending, unsorted/free).

Free placing of applications¹

In the **Desktop** view, use a drag-and-drop operation to move an application icon to the position of your choice.

The position of the application icons you have arranged is saved within the free positioning order

Switching between sessions/applications and the eLux Desktop interface

Press the key combination STRG+ALT+D

Enabling screen lock

Press the key combination STRG+ALT+L

Showing the desktop and minimizing application windows

On the system bar, click the icon

For further information, see Defining applications.

¹ from eLux RP 6.7. From eLux RP 6.9, the user right **Sorting desktop icons** is required



5. Device configuration



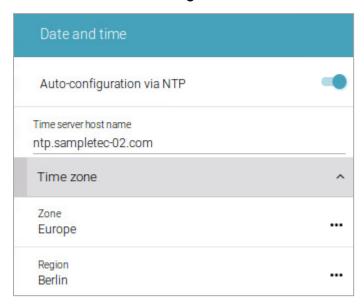
Important

If the client is managed by Scout, configuration is normally done centrally in the Scout Console. With inheritance enabled, local configuration changes on the client will be overwritten as soon as the client connects to Scout. For further information, see Device configuration in the **Scout Enterprise** guide.

The local device configuration is located in the **Configuration panel** that you can show on the right of the screen.

For further information on viewing and operating the Configuration panel, see Configuration panel.

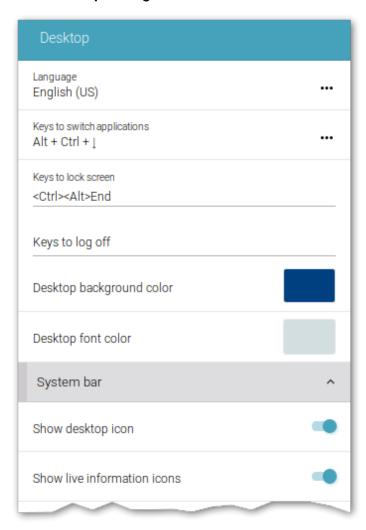
5.1. Date and time dialog



Option	Description
Auto-configuration via NTP	Date and time are determined and displayed automatically via NTP (Network Time Protocol).
	The service runs on UDP port 123.
Time server	Host name of the NTP server
Time zone	For each level, select the time zone.



5.2. Desktop dialog



Option	Description
Language	Language for displaying desktop elements and configuration The following languages are supported: English, German, French ¹ and Spanish ² Applications are also started in the configured language but must be compatible with it in order to run correctly.
Keys to switch applications	Key combination to switch between applications or sessions
	The default is $ALT+CTRL+\uparrow$ to avoid conflicts with $ALT+TAB$ which is used to switch between the tasks within a session.

¹for eLux RP 6.9 and later versions

²for eLux RP 6.9 and later versions

Option	Description
Keys to lock screen ¹ (AD users)	Key combination to activate password-protected screen saver
	Default: <ctrl><alt>End</alt></ctrl>
Keys to log off ² (AD users)	Key combination to log off current user
	The logon dialog is then displayed.
Desktop back- ground color	Text field for the background color, can be entered as a hexadecimal value or as a CSS color name
	Example: #FF0000 or gold
System bar	Display options for the system bar



Important

If you hide the Configuration panel, you cannot access the configuration any longer. Neither can you unlock the configuration panel with the device password. You need to synchronize the configuration data to the server-side settings or perform a factory reset. For further information, see eLux commands.

For further information on how to define keyboard shortcuts, see Defining keyboard shortcuts in the **Scout Enterprise** guide.

¹for eLux RP 6.9 and later versions

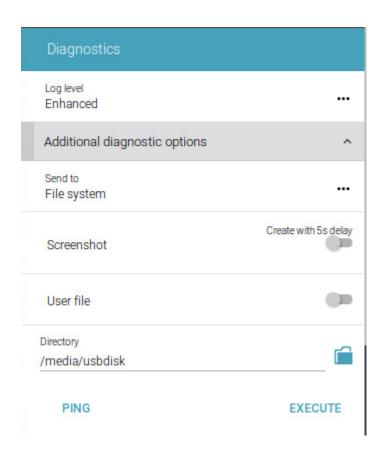
²for eLux RP 6.9 and later versions



5.3. Diagnostics dialog

The following diagnostic options are provided:

- Enhanced log level: Configuration and log files are retrieved to a greater extent
- Additional diagnostics by creating screenshots or adding further freely selectable files
- Displaying or sending relevant files to FTP server, Scout Server or data medium
- Ping command to check connectivity and latency in your network



Option	Description
Log level	Choose between Standard and Enhanced for different amounts of configuration and log files.
	Use the Enhanced log level only temporarily, otherwise you risk exceeding the flash memory capacity of your Thin Client.

Option	Description		
Send to	Configure the destination: Where do you want to send the files?		
	Display	Opens the Log Viewer window in eLux showing various diagnostic files with their contents	
	FTP address	Files are saved to an FTP server Specify the address under FTP address .	
	Scout Server	Files are saved to the Scout Server by default under	
		<pre>%USERPROFILE% \Documents\UniCon\Scout\Console\Diag</pre>	
	File system	Files are saved to a local data medium or USB device.	

The following options are only visible after you have chosen a destination (except Display):

Screenshot (only if destination ≠ Display)	After you click Execute , with a 5 second delay, a screenshot is taken and transmitted with the diagnostic files. Screenshots are created as . png files under $/ tmp$.
User file (only if destination ≠ Display)	The user can select a local file to be transmitted with the diagnostic files.
Directory / server address (only if destination ≠ Display))	File system directory or server address (Scout Server or FTP-Server) for transmission of the diagnostic files
Ping	Allows users to ping any host (IP address or FQDN) ¹
Execute	Displays or sends the selected amount of diagnostic files to the configured destination

If the destination is not Display, the diagnostic files are organized in directories such as setup, var, tmp and sent in a . zip file.



Note

The systemd-journal.log (Enhanced log level) logs network activities.²

¹From Scout Enterprise 15.7 and eLux RP 6.7, the user right for the ping command can be set independently of the other diagnostic functions.

²for eLux RP 6.4 and later versions



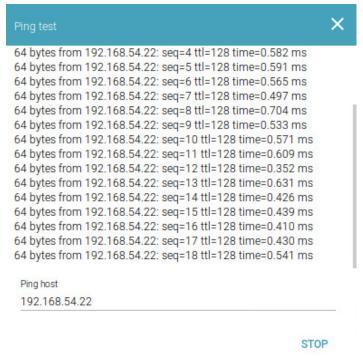
5.3.1. Performing ping command



Requires

User right for executing the diagnostics feature / ping command 1

- 1. Under **Diagnostics**, click **PING**.
- 2. In the Ping test window, type the name or IP address of the server you want to connect with.
- 3. Click Start.



The client connects to the server and executes the ping command until you click Stop.

4. Click Stop.

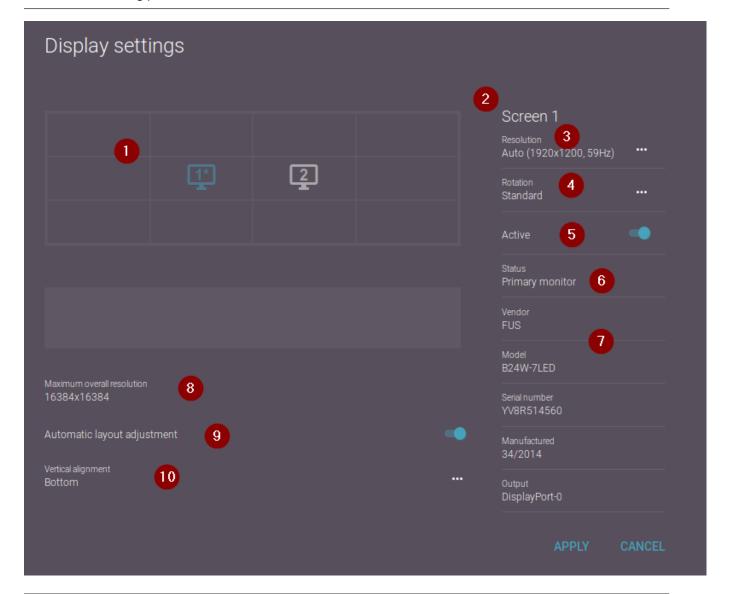
¹From Scout Enterprise 15.7 and eLux RP 6.7, the user right for the ping command can be set independently of the other diagnostic functions.

5.4. Display dialog



Note

Up to eLux RP 6.8, **Settings** and **Information** for all connected screens are displayed within the Config panel.



Legend to numbers

- All connected screens are displayed as monitor icons. The monitor icons can be moved freely via drag-and-drop operations.¹
- 2 Options and details for the selected monitor

¹for eLux RP 6.9 and later versions



Legend to numbers

- 3 Selected monitor: All resolutions provided and supported by the screen are displayed and can be selected.
- 4 Selected monitor: The screen display can be rotated 270° (left), 180° (inverted) and 90° (right).
- 5 Selected monitor: Additional screens can be disabled. 1
- 6 Selected monitor: Define as primary monitor screen
- 7 Selected monitor: Hardware details
- 8 Multiple monitors: Maximum supported resolution across all monitors
- 9 Multiple monitors: Automatic layout adjustment when a monitor is disabled.
- 10 Multiple monitors: Vertical alignment

5.4.1. Multiple monitors



Note

Up to eLux RP 6.8, you can organize multiple connected screens via options such as Left of screen 2. From eLux RP 6.9, a graphical solution with drag-and-drop operations is supported and described below.

If more than one monitor is connected, the following options are available:

- Arranging monitors (Layout)
 - In the layout section (1), use a drag-and-drop operation to move the monitor icons to the position corresponding to the physical set-up.
 - Valid positions are all four sides of an existing monitor icon.
 - To place a monitor between two other monitors, drop the monitor icon on the middle line.²
- Cloning monitors (Clone mode),³ see below
- Disabling monitors⁴
 - In the layout section, select a monitor icon. Then select the **Active** option for it.

 Alternatively, use a drag-and-drop operation to move the monitor icon to the section for inactive monitors (2).⁵
- Automatic layout adjustment when a monitor is disabled (4)
- Adjust vertical alignment (5)
 - From the list-field, choose between **Bottom** and **Top**.

¹for eLux RP 6.9 and later versions

²from eLux RP 6.11

³from eLux RP 6.9

⁴from eLux RP 6.9

⁵from eLux RP 6.11

When multiple monitors are positioned side by side, all monitors are aligned at the bottom, for example. You can use this to better arrange windows or smooth the transition with the mouse.



Note

The system displays the maximum resolution supported by the graphics card across all monitors (3) and ensures that this value cannot be exceeded by user actions such as cloning or changing resolutions.



- 1 Layout section: All connected and active monitors
 - Arrange monitors via drag-and-drop
 - Cloning monitors

The selected monitor is displayed in blue.

The primary monitor is indicated by an asterisk.

- 2 Section for inactive monitors
- 3 Maximum resolution supported across all screens
- 4 Automatic layout adjustment when a monitor is disabled
- 5 Vertical alignment



Cloning monitors

Create clone

In the layout section, drag one monitor icon over another while holding down the CTRL key.



The two icons are merged into one monitor icon (clone). Both identifiers are displayed.
An asterisk indicates whether the primary screen is included.

The resolutions of all cloned monitors are changed to the greatest common resolution.

One clone may contain up to four monitors.

Even monitor icons from the section for inactive monitors can be dragged over an icon in the layout section for cloning while you hold down the CTRL key.

Show individual monitors of a clone

Click a clon icon.

A pop-up window opens showing the individual monitor icons.

To show details for a screen, click a monitor icon in the pop-up window.



Remove monitor from clone mode Drag the monitor icon from the open pop-up window to a free position in the layout section.

Copy only rotation of a monitor

In the layout section, drag monitor icon 1 over monitor icon 2.

The rotation of screen 2 is changed to the rotation value of screen 1.

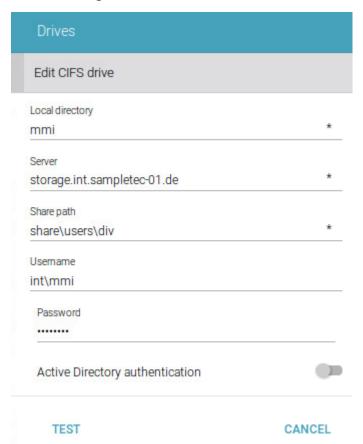
Number of supported monitors

The number of supported monitors depends on the device. If the maximum number of connected monitors is exceeded, eLux will disable the first monitor - or the exceeded number of monitors. For example, if a notebook only supports one additional monitor (two in total) and you connect a second external monitor (three in total), eLux will disable the internal monitor.

¹from eLux RP 6.9

5.5. Drives dialog

Define shared Windows network directories as drives that the client can access. These drives can be used as storage locations for browser files.



Option	Description	
Local directory	Any name for the directory	
Server	Name of the server	
Share path	Share path with Windows share name	
Username	Windows domain and username to access the directory:	
	<domain\user></domain\user>	
Password	Password to access the directory	
Active Directory authentication	The Active Directory logon data are used to access the directory. The Username and Password fields are then hidden.	





Note

To access network drives with AD authentication, the software package **Network drive share** and the included feature package **Linux Key Management Utilities** must be installed on the clients. This may require modifications of the image definition file on the web server via ELIAS.

Test

Checks whether a connection can be established using the data specified

The directory path /smb/ is automatically added in front of the directory name. The data are available on the local flash drive under /smb/<Directory name>.

Example: /smb/share

To make browser settings such as bookmarks permanently available, define a network drive as the browser home directory. For further information, see Browser home directory.

5.5.1. Browser home directory

By default, the browser settings are temporarily saved to the flash memory. However, they are deleted with each client restart.

If you define a browser home directory on the network, browser settings such as bookmarks can be saved and made available to the user after each client restart. Use a network share that you have configured for access:



Requires

Configured Windows network share (**Defined drive**).

Example: /smb/share

For further information, see Defining a network drive.

Defining browser home directory



Note

The following information refers to Scout Enterprise Management Suite 15.0 and later versions. Documentation for earlier versions can be found in the **Archive** section of the PDF downloads page.

1. In the tree view, for the relevant level, open the Applications context menu and click Software defaults...

For further information, see Defining software defaults.

- 2. In the list-field, select the relevant browser and click **Edit**.
- 3. In the Browser home directory field, enter the name of one of the defined drives in Device configuration¹ > Drives. The name must correspond to the name on the list.

¹formerly Setup

Example:/smb/share

4. Confirm with **OK**.

The browser settings are saved to the specified Windows directory.



5.5.2. Mount points

Mount points are used to access local resources through an application. The following mount points are provided by eLux:

Samba	/smb	
NFS	/nfs	
Internal CD-ROM /media/cdrom		
USB devices	/media/usbdisk*	

^{*}For USB devices, mount points are assigned chronologically: The first device is assigned /media/usbdisk, the second one media/usbdisk0, etc.

Mounted devices are shown as live information icons. For managed devices, the administrator can suppress the display of live information icons.



Note

Due to security reasons, **Allow mass strorage devices** must be selected on the Hardware/Peripherals tab.

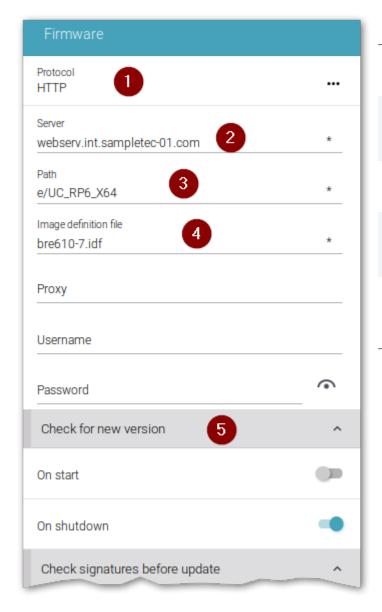


Note

Drive mapping for access to local resources must be defined in the relevant application definition. For Citrix ICA applications, see ICA software defaults. For RDP applications, see Advanced application settings.

5.6. Firmware dialog

The **Firmware** dialog allows you to configure the firmware update settings for software updates of your device.



- Protocol of the web server for transfer of the software packages
- 2 Web server that provides eLux software packages and image definition files
- 3 Directory path of the eLux software packages on the web server
- 4 IDF on the web server, defines the software packages for the firmware update
- 5 The device checks whether an updated IDF is available and triggers a firmware update if necessary.

For further information on performing a firmware update, see eLux commands.



5.6.1. Configuring firmware updates



Note

The fields **Protocol**, **Server**, **Path** and **Image file** are used to build a URL used by the devices for firmware updates. The URL address is displayed below the **Path** field.

1. For the relevant device or OU, in the Scout Console, open **Device configuration > Firmware**.

Option	Description	
Protocol	Network protocol of the web server for software package transfer to the clients (HTTP, HTTPS, FTP, FTPS)	
Server	Name (FQDN) or IP address of the web server containing the eLux software packages and the image definition file	
	Optional: click to specify an alternative web server for devices connected via VPN. 1 Enter its FQDN or IP address. The system displays a message if the name cannot be resolved or the IP syntax is incorrect.	
Proxy (optional)	IP address and port number (3128) of the proxy server Format: IP address:port Example: 192.168.10.100:3128	
	For Scout Enterprise Management Suite 15.3 and later versions, you can set a role for the static proxy 2 or choose <code>Dynamic</code> .	
User and Password (optional)	Username and password (if required) to access to the eLux software container of the FTP server	
Path	Directory path of eLux software packages on the web server	
	Use slashes / to separate directories. Example: Use eluxng/UC_RP6 to refer to the IIS web server directory W:\inetpub\wwwroot\eluxng\UC_RP6\	
	If you use ELIAS 18, specify the path name defined during the ELIAS 18 installation.	
	Example: elias/UC_PR6_X64 To distinguish by installed eLux major versions, use the container macro.	
Image file	Name of the image definition file (IDF) on the web server which is used for firmware updates	
	Depending on the object rights, an IDF name can be entered or an IDF is selected from the list-field. For further information, see Protecting firmware configuration.	
	To define an alternative image for specific hardware models, use the Release macro.	

¹from Scout Enterprise 15 2107

²supported up to eLux RP 6.8



Option	Description
Check for new version on start / shut- down	The device checks during start or shutdown whether any firmware updates are available and necessary.
	To allow users to decline an update, select User must confirm update .
Elias button	Starts the ELIAS tool and opens the image definition file indicated in the Image file field
Security but- ton	The Security settings allow you to define a signature check before update through the client. Signature checks can be performed for the image definition files and/or eLux software packages.
Reminder button	The Reminder Settings allow you to define whether a user is allowed to defer a firmware update and for how long. Moreover, you can specify time intervals for the update reminder. For further information, see Update deferment by user.

- 2. Edit the following fields:
- 3. Test the **Firmware** settings on a client. To do so, on the eLux RP 6 device, on the **Command panel**, click **Update**. For further information, see Updating the firmware in the eLux guide.

If the settings have been defined correctly, a connection to the Scout Server is set up to check whether an update is necessary.

5.6.2. Firmware security through signature

You can configure the firmware configuration in the Scout Console or on the client to have the client check signatures each time before an update is performed. An update is then only performed if the signature of the image definition file (IDF) and/or the signature of the eLux software packages have been successfully verified. The update cannot be run, however, if the IDF or one of the eLux software packages to be installed does not have a valid or verifiable signature.

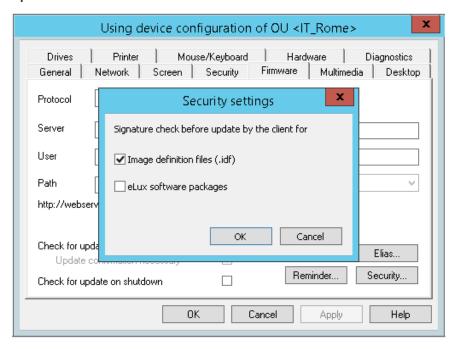


Important

A signature check of eLux software packages requires an update partition on the client computer. On devices without an update partition, signatures can only be checked for image definition files but not for eLux software packages. For further information on update partitions, see eLux partitions.

Activating signature check

In the Scout Console, under Device configuration¹ > Firmware, click Security....
 On the eLux RP 6 client, select Configuration panel > Firmware > Check signatures before update.



- 2. Under **Signature check before update**, select the **Image definition file** option and/or the **eLux software packages** option.
- 3. Confirm with **OK** and **Apply**.

¹formerly Setup





Note

In eLux, both options are provided on the Firmware tab or in the Firmware dialog.

The signature verification results are documented in the update log file on the client. After an update has been performed, the update log file is sent to the Scout Server. To view it for the selected device, in the **Properties** window, double-click the **Update status** field.

Certificates

Verifying the IDF signature on the client side requires the root certificate, but also the signature certificate in the local client directory /setup/cacerts. If you use own certificates for signing IDFs or individually composed eLux packages, you can configure their transfer. To do so, use the Scout Enterprise feature **Files configured for transfer**. For eLux packages provided by Unicon, all required certificates are included in the BaseOS.

For further information on how to create IDF signatures, see Signing an image in the ELIAS guide.

5.7. Information dialog

Information	
MAC address 901B0ED8750E	
IP 192.168.52.130	
Name eLux4423-8260-4811	
Serial number YLUE112193	
Installed image 1.idf	
Scout Enterprise Server	
Info1	
Test-Client	
Info2	
Info3	
	VIEW SYSTEM INFO

Option	Description	
MAC address	MAC address of the device	
IP address	IP address of the device	
Name	Host name of the device	
Serial number	Serial number of the device	
Installed image	Name of the currently installed IDF	
Scout Server	Scout Server that manages the device	
Info1-3	The Info fields can be edited by the users if they have the relevant user right. They are already provided in the First Configuration Wizard.	



Option	Description
Logged-on user (with AD user authentication)	Username of the logged-on user
View system info	Host ID
	 Current status of Subscription Double-click the magnifier icon to view details on the license lease (if managed through Scout).
	• eLux version
	 Hardware information such as CPU clock speed, RAM size and BIOS version
	Installed software packages including version numbers

Opening the Information dialog via key combination

Press WINDOWS+ALT+I.

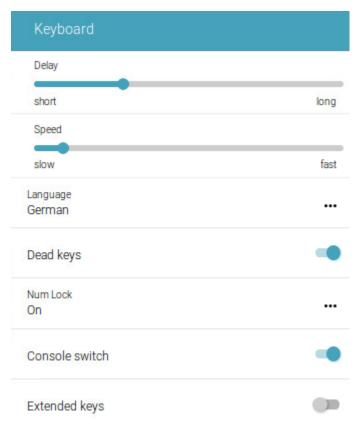


Note

The Information dialog can be hidden via the user rights.¹

¹from eLux RP 6.5

5.8. Keyboard dialog



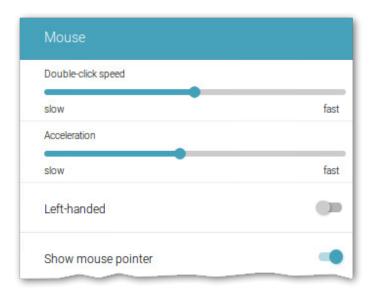
Option	Description		
Delay	Controls how long a key needs to be pressed until the letter is retyped		
Speed	Controls how fast a letter is retyped when a key is pressed		
Language	Keyboard language		
Dead keys	Dead keys only produce visible output when they are followed by a second keystroke. For example, accent keys are dead keys as they need to be pressed before you press a character key ('+ A => à).		
	lote: Some hardware platforms and some applications do not support this option.		
Num Lock	On Enables the numeric keypad of the client keyboard on device start (default)		
	Off Disables the numeric keypad of the client keyboard on device start		
	Auto ¹ Enables the numeric keypad on mobile devices and disables it on other devices		

¹for eLux RP 6.4 and later versions



Option	Description
Console switch	Users can use key combinations to switch between consoles. If this option is not selected, console 1 (eLux desktop) is shown.
	For further information, see Shortcuts.
Extended keys	Enables multimedia and other keys with special keyboard functions

5.9. Mouse dialog

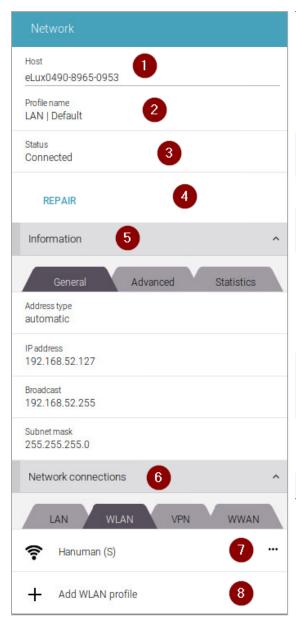


Option	Description	
Double-click speed	Defines the time interval between the two clicks of a double-click	
Acceleration	The faster the mouse pointer, the smoother the movements.	
Left-handed	Switches primary and secondary mouse buttons	
Show mouse pointer	Determines whether the mouse pointer is shown	
Touchpad ¹ (für mobile Geräte)	On	Enables touchpad (default)
(rai mozile derate)	Off	Disables touchpad
	Auto	Disables touchpad when a mouse is plugged in

¹from eLux RP 6 2103



5.10. Network dialog



- 1 The host name of a device can be set by the Scout Console, by the First Configuration wizard, or by eLux (elux-xxx).
 - If configured, you can change the host name locally (and send it to the DHCP server).
- 2 Shows the active network connection with network type and profile name
- 3 Shows the status of the active network connection
- 4 Use this button to check the status of the active network profile and establish a connection.
- 5 Under Information, network-related data such as IP address and MAC address of the device are shown, as well as statistics.

This segment can be hidden via the user rights. 1

- 6 Under Network connections, depending on the hardware installed, up to four tabs are shown for different network types.
- 7 An existing network profile can be connected / disconnected, edited or deleted via menu. Click
- 8 Create a new network profile

The following network types are available:

- LAN (only one profile, cannot be deleted)
- Wireless LAN
- VPN
- Wireless Wide Area Network (Mobile Internet)²

¹for Scout Enterprise Management Suite 15.5 and later versions

²for eLux RP 6.5 and later versions



Note

In addition to Internet Protocol Version 4 (IPv4), **IPv6** is supported for local applications. For further information, see Internet Protocol version 6 (IPv6) in the **Scout Enterprise** guide.

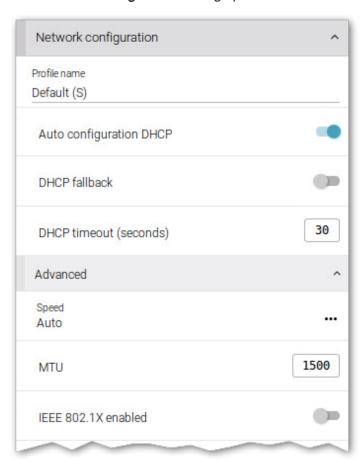
¹for eLux RP 6.6 and later versions



5.10.1. Configuring the LAN profile

- 1. In the configuration panel, open the **Network** dialog, and under **Network connections**, select the **LAN** tab.
- 2. Click the displayed LAN connection (Default) or the button next to it. Then, on the context menu, click **Edit**.

The **Network configuration** dialog opens:



3. Edit the following fields:

Option	Description		
Profile name	Name of the LAN profile		
	For profiles defined in the Scout Console, the character string $({\tt S})$ is appended.		
Auto-con-	Integration into existing network via DHCP		
figuration DHCP	If you do not use DHCP, use the provided fields to configure IP address, net mask, gateway and name server manually.		
DHCP fallback	If DHCP fails, the defined settings are used as long as the lease is valid.		
DHCP timeout	Timeout in seconds for the DHCP request		
Speed	Data transfer rate in MBit/s		
MTU	Maximum transmission unit		
IEEE 802.1X enabled	Enables authentication via IEEE 802.1X		
IEEE 802.1X allow without	Specify whether a connection may be set up if a timeout or authentication error for 802.1X occurs.		
authentication ¹	The option is active by default as soon as you enable 802.1X authentication. ²		
	If the option is cleared, you can only connect after successful 802.1X authentication.		
IEEE 802.1X number of con- nection retries ³	Number of connection retries before aborting		
IEEE 802.1X number of logon retries ⁴	Number of authentication retries for a successful connection before authentication is aborted		
IEEE 802.1X timeout	Time period in seconds before an authentication try is aborted		

¹from eLux RP 6.9.1000

 $^{^2}$ from eLux RP 6.9.1000 and eLux RP 6.11

³from eLux RP 6.9.1000

⁴from eLux RP 6.9.1000



Option	Description
Use proxy ¹	The proxy setting you define here is used by the ${\tt System\ proxy}$ option in the browser application definition.
	For further information, see Proxy configuration.
Internet con- nection test ²	Each time a connection is set up, the system can check whether addresses on the Internet can be reached. For further information, see "Adding a WLAN profile" on the next page.

4. Confirm with **Apply**.

¹for eLux RP 6.5 and later versions

 $^{^2}$ from Scout Enterprise Management Suite 15.9

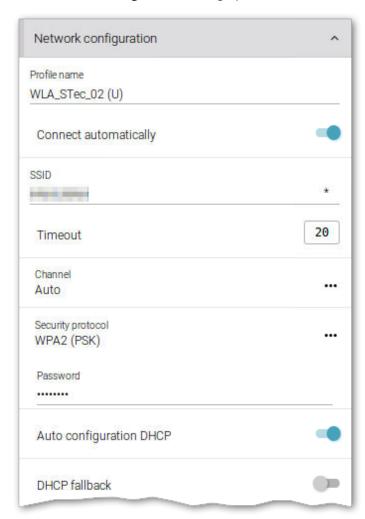
5.10.2. Adding a WLAN profile

- 1. In the configuration panel, open the **Network** dialog. Then under **Network connections**, select the **WLAN** tab.
- 2. Click + Add WLAN profile.

The WLAN networks active at the site are displayed with their SSID.

3. Select the WLAN you want to connect to, or click Manual.

The **Network configuration** dialog opens:



4. To configure a WLAN profile manually, edit the following fields:

Option	Description
Profile name	Name for the new WLAN profile
	The character string (\mathtt{U}) is appended to a user-defined profile. For profiles defined in the Scout Console, the string (\mathtt{S}) is appended.



Option	Description
Connect automatically	If the signal strength is sufficient, the device automatically attempts to connect to this WLAN.
SSID	Name of the WLAN
Hidden SSID ¹	Select this option if the SSID of the WLAN is not shown.
Timeout	Time period in seconds for establishing the connection
Channel	Is selected automatically by default
Security pro- tocol	Authentication type
Password	Password or security key
Auto-con- figuration DHCP	Integration into existing network via DHCP
DHCP fall- back	If DHCP fails on start-up, the settings are used unless the lease has expired.
DHCP timeout	Time period in seconds for the DHCP request
Use proxy ²	The proxy setting you define here is used by the System proxy option in the browser application definition.
	For further information, see Proxy configuration.
Internet con- nection test ³	Each time a connection is set up, the system can check whether addresses on the Internet can be reached. Without connectivity, the system then checks for the existence of a captive portal and, if available, redirects to it. For automatic (default), the connection test is performed unless a central system proxy is defined.
	Whether the option is displayed depends on the corresponding dedicated user right. ⁴

- 5. If you connect to an existing WLAN, most of the information is read-only. To connect, enter the password or security key.
- 6. Confirm with Apply.

¹from eLux RP 6.11

²from eLux RP 6.5

 $^{^{3}}$ from Scout Enterprise Management Suite 15.9

⁴from Scout Enterprise Management Suite 15 2101

When connected to a WLAN, the system bar shows a WiFi icon which roughly reflects the signal strength.

Click the WiFi icon to display further information.

For further information, see Live information.



5.10.3. Adding a VPN profile

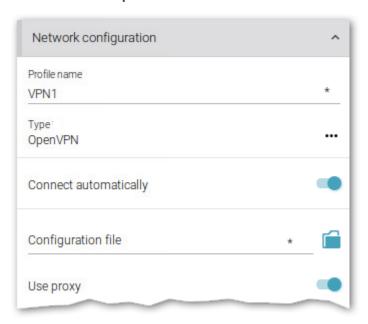


Note

The VPN tab is only shown if the relevant software is installed on the client.

As VPN clients Cisco AnyConnect and OpenVPN are supported.

- 1. In the configuration panel, open the **Network** dialog. Then under **Network connections**, select the **VPN** tab. ¹
- 2. Click + Add VPN profile.



¹for eLux RP 6.4 and earlier versions in a separate dialog

3. Edit the following options:

Option	Description
Profile name	Name of the new VPN profile
	The character string (U) is appended to a user-defined profile. For profiles defined in the Scout Console, the string (S) is appended.
VPN application type	Select Cisco AnyConnect or OpenVPN
Connect auto- matically	The VPN client is started automatically on each device restart.
Configuration file	Depending on the VPN application used, the client devices must have a configuration file. Select the relevant configuration file.
Use proxy ¹	The proxy setting you define here is used by the ${\tt System\ proxy}$ option in the browser application definition.
	For further information, see Proxy configuration.

4. Confirm with Apply.

For further information, see VPN in the Scout Enterprise guide.

5.10.4. Adding a WWAN profile

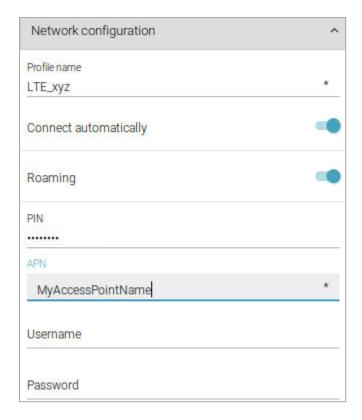
-for eLux RP 6.5 and later versions -

If your mobile device has an appropriate SIM card, you can connect to a wireless wide area network. This can be cellular data networks such as LTE or UMTS.

- 1. In the Configuration panel, open the **Network** dialog. Then under **Network connections**, select the **WWAN** tab.
- 2. Click + Add WWAN profile.

¹for eLux RP 6.5 and later versions





3. Edit the following options:

Option	Description
Profile name	Name of the new WWAN profile
	The character string (\mathtt{U}) is appended to a user-defined profile. For profiles defined in the Scout Console, the string (\mathtt{S}) is appended.
Connect automatically	If the signal strength is sufficient, the device automatically attempts to connect to the WWAN.
Roaming	The cellular data connection stays on when your device is outside your mobile operator's network.
PIN	PIN of the SIM card (if used)
	If you leave the field empty and the SIM card requires a PIN, the PIN will be requested on each connection setup. ¹
APN	Access Point Name: Address used to connect to the Internet when using your cellular data connection
Username	Username for your mobile account
Password	Password for your mobile account

4. Confirm with Apply.

 $^{^1\}mbox{To}$ define PIN settings for your SIM card, use a mobile device such as a smart phone.

When connected to a WWAN, the system bar shows a WWAN icon which roughly reflects the signal strength.

Click the WWAN icon to display further information.

For further information, see Live information.

5.10.5. Proxy configuration

For each network profile, you can define a proxy server that is used by web clients or browsers. The proxy server can be configured manually or automatically.

If you define the proxy server centrally in the device configuration, it can be accessed from all application definitions (browsers). This central **system proxy**¹ contains the proxy setting which can either be a fixed server setting, automatically determined, or simply No Proxy.

Using an automatic WPAD configuration, all web clients of an organization can then be configured easily to the same proxy server or servers.

For the **system proxy** setting, in the network profiles, you will find the options described below.

- Scout Console: Network > Advanced
- eLux RP 6: Network configuration > Advanced > Use proxy > Proxy settings

Option	Description
No proxy	No proxy server is used
Manual	Specify fixed proxy server with port number
(Proxy:Port)	Example: proxy.sampletec-01.com:3800
	To define destinations that you do not want to access via proxy, in the Proxy exception list, enter the relevant network addresses separated by semicolons.
Auto (URL)	Proxy auto-config (PAC): Determines the appropriate proxy for each URL
	<pre>Examples: http://proxy.sampletec-01.com/proxy.pac http://wpad.sampletec-01.com/wpad.dat</pre>
Pass-through logon for proxy (with AD user authentication) ²	If a central system proxy is configured with AD authentication, the AD logon data are used for authentication.
	Proxy authentication may be required if you use browser content redirection under Citrix.
Proxy username ³	Username for authentication on the system proxy

¹for Scout Enterprise Management Suite 15.5 and later versions

²from Scout Enterprise Management Suite 15.8 and eLux RP 6.7

³from Scout Enterprise Management Suite 15.8 and eLux RP 6.7



Option	Description
Proxy password ¹	Password for authentication on the system proxy

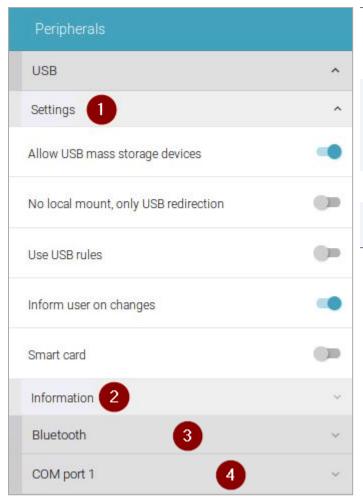


Note

When you define a browser application, the default proxy setting is <code>Use system proxy</code>. The proxy setting defined in the relevant network profile is now active. For further information, see Defining a browser application.

¹from Scout Enterprise Management Suite 15.8 and eLux RP 6.7

5.11. Peripherals dialog



- 1 The USB section is divided into Settings and Information. ¹ The individual USB settings are described below.
- 2 View all connected USB devices
 - Expand an entry to view the Product name, Vendor name, Product ID, Vendor ID and USB type.
- 3 Display Bluetooth audio devices²
- 4 Settings for COM ports such as speed, parity, stop bits

Option	Description
Allow USB mass storage devices	Allows the use of connected USB mass storage devices
	If the local use of USB devices via mountpoints is allowed, connected USB devices are shown on the system bar as live information. To remove a USB device safely, click the live information icon
No local mount, only USB redir- ection	Restricts the use of USB mass storage devices to USB redirection within configured sessions on a backend. There are no mount points provided for using USB mass storage devices locally on the eLux client.

¹for eLux RP 6.4 and later versions

²for eLux RP 6.6 and later versions

³for eLux RP 6.4 and later versions



Option	Description
Use USB rules	Restricts the use of USB mass storage devices according to defined rules:
	Using USB mass storage devices can be restricted to devices with specified VID (Vendor ID) and/or PID (Product ID) such as an individual USB stick model. Moreover, the USB rules can be applied to further USB device classes such as smart card readers.
	USB rules are defined in the Scout Console. For further information, see USB rules in the Scout Enterprise guide.
Inform user on changes	When a USB mass storage device is connected, a systray message is displayed.
Smart card	Enables card readers



Note

To use smart card readers, the relevant middleware must be installed on the clients. For further information, see USB mass storage devices and card readers in the **Scout Enterprise** guide.

Webcams

Webcams are shown under **USB > Information** even if they are built in. In order for users to receive a preview of one or more cameras, an app must be defined to display it. ¹ For further information, see Webcams in the **Scout Enterprise** guide.

5.11.1. Connecting Bluetooth audio devices

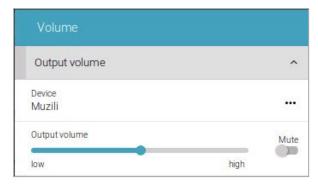
- 1. In the Peripherals dialog, under Bluetooth, select the Enable Bluetooth option.
- 2. Next to **Available devices**, click the **Down** arrow icon ...



3. For the Bluetooth device you want to connect, click Connect.

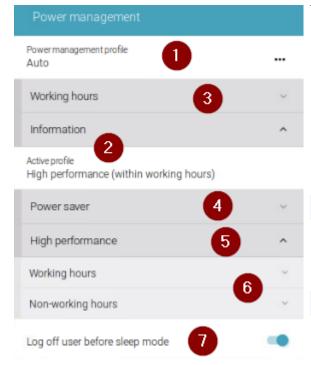
¹from eLux RP 6 2107

4. To adjust the volume of a connected Bluetooth audio device, use the Volume dialog.





5.12. Power management dialog



1 Selecting one of the options, enables the relevant profile:

High performance profile or Power saver profile or Auto option

Auto enables High performance if the device is plugged in and Power saver if the device is on battery power.

- 2 Shows the currently active profile
- 3 In order to distinguish between inside and outside working hours in the profiles, the working hours must be defined.¹
- 4 Settings for the Power saver profile
- 5 Settings for the **High performance** profile (expanded in the screenshot)
- 6 Click to view options for working/non-working hours within **High performance**
- 7 When the computer wakes from sleep, the user must log on again.²

Using profiles, you can pre-define settings for the power management of your computer. These settings become active when you or the system enable the relevant profile:

- High performance: Favors performance, but may use more energy
- Power saver: Saves energy by reducing the computer's performance and the screen brightness

You can either explicitly activate one of the power management profiles or you can let the system choose by using the Auto option: If the device is plugged in, the profile **High performance** will be active. If the device is on battery power, the profile **Power saver** is activated.

To further distinguish between working hours and non-working hours, a total of four profiles are available if working hours have been defined.³

¹for eLux RP 6.8 and later versions and Scout Enterprise 15.8

²for eLux RP 6.7 and later versions

³for eLux RP 6.8 and later versions and Scout Enterprise 15.8



Note

The sleep mode corresponds to **Suspend to RAM (S3)**. For further information, see Sleep mode (Suspend) in the **Scout Enterprise** guide.

For mobile clients, the System bar shows a battery icon.

Click the battery icon to display more information.

For further information, see Live information.

5.12.1. Options of a power management profile

To edit the options, open the Power saver or High performance profile.
If available, then select the subprofile Working hours or Non-working hours.¹

Option	Description
Screen brightness	Screen brightness in percent for the selected profile
Turn off the display - after	Determines whether, after a specified number of minutes (after), the display is turned off when the user is not using the device (idle state)
Enable screen saver - after	Determines whether, after a specified number of minutes (after), the screen saver is enabled when the user is not using the device (idle state)
On idle - after	Determines whether, when the device is not used (idle state), after a specified number of minutes (after), the selected action is performed:
- after (User logged off) ² - action	Shut down Sleep mode
- action	This option can be specified for both states: user logged on and user logged off
Action on 'Closing the	Action that is performed when users close the lid:
lid'	No action Turn the display off Shut down Sleep mode
Action on 'Pressing	Action that is performed when users press the power button:
the power button'	No action
	Turn the display off
	Shut down Sleep mode

¹for eLux RP 6.8 and later versions and Scout Enterprise 15.8

²from eLux RP 6.10



Option	Description
Action on 'Pressing the Power/Sleep key'	Action that is performed when user press the Power/Sleep key on their keyboard (requires a suitable keyboard): 2
'	No action Shut down Sleep mode^3



Note

The sleep mode corresponds to **Suspend to RAM (S3)**. For further information, see Sleep mode (Suspend) in the **Scout Enterprise** guide.

¹for eLux RP 6.5 and later versions

 $^{^2\}mbox{lf}$ this key is not available, the configuration has no effect.

³Default

5.12.2. Definition of working hours

-for eLux RP 6.8 and later versions and Scout 15.8 -



Requires

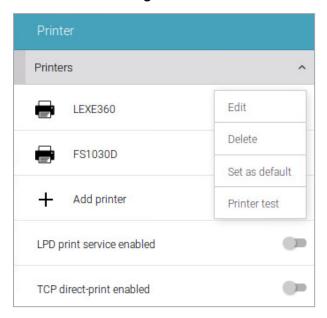
User right **Define working hours**

To define your working times, open the Configuration Panel and select Power management > Working hours.

Option	Description
Monday to Sunday	Specify for each day of the week whether it is a working day.
Start time	Earliest time for the start of work, effective for all specified working days
End time	Latest time for the end of work, effective for all specified working days



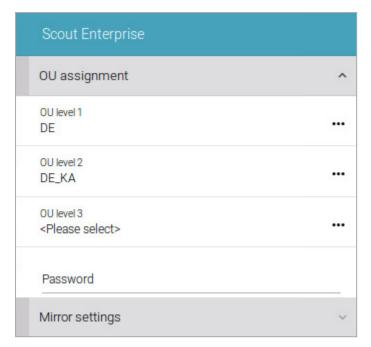
5.13. Printer dialog



Option	Description
Edit (defined printer)	Opens the Editing printer dialog for the selected printer
Delete (defined printer)	Deletes the selected printer
Set as default (defined printer)	Defines the selected printer as the default printer
Printer test (defined printer)	A test page is printed on the selected printer.
+ Add printer	Opens the Adding new printer dialog
	For further information on configuring printers, see Printer configuration in the Scout Enterprise guide.
LPD print service	Allows you to share defined printers with other systems via LPD (within the network)
TCP direct print	Select to receive the print data directly via TCP/IP and send it to the printer port (no print formatting, no spooling of print jobs)

5.14. Scout Enterprise dialog

Under **OU** assignment, you configure the connection to an OU of the managing Scout Server. The Scout Server address can be found in the **Information** dialog.

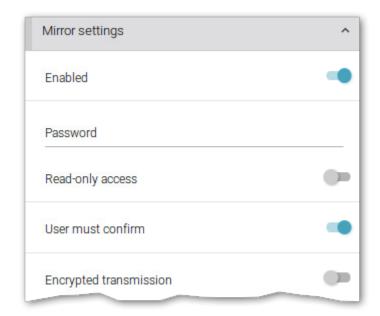


Option	Description
OU level 1	Select the relevant top-level OU
OU level X	For each level, select the relevant parent OU.
Password	If an OU is password-protected, you must enter the password before you can assign a device to it.



5.14.1. Mirror settings

The settings for mirroring are part of the device configuration and can be found in the configuration panel under **Scout Enterprise**.



Option	Description
Enabled	Mirroring must be enabled before a mirror session can be started.
Password (optional)	If you define a mirror password, to start a mirror session, the administrator must enter the password. The device can only be mirrored by persons who know the password.
	The password must have 6 characters minimum and 8 characters maximum.
Read-only access	Allows the mirroring administrator to read only, not to write
User must confirm	Before a mirror session can be started, the user must confirm.
Encrypted transmission	The mirroring data are transferred using an encrypted connection.
Allow from Scout only	Mirroring is only allowed if the Scout Console is used.
Log mirror session	Each mirror session is logged.

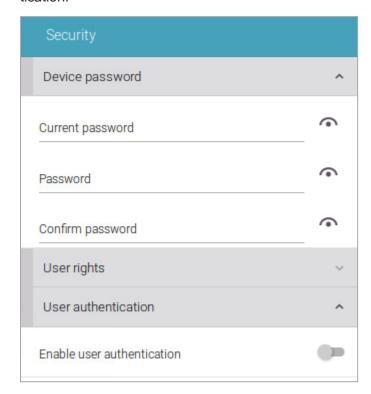


Note

The user can cancel a mirror session at any time. During the entire session, a message is shown to inform the user about the current mirror session.

5.15. Security dialog

In the **Security** dialog, you can change the device password, configure user rights and set user authentication.

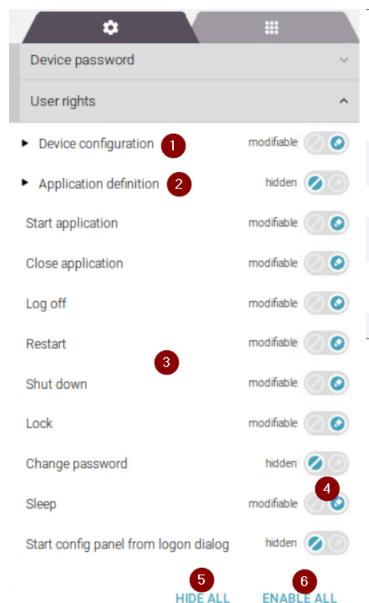


Option	Description
Device password	Important: If you change the device password locally, the device can no longer be managed through the Scout Console.
User rights	Allows you to configure eLux user rights for device configuration, application definition and some general eLux functions
User authen- tication	Allows you to configure access rights for example via AD



6.0.1. User rights

In most cases, the administrator defines user rights centrally in the Scout Console. However, with the relevant user right, the user can also change user rights locally.



- 1 The user rights of the device configuration correspond to the dialogs of the Configuration panel.
 Example: The user right to modify the key delay is located under Device Configuration > Mouse/Keyboard.
- 2 User rights to define new applications or modify/delete existing applications
- 3 User rights for general functions
- 4 Switch status between hidden and modifyable
- 5 Attention: All user rights are hidden and thus deactivated with a single click.
- 6 Allow all user rights with a single click

Changing user rights



- 1. Open the Configuration panel and select **Security > User rights**.
- 2. To edit user rights for the device configuration or application definition, expand the relevant node and navigate to the desired function.
- 3. To modify the status of a function, use the control on the right and click hidden or modifiable.

 The current status of a function is also displayed textually.



Important

If you hide the **Device Configuration** node, the entire Configuration panel will no longer be displayed. Also, you will no longer be able to access the user rights.

4. Confirm with Apply.

Modified user rights become active on the next restart of the device.

Note: If the device is managed by Scout, normally the device configuration defined in the Scout Console and thus the user rights defined there have priority. The administrator can define exceptions and support (protect) local device configurations.

For further information, see User rights in the Scout Enterprise guide.

6.0.2. User authentication

Users whose devices are managed via Scout are normally connected to a user management such as Active Directory.

If the user(s) of a device are not yet configured via the central device configuration, the relevant settings can be made locally on the device. As with other functions, be aware that the centrally maintained device configuration may overwrite the local configuration on the next contact with the Scout Server.



Note

The eLux package **User authentication modules** must be installed on the device.

Activating user authentication

- 1. In the Configuration panel, open **Security > User authentication**.
- 2. Select the option **Enable user authentication**.
- 3. Select the authentication type such as Active Directory.
- 4. Specify one or more servers or domains.
- 5. Confirm with **Apply**.

After you have enabled user authentication, the users will be prompted for their username and password after the next device restart.





Note

For devices that are not managed by Scout, to correct any settings if required, administrators may log on with the username locallogin and device password.

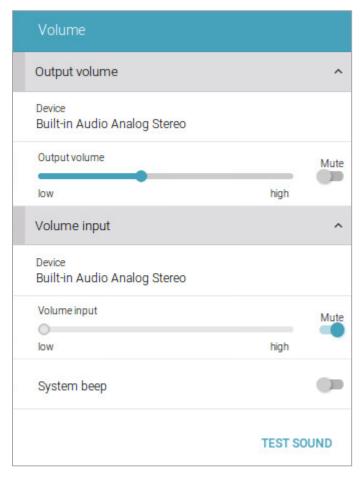
For further information, see Configuring user authentication and Additional options for AD users in the **Scout Enterprise** guide.

6.1. Volume dialog

The output and input devices are grouped in classes depending on their connector. For each device class, you can control the volume level (Volume output) and sensitivity (Volume input).

USB	USB port
Analog	TRS audio jack (phone connector) or integrated devices
Digital (output only)	DisplayPort or HDMI

By default, the priority is defined as follows: USB - Analog - Digital. Priority can be changed in the Scout Console. For further information, see Multimedia tab in the **Scout Enterprise** guide.



Option	Description
Volume output	Controls the playback sound level for the selected device class
Volume input	Controls the level of sensitivity for recording for the selected device class
Mute (output and input)	No sound is reproduced / recorded
System beep	Acoustic feedback signal when switching off the client



Option	Description
Test sound	Plays a sample sound with the defined volume level

7. Applications

eLux provides two kinds of applications

- Applications providing access to back-end systems (server-based remote applications)
- Local applications

Thin Clients are mainly used as terminals in server-based computing. **Remote** means that the applications such as Windows applications run on a remote server. Still, client-side software is required to initiate and maintain a session.

By nature, the Thin Client has limited resources, meaning the majority of applications are server-based. However, in addition to server-applications, eLux also offers a variety of local applications. **Local** means the application runs locally on the Thin Client. Local applications include browser software, a local shell (XTerm), and desktop tools.

Usually, applications are defined centrally in the Scout Enterprise Management Suite and made available to the clients. Applications can also be defined locally on the client.

The following topics describe how to configure both, applications for connecting to back-end systems and local applications. In addition, further configuration may be required in the application itself. For further information on configuring terminal sessions, please consult the manufacturer's product documentation.

7.1. Defining applications

Applications can be defined locally on the eLux device, the relevant user rights provided.

Applications are defined in the Configuration panel. 1

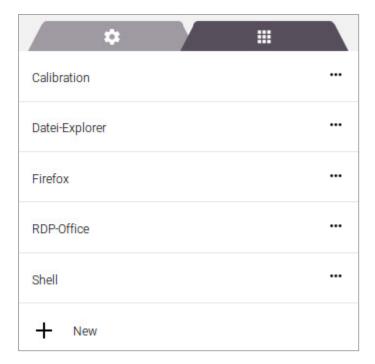
Defining new applications

- 1. Open the configuration panel. For further information, see Configuration panel.
- 2. Click the Applications tab

The already defined applications are shown in the configuration panel.

¹ from eLux RP 6.3, for versions in the control panel





- 3. Click + New.
- In the Add new application dialog, click Application type. From the list, select the required application type.



Note

If the relevant application entry is missing, the corresponding software package is not installed on the device.

5. Configure the application.

Under **Properties**, further options are available. For further information, see Application properties.

If you define a local application, under **Properties**, select the application type.

For further information on the definition of individual application types, see Application definition in the **Scout Enterprise** guide.

For further information on operating, see Configuration panel.

6. Confirm with Apply.



Note

The application types ICA, Emulation and XenDesktop cannot be used to for defining applications locally on the eLux RP 6 device. To make these applications available on the device, define them in the Scout Console.

Editing applications

- 1. Open the configuration panel and select the **Applications** tab.
- 2. Click the application you want to edit.

3. On the context menu, click Edit.

The **Edit application** dialog opens.

4. Edit the application and confirm with Apply.

Deleting applications

- 1. Open the configuration panel and select the **Applications** tab.
- 2. Click the application you want to delete.
- 3. On the context menu, click **Delete**.
- 4. Confirm with Apply.

7.2. Application properties

The following options are provided for most applications:

Option	Description
Name	Name of the application, shown in the control panel and on the start menu
Server	Name of the server the application connects to
Login	The user is automatically logged on to the terminal server by using predefined credentials (username, password, domain).
Pass-through login	The values of the local user variables <code>\$ELUXUSER</code> , <code>\$ELUXPASSWORD</code> and <code>\$ELUXDOMAIN</code> are used to log on to the authentication server. This allows to use the AD logon data of the eLux desktop for automatic logon to the configured applications (single sign-on).
Application restart	The application is immediately restarted after it has been closed either unexpectedly or by the user.
Start automatically after	The application starts automatically after eLux has been started. Optionally, you can delay the auto-start process by defining the required number of seconds.
Desktop icon	Provides an additional desktop shortcut for the application (except for PNAgent)
	For eLux RP 6, the desktop icon is also shown in the personal desktop view.



7.3. Connecting to a Citrix farm

Users can connect to sessions running on a Citrix back-end. Once the connection has been made, the user can access published desktops and applications.

Connecting the Thin Client to a Citrix back-end is performed by one of the following applications:

- by a StoreFront application to a StoreFront server
- by the Citrix Self-Service user interface to a StoreFront server
- via browser to a StoreFront server or Web Interface server
- by a PNAgent application to a StoreFront server (XenApp Services Support must be enabled on the Citrix farm) or Web Interface server
- by an ICA application to a virtual desktop or published applications



Note

Access via the **ICA** application type is deprecated and only supported by Citrix up to XenApp version 6.x.

Requirements

- The eLux package Citrix Workspace app for Linux or Citrix Receiver for Linux must be installed on the clients.
- To connect via HTTPS, for the application types **Storefront**, **Self Service** and **PNAgent**, the relevant root and intermediate certificates must be available on the clients.
 - Root certificates must be transferred to /setup/cacerts.
 - Intermediate certificates must be transferred to /setup/cacerts/intcerts.

For further information, see Certificates in the Installation guide.

- To connect via HTTPS, for the application type **Browser**, the relevant root and intermediate certificates must be available on the clients.
 - Firefox: Root certificates and intermediate certificates must be transferred to /setup/cacerts/firefox
 - Chromium: Root certificates and intermediate certificates must be transferred to /setup/cacerts/browser
- The eLux taskbar should be enabled on the clients if published applications are provided as **seam-less applications**. Seamless applications behave like local applications and users can only restore them from minimized window size by using the taskbar. For further information, see Advanced desktop settings.

7.3.1. StoreFront application

By using the application type **StoreFront**, users can connect to a Citrix StoreFront server. Virtual desktops and published applications are aggregated and provided through stores. The Citrix products mainly used are XenApp and Citrix XenDesktop. StoreFront sites can be accessed via HTTP or HTTPS.

The StoreFront application enables users to access Citrix resources of one or more stores together with other configured applications, such as **RDP** or **Browser** sessions by using only one interface - the eLux RP 6 User Interface. For further information, see eLux RP 6 User Interface.

Defining a StoreFront application



Note

HTTPS connections require the relevant SSL certificates on the client.

- 1. Add a new application and select the application type **StoreFront**.
- 2. Edit the following fields:

Option	Description
Name	Name of the application shown in the Scout Console
Use Provisioning File (.cr) ¹	Enter the Citrix store provisioning file name without the file name extension. The Provisioning file must be located on the client in the directory /setup/ica/. For further information, see StoreFront / Store provisioning file.
	This option excludes the specification of Store URLs (next option).
Stores	Specify the URL of one or more stores
	 Click Add and replace the automatically created default value by your individual value (double-click or F2)
	<pre>Example: (https://CtrXd76.sampletec- 01.com/Citrix/Store33/discovery)</pre>
	This option excludes the use of a Provisioning file (previous option).
Logon	The user is automatically logged on to the store by using the specified credentials (username, password, domain).

¹for Scout Enterprise Management Suite 15.5 and later versions



Option	Description
Pass-through logon	The user is logged on to the store via single sign-on. The AD user credentials are used.
	If AD users log on via smart card, and if Citrix Receiver for Linux 13.4.x or later versions are used, the authentication method Domain pass-through on the Citrix server must be disabled.



Note

If you want to use predefined credentials or pass-through authentication, the eLux package **Citrix Receiver Extensions** and the included feature package **Dialog Extension** must be installed on the clients.

For further information, see StoreFront / Authentication.

Show last user	The user credentials (except for password) of the last logon are displayed in the XenApp logon dialog. This option has no effect if you specify fix user credentials for automatic logon under Logon .
Autostart	Specify the names of those StoreFront applications you want to have started automatically. Make sure to spell the names exactly as in StoreFront. Separate multiple application names by semicolon. Example: $MyApp1$; $MyApp2$
	If only one resource is defined for a store, alternatively use the free parameter AutostartUniqueResource=true ¹
Application restart Start auto- matically Desktop icon	See Adding applications
Free parameters	Individual parameters for application start
(optional)	For further information, see Defining free application parameters.

- 3. To delete an entry from the **Stores** list, select the entry and click **Delete**.
- 4. To configure further settings, click **Advanced** and edit the following fields:

Option	Description
Windows properties	Desktops can be launched in full-screen or window mode.

¹for eLux RP 6.4 and later versions (Citrix Workspace app)

Option	Description
Timed logoff	To enable automatic logoff from the StoreFront server, select the Logoff after option and specify a delay in seconds. Automatic logoff does not affect the launched desktop.
	Alternatively, automatic logoff can be configured to be performed after the last StoreFront application has been closed.
• •	Determine the actions to be done on a reconnect to the StoreFront server
nection	Do not reconnect : The connection to the desktop or the published applications is not restored (default).
	Disconnected sessions only : The connection to a disconnected session is restored.
	Active and disconnected sessions : The connection to a disconnected or active session is restored.
Manual logoff	Determine the actions to be carried out upon logoff from the StoreFront server
	Logoff only server: Logoff is performed only from the StoreFront server
	Logoff server and applications : Logoff is performed from the StoreFront server and from the virtual desktop or published applications.
	Logoff server and disconnect session : Logoff is performed from the StoreFront server but the virtual desktop session is only disconnected. This enables the user to reconnect later on.



Note

Access to the advanced settings can be defined via the object rights.¹

5. Confirm with **Apply** and **OK**.

After users have logged on to a StoreFront server or Web Interface server, they can show all provided resources by double-clicking the **StoreFront** icon on the eLux desktop.

¹for Scout Enterprise Management Suite 15.5 and later versions



7.3.2. Self-Service user interface

The Self-Service user interface (UI) replaces the configuration manager **wfcmgr** and allows access to Citrix services providing published ressources. After users are set up with an account, they can subscribe to desktops and applications, and then start them.

Defining Citrix Self-Service as local application



Note

The eLux package Citrix Workspace app for Linux¹ and the included feature package Self-service must be installed on the clients. This may require modifications of the image definition file on the web server via ELIAS.

- 1. Add a new application and select the application type Local.
- 2. Edit the following fields:

Option	Description
Name	Name for the application
Local application	Select Custom.
Parameter	Enter the following program name to start the application:
(manatory)	selfservice

3. Confirm with Apply and OK.



Note

The selfservice application cannot be configured individually. To use configuration options, alternatively use the Self-Service UI with extensions (ucselfservice) for eLux RP 5 clients. For eLux RP 6.2 and later versions, you can use the see Citrix Self-Service UI in kiosk mode.

7.3.3. Browser session to access published resources

Users can access applications and desktops that have been published through a store on the Citrix StoreFront server or through Citrix Web Interface by using a local browser.

¹formerly Citrix Receiver for Linux

Defining a browser application to access published resources



Note

To provide the users with a browser application to be used directly on the client, the relevant software package for Firefox or Chromium must be installed on the clients. This may require modifications of the image definition file on the web server via ELIAS.



Note

HTTPS connections require the relevant SSL certificates on the client.

- 1. Add a new application and select the application type **Browser**.
- 2. Edit the following fields:

Option	Description
Name	Name for the browser session
Browser type	Firefox or Chromium
Called page	URL of the Web Interface homepage or StoreFront store.
	<pre>Examples: https://<servername>/Citrix/StoreWeb https://<servername>/Citrix/XenApp</servername></servername></pre>

3. For the remaining parameters, see Defining a browser application.

The local user starts the browser and is forwarded to the defined page. After successful logon to the StoreFront server or Web Interface server, the published applications, desktops and contents available are shown in the browser window.



7.3.4. PNAgent application

An application of the type **PNAgent** (Program Neighborhood Agent) enables users to access published resources through a server running a XenApp Services site. Published resources can be published applications, published desktops, or published contents (files).

Customizable options for all users are defined in the configuration file <code>config.xml</code> which is stored on the Web Interface server (by default in the directory <code>//Inetpub/wwwroot/Citrix/PNAgent</code>). When a user starts one of the published programs, the application reads the configuration data from the server. The configuration file can be configured to update the settings and user interface regularly.

The config.xml file affects all connections defined by the XenApp Services site. For further information, see the Citrix eDocs on http://support.citrix.com.

Defining a PN Agent application



Note

HTTPS connections require the relevant SSL certificates on the client.

- 1. Add a new application and select the application type PNAgent.
- 2. Edit the following fields:

Option	Description
Name	Name of the application
Server	Specify the address of the configuration file on the Web Interface server (URL). If you use the default directory and port 80, the server address is sufficient.
	<pre>Examples: https://CtrXd.sampletec- 01.com/Citrix/PNAgent/config.xml https://192.168.10.11:81</pre>
Login	The user is automatically logged on to the Web Interface server by using the specified credentials (username, password, domain).
Pass-through logon	The user is logged on to the store via single sign-on. The AD user credentials are used.
	Note: Kerberos authentication is no longer supported with Citrix Receiver for Linux 13.x.and later versions.

Option	Description
Autostart application/folder	Specify the names of those applications you want to have started automatically.
	Alternatively, you can specify an autostart folder containing the relevant published applications. The folder must have already been created on the Web Interface server.
Show last user	The user credentials (except for password) of the last logon are displayed in the PNAgent logon dialog. This option has no effect if you specify fixed user credentials for automatic logon under Logon .
Allow cancel	Allows the user to close the PNAgent logon dialog.
Application restart Start auto- matically Desktop icon	See Adding applications
Free parameters	Individual parameters for application start
(optional)	Example: PNATimeout=60 brings Citrix Workspace app ¹ to try for 60 seconds to enumerate the published applications and desktops.
	To configure dual-monitor mode, you can also use the Free parameters , see below.
	For further information, see Defining free application parameters.

 $3. \ \ \text{To configure further settings, click } \textbf{Advanced} \ \text{and edit the following fields:}$

Option	Description
Window properties	For resolution/window size, color depth and audio output, select Use default (server settings) or select one of the values from the list-field.
Timed logoff	To enable automatic logoff from the Web Interface server, select the Logoff after option and specify a delay in seconds. Automatic logoff does not affect the launched desktop.
	Alternatively, automatic logoff can be configured to be performed after the last PNAgent application has been closed.

¹formerly Citrix Receiver



Option	Description
Application reconnection	Determine the actions to be done on a reconnect to the Web Interface server
	Do not reconnect : The connection to the desktop or the published applications is not restored (default).
	Disconnected sessions only : The connection to a disconnected session is restored.
	Active and disconnected sessions : The connection to a disconnected or active session is restored.
Manual logoff	Determine the actions to be carried out upon logoff from the Web Interface server
	Logoff only server: Logoff is performed only from the Web Interface server
	Logoff server and applications : Logoff is performed from the Web Interface server and from the virtual desktop or published applications.
	Logoff server and disconnect session : Logoff is performed from the Web Interface server but the virtual desktop session is only disconnected. This enables users to reconnect later on.



Note

Access to the advanced settings can be defined via the object rights. 1

4. Confirm with Apply and OK.

Program Neighborhood variables

For example, variables can be used to define a unique client name for a Citrix XenApp session. To log on to a Web Interface server with Program Neighborhood, you can use the following variables:

\$ICAUSER	Username
\$ICADOMAIN	Domain for this user
\$ICAAPPLICATION	Name of the PNAgent application definition

Creating a domain list

For PNAgent applications, you can create a domain list from which the user can select a domain.

¹for Scout Enterprise Management Suite 15.5 and later versions

- 1. Create the text file icadomains without file name extension.
- 2. Enter the required domain names, one domain per line.
- 3. Save the file to the Scout Enterprise installation directory.
- 4. Transfer the file to the /Setup directory on the Thin Client by using the Scout Enterprise feature Files.

If some of the configuration data are missing when a PNAgent application is started, the missing data are requested by a Citrix Web Interface logon dialog. The defined domains are listed in a drop-down list.



Note

In the PNAgent application definition, you can predefine a specific domain.

Example: work.sampletec-01.com.

Settings for dual monitor mode

For PNAgent sessions, you can configure a dual-monitor mode by using one of the following methods. The Citrix session can be transferred to the first monitor, to the second monitor, or to both of them.

Method 1:

Use the Advanced file entries feature of the Scout Console and modify the ICA software defaults:

File	/setup/sessions.ini
Section	ICADefaults
Entry	Xinerama
Value	-1 0 1

For further information, see Advanced file entries.

Method 2:

In the Scout Console, in the application definition, set the following Free parameters:

```
Key=Xinerama
Value=-1|0|1
```

For further information, see Free parameters.

The values mean the following:

-1	both monitors



0	first monitor
1	second monitor

7.3.5. Citrix Connection Center

By means of the Citrix Connection Center, users can see all current server connections and can log off, disconnect or close them without operating the application. In addition, the connection transport statistics can be viewed which might be helpful for slowing connections.

The Connection Center is provided as a desktop application.¹

Defining the Citrix Connection Center



Note

If you use Citrix Receiver for Linux, the eLux package Citrix Receiver Extensions and the included feature package Connection Center must be installed on the clients. If you use the later Citrix Workspace app, the included feature package Utilities and tools must be installed on the clients. This may require modifications of the image definition file on the web server via ELIAS.

- 1. Add a new application and select the application type Local.
- 2. Edit the following fields:

Option	Description
Name	Name for the application
Local application	Select Citrix Connection Center.
Parameter (optional)	Command-line parameters for program start

3. Confirm with Apply and OK.

¹formerly as a systray icon on the taskbar

7.4. RDP

The **RDP** application type uses the Microsoft Remote Desktop Protocol (RDP) to connect to a Microsoft terminal server. The provided RDP client is **eLuxRDP** that is based on the free software implementation **FreeRDP**.

There are two options for configuration:

- Windows Desktop: The user accesses the desktop of a terminal server by using a remote desktop session. The user can use any application available on the desktop.
- Individual / seamless application: The user can only access one particular application of the terminal server.

7.4.1. Defining an RDP Windows desktop session

- 1. Add a new application and select the application type RDP.
- 2. Edit the following fields:

Option	Description
Name	Name for the RDP application
Server	IP address or name of the server
Application	Leave the field empty.
Working directory	Leave the field empty.
Logon	The user is automatically logged on to the server by using the specified credentials (username, password, domain).
Pass-through login	The user is logged on via single sign-on. The AD user credentials are used.
Free parameters	Allows to define any parameters supported by eluxRDP in the format:
	FreeRDPParams= <parameter> <parameter> <parameter></parameter></parameter></parameter>
	Separate multiple parameters by spaces.
	Examples:
	FreeRDPParams=/microphone:sys:pulse +fonts /cert-ignore
	To view the allowed parameters, enter the <code>eluxrdp</code> command in a shell.
	For further information, see Defining free application parameters.

3. Confirm with Apply and OK.





Note

Defining a server-independent application as local hidden application named \mathtt{RDP} _ $\mathtt{TEMPLATE}$ allows you to configure a connection template without back-end. The user starts $\mathtt{rdpconnect}$ from the shell and, subsequently, specifies the server to be connected to. This feature requires the eLux software package **RDPConnect**.

7.4.2. Defining an RDP application

To configure an individual application via RPD, the Windows desktop definition requires additional data about the relevant application.

- 1. Add a new application and select the application type RDP.
- 2. Edit the following fields:

Option	Description
Name	Name for the RDP application
Server	IP address or name of the server
Application	Name of the Windows application including path name
	System variables are allowed.
	<pre>Examples: c:\Program Files\Microsoft Office\Office\EXCEL.EXE %SystemRoot%\system32\notepad.exe</pre>
Working directory (optional)	Working directory of the Windows application
Logon	The user is automatically logged on to the server by using the specified credentials (username, password, domain).
Pass-through logon	The user is logged on via single sign-on. The AD user credentials are used.

3. Confirm with Apply and OK.

For the user, the application runs full-screen in the session window.

7.4.3. Advanced application settings / RDP and VMware

The settings described below apply to the following applications:

- RDP applications
- VMware applications

If you select a protocol other than RDP, some options are not available.

Accessing advanced application settings



Note

Access to the advanced settings can be restricted via the object rights.¹

- Scout Enterprise: In the Application properties dialog of an RDP or VMware application, click the Advanced button.
- eLux RP 6: In the Application properties dialog of an RDP or VMware application, under Properties, expand the relevant section.

View tab

Option	Description
Window size	Full-screen or a specific resolution
Full-screen on monitor	If you have selected the window size Full-screen, select if you want to display on one specific or all monitors. Up to eight monitors are supported. ²
Colors	Color depth for the session (8-32 Bit)



Note

If you use multiple monitors but wish to display content on only one of them, under **Device configuration>³ > Desktop > Advanced > Windowmanager**, the **Maximize/fullscreen to single monitor** option must be selected.

Local Resources tab



Note

-for terminal servers supporting RDP protocol version 5.2 or later -

The settings take effect only if, on the **Advanced** tab, the value of the **Protocol** field is not set to RDP V4.

¹for Scout Enterprise Management Suite 15.5 and later versions

²for Scout Enterprise Management Suite 15.0 and later versions

³formerly Setup



Option	Description
Drive mapping	Select drive, mount point and drive letter that you want to show in the RDP/VMware session. The mount points correspond to the local access paths of the resources and are provided by eLux.
	For USB devices the mount points are /media/usbdisk /media/usbdisk0 and so on. For further information, see Mount points.
Connect printer	Up to four printer definitions can be created automatically for a session. The printers must be configured on the Printer tab in the eLux device configuration and have the correct driver name as defined on the server (case-sensitive!). The first four profiles can be used with drivers. To define a default printer, choose Set as default in the eLux printer configuration.
Sound	Play local reproduces the sound locally on the client. Play remote causes playback on the remote server.
Connect ports	Makes the defined port connections accessible in the session
Enable smartcard	Smart cards based on a certificate can be used for logon.

Advanced tab

Option	Description
Protocol (only RDP)	Enables you to set the RDP protocol to version 4 or 5 Normally, the protocol is recognized automatically.
Keyboard language	Defines the keyboard layout within a session The default is Auto which corresponds to the keyboard setting of the eLux device configuration.



Important

If you define a specific language, it must be identical to the keyboard language defined in the eLux device configuration, in the **Keyboard** dialog.

Deactivate Window-Manager Decorations	The frames of the eLux windows are hidden.
Deactivate encrypting	The server does not accept encrypted sessions. You can use this option to increase performance. By default, the option is disabled.

Deactivate mouse move events	Mouse position data are not transferred to the server constantly, but with every mouse click. This increases system performance and is especially helpful for connections with small bandwidth. By default, the option is disabled.
Show connection bar on full screen	Shows connection list in full-screen mode
Bandwidth	Choose between standard, modem, broadband or LAN.

7.4.4. Running RDP client from eLux command line

You can run the RDP client within a local shell on the client.

- 1. Start a local shell.
- 2. At the command prompt, enter the following command: eluxrdp /v:<server>



Note

To view the provided command line parameters, enter the command **eluxrdp** without parameters. You can use these parameters to define an RDP session as local application.

7.4.5. Configuring RemoteFX

Microsoft RemoteFX[™] offers comprehensive functionality for Virtual Desktop Infrastructure (VDI) by providing a virtual 3D adapter, intelligent codecs and the ability to redirect USB devices to virtual machines.



Note

RemoteFX only works if the server supports RemoteFX and is configured in the right way. The only parameter to be configured on the client is bandwidth.

- 1. For your RDP application, open the Application properties dialog and click Advanced.
- 2. On the Advanced tab, in the Bandwidth field, select LAN.
- Confirm with Apply and OK.

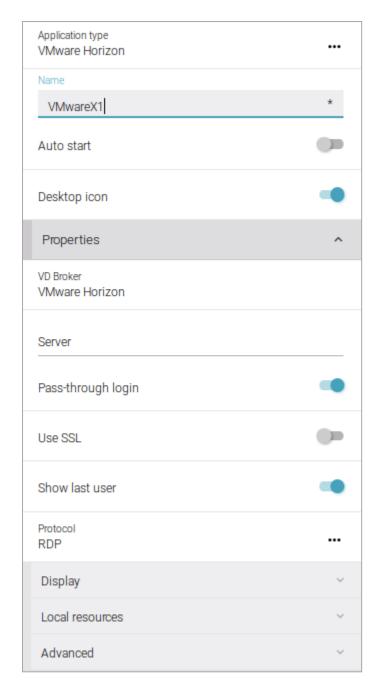
7.5. VMware Horizon



Note

This application type is available only on the eLux RP 6 device. In the Scout Console, choose the Virtual desktop application type and, under VD broker, select VMware View.





Option	Description
Name	Name for the application
Auto-start	The application starts automatically after eLux has been started.
Desktop icon	Provides a desktop shortcut on your personal desktop
VD broker	VMware Horizon
Server	IP address or name of the server
Pass-through logon	The user is logged on via single sign-on. The AD user credentials are used.

Option	Description
Username, Pass- word, Domain	The user is automatically logged on to the server by using the specified credentials.
Use SSL	Forces the connection via HTTPS
	Note that HTTPS connections require the relevant SSL certificates on the client.
Show last user	The user credentials (except for password) of the last logon are displayed in the logon dialog
Protocol	Choose between the following protocols: RDP PCoIP VMware Blast1

For information on **Display**, **Local resources** and **Advanced** settings, see Advanced application settings.

You can configure the VMware Horizon client by using the application definition in the Scout Console or locally on the client. To set additional parameters that are not included in the interface, use a configuration file:

With the help of VMware documentation, 2 create the file view-userpreferences. Transfer the file via the Scout feature Files configured for transfer to the clients to /setup/elux/.vmware/view-userpreferences



Note

The configuration on the Scout or eLux interface has precedence over the configuration file and will overwrite values of the configuration file.

¹for Scout Enterprise Management Suite 15.2 and later versions

²Installation guide for VMware Horizon Client for Linux



7.6. Browser

Supported browsers are Mozilla Firefox and Google Chromium.

In addition, the Builtin Browser is available as a slimmed-down browser. ¹ The Builtin Browser is based on the WebKit2 engine which is part of the **Desktop environment**² package. By default, the Builtin Browser is run without address and navigation bar. These and some more features can be configured for the kiosk mode.



Note

If you use Chromium, we recommend that you equip your Thin Clients with 2 GB of RAM.

For eLux RP 6 and later versions, the Java browser plugin is no longer supported.

7.6.1. Defining a browser application

- 1. Add a new application and select the application type **Browser**.
- 2. Edit the following fields:

Option	Description
Name	Name of the browser shown in the Scout Console
Browser type	Select Firefox, Chromium or Builtin Browser.3
Start page	Web page (URL) that opens when you click Home
Called page	Web page (URL) that opens after starting the browser
Proxy type	■ No proxy: No proxy server is used
	Manual (Proxy:Port): Specify a proxy server and port number
	Auto (URL): Use a proxy configuration file
	Use system proxy (default): ⁴ 'System-wide' proxy setting defined in the device configuration under Network > Advanced per network profile
	Note that the setting behind System proxy can also be No proxy).
	For further information, see Proxy configuration.

¹for Scout Enterprise Management Suite 15.4 / eLux RP 6.5 and later versions

²formerly MATE Desktop

³for Scout Enterprise Management Suite 15.4 / eLux RP 6.5 and later versions

⁴for Scout Enterprise Management Suite 15.5 and later versions



Note

For the Builtin Browser, the setting must be left on Use system proxy.

Application

See Adding applications

restart

Start auto-

matically

Desktop icon

Free parameters Individual pa (optional) see Defining

Individual parameters for application start see Defining free application parameters

- 3. To enable the **Kiosk** mode for Firefox, see Configuring kiosk mode.
- 4. Confirm with Apply and OK.



Note

By default, all browser files (cache, history, bookmarks, etc.) are saved temporarily to the flash memory but are deleted with each restart. We recommend that you configure the browser home directory on a network drive. For further information, see Browser home directory.

Further browser-specific preferences can be set through policies (Chromium) or configuration file entries (Firefox.). For further information, see the Scout Enterprise guide:

Preferences Chromium

Preferences Firefox

Deploying SSL certificates for the browser

Use the Scout Enterprise feature **Files configured for transfer** to transfer certificate files to the required target directory on the client:

Mozilla Firefox /setup/cacerts/firefox for eLux RP 6.4 and earlier versions

/setup/cacerts/browser for eLux RP 6.5/Firefox 60.5 and later ver-

sions¹

Google Chro-

mium

/setup/cacerts/browser

For further information, see Files configured for transfer.

Note that a second restart of the client is required to assign the certificates that have been transferred during the first boot to the certificate store of the browser.

¹The certificates can be located in either directory.



7.6.2. Kiosk mode for Firefox

-for Firefox up to version ESR 52.8 1-



Note

For eLux RP 6.5 and later versions, you can use the Builtin Browser in kiosk mode. For further information, see Builtin Browser in kiosk mode.

The kiosk mode starts the browser in full-screen mode and with limited user rights. The user cannot open other windows and cannot exit the browser.

By default, the browser window is displayed without address bar and navigation buttons. So users are forced to stay on the predefined web page and cannot exit.

Kiosk mode is suitable if the users are supposed to see only one website and not use further applications on the Thin Client. For correct use of the kiosk mode, we recommend that you disable related functions of the Thin Client such as restarting the device and opening the control panel. For further information, see Device configuration > Security.

Configuring kiosk mode

- 1. In the application properties of your browser application, click **Advanced**.
- 2. On the Kiosk mode tab, edit the following fields:

Option	Description
Enable kiosk mode	Enables kiosk mode
Display nav- igation bar	Allows using browser tabs despite kiosk mode
	The users can view multiple web pages of the defined web site concurrently
Add print button	Allows using browser tabs and provides a Print feature despite kiosk mode
Add address bar	Allows using browser tabs and provides the address bar including navigation buttons despite kiosk mode

3. Confirm with Apply and OK.

On the next restart, the Firefox browser opens in kiosk mode.

¹included in eLux RP 6.4

7.7. Local and user-defined applications

Defining local commands is particularly important as they enable the definition of applications which can be launched within a shell. This feature assumes knowledge about the commands that average users may not have.



Note

Make sure that the user is authorized to start the application. All commands are executed by the UNIX user **eLux** (UID = 65534).

Some of the local applications are predefined. If an application is missing, you can define your own application or command via the Custom option of the Local Application list-field.

Error messages will not be shown. If your command does not include an X client application, no messages are shown during execution. For this reason, we recommend first running the command within an XTerm session for testing purposes.

7.7.1. Defining predefined local applications

- 1. Add a new application and select the application type Local.
- 2. Edit the following fields:

Option	Description
Name	Name of the application shown in the Scout Console
Local application	In the list-field, select a predefined application.
Parameter (optional)	Command-line parameters for application start
Application restart Start automatically Desktop icon	See Adding applications
Free parameters (optional)	Individual parameters for application start see Defining free application parameters.

3. Confirm with Apply and OK.

7.7.2. Defining custom applications

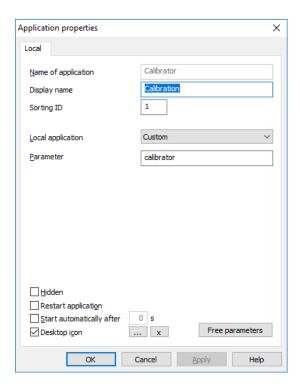
- 1. Add a new application and select the application type **Local**.
- 2. Edit the following fields:

Option	Description
Name	Name of the application shown in the Scout Console
Local application	Select Custom.



Option	Description
Parameter (mandatory)	Enter the program name required to start the application. If required, add start parameters.
	Example: calibrator calls the Calibrator tool squid calls the Squid application squid /tmp/mycache calls Squid using the specified cache directory
Hidden	The application is not shown on the Application tab of the client control panel. The option Start automatically or Application restart must be active.
Application restart Start automatically Desktop icon	See Adding applications.
Free parameters (optional)	Individual parameters for application start see Defining free application parameters

3. Confirm with Apply and OK.



The figure shows the application definition for the calibration tool **Calibrator**. After the next client restart, the **Calibration** application is provided on the client and can be started via the control panel, start menu, or desktop icon (provided that the **Calibrator** tool is included in the image).

7.7.3. Defining Ekiga SIP Softphone

Ekiga is a free software application for audio and video telephony (VoIP) that supports the SIP protocol. Configuration is based on a SIP account.

- 1. Add a new application and, in the **Application properties**, select the application type Local.
- 2. Edit the following fields:

Option	Description
Name	Name for the application
Application	Custom
Parameter	ekiga

3. Click Free parameters and then Add to define the following free parameters:

Variable	Value
account	<name account="" of="" sip="" the=""></name>
server	<server url=""></server>
user	<sip username=""></sip>
password	<pre><password></password></pre>
outbound_proxy	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>

Example: password=424242

For further information, see Using free application parameters.

- 4. In the Free application parameters dialog, right-click the variable name password and click Encrypt.
- 5. Confirm with **Apply** and **OK**.

7.7.4. Defining Zoom for Linux

The native Zoom client for Linux is a Video Conferencing and Web Conferencing service and offers high-quality video, audio, and screen-sharing experience.

The video and audio devices are configured via the application interface.

- 1. Add a new application and, in the **Application properties**, select the application type Local.
- 2. Edit the following fields:

Option	Description
Name	Name for the application
Application	Custom
Parameter	zoom

3. Confirm with Apply and OK.



8. eLux commands

Die following eLux commands are provided to the user depending on the configured user rights.

Open the Command panel and click the relevant command.

8.1. Updating the firmware

You can check anytime if the current software status of a Thin Client does match with the available IDF on the server and, if required, initiate a firmware update on-demand.

- 1. Check if the firmware settings of the device configuration are configured correctly. For further information, see Configuring firmware update.
- 2. Show the Command panel of the System bar.
- 3. Click the **Update** button.

The client firmware is compared to the specified IDF on the web server. A message will inform you, if the IDF on the web server contains updated packages and hence requires a firmware update.



Note

Before starting the update, click **Details** to view the components that require an update.

4. To perform the firmware update, click Yes.

The firmware update is performed and the client is restarted.

8.2. Synchronizing configuration

After having modified the device configuration or application definitions locally on the client, you can reset the configuration data to the server-side defined settings anytime.

- 1. Show the Command panel of the System bar, and then, click the Configuration button.
- 2. Confirm with Yes.

The current device configuration and application definitions for the device or OU are loaded from the Scout Server and are available on the client on the next restart. Local configuration settings are overridden, unless they are protected.

8.3. Resetting a client to factory status



Important

A factory reset causes the system to reset local configuration data.

Resetting a client to factory status can be useful for troubleshooting, for example, if the locally defined device configuration does not work correctly.

- 1. Show the Command panel of the System bar, and then, click the **Factory reset** button.
- 2. Confirm with Yes.

The device configuration of the client firmware is set back to the factory status, ¹ local application definitions and locally stored configuration data are deleted.

The following data are retained:

- Connection data to the Scout Server including server address and OU ID
- License information
- The installed image with all software packages (firmware)

On the next restart, the client acts like a device in initial operation and can be connected to a Scout Server via the following methods:

- DNS alias ScoutSrv
- DHCP options 222 and 223
- Local First Configuration Wizard on the client
- Searching for the device by using the **Discovery** feature of the Scout Console

8.4. eLux Command Scheduler

The eLux Command Scheduler can schedule and execute recurring time-based commands. In contrast to the Scout Enterprise commands initiated on the server side, the commands are executed according to the local time zone of the devices.

Commands to be scheduled must first be defined through an .ini file by the administrator. For further information, see eLux Command Scheduler in the **Scout Enterprise**-guide.

¹From Scout Enterprise 15.7 and eLux RP 6.7, local user configuration data in unlocked fields can be configured by the Scout Enterprise administrator to be retained.

9. Troubleshooting

9.1. Troubleshooting locally on the device

Problem	Reason	Solution
After changes in the Configuration panel in Security > User authentication , you are locked out by the system.	The user authentication has been enabled by using incorrect values.	Log on locally by using the $\texttt{LocalLogin}$ account with the device password (default: \texttt{eLux}). You will be provided with full access rights and can modify the relevant settings.
Local configuration changes are required but the user rights are restricted.		The administrator can unlock the Configuration panel locally: Press the key combination STRG+ALT+Pos1 and enter the device password.
After configuration changes, the screen does not work correctly.	The combination of resolution, frequency and color depth defined is not supported by your monitor.	 Switch off the device. Have the device password ready.
		Restart, and after the BIOS has been run through, press and hold the ESC key.
		Select the Factory reset option to bring the device back to initial state.

Printing problems	Reason	Solution
PostScript-file - PostScript printer (Filter = None)	Some local applications generate PostScript output. To check the file format, in the Print dialog, select Print to file , save to a network drive or the local tmp directory and open the .prn file. If the first line starts with $\$$!, the file is PostScript.	To print PostScript files with PostScript printers, set the filter to None. If your printer prints a lot of ASCII text, use PCL format.
PostScript-file - PCL printer (filter should be set to PCL2)	To show this filter option, the Print Environment package with FPM Filter must be installed on the client.	Install the required package and set the filter to PCL2.
Does the printing problem affect just one device?		Try printing to other printers and accessing the network. If the connection works fine, check if the print job reaches the printer (most printers have a status line). If it does, the problem is most likely the file format (see above).
Communication problem		If the printer has an IP address, try to communicate with the printer via a local shell on protocol level. If communication is not successful and multiple clients are concerned, you might have a network problem.
Performance problem	The Thin Client stores printer data temporarily in the main memory. The memory size may not be adequate compared to the print file, and delays may occur if the printer is not ready. Graphics and color enlarge the file, PostScript files are often much larger than the original file is.	Provide the device with more main memory.

9.2. Troubleshooting application definition

Error / problem	Reason	Solution
Missing firmware	The required software is not installed on the Thin Client	Install the software on the Thin Client. For further information, see Creating an IDF in the ELIAS guide and Firmware update.
Doubled names	Two applications have the same name. This causes conflicts because applications are identified by their names.	Use unique names.
Hidden application cannot be executed	Applications are invisible for the user when they run in hidden mode. This option is available for applications of the custom type.	Enable the option Start automatically or Application restart to start hidden applications on start or to run them non-stop, respectively.
Problems with certificates in combination with VMware server	Server problem occurred: After successful installation, the VMware server uses a self-signed certificate. If a Thin Client is configured correctly, it will not	Create a server certificate in the Windows-CA with FQDN . If you use mmc : Create a server certificate using the Snap-In Certificates (Local computer).
	accept. The reason is that the FQDN (fully qualified domain name) is mandatory for server certificates.	The key must be exportable.
		The display name of the server must be vdm . The name must be unique in the certificate store Local computer / Personal .

Error / problem	Reason	Solution
COM port redirection in RDP session does not work	Communication errors such as high latencies in the network between your serial device and the virtual desktop do not allow serial communication.	Use the permissive mode for the RDP application. This parameter causes communication errors to be downgraded to warnings, and communication becomes more tolerant of timeouts.
		Define a free parameter in your RDP application definition with the permissive option.
		<pre>Example: FreeRDPParams=/serial:COM1,/dev/ttyS0,Serial,permissive</pre>
		For further information, see Defining free application parameters.

9.3. Troubleshooting device configuration

The solutions provided below refer to the Scout Console in the first place.

Error / problem	Reason	Solution
When you use USB multimedia	The USB operating elements register themselves as keyboard or mouse devices in the system.	Prevent the registration as input devices by defining a terminal.ini entry.
devices such as headsets or webcams, the screen freezes or the win-		The basic functionality of the operating elements is not affected.
dow cannot be focused.		For further information, see Preventing registration of USB multimedia components.
Multimedia USB devices, connected via DisplayPort to eLux RP 5 devices with an AMD processor, do	Sound reproduction via DisplayPort is disabled.	Enable sound reproduction by defining a terminal.ini entry. To do so, use the Scout Enterprise feature Advanced file entries:
not play back sound.		File /setup/terminal.ini
		Section Screen
		Entry Radeon.Audio
		Value true
		Alternatively, use a separate audio cable.

Error / problem	Reason	Solution	
Monitor via DisplayPort with AMD GPU: After changing to lower resolution the monitor brings an Out of	The resolution on this monitor interferes with the configured sound reproduction via DisplayPort.	Disable sound reproduction via DisplayPort. This will fix the monitor error. To do so, use the Scout Enterprise feature Advanced file entries:	
range error message.	duction via Displayi ort.	File /setup/terminal.ini	
		Section Screen	
		Entry Radeon.Audio	
		Value false	
When you use a touch screen , the location of a fingertip touch is not recognized precisely.	The monitor has not been calibrated precisely enough.	To calibrate the monitor, configure a custom application by using the parameter calibrator. Then start the application.	
Only eLux RP 5.7.x:	For some resolutions, the desktop	For eLux RP 5.7.3000 and later versions: Use a new parameter to configure	
In dual monitor mode , if the second monitor is configured to vertical , the	icons on the primary monitor cannot be displayed when the second mon- iter is vertically aligned and the lower	the vertical alignment to the upper screen area (top). To do so, use the Scout Enterprise feature Advanced file entries:	
desktop icons are not displayed (correctly).	itor is vertically aligned and the lower screen area is referenced.	File /setup/terminal.ini	
roody).		Section Screen	
		Entry VerticalAlignment	
		Value top	
		The default value is bottom.	

Error / problem	Reason	Solution
Display/general graphics issues	The feature package for hardware acceleration HwVideoAccDrivers ¹ is not installed.	Activate the HwVideoAccDrivers FPM ² within the XOrg package in the IDF.
	Hardware acceleration (installed with the HwVideoAccDrivers FPM ³) is not supported by the device and causes problems.	To exclude individual device types from hardware acceleration, 4 create a blacklist that is transferred and locally saved to the clients by using the Scout Enterprise feature Files:
		/setup/hwaccBlacklist
		In the text file hwaccBlacklist, list the relevant device types, one per line. The name of the device type must be identical to the string that is shown in the Scout Console, in the Properties window under Asset > Hardware information > Type.
		Example: FUTRO S920 D3314-B1 HP t620 Dual Core TC
		For all device types listed in the blacklist, hardware acceleration is disabled.
AD logon to eLux RP 6.x does not work.	Port 389 is configured for the authentication server.	Do not define a particular port for the authentication server.

¹for eLux RP 5.5 and earlier versions: **HwVideoAcc Libraries and Drivers** FPM

²for eLux RP 5.5 and earlier versions: **HwVideoAcc Libraries and Drivers** FPM

³for eLux RP 5.5 and earlier versions: **HwVideoAcc Libraries and Drivers** FPM

⁴for eLux RP 5.6 and later versions



Note

After the terminal.ini file has been updated on the client, another client restart might be required to enable the new setting.



10. Appendix

10.1. eLux partitions

A thin client's flash memory is generally divided into three or four partitions when eLux is installed. Each partition is reserved for a dedicated purpose and is only touched when you perform special tasks that are related to this partition.

All partitions are created during a recovery installation.

Partition	Requires	Purpose	Recreated with	Other
System		Reserved for the firmware (software packages)	Scout Enterprise Update command with option Format system partition	Size 2 GB up to bis eLux RP 6 2104 LTSR CU1
			before update	Size 2.8 GB starting with eLux RP 6 2107
Boot	only UEFI and USB	Boot section	-	
Setup		Device configuration	Factory reset command	Does not affect the sys-
		Local application definitions		tem partition with installed firmware
Update	4 GB flash memory	Software delivery in advance (before firmware update) via Scout Enterprise command or noti-	Scout Enterprise Delivery command with option Format update partition before delivery	The size of the update partition complies with the storage space provided.
		fication Signature check for eLux software packages		The update partition is no larger than the storage space provided.
		Devices with update partition can be used as Dynamic Proxy (Provider) for firmware updates.		Devices with less than 4 GB flash memory are not provided with an Update partition.

In the Scout Console, in the Properties window of a device, the system, setup and update partitions are listed, including their sizes.

Extended system partition starting with eLux RP 6 2107

When you perform an update installation or a new installation to eLux RP 6 2107 or later, the system partition is created with 2.8 GB instead of the previous 2.0 GB. This creates more space for the firmware and allows larger images to be used.

If an up-to-date recovery system is available, you can partition the system partition to fit the new size of 2.8 GB during the installation process. Otherwise, the devices will need to be restarted after the installation.

To ensure you have an up-to-date recovery system for eLux RP 6 2107, choose to use one of the following options:

- Ready-to-use eLux USB stick image eLux RP 6 2107 Recovery Stick available for download on our technical portal
- Recovery system for creating individual USB recovery images in ELIAS as a . dd file¹
 - ELIAS 18: eLux USB Recovery system for ELIAS 18 package, available for download on our technical portal in the eLux RP 6 2107 container, can be imported into ELIAS 18 installations / containers
 - Legacy ELIAS: by installing Scout Enterprise Management Suite 15 2107 including ELIAS²
- Recovery system for PXE installations through installation of Scout Enterprise Management Suite 15 2107 including recovery service



Important

To downgrade devices with the extended system partition of 2.8 GB (eLux RP 6 2107 or later) to an earlier version that supports a 2 GB system partition, you will have to go back to eLux RP 6 2104 LTSR CU1.

We therefore recommend that you update test devices to eLux RP 6 2107 as the first step to thoroughly test functionality.

10.2. IP ports

eLux / required ports

Port	Туре	Description	How to deactivate	In/Out
	ICMP	ping must be supported to verify the status of the eLux devices		In/Out
80	TCP	Firmware update by using HTTP (and proxy port, if used)		Outgoing
443	TCP	Firmware update via HTTPS/TLS		Outgoing

¹For further information, see Image as a USB recovery system in the ELIAS 18 guide

^{2.} dd file can be found in the ELIAS program directory



Port	Туре	Description	How to deactivate	In/Out
5900	TCP	Mirroring eLux desktop	In Config ¹ > Security, disable mirroring or uninstall VNC server in X.Org package	Incoming
22123	TCP	Scout Server (Scout Enterprise Manager / secure)		In/Out
22125	TCP	Scout Server (Scout Enterprise Manager / TLS 1.2) ²		In/Out
22129	TCP	VPN		Outgoing

eLux / optional ports

Port	Туре	Description	How to deactivate	In/Out
	ESP	VPN (data transfer)	Uninstall package VPN System	In/Out
21	TCP	Update via FTP control port (dynamic data port)		Outgoing
22	TCP	SSH applications		Outgoing
23	TCP	3270, 5250, 97801 emulations and telnet sessions		Outgoing
53	TCP, UDP	DNS server		Outgoing
67	UDP	DHCP server	Configure a local IP address (Config > Network)	Outgoing
68	UDP	DHCP client (or: BootP client)	Configure a local IP address (Config > Network)	Incoming
69	UDP	TFTP server (only used during PXE recovery)		Outgoing
88	TCP, UDP	AD authentication (Kerberos)		Outgoing

 $^{{\}rm ^{1}Device}\ configuration,\ formerly\ Setup$

 $^{^2 \! \}text{for Scout}$ Enterprise Management Suite 15.1 / eLux RP 6.1 and later versions

Port	Туре	Description	How to deactivate	In/Out
111	TCP, UDP	TCP port mapper - RPC internal use only Works with lockd (random) UDP port mapper - drive access on NFS	Uninstall Network Drive Share package	In/Out
		servers Works with NFSD drive access (port 2049) and mountd (random)		
123	UDP	Windows Time server (NTP)	Do not configure a time server (Config > Desktop)	In/Out
139	TCP, UDP	SMB drive mapping, (NetBIOS) and SMB user authentication (CIFS)	Uninstall Network Drive Share package and User authentication modules package	Outgoing
161	UDP	SNMP	Uninstall SNMP Environment package	In/Out
162	UDP	SNMPTRAP	Uninstall SNMP Environment package	Outgoing
177	UDP	XCMCP protocol		Outgoing
389	TCP	AD authentication with user variables		Outgoing
443	TCP	VPN (connecting) via HTTPS/TLS	Uninstall package VPN System	In/Out
464	TCP, UDP	AD authentication (Kerberos) / Set password		Outgoing
514	TCP	Shell, X11 applications		Outgoing
515	TCP	Printing via LPD	Uninstall package Print environment (CUPS)	In/Out
631	TCP, UDP	CUPS (IPP) print client	Uninstall package Print environment (CUPS)	Outgoing
636	TCP	LDAPS authentication with user variables		Outgoing
2049	UDP	NFSD drive access NFS	Uninstall FPM NFS Support in Network Drive Share package	Outgoing
6000	TCP	Remote X11 application	In Config > Security, clear Allow remote X11 clients option	Incoming



Port	Туре	Description	How to deactivate	In/Out
7100	TCP	Font server can be assigned in (Config > Screen > Advanced		Outgoing
8080	TCP	Firmware update via Dynamic proxy (Provider and Consumer)	Set Config > Firmware > Proxy-Typ toNone	In/Out
9100	TCP	Printing directly to parallel port can be assigned in (Config > Printer)	In Config > Printer, clear TCP direct print option	Incoming
9101	TCP	Printing directly to USB port can be assigned in (Config > Printer)	In Config > Printer, clear TCP direct print option	Outgoing
20000	UDP	Wake On LAN		In/Out
22124	TCP	Scout Enterprise Statistics		Outgoing

Scout Server

Port	Туре	Description	In/Out
	ICMP	ping must be supported to verify the status of the eLux devices	In/Out
1433	TCP	MS SQL Server	Outgoing
1434	UDP	MS SQL Server (Browser service)	In/Out
22123	TCP	Clients (Scout Enterprise Manager / secure)	In/Out
22124	TCP	Scout Enterprise Statistics	Incoming
22125	TCP	Clients (Scout Enterprise Manager / TLS 1.2) ¹	In/Out

Scout Console

Port	Туре	Description	How to deactivate	In/Out
1433	TCP	MS SQL Server		Outgoing
1434	UDP	MS SQL Server (Browser service)		Outgoing
5900	TCP	Mirroring the eLux desktop	In Config > Security, disable mirroring or uninstall VNC server in X.Org package	Outgoing

 $^{^{1}\}text{for Scout}$ Enterprise Management Suite 15.1 / eLux RP 6.1 and later versions

Scout Dashboard

Scout Dashboard can be installed with HTTP or HTTPS.

Port	Тур	Description	How to deactivate	In/Out
80	TCP	Dashboard service / web server via HTTP		Incoming
443	TCP	Dashboard service / web server via HTTPS/TLS		Incoming
5901	TCP	Mirroring the eLux desktop	In Config > Security, disable mirroring or uninstall VNC server in X.Org package	Outgoing

Scout Cloud Gateway

Port	Тур	Description	In/Out
22125	TCP	Scout Server (Scout Enterprise Manager / TLS 1.2)	In/Out
22129	TCP	VPN	Incoming



10.3. SNMP

SNMP (Simple Network Management Protocol) is a network protocol for monitoring and controlling network devices.

For eLux RP 5 and eLux RP 6, version SNMPv3 is used.



Note

The command line program **snmpget** is not included in the software package. To query SNMP status information, please use third party software.

10.3.1. Configuring SNMP

- 1. From our portal **www.myelux.com**, under **eLux Software Packages**, for your eLux version, under **Add-On**, download the package **SNMP Environment** and deploy it to the clients.
- 2. If there is no /setup/snmpd.conf on the clients, transfer the configuration file snmpd.conf to the clients to /setup/snmpd.conf by using the Scout Enterprise feature Files.

Or:

Modify the terminal.ini file by using the Advanced file entries feature of Scout Enterprise. Example:

File	/setup/terminal.ini
Section	SNMPD
Entry	rocommunity
Value	secret

3. Optionally, to define further SNMPD Configuration Directives, use the Advanced file entries feature and modify the terminal.ini file under SNMPD. Examples:

```
syscontact=contact@sampletec.com
syslocation=testcenter
doDebugging=1
```

For further information on SNMPD Configuration Directives, see http://www.net-snmp.org.

The section SNMPD of the terminal.ini file is evaluated by the client and the file /setup/snmp/snmpd.local.conf is created. An existing /setup/snmp/snmpd.conf will be overwritten.

If the configuration file does not exist, the file /setup/snmpd.local.conf is created with default values.

Notes on configuring SNMP v3

- When you define users (**createUser**), set a password with at least 8 characters.
- For the authentication method, define authPriv or authNoPriv.



Note

For SNMP v2, you can use noAuthNoPriv as the authentication method.



10.3.2. SNMPD and SNMP Configuration Directives

The following table refers to the software package **snmp-5.6.1.1-2** for eLux. For further information on using SNMP with eLux, see SNMP.

For further information on SNMP commands, see http://www.net-snmp.org.

Application	Command
authtrapenable	1 2 (1 = enable, 2 = disable)
trapsink	host [community] [port]
trap2sink	host [community] [port]
informsink	host [community] [port]
trapsess	[snmpcmdargs] host
trapcommunity	community-string
agentuser	agentuser
agentgroup	groupid
agentaddress	SNMP bind address
syslocation	location
syscontact	contact-name
sysservices	NUMBER
interface	name type speed
com2sec	name source community
group	name v1 v2c usm security
access	name context model level prefx read write notify
view	name type subtree [mask]
rwcommunity	community [default hostname network/bits] [oid]
rocommunity	community [default hostname network/bits] [oid]
rwuser	user [noauth auth priv] [oid]
rouser	user [noauth auth priv] [oid]
swap	min-avail
proc	process-name [max-num] [min-num]
procfix	process-name program [arguments]
pass	miboid command

Application	Command
pass_persist	miboid program
disk	path [minspace minpercent%]
load	max1 [max5] [max15]
exec	[miboid] name program arguments
sh	[miboid] name program-or-script arguments
execfix	exec-or-sh-name program [arguments]
file	file [maxsize]
dlmod	module-name module-path
proxy	[snmpcmd args] host oid [remoteoid]
createUser	username (MD5 SHA) passphrase [DES] [passphrase]
master	pecify 'agentx' for AgentX support
engineID	string
engineIDType	num
engineIDNic	string

SNMP Configuration Directives

Application	Command
doDebugging	(1 0)
debugTokens	token[,token]
logTimestamp	(1 yes true 0 no false)
mibdirs	[mib-dirs +mib-dirs]
mibs	[mib-tokens +mib-tokens]
mibfile	mibfile-to-read
showMibErrors	(1 yes true 0 no false)
strictCommentTerm	(1 yes true 0 no false)
mibAllowUnderline	(1 yes true 0 no false)
mibWarningLevel	integerValue
mibReplaceWithLatest	(1 yes true 0 no false)
printNumericEnums	1 yes true 0 no false)
printNumericOids	1 yes true 0 no false)



Application	Command
escapeQuotes	(1 yes true 0 no false)
dontBreakdownOids	(1 yes true 0 no false)
quickPrinting	(1 yes true 0 no false)
numericTimeticks	(1 yes true 0 no false)
suffixPrinting	integerValue
extendedIndex	(1 yes true 0 no false)
printHexText	(1 yes true 0 no false)
dumpPacket	(1 yes true 0 no false)
reverseEncodeBER	(1 yes true 0 no false)
defaultPort	integerValue
defCommunity	string
noTokenWarnings	(1 yes true 0 no false)
noRangeCheck	(1 yes true 0 no false)
defSecurityName	string
defContext	string
defPassphrase	string
defAuthPassphrase	string
defPrivPassphrase	string
defVersion	1 2c 3
defAuthType	MD5 SHA
defPrivType	DES (currently the only possible value)
defSecurityLevel	noAuthNoPriv authNoPriv authPriv