

Operating System eLux RL

- Kernel Linux V2.6.27
- Graphics XORG V7.4.13
- GNOME Desktop V2.16.16
- Qt 4 V4.6.0
- Hardware independent – supports all established Thin Client platforms as well as standard PC hardware

Network

- DHCP, BootP, fix IP address
- Client name from DHCP Server or DNS Server
- Own host table
- Ethernet 10/100/1000 Mbit/s
- Autonegotiate for Speed and Duplex
- full duplex / half duplex
- AUI interface (PCI-LAN card)
- BNC interface (PCI-LAN card)
- Fiber optics (LWL-PCI-LAN card)
- DSL PPPoE
- WLAN 11 Mbit/s (PCI/USB WLAN)
- 802.1x Security
- Mapping of network drives via the protocols SMB3, SMB4, NFS
- Mapping of network drives with Kerberos ticket

USB Devices

- Floppy, memory sticks, harddisk
- CDROM, DVD
- Digital cameras
- Activate / deactivate mass storage devices
- Printers
- Smartcard readers (Omnikey, Reiner, SCR Reader, GEMPLUS Reader, Cherry)
- Mouse / keyboard
- WLAN
- Hotplug / HotUnplug for mass storage devices

Monitor Support

- Reads out DDC info with auto resolution (automatic setting of the preferred screen resolution)
- Configurable power-saving mode
- Screen saver in various designs, even with individual custom images
- Multi-Monitor support
Maximize / full screen of applications on a single monitor
- Touchscreen support
- Reads out monitor serial numbers – also for dual monitor mode.

VPN Clients

- Cisco Systems V4.8.05
- Microsoft PPTP V1.7.1
- Juniper V6.5.0

Printer Interfaces

- Parallel interface
- USB interface
- Serial interface
- Network Interface (lpr)

Printer Support

- ThinPrint Client V7.0.41
- LPR
- TCP/IP RAW
- TPC/IP Ports freely configurable
- CUPS Client, CUPS Printer server V1.3.4.1
- Citrix Print
- RDP Print
- Postscript Filter, PCL2 Filter, Text Filter

Security Functionality

- User access to the configuration area of the control panel can be configured
- User authentication via Active Directory, Active Directory plus SmartCard, LDAP, SmartCard (Smarty und X.509), NT domain
- Screensaver protected by user authentication or local password
- Mirroring (Remote access for helpdesk) protected by password, only after confirmation by user without ability of input, with logging, with mirroring encryption TLS1.0 (SSL3.0), configurable via management console, displaying name, IP- / MAC address of the mirrored client
- Device password to allow for special functionality (e.g. factory reset)
- Lock X11 clients

Firmware Update

- Firmware update is performed modularly
In compressed format, only differing parts of the image are transferred, not the complete image
- The operating system can be updated
- Firmware update protocols: HTTP and FTP
- Proxy support in case of HTTP; Thin Client may be defined as a proxy client
- Password support in case of HTTP
- Comparing the size of the defined image with the capacity of the flash before update is performed
- Downgradeable (installation of earlier software package versions)
- Data volume for Update ICA V11 Client: 2,5 Mbyte
- Data volume for Update RDP V5.2 Client: 263 kByte
- Check for new firmware during start / during shutdown: can be switched on/off
- Migration from eLux NG to eLux RL via Firmware update including the check for client-side system requirements and transfer of license.

Feature list – Operating system

eLux RL V 2.5.0

Recovery Procedures

- PXE recovery
- USB stick recovery
- TFTP, BootP
- CDROM, floppy/CDROM, floppy / network

Keyboard

- Standard MFII
- SUN keyboard Type6
- Trimodal keyboard
- Keyboard with integrated Smartcard Reader
- Banking keyboard with integrated magnetic stripe reader
- Cherry Health Insurance Keyboard
- Attachment of keyboard via PS/2, USB, wireless
- Key repetition rate configurable
- Speed of key repetition rate configurable
- Numlock key on/off

Mouse

- Optical mouse
- Attachment: PS/2 , USB, wireless
- Double-click speed configurable
- Mouse acceleration configurable
- 3 key mouse emulation
- Left-hand mouse

Desktop Settings

- Taskbar configurable
- Systray icons in the taskbar for multimedia, mouse / keyboard, screen, USB mass storage devices and network status
- Start menu via taskbar
- Task hotkey with Alt+Tab or CTRL+Alt+arrow up/down
- Up to four virtual work areas
- Desktop Icons on/off
- Desktop writeable
- Manual setting of date and time or by means of time server, time zone
- Background color of desktop configurable
- Background image via Management software
- Corporate Design Packager: BootLogo, UpdateLogo, Background image can be replaced by customer logos or images

Applications

- Citrix PS/XenApp with Receiver V11.2 / V11.100
- Citrix Program Neighborhood Agent V11.2
- Windows Terminalserver Access with RDP V5.2
- Internet Browser Firefox V3.5
- SAP R/3 PlatinGUI V7.10
- PowerTermin InterConnect V7.1
- Emulations 3270, 5250, X11, XDMCP, VNC
- VDI - Citrix XenDesktop with Receiver V11.2 / V11.100
- VDI - VMware View with View Client V4.0.1
- VDI – with Quest vWorkspace V6.0
- VDI - Leostream with LeoConnect V1.1
- Local Applications, e.g. File manager, Text editor, XTERM, Movie player, ICA-Connection Center, ...

Diagnostic Tools

- Extended logging on / off
- Screenshot Tool
- Display diagnostic files, send to FTP server or Scout-server, save on mass storage devices

Licensing

- The Thin Client hardware can be delivered including the installed software and integrated license. (OEM hardware manufacturers)

Management System Scout Enterprise

- Management of clients with eLux NG, eLux RL, Windows CE and Windows XP embedded
- Modular firmware customizing with software management
- Operation on Windows platforms starting with Windows 2003 Server, SP1 und XP Professional or later
- Multi user and terminal server compliant
- Enterprise functionalities – scalable and highly available

Database Interface

- Microsoft JET Database Engine (MDB) , Microsoft SQL Server, MySQL Server
- Operation on MS SQL Server 2000, 2005 and 2008
- ODBC interface to server and console
- Open data base interface
- Scout Command interface

GUI

- Console language: German and English – dynamically switchable
- Tree view and List view
- User-defined columns and configurable display of fields and columns
- Sort by columns
- Search function

Administrator Policy

- Restriction of user rights, menu entries, objects, commands
- Authenticate administrators via Active Directory or NT domain
- Profile management
- Profile assignment to groups in the Active Directory
- Logging of administrator actions

Firmware Customizing

- Individual firmware customizing via the tool ELIAS integrated in Scout Enterprise
- Creation of customer specific images
- High flexibility by modular customizing
- Enable / disable software components
- Securing that the software can be installed and run on the specific system
- Check for package dependencies, package compatibility, hardware compatibility
- Downgradeable (installation of earlier software package versions)
- Software signatures with X509 certificates
- Online check of the software certificates with OSCP
- Option: Import of new software packages via Internet – automatically by the tool PUMA
- Creation of your own software packages by means of the tool EBK (eLux Builder Kit) – for free

Firmware Update

- Firmware update is performed modularly
In compressed format, only differing parts of the image are transferred, not the complete image
- Firmware update protocols: HTTP and FTP
- Bandwidth for firmware updates
- Update schedule is configurable: during start or during shutdown of the client, immediately or time-controlled
- Logging of the updates

Help Desk Support

- Remote on/off
- Wake-on-Lan – integrated WoL-Gateway on the client with automatic detection (ICMP, UDP Broadcast, directed Broadcast, Wake-on-Lan Gateway)
- Desktop mirroring encrypted and logged
- Send messages
- Request diagnostic files via the Scout console - the files are stored on the Scout server in zip format
- Definition of any diagnostic files
- Server log (Client/Server communication)
- Console log (Console/database communication)

Entry of Clients to the Management System

- Automatic entry via DHCP vendor tags
- Automatic entry via DNS Alias <name> of the Management Server
- Discover devices via the Scout console (Discovery)
- Search for Management Server via the Scout Server Settings of the client (Reverse Discovery)
- Import of device lists

Device Setup

- Use parent – inherit the configuration settings – on/off
- Network
DHCP, BOOTP, fix IP address
- Network advanced
DHCP-Handling, IEEE 802.1x authentication, communication timer to the Scout Server, Smart card domain, local hosts file
- Screen
Resolution, frequency, color depth, read out DDC info, power save function, screen saver with delay and password protection, different designs for screensavers, backingstore can be enabled, font server
- Security
Local security settings to enable / disable the end-user's right to configure the client , allow for remote X11 Client. Configuration of user authorization via Active Directory - Active Directory plus SmartCard - LDAP - SmartCard (Smarty und X.509) NT-domain

Feature list – Management system

Scout Enterprise V 11.3.3

- Mirroring with password – only after confirmation by the user – without right of input - with logging – with mirroring encryption TLS1.0 (SSL3.0)
- Firmware
Update log HTTP or FTP, Web Server, container path, name of the firmware image, user and password for FTP, Update during start or shutdown of the client, definition of the HTTP proxy clients, definition of the target image for migration from eLux NG to eLux RL
- Multimedia
Volume Master - PCM – Microfone, Audio in XDMCP-sessions, System beep
- Desktop
Language, Background color, Task Hotkey, time zone, time server Windows/Unix, time server protocol NTP - SNTP (RFC1305) - Time Protocol (RFC 868)
- Desktop advanced
Interactive desktop, desktop writeable, taskbar configurable, systray icons in the taskbar, individual background image, autostart of the control panel, number of work areas, window animation, maximize / fullscreen of one monitor in multi-monitor mode
- Drives
Definition von network drives via SMB und NFS, Browser home directory
- Printers
Network printer definition - parallel - serial, filter text or PCL, server-side driver name, definition of the Thinprint class, maximum printer response time, enabling print service, TCP-direct print via parallel or USB Port, CUPS Server and –user, Thin Print via TCP/IP or RDP/ICA
- Mouse / Keyboard
Keyboard language, Keyboard type, Key repetition rate (delay), Speed of the key repetition rate, mouse type, double click speed, acceleration
- Mouse / Keyboard advanced
3-Knopf Emulation, left-handed, dead keys, numlock, enable console switch
- Hardware
Enable USB mass storage devices, user prompt when inserting USB mass storage devices, smartcards USB - intern - extern, number of monitors 1-4, COM-Port-settings, network types: Ethernet - ADSL - Modem - WLAN - UMTS, network speed Auto - 10/100 Mbit/Voll-/half duplex - 1 Gbit - BNC - AUI, Profiles for ADSL - UMTS, Write filter Windows XPe
- Diagnostics
Loggings on / off, Send diagnostic files to URL

Device Properties

- Individual configuration values for printer, screen and mouse / keyboard
- VPN-Client type Cisco - Microsoft PPTP – Juniper
- Files – File transfer to clients
- Advanced file entries – individual adjustment of INI files to clients
- Definition of client environment variables

Application Definition

ICA

- Published application or desktop
- SmartCard Login
- Passthrough Login
- Roaming
- Application restart
- Start automatically after n seconds
- Desktop icon
- Connection options
Data compression
Insert by using the mouse wheel
Buffer bitmaps on the hard disk
Enable audio – sound quality low, medium, high
Allow audio input
Encryption rate - Basic/40/56/128 Bit
SpeedScreen latency reduction
Feedback to mouse click
Local text echo
Server information
Window properties - colors, size
Firewall
Auto Reconnect
File types

RDP

- Roaming
- Application restart
- Start application automatically
- Desktop icon
- Advanced
Window size
Fullscreen on screen n in case of multi-monitor mode
Color depth
Local resources drive mapping – printer – smartcard - Scout - Serial Ports - Parallel Ports
Protocol RDP V4 - RDP V5
Keyboard language
Compressing
Window Manager decorations
Encryption
Mouse motion events
Connection bar in case of fullscreen
Bandwidth Standard - Modem - broadband - LAN

Feature list – Management system

Scout Enterprise V 11.3.3

Browser

- Home page
- Start page
- Proxy settings
- Browser type Firefox
- Kiosk mode
- Application restart
- Start automatically after n seconds
- Desktop icon

SAP-GUI

- GUI graphical or classic
- Application restart
- Start automatically after n seconds
- Desktop icon

Emulation

- VT52, VT100, VT220-7 Bit, VT220-8 Bit, VT320-7 Bit, VT320-8 Bit, VT420-7-Bit, VT420-8 Bit, VT525-7 Bit, VT525-8 Bit
- 3270, 3270 printer, 5250, 5250 printer
- SCO-Ansi, BBS-Ansi, AIXTERM, AT386, Linux, WYSE370, WYSE50, WYSE50+, WYSE60
- TVI910+, TVI920, TVI925, TVI950, TVI955, ADDS VP A2, HZ1500, TANDEM6530, HP700/65, DG, IBM 3151, BA80
- all above mentioned emulation types:
Interactive configuration of a terminal emulation with direct verification at host systems by the management console
- 97801-7 Bit, 97801-8 Bit
- Application restart
- Start automatically after n seconds
- Desktop icon

Local Application

- any local application can be defined by parameters
- XTERM
- File manager
- Text editor
- ...

PN Agent

- Show last user
- Allow for cancel
- Autostart folder
- Passthrough Login
- Start automatically after n seconds
- Automatic logoff with configurable logoff delay – on / off
- Advanced:
Window properties: Size – color depth, audio
Time-controlled logoff after n seconds
Manual logoff

Desktop Virtualization (VDI)

- VMware View - Citrix XenDesktop - Quest vWorkspace - Leostream
- Use SSL
- Application restart
- Start automatically after n seconds
- Desktop icon

Online Commands

For devices or device groups – immediately or time-controlled

- Switch on
- Switch off
- Restart the device
- Restart the desktop
- Send message
- Perform firmware update
- Update device status
- Factory reset

For devices - immediately

- Request diagnostic files
- Compare configuration
- Upload applications
- Mirroring

Rules

- Perform an update
 - during first contact with the management server
 - after closing the last application
- Logoff user
- Switch off device
- Restart device
- Lock device
- Close VPN tunnel

Import/Export

- Devices
- Setup
- Properties
- Applications

Documentation

- Manuals in pdf format on www.mylux.com in German and English
- Documented open data base interface