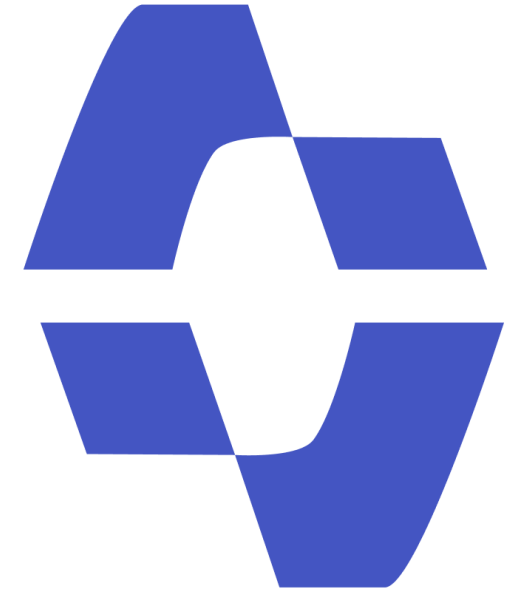




VISULOX 5

Release Notes

14.08.2026



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1 Preface

The **Visulox Release Notes** provide information about the new features and changes for this version of Visulox. This document is intended for system administrators.

1.1 How this manual is organized

Preface
Release Notes & Features
Support Lifecycle
Known Issues
Glossary

1.2 Legend

 Useful information
 Recommended setting
 Warning / use with caution
 Tipps & tricks

1.3 Visulox documentation

Application	Title	Format
Release Notes	<i>Release Notes</i> <i>Platform Support and Release Notes</i>	HTML
Installation	<i>Installation Guide</i> <i>Installation / Update Guide</i>	HTML
Administration	<i>Admin Guide - VLX Portal</i> <i>Admin Guide - VLX Core</i> <i>Administration Guide</i>	HTML
User	<i>User Guide</i> <i>User Guide</i>	HTML

 The Visulox Online Documentation is available at: <https://wiki.visulox.com/>

1.4 Documentation feedback

Submit comments about this document by sending a mail to: support@visulox.com

2 Release Notes & Features

2.1 Visulox Release 5.0.2 (August 2026)

Compatibility

- Compatible with latest OL 9.8+ and RHEL 9.8+
- Compatible with XPRA v6.5.2

Changes

- LDAP/Active Directory search.
- Centralized logging and easier log configuration and management.
- More stable session management and workspaces.
- Better keyboard mapping support for remote sessions.
- Better clipboard (copy and paste) support.
- Multi-login support and configuration.
- Better LDAP/Active Directory mirroring support.
- Easier and more reliable installation and setup, including improved Ansible automation.
- Improved health-check tool with additional firewall and port checks.
- Better IPv6 support.
- UI and UX improvements.
- Logout confirmation when application sessions are still running.
- Better upgrade and downgrade handling, including clearer errors when a downgrade is attempted.
- Support for a custom PostgreSQL database name.
- Improved KeyDB health checks.
- Configurable version and build information display.

2.2 Visulox Release 5.0.1 (June 2026)

- Oracle Secure Desktop, Java, Tomcat, Apache components have been replaced with new components based on NGinx, XPRA, Go, Python
- Compatible with latest OL 9.8+ and RHEL 9.8+
- Compatible with XPRA v6.4.4
- New modernized dashboard overview and paginate application servers
- New Dashboard feature implemented: Access Explorer
- New and improved Web & Native clients (Vispra + Xpra)
- New CLI health check module for VISULOX Portal
- WAF support for Web + Native Clients
- FIPS is now supported

3 Support Lifecycle

3.1 Support Lifecycle

The current Visulox release version is **Visulox 5.0.2** .

All supported Visulox versions can be found in [Features and Changes](#).

Release Version	Release Date	Support Ends
Visulox 5.0.2	August 2026	August 2027
Visulox 5.0.1	June 2026	June 2027

3.1.1 Versioning Scheme

Visulox 5 follows semantic versioning: MAJOR.MINOR.PATCH

- MAJOR (5) - New platform generation
- MINOR (5.1, 5.2) - Feature releases, every ~6 months
- PATCH (5.0.1, 5.0.2) - Security fixes, critical bugfixes and minor improvements

3.1.2 Rules

- Security patches and critical bugfixes are only released for the currently supported versions (active LTS or latest regular release)
- New features are only added to the latest minor release - never backported to LTS
- After a new minor release, the previous regular release receives no further patches

- Existing support & maintenance contracts for installations running out of support remain unaffected
- Visulox 5.0 is designated Initial LTS - 12 months support - because it is the first release of a completely new platform. Customers are encouraged to upgrade to 5.2 Full LTS when available



Existing Support & Maintenance contracts for installations running out of support remain unaffected.

4 Known Issues

- **Access Management**

- Reset OTP keys via Visulox Cockpit is not available for Unix users.

- **File Transit**

- Files with non-ASCII characters sometimes are presented wrong.
- File names with special chars like "\" / : * ? " <> |" that are transferred to Windows servers will be substituted.
- Visulox FTPD does not support IPv6.
- If two persons are using the same user name to connect to a Unix application server, this can lead to an undefined behaviour regarding the Transit Zone.
- For File Transfer within Command Connect, MaxSessions in sshd_config on the destination server has to be set at least to 2. With a MaxSession setting of 1, only the FT Client can be used without Command Connect.

- **Cooperation / Assistance**

- Assisting in seamless window mode can cause side effects.
- If the source and destination displays in a cooperation have different keyboard layouts, this can cause side effects.
- Dual Control is currently only possible in observation mode for members.

- **Objects**

- Character and doc applications are displayed in Visulox Cockpit / Online and Filter Objects, but these applications can not be selected in policies and can not be recorded, locked, etc.

- **Miscellaneous**

- Time zone interval for Bangalore / India is not a full hour.
- Nested groups are not supported.
- In a checked out ZIP archive special chars sometimes are not displayed properly on the info page.
- Effective Policies in Cockpit / Online for Access and Application Policies are only displayed completely, if the Access Point has been provided.
- Platform with SELINUX and Unix vlxtransit based on NFS Home Shares works only with NFS4.2.
- AD LDAP paging with a pagesize of 100 can cause issues (an LDAP paging configuration parameter has been implemented)
- IPv6 DNS compatibility issue in gateway setup.
- Portal RPM upgrade overwrites custom nginx port config, breaks HTTPS access on port 443
- XPRA screen fails to open when Connector advertises an invalid DNS hostname

5 Appendix_RN

5.1 Glossary

Expression	Description
3PA	Third Party Authentication / 3rd Party Authentication
Access Branding	With Access Branding it is possible to display different login page designs for different users according to their access point.
Access Management	Enhanced Visulox Concept for administrating the access of users
AD	A ctive D irectory
AIP	A daptive I nternet P rotocol: Client communication protocol from the Visulox Portal Service
Ambiguous login	The situation where an authentication mechanism has found more than one match for a user and cannot distinguish between them without further information from the user
Annotation	A short text, that can be entered before a recorded session is confirmed, during a recorded session or in Visulox Cockpit / Archive for closed sessions
API	A pplication P rogramming I nterface
Application server	A server which provides applications, that can be accessed via the Visulox Portal

Application session	See: emulator session
Args	The arguments an application is started with
Assist / Assistance	See: Assisting Cooperation
Assisting cooperation	Within the Visulox Cockpit, the user can select an application and press assist to join the application. The owner of the application selects the cooperation mode
Chapter	A chapter equals 20 minutes film of a recorded session
CLI	Command Line Interface
CMD	The command / path an application is started with
Cooperation	When two or more users are watching or working with the same application in realtime on their own desktop
Cooperation master	The user, who has started the application (owner) will be the master of this application in a Cooperation
Cooperation member	A user, who is not owner of an application and who is not able to switch the cooperation modes

Cooperation modes	On hold: Member is assigned to a Cooperation, but does not participate Observe: Member is able to watch the Cooperation application, but can not interact Interact: Member can interact with the application
CP	Short form for Cooperation
Datastore	Internal Visulox Portal Service database, where all defined objects (users, hosts, applications) are stored. A Visulox Portal Array replicates the datastore between all members simultaneously
DMZ	Demilitarized zone (Perimeter zone)
DSI	D irectory S ervice I ntegration
Dual Control	Cooperation enforcing a real four-eye-principle
ELU	E xtended L icense U sage - When ELU has expired, its not possible to start more recorders or display more users than allowed under MD / Status, max users / recorders
Emulator session	The running session, when an application is started with the Workspace on an application server
Expect script	Visulox Portal connection script started during the launch of an application
External DNS name	The name by which an Visulox Portal Server is known to a client device. A Visulox Portal Server can have multiple external DNS names.

File Exchange	File Transfer web access for transferring files between a client and the Transit Zone for users without access to the Visulox Portal
File Transfer Client	Visulox Component for transferring files securely from Transit Zone to application servers and back
Film	Summary of the recorded chapters
Forced authentication	When Visulox Portal prompts for a user name or password, by displaying an authentication dialog box For example, if a user holds down the Shift key when clicking on an application's link on the Workspace
FQDN	Fully Qualified Domain Name - The full name of a system, containing its hostname and its domain name.
Group Access	Group Access is used to define an Access Policy for a specific list of users. This is needed when users are working together in a project and the project is represented by a group object in the repository
Host object	Host objects can be assigned to File Transit, Command Guard and Command Connect groups.
Host Connect	See: Visulox Command Connect / Visulox Command Guard
IAR	I ntelligent A rray R outing
ICA	I ndependent C omputing A rchitecture: Client communication protocol from Citrix
Integrity-Check	Tool to check the Visulox components and services

Internal / external message	The Visulox Service supplies an external message for the login page and an internal message for the user's Workspace
Kiosk mode	Visulox Portal display mode, where an application is displayed in full-screen
LDAP	L ightweight D irectory A ccess P rotocol
LDAPS	L ightweight D irectory A ccess P rotocol over S SL. Used for secure connections to an LDAP directory.
LID	Short form for L icense ID - Contains the date, the license started
Management Console	See: Visulox Cockpit
MFA	M ulti F actor A uthentication
Native Client	A Visulox Portal component that can be installed on client devices. The client maintains communication with the Visulox Portal Server and is required to run applications
NEP	Short form for N etwork E ntry P oint
Network Entry Point	See: RIP
NFS	N etwork F ile S ystem

NGINX	NGINX is an HTTP web server, reverse proxy, content cache, load balancer, TCP/UDP proxy server, and mail proxy server.
Notifications	Implemented notification system for access, Workspace / File Transfer and emulator sessions in the Visulox Services
Object	A self-contained entity, defined by a number of attributes and values. Visulox Portal Objects have different types, such as an X application. The available attributes for each type are defined by a schema
One Time Passcode	The One Time Passcode is used for authentication and will become invalid after usage. A provided OTP is based on a secret key and the time via a smartphone APP
Organization object	A Visulox Portal Object used to represent the top level of an organizational hierarchy. Organization objects can contain OU= or user profile objects. Organization objects have an O= naming attribute.
Organizational hierarchy	The collection of objects in the Visulox Portal Datastore, descending from one or more organization or domain component objects. Represents the collection of people, application servers, and applications within an organization.
Organizational unit object	A Visulox Portal Object used to distinguish different departments, sites, or teams in an organizational hierarchy. Organizational unit (OU) objects can be contained in an organization or domain component object. Organizational unit objects have an OU= naming attribute
OTP	Short form for One Time Passcode
Peer DNS name	The name by which an Visulox Portal Server is known to other Visulox Portal Servers in the same array
Primary server	The Visulox Portal Server that acts as the authoritative source for global information, and maintains the definitive copy of the Visulox Portal Datastore
RDP	Remote Desktop Protocol : Client communication protocol from Microsoft

Remote IP	Remote IP address, the information, from where a client request is coming
Report	The Visulox Service is collecting data about workspacesessions, emulatorsessions, recordings and cooperations. The information can be clearly arranged in reports. In Visulox Cockpit a variety of possible reports can be created on several pages
Resume	To redisplay an application session that has been suspended. See also: suspend
RIP	Short form for Remote IP address
RVA	Remote Vendor Access
S & M	Short form for Support and Maintenance
Secondary server	An array member that is not the primary server. The primary server replicates information to secondary servers.
Session	The Visulox Portal generates a session for any X11 or RDP application, which has an unique session ID
SIEM	Security Information and Event Management
SOX	Short form for Sarbanes-Oxley Act
SSL certificate	A digital passport that establishes credentials on the web. In Visulox Portal Service, allows client devices to trust the identity of a Visulox Portal Server
Suspend	To pause an application session. A suspended application is not closed, it can be resumed. See also: resume

TAP	Short form for Temporary Access PIN , part of the Multi Factor Authentication (MFA)
TCL	Programming Language. Most of the VISULOX products are based on TCL
Temporary Access PIN	VISULOX method for the Multi Factor Authentication (MFA)
TFN	Tarantella Full Naming, X.500 format to address a Visulox Portal object
Transit Zone	Zone, where files are transferred from/to application servers/clients
VAP	Short form for Virtual Access Point
Virtual Access Point	Visulox method to get an independent URL of the Visulox Access Nodes for reliability and Workspace balancing
Visulox Access Node	Node running the Visulox Portal Service and the Visulox Service
Visulox Base	Single Visulox Node
Visulox Cluster	Two or more Visulox Nodes, that are joined together because of scalability, redundancy and load balancing
Visulox Cockpit	Central Visulox application to control sessions, access, recording, cooperations and to generate reports

Visulox Command Connect	Visulox component, which provides the possibility to connect to multiple hosts and to open an X-Client on these hosts. The connection method can be SSH, RDP or telnet. Former: Host Connect
Visulox Command Guard	Visulox component, which provides the possibility to connect to multiple hosts and to open an X-Client on these hosts Command Guard has command level controls for the application. It allows and denies the usage of certain commands by the user Additionally server side scripts can be issued either to multiple endpoints or to a single one
Visulox Common Access Platform	The whole environment, that is built with the Visulox Gateway, Visulox Portal Service, Visulox Service and databases
Visulox Core	Visulox Core is responsible for: • Managing policies • Recording sessions • Managing session lifecycle • etc ...
Visulox Data	Visulox Database and Visulox Filestore
Visulox Filestore	File system which stores the films. 5 MByte per user and per hour. Recommended for Visulox is a local disk with 150-250 GB, for Visulox Archive Node depending on the lifetime of films, up to x TB on a NAS/SAN storage
Visulox Gateway	The Visulox Gateway is a proxy server designed to be deployed in front of a Visulox PORTAL Array in a demilitarized zone (DMZ). This enables the Visulox Portal Array to be located on the internal network of an organization. Additionally, all connections can be authenticated in the DMZ before any connections are made to the Visulox Portal servers in the array. The Visulox Gateway manages load balancing of HTTP connections for the Visulox Portal Servers in the array.

Visulox Host Connect	See: Visulox Command Connect
Visulox Hotfix	Tool to check the software status in the cluster, backup and apply hotfixes
Visulox keystroke recording with analyzing engine	In this recording mode all user keyboard interactions are registered and can be checked for unwanted entries (analyzing engine)
Visulox Node	Node running the Visulox Service to control sessions, films and recorders
Visulox PAM	Visulox P rivileged A ccess M anagement
Visulox Portal	Visulox Portal is the main business logic controller responsible for defining and managing: • User Profiles • Applications • Application Servers • Relationships between them
Visulox Portal Array	Two or more Visulox Access Nodes, that are joined together because of scalability, redundancy and load balancing
Visulox Portal Benchmark	Tool to create a defined number of demo-users, who log into the Visulox Portal and start recorded applications automatically. All settings can be configured easily within a GUI

Visulox Portal Connector	Visulox Portal Connector acts as the execution arm of VISULOX Portal and consists of multiple components (<i>VISULOX Core, NGINX, XPRA</i>), each using different protocolisation. The responsibility of the Connector is to implement communication with each component and execute Visulox Portal commands accordingly. Also, if a new component is added or replaced in future versions of the software, it is the responsibility of the Connector to build the bridge between the Portal and that component.
Visulox Portal Dashboard	Web-based management console for the Visulox Portal Service
Visulox Revision Server	VISULOX Node which replicates the production database into Revision Server database and transfers the films from the production filestore into the Revision Server filestore (also known as Archive Server)
Visulox Service Group	See: Visulox Cluster
Visulox Short Support Report	A Short Support Report to send via eMail created with visulox support -info . The Short Support Report should be sent to the Visulox Support Team every time a new Support Request is opened
Visulox Support Report	Package generated by the visulox support command, containing all information, necessary for support
Visulox Transit Area	File Transfer component embedded in the Workspace to transfer files between client and Transit Zone
Visulox Transit Mapping	To setup the Visulox Transit Zone on Unix application servers, that are not a Visulox Node, an RPM file is available for installation.

Visulox Videolog Player	Player to view the recorded films inside the Visulox Cockpit or checked out films in a browser
Visulox_Setup.xls	Excel-sheet, which has to be filled out in the planning phase by the responsible project leader, together with the amitego consultant
vlxMode	Visulox variable set in the Visulox Portal Console
VLX Password SelfService	Active Directory (AD) and Oracle Unified Directory (OUD) users are able to change their password by themselves with this application assigned.
Webtop	In the current version, the Webtop is called the Workspace . A Workspace is the term used to describe a user's applications, documents, and desktops. See: Workspace
WM	Short form for Window Manager
Workspace	The Workspace is displayed after logging into the Visulox Portal. It is a special web page, that lists the applications that are assigned to the user
Workspace balancing	Visulox load balancing mechanism including a virtual access point
Workspace session	The running session, after a user has logged into the Visulox Portal via browser or Native Client
X11 forwarding	The process of forwarding, or tunneling, the windows of a remotely started X application to a client desktop
Xpra	Xpra is an open-source multi-platform persistent remote display server and client for forwarding applications and desktop screens.

X Window System	A distributed window system for UNIX platform operating systems, based on the X11 protocol. Also called X11, or X Windows
X.509 certificate	See: SSL certificate