MOTOROLA SOLUTIONS

VIDEOMANAGER 16.1.1 RELEASE NOTE

Software updated in 16.1.1

- Motorola Solutions VideoManager for Windows
- VB400 firmware

Changes since 16.1.0

DockController firmware

The version of the DockController firmware included in Motorola Solutions VideoManager has been reverted to 15.2.0.

Minor enhancements and bug fixes (Motorola Solutions VideoManager)

Issue Id	Summary
AZMV-3389	It was not possible to specify a web server public address using certain top level domain names.

Minor enhancements and bug fixes (VB400)

Issue Id	Summary
AZMV-2914	It was not possible to connect to WiFi networks that used a passphrase longer than 31 characters.

Software updated in 16.1.0

- Motorola Solutions VideoManager for Windows
- VB400 firmware
- EdgeController firmware
- DockController firmware
- User Import Tool

Changes since 16.0.1

New feature: Multiple web server addresses

You can now configure the web server to listen on multiple TCP ports and to expose different functionality on each port. You can also configure a different SSL certificate on each port. This is intended to support network configurations where customers do not want the Motorola Solutions VideoManager web application to be accessible on the same network that their devices or sites use to connect.

Each listen address can be configured to allow "web", "device" or "Central VideoManager" traffic or a combination of these. You can also configure separate public addresses for web, device and Central VideoManager requests so that devices and DockControllers are configured to connect to a different URL from the URL used for creating incident link URLs.

The listen addresses used for devices which use certificate-based authentication (such as the M500) are also configured via this new UI, replacing the old configuration page for this listen address.

Note that some customers received this feature in a previous release.

New feature: Automatic recording
The VB400 can now be configured to start recording automatically. There are two variations of this feature. You can configure the device to always be recording when it is not docked, or you can configure it to automatically start recording once when it is undocked. In the former case, the operator cannot stop recording with a gesture. In the later case, control of recording is otherwise unaffected.

These features can be enabled in the device profile by changing the new "Recording policy" setting from the default of "Controlled by gesture" to either "While not docked", or "Start once on undocking, then gesture controlled".

Enhancement: Safety mode on undock and Automatic pre-record
In previous releases, if both "Enter safety mode if idle after undocking" and "Pre-record" with "Always pre-record when not charging" are enabled in the device profile, then the VB400 would not enter safety mode, because pre-recording starts, making the device non-idle. This behaviour has changed. Now with these 2 features enabled, pre-recording will not start immediately on undocking, to allow the device to enter safety mode if it otherwise remains idle.

Permission	Section	Notes	On upgrade, granted to

Forget vehicle	Device permissions/vehicle	-	Roles with "forget device" permission
See vehicles at sites	Device permissions/vehicle	-	Roles with "see devices at site" permission
See forgotten vehicles	Device permissions/vehicle	-	Roles with "see forgotten devices" permission
Bulk-edit vehicles	Device permissions/vehicle	-	Roles with "bulk-edit devices" permission
Download vehicle audit logs	Device permissions/vehicle	-	Roles with "download device auto logs" permission

Minor enhancements and bug fixes (Motorola Solutions VideoManager)

Issue Id	Summary
SW-3830	The media filter 'operator' auto-complete box incorrectly only showed users with permission to operate vehicles.
SW-3827	The M500 device profile now allows the vehicle locale to be configured.
SW-3310	Officer preferences configured on an M500 are stored by VideoManager and applied when the same officer uses a different vehicle.
SW-3472	You can now manually override/control which version of firmware an M500 is using (although note that M500s cannot be downgraded).
SW-3802	DockControllers could be shown as "connected" even when they were "disconnected" if the DockController was awaiting an automatic upgrade.
SW-4079	Boundary service log files sometimes contained the SQLServer database password in cleartext on SQLServer systems not using integrated authentication.
SW-4008	Custom field import/replication to site did not correctly preserve "numeric" input fields.
SW-3955	Crytographic hashes were not replicated from site/EdgeController to the central manager for M500 footage.
SW-3653	If multiple M500s connected simultaneously, sometimes one of them would not appear as "connected" in the VideoManager UI.
SW-3954	You no longer need to restart the service if you import additional M500 vehicle licences.

SW-3848	The service now automatically restarts more reliably if it runs out of memory.
SW-4060	When operating with a backup core server, the mutex mechanism which ensures there is only one active core server can now recover from a database connection interruption.
SW-3832	The boundary service now connects to the Postgres database using the same address as the core service, preventing potential security issues.
SW-3701	Exports of VTT files were incorrectly escaping '<' & '>' characters.
SW-3837	The DockController details page is now more responsive and stable when the status of the DockController is changing.
SW-3909	Site congestion warnings (when uploads from a site are delayed) are now not displayed for disabled sites.
SW-3898	Pressing enter while editing a field in the Authentication realm dialog has an unexpected effect.
SW-3649	The media property edit dialog did not correctly apply "conditions" for user-defined fields.
SW-3548	The incident UI did not behave correctly if you attempted to share an incident with an invalid user name.
SW-3520	The system now displays a warning if you attempt to delete an M500 device profile which is in use.
SW-3495	The "show in summary" toggle was not displayed during the creation of a custom media field.
SW-3457	The "imports" page was previously visible (but was non functional) for users with permission to perform an import but not permission to manage imports.
SW-3411	If a vehicle is configured to use a deleted profile, this is now clearly indicated in the vehicle details page.
SW-2902	When deleting firmware, the space occupied by the firmware is now recovered immediately and is available for the import of new firmware.
SW-3104	Accessibility improvement: Date and date+time inputs now display a hint as to the expected format.
SW-3099	Accessibility improvement: when a field is required (as indicated with an asterisk), the form now also includes text to explain what the asterisk means.
SW-2848	Accessibility improvement: All action buttons now have screen-reader-compatible text associated with them.
SW-3025	The embedded Postgres database has been upgraded from Postgres 13.5 to

	Postgres 13.8.
SW-2878 SW-2885 SW-2883 SW-2879 SW-2886 SW-2881 SW-2882 SW-2880 SW-2877 SW-3728 SW-3558 SW-3489	Security update: Various libraries have been updated to address security issues.

Minor enhancements and bug fixes (VB400)

Issue Id	Summary
SW-3436	Support has been added for the new SmartControl mobile application.
SW-3790	Older revisions of the VB400 could experience a long delay on docking before footage started downloading.
SW-3560	The VB companion could fail to connect to the VB400 if the VB400 was in use without being docked for more than a day.
SW-3658	The VB companion could fail to playback footage recorded by the VB400 when non-standard recording settings were in use.
SW-3801	The VB400 could become unresponsive for a period if manually shut down while WiFi streaming was active.
SW-3182 SW-2878 SW-2885 SW-2879 SW-2881 SW-2882 SW-2877 SW-3905	Security update: Various libraries (including OpenSSL) have been updated to address security issues.

Minor enhancements and bug fixes (EdgeController)

Issue Id	Summary
SW-3182 SW-2878	Security update: Various libraries (including OpenSSL) have been updated to address security issues.

SW-2885	
SW-2883	
SW-2879	
SW-2886	
SW-2881	
SW-2882	
SW-2880	
SW-2877	
SW-3905	

Software updated in 16.0.1

- Motorola Solutions VideoManager for Windows
- VB400 firmware
- EdgeController firmware
- User Import Tool

Changes since 15.3.0

New feature: M500 In-Car Video System Integration

Motorola Solutions VideoManager can now be used to manage M500 In-Car Video systems, including configuring them, upgrading them and downloading footage from them. To support this, there is a new "Vehicles" page in the application and pages for configuring device and network profiles for In-Car systems. A new kind of device licence is required in order to use M500 systems.

A new "event category" media field is automatically created in the system on upgrade which is mapped to the event category selector in the M500 In-Car UI. This field cannot be deleted (but can be hidden using permissions if required). Additional properties have been added to media fields in order to allow them to be used with the M500. Motorola Solutions VideoManager communicates with M500 systems over a new web server port which is TCP port 9082 by default. This port is always secured with SSL client certificate authentication to ensure that only Motorola M500 devices can connect to it.

In order to support M500 systems, the Motorola Solutions VideoManager service now launches an additional .NET process which runs in the background. A new "Vehicle Operator" role and "vehicle operator" group will be automatically created with permission to operate a vehicle; these can be deleted if they are not required.

New feature: Password-protected incident links

You can now optionally set a password when creating an incident link. If a password is set, then the receiver of the link will be prompted to enter the password when they view the link before they can see the incident.

New feature: VB400 WiFi WPA2/EAP authentication

Recent revisions of the VB400 now support WiFi authentication using WPA2/PEAP-MSCHAPv2. [SW-2412]

Permission	Section	Notes	On upgrade, granted to
View vehicles	Device permissions/Vehicle	-	System Administrator
Edit vehicle configuration	Device permissions/Vehicle	-	System Administrator
Download vehicle configuration	Device permissions/Vehicle	-	System Administrator
Operate vehicles	Device permissions/Vehicle	-	System Administrator
Request a vehicle state capture	Device permissions/Vehicle	-	System Administrator
View/Edit M500 API Service	Advanced permissions/Settings	2 permissions	Roles with view/edit web server permission
View/Edit vehicle images	Advanced permissions/Settings	2 permissions	System Administrator
View/Edit vehicle network profiles	Advanced permissions/Settings	2 permissions	Roles with view/edit device profiles permission
Import/export vehicle network profiles	Advanced permissions/Settings	2 permissions	Roles with import/export device profiles permission

Minor enhancements and bug fixes (Motorola Solutions VideoManager)

Issue Id	Summary
SW-3303	Attempting to edit an incident created on an older version of Motorola Solutions VideoManager would fail if you don't have redact permission.
SW-2949	The term "master" has been replaced with alternative terms (typically "core") through

	the user interface.
SW-3163	The browser tab for VideoManager now shows "VideoManager EX".
SW-2888	The maximum size of a resource filespace is now configurable.
SW-2738	You can now configure a DockController so that the owner of all footage that it downloads is automatically set to a nominated group or user.
SW-3375	An error occurred if you attempted to assign a device using a Wifi profile containing an SSID containing any single quote character.
SW-3358	Incident links were still accessible after an incident was deleted.
SW-2827	Security: Various JAR libraries have been updated to address various minor security issues.
SW-3280	Grid worker logs could not be downloaded if multiple workers exist with the same name.
SW-3297	Toggle buttons looked poorly styled on read-only settings pages
SW-2942	User Import Tool configuration changes resulted in poorly formatted audit log messages.
SW-2793	Attempting to update settings in the the media list user interface settings page did not work.
SW-2400	After deleting a device profile, it was not possible to create a new profile with the same name.
SW-2397	The device assignment dialog allowed users to select deleted device profiles.
SW-2923	Full details of newly added users/groups are now audited.
SW-2619	Occasionally, certain video playback operations requests could cause a spurious exception in the logs.
SW-3367	Online help appeared poorly formatted.
SW-2939	When FIPS support is enabled, exceptions could appear in the log while shutting down or reconfiguring the web server.
SW-3326	The evidence export "simulation" function was not working for some incidents.
SW-2837	The "client" column in the audit log showed a spurious "127.0.0.1" when FIPS is enabled
SW-2767	The performance of import operations has been improved for some systems with large numbers of imported video files.

Minor enhancements and bug fixes (VB400)

Issue Id	Summary
SW-445	With some combinations of custom LED settings for recording or pre-recording, the LEDs would fail to show the green "OK to use" status after undocking.
SW-609 SW-1248	The VB400 could occasionally fail if shutdown and restarted while connected to Bluetooth peripherals.
SW-2541	It was possible for the VB400 to fail to shutdown when idle (if so configured) after attempts had been made to pair with a Bluetooth peripheral.
SW-2618	The battery level in the metadata overlay (if enabled) could show a misleading value if recording was started immediately after undocking.
SW-2732	Recent revisions of the VB400 could repeatedly fail to reconnect to WiFi after a failed connection attempt.

Earlier changes

See the V15.3 release notes for earlier changes.

End-of-support (EOS) for VideoManager 14.6

VideoManager 14.6 (and earlier) are now at end-of-support, and VideoManager 16.1 is the recommended upgrade for customers with software assurance.

End-of-support for specific VideoManager software versions means that they are longer supported or serviced, and will not receive further security or feature updates.

Existing VideoManager 14.6 and earlier installations will continue to operate, but you should be aware that when you use software after its end-of-support, you are potentially exposing your organisation to security vulnerabilities.

Known issues

VB400 may not start automatic pre-recording after a factory reset
If a factory reset is performed on a VB400 multiple times, or only once while FIPS is enabled, and if the device is subsequently assigned with a device profile with automatic pre-record enabled, then pre-recording will not start. The problem can be worked around by power cycling the VB400. [SW-2977, SW-1750]

VB400 Bluetooth and Wifi are incompatible

WiFi streaming and download over WiFi cannot be used on a VB400 when it is configured to connect to the VB Companion App over Bluetooth.

VB400 Live-view for Android companion app does not work with X-100 or X-200

The Live-view for Android companion app feature does not currently work if the X-100 or X-200 external cameras are attached.

VB400 WiFi offload of footage can make X-100 or X-200 unreliable

If you configure the device to offload footage over WiFi, then in-progress offloads can sometimes cause the operation of an X-100 or X-200 external camera to be unreliable. It is not currently recommended to enable WiFi offload if using an external camera.

DockController assignment groups with overriden device settings

If you set up multiple DockControllers to share a single RFID reader, then you must ensure that all the DockControllers in the group share the same RFID assignment charge criteria (these can now be overridden for each DockController). If the charge criteria for the DockControllers in the group are not the same, then you may unexpectedly be unable to assign a device in some circumstances.

Large Numbers of Incident Clip Counts

The system performs poorly when more than 200 incident clips are created in a single incident. You should not create incidents with more than this many clips. Some functions may not work properly if this limit is exceeded, e.g. export may fail.

Upgrade notes

Internet Explorer support has ended

Internet Explorer is no longer a supported browser.

Postgres database upgrade

If you are using the bundled Postgres database server rather than Microsoft SQL Server, and you are upgrading a version earlier than 15.1.0, be aware that when this release is installed, the database must be upgraded to Postgres 13.3. Depending on the size of your database, this can be a time consuming process and it temporarily consumes a significant amount of disk space.

HTTP Basic Authentication Disabled

Some security analysts now consider the ability to authenticate HTTP requests with "Basic" authentication to be a security vulnerability. For this reason, the Motorola Solutions

VideoManager web APIs no longer allow clients to use HTTP Basic authentication. If you directly access the API and you use Basic authentication then you should either switch to using HTTP Digest authentication, or you can re-enable Basic authentication by adding the following text to *Admin > System > Advanced Settings*:

```
api.key.basic.auth=true
```

You should only do this if you are satisfied this does not constitute a security risk in your environment.

Microsoft SQL Server TLS requirements

For installations which use Microsoft SQL Server as the Motorola Solutions VideoManager database, be aware that SQL Server must support TLS 1.2 encryption or the Motorola Solutions VideoManager service cannot connect to it. If you are using SQL Server 2012 and 2014 please ensure that you have the latest service packs installed to ensure TLS 1.2 compatibility.

Software assurance requirement for upgrade

In order to upgrade to this version from an older version, you must have software assurance coverage up to 10 September 2021. If you are upgrading from a version older than 10.2, then you must upgrade to 10.2 and install software assurance before installing this version.

Data storage location change

The default data storage location is now c:\ProgramData\Motorola Solutions\VideoManager for a new installation. If you upgrade from a version of Motorola Solutions VideoManager older than 14.5.0, you will already have data stored in c:\ProgramData\Edesix\VideoManager. In this case, the system continues to use the data in c:\ProgramData\Edesix\VideoManager (which might include your database, configuration and/or filespace data), but all log files are written to c:\ProgramData\Motorola Solutions\VideoManager\pss-service-logs.

Central manager site upgrades

When upgrading a central manager installation, replication of certain configuration settings from the central manager to sites (including EdgeControllers) will not occur until those sites are upgraded.

If you use any of the "Shared configuration settings" - on the Auto-fetch settings page - to replicate configuration information to sites, then the site will use out-of-date configuration information until upgraded to the minimum required version for that setting. Configuration changes made on the central system will have no effect until the site is upgraded.

The following table shows the minimum required version of Motorola Solutions VideoManager running at the site in order for each shared configuration setting to replicate correctly.

Shared configuration setting	Minimum compatible site version
Keys	5.1.0
Roles & Password Rules	6.4.0
Users	14.5.0 **
User Groups	14.0.0
Device Profiles	6.4.1
Deletion policies	6.4.0
User-defined fields	14.1.0 if you enable playback reason auditing
	14.0.0 if you define any tag list fields
	6.4.0 otherwise
Device states and locations	10.0.0

** - users can be replicated to sites running 7.0.1 to 14.4.x, but an incompatibility warning will be shown and bluetooth pairing information will not be replicated.

Supported platforms

Motorola Solutions VideoManager is supported on the following platforms:

- Windows 10 Pro & Enterprise 64-bit
- Windows 11 Pro & Enterprise
- Windows Server 2012 Essentials, Standard & Datacenter *
- Windows Server 2012 R2 Essentials, Standard & Datacenter *
- Windows Server 2016 Essentials, Standard & Datacenter * **
- Windows Server 2019 Essentials, Standard & Datacenter * **
- Windows Server 2019 Essentials, Standard & Datacenter * **
- Windows Server 2022 Essentials, Standard & Datacenter * **

* Accessing the Motorola Solutions VideoManager web application from a web browser running on a Windows Server desktop is not supported. However, Windows Server can be used for running the Motorola Solutions VideoManager service.

** USB attached devices are not supported on Windows Server 2016 and later.

Supported browsers

The Motorola Solutions VideoManager web application is supported on the following browsers:

- Microsoft Edge 79+ (Windows 10/11)
- Chrome 48+ (Windows 10/11, MAC OS X v10.10)
- Firefox 68 ESR+ (Windows 10/11, Ubuntu 18.04+) *

The security settings of your browser may prevent some features of the Motorola Solutions VideoManager web application from working correctly. In particular, some browsers may silently prevent the download of files from the Motorola Solutions VideoManager web application. Adding Motorola Solutions VideoManager web application to the list of trusted websites will normally fix this.

Accessing the Motorola Solutions VideoManager web application from a web browser running on a Windows Server desktop is not supported.

* When using Firefox on Windows, you may need to run Windows Media Player once to install codecs before video playback will work. Firefox video playback only works if the operating system provides an MP3 codec. When using Firefox on Ubuntu, you must install a package which provides H.264 and AAC codecs for Firefox, e.g. libavcodec-extra.

Supported device firmware

We do not support assignment of devices running firmware older than version 6.0. These devices will still connect but only for the purposes of upgrading them.

Included device firmware

This release of Motorola Solutions VideoManager includes the following firmware:

VB400 firmware	**V16.1.0**
VB200 / VB300 firmware	**V14.4.4**
VT50 / VT100 firmware	**V15.2.3**
DockController firmware	**V15.2.0**

Supported device firmware

This release of Motorola Solutions VideoManager supports the following firmware:

M500 firmware	**1.0.17.7**

Supported radios

The VB400 Motorola radio integration features are supported in conjunction with the following models:

- Any TETRA Radio with Bluetooth hardware and MR19 software or higher with Bluetooth Connectivity and Bluetooth Radio Control features enabled.