Invented for life

BOSCH

BVMS - Deployment guide

Table of Contents

1 Document information

Project	BVMS 12.2.0
Reference	n/a
Version	24
Last modified	2024, Mai 13 12:00

1.1 Version history

Date	Version	Description
2020-02-18	BVMS 10.0.1	Added automatic firewall configuration.
2020-07-21	BVMS 10.1	Updated VC++ runtimes Updated .NET framework version
2021-05-26	BVMS 11.0	Updated prerequisites Updated features Updated content of installation package
2022-08-05	BVMS 11.1.1	Updated components
2023-04-03	BVMS 12.0.0	Updated latest features Added information about properties
2023-07-03	BVMS 12.0.1	Added Feature 'Audit Trail' Setup restrictions for Divar IP
2024-05-13	BVMS 12.2.0	Updated Prerequisites

2 Introduction

This document describes the installation package for BVMS and is version independent. Operating system support of the specific BVMS version is listed in the BVMS release notes.

2.1 General

The BVMS installation package is distributed by ZIP file from our product download web page and comes with all components that are required to deploy the BVMS on the target system. The installation package is based on InstallShield technology.

Windows Installer V.4.5 or later is required. The setup requires administrative rights.

3 BVMS Functionality

The BVMS installation consists of the following installable features:
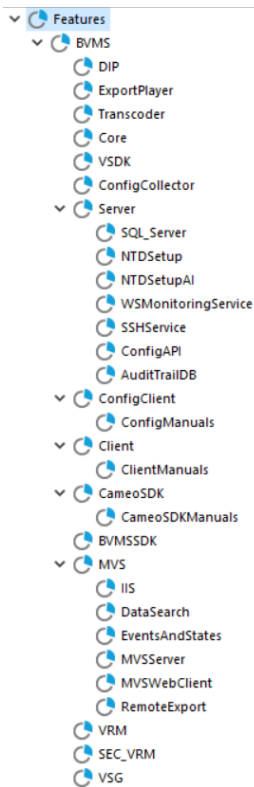
The normal installation process, using the graphical user interface, allows to select the following features:

- Management Server (including Enterprise functionality)
  - SSH Service
  - Server (Configuration) API
  - WSMonitoringService
  - AuditTrailDB
- Configuration Client
- Operator Client
- Cameo SDK
  - Cameo SDK manual and samples
- BVMS SDK
- Mobile Video Service (MVS)
- Video Recording Manager (VRM)
- Secondary Video Recording Manager (SEC_VRM)
- Video Streaming Gateway (VSG)

Features that are not selectable and visible during the installation process are implicitly required to run the program and are installed automatically:

- The Core component is required by the Management Server, Operator Client, Configuration Client, NVR and Cameo SDK.
- VSDK (Video SDK) is required by Client, ConfigClient, Server, MVS and Cameo SDK.
- Workstation Monitoring Service is automatically installed with the server feature.

Features can be dependent on each other and will be automatically selected (for example, the BVMS SDK feature is required by Server, Operator Client, Configuration Client, and Cameo SDK) when running the setup in interactive mode with user interface. Please note that all features (also dependent features) must be specified when running in silent mode from command line by using the "ADDLOCAL" property (find examples at the end of the document).

> ⊗ **Warning**
>
> Installing a VRM and MVS on the same system is not possible and will not be supported.

When updating the system, the feature selection dialogue can be skipped by using the "Update now" button on the welcome dialogue. All existing features will be updated then.

> ⊗ **Warning**
>
> When upgrading the system silently by command line without changing the existing features, the ADDLOCAL property should not be used. Otherwise features not specified in the ADDLOCAL property will get un-installed.

4 Installation on Divar IP (DIP)

With version 12.0.1 the installation on DIPs is restricted for certain models:

DIVAR IP	Setup behavior
DIP-71xx	Allowed, but not possible to install Audit Trail
DIP-52xx	Blocked
DIP-72xx	Blocked
DIP-73xx	Blocked
DIP-44xx	Blocked
DIP-64xx	Blocked

The installation of BVMS on restricted DIP models require the software 'System Manager', which can be downloaded from our portal.

5 System requirements

To run BVMS the following 3rd party prerequisites are required per component. All prerequisites are checked and installed on demand when running the Setup.exe.

Feature/ Prerequisite	Purpose	All	Server	SQL_ Server	OpClient	MVS
Service Handler	Stops all BVMS Services before installation/upgrade	X				
Logging Directory	Creates logging directory	X				
.NET Framework 4.8	Support for managed code	X				
.NET Server Hosting 8.0	Support for .NET SDK 8 based projects	X				
OPC Core Components	Support for BIS Connection		X			
SQL Server 2022 Express	Required for the Logbook Database and Audit Trail Database			X		
Sentinel License Manager	New BVMS Licensing Model		X			
Media Foundation for Server 2012	Windows features for image decoding				X	X
Install and configure IIS	Web server for MVS					X
BVMS AI Support (only available in the BVMS Setup with AI package)	Required for "privacy overlay"				X	X

Notes on Prerequisites:

- Prerequisites do not get un-installed when removing BVMS
- .NET framework updates and SQL Server are usually managed by Windows Update on Client operation systems (Windows10/11)
- .NET framework updates are usually managed by Windows Server Update Service (WSUS) and Microsoft Update Catalog but not the Automatic Updates (AU) channel.
  To enable updates for automatic updates on Server OSs please refer to this article: https://devblogs.microsoft.com/dotnet/server-operating-systems-auto-updates/

6 Content of the installation package

There are two different setup packages available:

BVMS Setup:

The "standard" installation package.

BVMS Setup with AI (Artificial Intelligence) support:

Extended package with runtimes for AI support. The AI support is only required when the new feature "Privacy Overlay" is used.

The BVMS AI support package is an own installer and can be downloaded and installed sparately if required.

The following folder structure and content can be found on the BVMS installation media:

Root:

- BVMS_Setup.exe
- Setup.ini: keeps information to control the setup (e.g. command line for the msi)
- Language specific .ini files

BVMS folder:

- BVMS.msi: the Microsoft installer package
- Several compressed installation files (.cab) used by the msi
- Several .mst files (transform files) to support different languages for the setup

Please note that all prerequisites are compressed into the BVMS_Setup.exe and are extracted into a temp folder for installation during runtime of the installation.

The execution of the setup requires administrative rights.

7 Setup process

The setup process requires administrative rights and will be started by the "BVMS_Setup.exe". The so called bootstrapper wraps the installer package (MSI), checks system conditions and installs prerequisites that are required by all features (refer to the table above). Before any system changes are performed, all BVMS related services and applications are shutdown as the very first action. Next the Windows Installer Package "BVMS.msi" is called by the Setup.exe and additional system checks are performed:

- Is the setup started on a supported operating system?
- Is DiBos installed?
- Is the CameoSDK installed?
- Is the Export Player installed?

When a system check fails, the installation will be aborted with a corresponding error message.

A graphical user interface (GUI) will lead the user through the setup process:

- License agreement
- Selection of destination folder
- SNMP activation
- Feature selection
- IIS configuration
- Firewall configuration

Dependent on the feature selection additional feature prerequisites are installed. Finally the installer copies/replace files and performs custom actions to deploy the BVMS. Upon a successful installation the system needs to be re-booted. In case of a setup error a rollback is performed and the initial installation state is restored depending on the actual progress. The installation of prerequisites cannot be reverted and must be un-installed automatically.

7.1 Installation of the logbook

The logbook feature is automatically installed together with the server feature. It is hosted in an SQL database and therefore requires SQL server installed as prerequisite. The database schema is created during the setup by a custom action. In case of an issue with the database creation (for example, SQL server not installed, service stopped, busy etc.) the following dialogue with a specific error text is displayed:
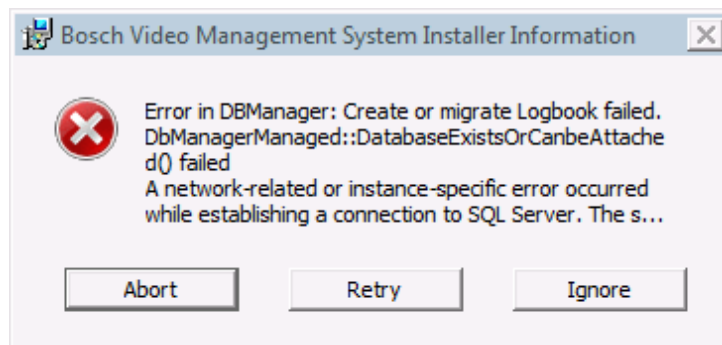

The user can select how to proceed:

- Abort: Cancel the setup.
- Retry: Retry the logbook schema creation. If an issue with the SQL server can be fixed immediately, the logbook creation can be retried.
- Ignore: Ignore failed logbook schema creation and proceed with the setup. The setup can be re-started in repair mode at a later point in time when e.g. SQL server is fixed.

> ℹ **Note**
>
> The BVMS server can be operated without running SQL logbook. No event information will be stored, starting the management server may take longer then expected, and activating the configuration may take longer then expected.

7.2 Firewall configuration
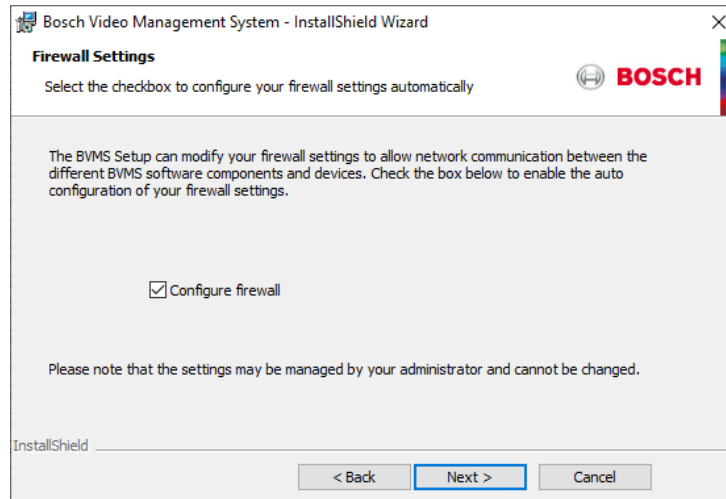
The firewall configuration dialog is a fixed step in the setup process and will allow automatic configuration of all required firewall settings to run BVMS.
It will enable the firewall and apply application specific settings.
The applied rules and settings can be found in the readable command script file "C:\Program Files\Bosch\VMS\bin\FirewallConfig.cmd".

A warning message will be displayed if the configuration fails:
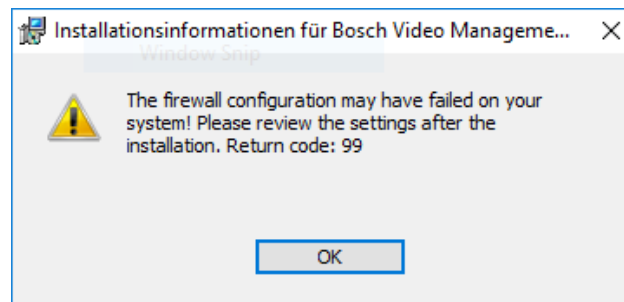
In this case please review the firewall settings after the installation.

Please note that firewall settings may fail due to specific system restrictions (e.g. domain policies).

> **ⓘ Note**
>
> The firewall rules that have been applied with the setup cannot be reverted and must be manually changed/removed if required.

7.3 Repair / Modify / Remove

Removal of the product of the can be accessed through the Control Panel > Programs and Features.
Modifying and repairing the installation requires the original setup media by starting the Setup.exe.

7.4 No-touch deployment package

The execution of the No-Touch-Deployment package during an automatic update of clients, is performed with a reduced user interface. It will also update the prerequisites, if required. No user interaction is required.

> **ⓘ Note**
>
> It is not recommended to run the BVMS.msi directly, since system requirements are not checked and prerequisites will not be installed or updated. This may lead to unpredictable results.

7.5 Installer properties

Installer properties can be passed to the setup to set certain functionality that cannot be set during installation (e.g. when the setup is running in silent mode).

Installer properties can be used by passing them to the setup by command line.
Usage:

```
Setup.exe /v"<PropertyName>=<Value>"
```

The list below shows some important properties:

Property	Purpose	Values	Default
DISABLE_HTTP	Disables the HTTP port for VSG (Video Streaming Gateway)	0/1	0 (HTTP disabled)
DISABLE_RCPP	Disables the RCPP port for VSG (Video Streaming Gateway)	0/1	0 (RCPP disabled)
INSTANCECOUNT	Number of VSG instances	1-7	7
ENABLEFIREWALL	Modifies the firewall settings to open BVMS network ports	0/1	1 (Firewall settings enabled)
NOREBOOT	Supresses the reboot dialog in the end of the installation	0/1	0 (forces a reboot)
HIDELIVEREPLAYPAGE	Disables the VRM pages for Live and Replay	0/1	0 (pages enabled)
SNMP	Installs Windows Feature "SNMP" for BVMS SNMP traps	0/1	0 (disabled)

Example:

```
Setup.exe /s /v"/qn ADDLOCAL=VSG DISABLE_HTTP=1"
Installs VSG only and enables the HTTP port for VSG in silent mode.
```

8 Patches

Bug fixes and small updates are usually distributed as Microsoft patches and can be downloaded from the www.boschsecurity.com website. The patch package must be installed according to the Microsoft patch process (just double click if no further options are required). A read-me file that comes with the patch will give detailed information.

9 Languages

The Bosch VMS Setup supports the following languages:

- English
- Arabic
- Chinese (traditional, simplified)
- Czech
- Danish
- Dutch
- Finnish
- French
- German
- Greek
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese (Portugal)
- Russian
- Spanish
- Swedish
- Thai
- Turkish
- Vietnamese
- Hebrew (on request)

Based on the operating system language, the setup language is automatically selected.

10 Logfiles

The Windows Installer package (MSI) writes a logfile by default:

"%PROGRAMDATA%\Bosch\VMS\Log \BVMS_Setup_V.w.x.y.z.log"

(e.g. C:\ProgramData\ Bosch\VMS\Log\ BVMS_Setup_V.7.5.0.123.log)

This logfile keeps all information from the Windows Installer (msiexec.exe) in debug mode. Logging for the Setup.exe is not active by default, but can be activated by command line:

```
Setup.exe /debuglog<logfile name>
```

(e.g. Setup.exe /debuglog"C:\<Path>\setupexe.log")

11 Commandline options

The Setup.exe and BVMS.msi support various command line arguments.

/s: silent mode

The command *Setup.exe /s* runs the installation in silent mode, by default based on the responses contained in a response file called Setup.iss in the same directory. (Response files are created by running Setup.exe with the /r option). The command *Setup.exe /s* also suppresses the Setup.exe initialization window for a Basic MSI installation program, but it does not read a response file. To run a Basic MSI product silently, run the command line *Setup.exe /s /v/qn*. To specify the values of public properties for a silent Basic MSI installation, you can use a command such as:

Setup.exe /s /v"/qn INSTALLDIR=D:\Destination".

/a: administrative installation

The /a option causes Setup.exe to perform an administrative installation. An administrative installation copies (and uncompresses) your data files to a directory specified by the user, but it does not create shortcuts, register COM servers, or create an uninstallation log.

/v: pass arguments to MSIExec

The /v option is used to pass command-line options and values of public properties through to Msiexec.exe.

/x: Uninstall mode

The /x option causes Setup.exe to uninstall a previously installed product.

/j: Advertise mode

The /j option causes Setup.exe to perform an advertised installation. An advertised installation creates shortcuts, registers COM servers, and registers file types, but does not install your product's files until the user invokes one of these "entry points."

/debuglog: Installation logging

To specify the name and location of the log file, pass the path and name, as in the following example: *Setup.exe /debuglog"C:\PathToLog\setupexe.log"*

To generate a log file for the feature prerequisites in the installation, use the /v parameter to set the ISDEBUGLOG property to the full path and file name for the log file, as follows:

Setup.exe /debuglog"C:\PathToSetupLogFile\setup.log" /v"ISDEBUGLOG=prereq.log"

You can use directory properties and environment variables in the path for the feature prerequisite log file.

/hide_progress: Suppress all progress dialogs

Suppresses the display of any small and standard progress dialogs that might be shown during initialization.

The small progress dialog is usually used for installations that display a splash screen during initialization, since a standard-size progress dialog does not leave any space for the splash screen. Specifying the /hide_progress option hides the small progress dialog for those installations, so end users would see just the splash screen without any progress indication.

For command line arguments of the MSI package please refer to Microsoft's documentation for Windows Installer.

> **ℹ Note**
>
> The Setup.exe and the .msi package support different command line arguments. When running the setup silently the appropriate argument has to be specified for both setup.exe and .msi.

> **ℹ Note**
>
> When running the setup silent from command line, all features and dependent have to be specified manually in the ADDLOCAL property. The dependent features are automatically selected when using the setup with user interface.

> **ℹ Note**
>
> There are different user interface levels for running the msi:
> /qn: Displays no user interface.
> /qb: Displays a basic user interface.
> /qr: Displays a reduced user interface with a modal dialog box displayed at the end of the installation.
> /qf: Displays the full user interface with a modal dialog box displayed at the end.
> /qn+: Displays no user interface, except for a modal dialog box displayed at the end.
> /qb+: Displays a basic user interface with a modal dialog box displayed at the end.
> /qb-: Displays a basic user interface with no modal dialog boxes.
> If the UI sequence of the main installation's .msi package is skipped by using "/qn", the setup launcher evaluates Windows Installer properties such as ADDLOCAL,

> **ℹ Note**
>
> If the UI sequence of the main installation's .msi package is skipped by using "/qn", the setup launcher evaluates Windows Installer properties such as ADDLOCAL, ADDSOURCE, ADDDEFAULT, and ADVERTISE to determine if any feature prerequisites should be installed, and it installs feature prerequisites accordingly.

> **ℹ Note**
>
> When running the setup completely silent, the system reboots unasked at the end of the installation.

> **ℹ Note**
>
> Some prerequisite installations (e.g. .NET framework) may also reboot the system unasked. The setup will usually resume after restart.

12 Examples

The following examples can be used to install the related components silently. The texts can be copied into a batch file for re-use.

Operator Client silent setup

```
Setup.exe /s /v"/qn ADDLOCAL=Core,Client,BVMSSDK,ConfigCollector,VSDK,ExportPlayer"
```

BVMS SDK silent setup

```
Setup.exe /s /v"/qn ADDLOCAL=BVMSSDK,ConfigCollector"
```

All-in-one silent setup

```
Setup.exe /s /v"/qn ADDLOCAL=Core,Client,BVMSSDK,ConfigCollector,VSDK,ExportPlayer"
```

CameoSDK silent setup

```
Setup.exe /s /v"/qn
ADDLOCAL=Core,CameoSDK,CameoSDKManuals,BVMSSDK,ConfigCollector,VSDK"
```

VSG silent setup

```
Setup.exe /s /v"/qn ADDLOCAL=VSG"
```

MVS silent setup

```
Setup.exe /s /v"/qn ADDLOCAL=Core,MVS,BVMSSDK,ConfigCollector,VSDK CONFIGUREIIS=1"
```

Management server silent setup

```
Setup.exe /s /v"/qn
ADDLOCAL=Core,Server,SQL_Server,BVMSSDK,ConfigCollector,VSDK,ExportPlayer"
```

Configuration Client silent setup

```
Setup.exe /s /v"/qn ADDLOCAL=Core,ConfigClient,BVMSSDK,ConfigCollector,VSDK"
```