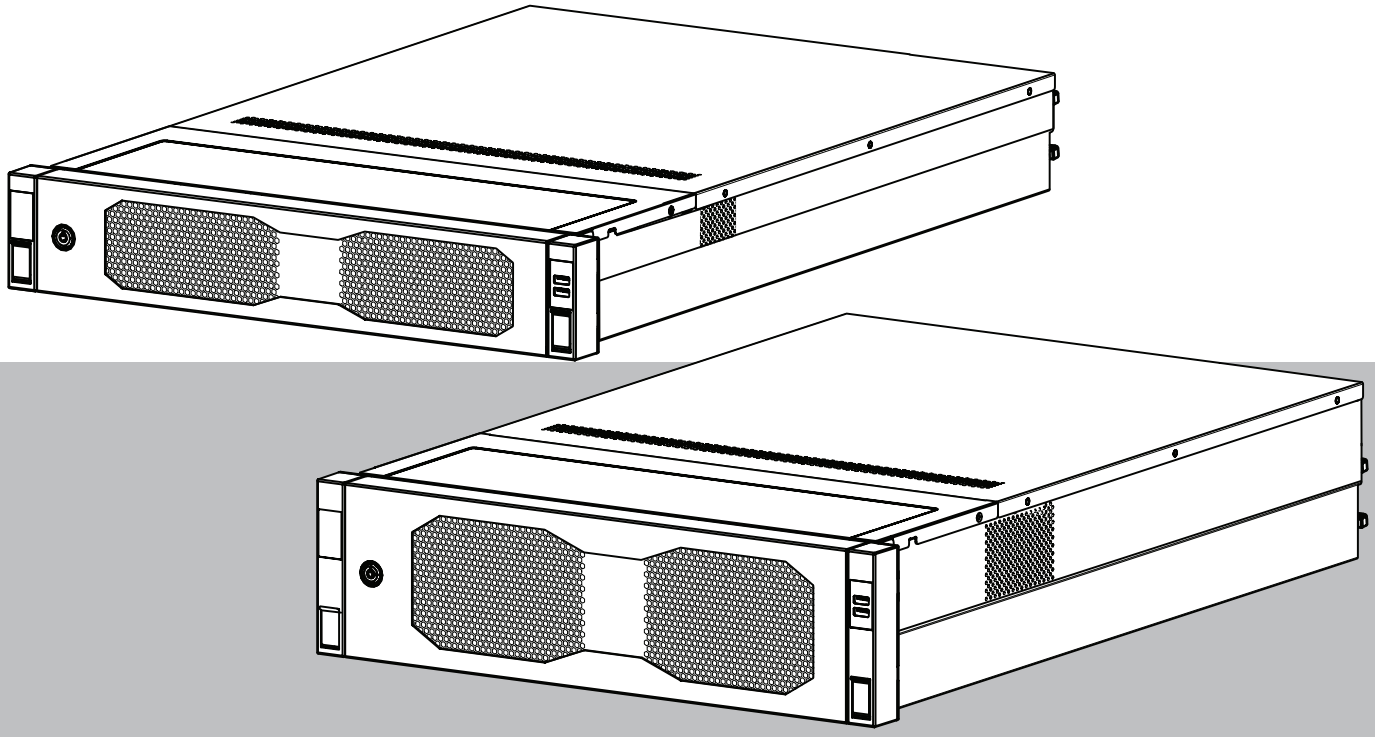
DIVAR IP all-in-one 7000 2U | DIVAR IP all-in-one 7000 3U

DIP-74C0-00N | DIP-74C4-8HD | DIP-74C8-8HD | DIP-74CI-8HD | DIP-74CI-12HD | DIP-74G0-00N | DIP-74GI-16HD



en User manual

Table of contents

1 Safety

Observe the safety precautions in this chapter.

1.1 Operating precautions

Notice!
Intended use
This product is for professional use only. It is not intended to be installed in a public area that is accessible to the general population.

Notice!
Do not use this product in any humid or wet location.

Notice!
Take precautions to protect the device from power and lightning surges.

Notice!
Keep the area around the device clean and free of clutter.

Notice!
Enclosure openings
Do not block or cover the openings. Any openings in the enclosure are provided for ventilation purposes. These openings will prevent overheating and ensure a reliable operation.

Notice!
Do not open or remove the device cover. Opening or removing the cover may cause damage to the system and will void the warranty.

Notice!
Do not spill any liquid on the device.

Warning!
Use caution when servicing and working around the backplane. Hazardous voltage or energy is present on the backplane when the system is operating. Do not touch the backplane with any metal objects and make sure no ribbon cables touch the backplane.

Notice!
Disconnect the power before moving the product. Move the product with care. Excessive force or shock may damage the product and the hard disk drives.

Warning!
Handling of lead solder materials used in this product may expose you to lead, a chemical known to the State of California to cause birth defects and other reproductive harm.

Notice!
Video loss is inherent to digital video recording; therefore, Bosch Security Systems cannot be held liable for any damage that results from missing video information.
To minimize the risk of losing information, we recommend multiple, redundant recording systems, and a procedure to back up all analog and digital information.

1.2 Cybersecurity precautions

For cybersecurity reasons, observe the following:

- Make sure that the physical access to the system is restricted to authorized personnel only. Place the system in an access control protected area, in order to avoid physical manipulation.
- Lock the front bezel to prevent unauthorized removal of the hard drives. Always remove the key from the lock and store the key in a secure place.
- Use the Chassis Intrusion Sensor feature to detect any unauthorized physical access into the interior of the device.
- The operating system includes the latest Windows security patches available at the time the software image was created. Use the Windows online update functionality or the corresponding monthly roll-up patches for offline installation to regularly install OS security updates.
- To ensure that the web browser is secure and working properly, always keep it up to date.
- Do not switch off Windows Defender and Windows firewall, and always keep it up to date. Do not install additional anti-virus software, which can disrupt the security configurations.
- Do not provide system information and sensitive data to persons you do not know unless you are certain of a person's authority.
- Do not send sensitive information over the internet before checking a website's security.
- Limit local network access to trusted devices only. Details are described in the following documents which are available in the online product catalog:
  - *Network Authentication 802.1X*
  - *Cybersecurity guidebook for Bosch IP video products*
- For access through public networks use only the secure (encrypted) communication channels.
- The administrator account provides full administrative privileges and unrestricted access to the system. Administrative rights enable users to install, update, or remove software, and to change configuration settings. Furthermore, administrative rights enable users to directly access and change registry keys and with this to bypass central management and security settings. Users signed in to the administrator account can traverse firewalls and remove anti-virus software, which will expose the system to viruses and cyber-attacks. This can pose a serious risk to the system and data security. To minimize cybersecurity risks, observe the following:
  - Make sure that the administrator account is protected with a complex password according to the password policy.

  - Make sure that only limited number of trusted users has access to the administrator account.
- Due to operation requirements, the system drive must not be encrypted. Without encryption, the data stored on this drive can be easily accessed and removed. To avoid data theft or accidental loss of data, make sure that only authorized persons have access to the system and to the administrator account.
- For installation and update of software as well as for system recovery, it might be necessary to use USB devices. Therefore, the USB ports of your system must not be disabled. However, connecting USB devices to the system poses a risk of malware infection. To avoid malware attacks, make sure that no infected USB devices are connected to the system.
- Do not change the BIOS UEFI settings. Changing the BIOS UEFI settings can compromise or even result in malfunctioning of the system.
- The BMC system must not be connected to the public network.

1.3 Software precautions

1.3.1 Use latest software

Before operating the device for the first time, make sure that you install the latest applicable release of your software version. For consistent functionality, compatibility, performance, and security, regularly update the software throughout the operational life of the device. Follow the instructions in the product documentation regarding software updates.

The following links provide more information:

- General information: https://www.boschsecurity.com/xc/en/support/product-security/
- Security advisories, that is a list of identified vulnerabilities and proposed solutions: https://www.boschsecurity.com/xc/en/support/product-security/security-advisories.html
- Security information, which covers potential effects caused by third-party vulnerabilities: https://www.boschsecurity.com/us/en/support/product-security/security-information.html

To receive updates on new security advisories, you can subscribe to the RSS feeds on the Bosch Security and Safety Systems Security Advisories page at: https://www.boschsecurity.com/xc/en/support/product-security/security-advisories.html

Bosch assumes no liability whatsoever for any damage caused by operating its products with outdated software components.

You can find the latest software and available upgrade packages in the Bosch Security and Safety Systems download store under:
https://downloadstore.boschsecurity.com/

1.3.2 OSS information

Bosch uses Open Source Software in the DIVAR IP all-in-one products.

You can find the licenses of the used Open Source Software components on the system drive under:

```
C:\license txt\
```

The licenses of Open Source Software components used in any further software installed on your system, are stored in the installation folder of the respective software, for example under:

```
C:\Program Files\Bosch\SysMgmService\apps\sysmgm-commander\[version]\License
```

or under:

```
C:\Program Files\Bosch\SysMgmService\apps\sysmgm-executor\[version]\License
```

2 Introduction

DIVAR IP all-in-one 7000 is an affordable and easy to use all-in-one recording, viewing, and management solution for network surveillance systems of up to 256 channels (with 8 channels pre-licensed).

DIVAR IP all-in-one 7000 2U/3U is a 2U/3U rack mount unit that combines advanced Bosch Video Management System capabilities and state-of-the-art recording management into a single cost-effective, convenient to install and operate recording device for IT-minded customers.

DIVAR IP all-in-one 7000 utilizes embedded design and core components, and is based on the operating system Microsoft Windows Server IoT 2022 for Storage Standard features “enterprise-rated” hot-swappable SATA hard drives, providing up to 216/288 TB of gross storage capacity.

3 System overview

Operating system

The Microsoft Windows Server IoT 2022 for Storage Standard operating system provides a user interface for initial server configuration, unified storage appliance management, simplified setup and storage management, and support for Microsoft iSCSI Software Target. It is specially tuned to provide optimal performance for network-attached storage. The Microsoft Windows Server IoT 2022 for Storage Standard operating system provides significant enhancements in storage management scenarios, as well as integration of storage appliance management components and functionality.

DIVAR IP System Manager

The DIVAR IP System Manager application is the central user interface that offers an easy system setup, configuration and software upgrade.

Operation modes

DIVAR IP all-in-one 7000 systems can operate in three different modes:

– Full video recording and management system, utilizing the BVMS and Video Recording Manager core components and services.
  This mode provides an advanced IP video security solution that delivers seamless management of digital video, audio and data across an IP network. It seamlessly combines IP cameras and encoders, provides system-wide event and alarm management, system health monitoring, user and priority management. This mode provides the best video management system to go with Bosch video surveillance devices, leveraging the unique capabilities of Bosch cameras and recording solutions. It includes Video Streaming Gateway components to integrate third-party cameras.
– Advanced video recording solution for a BVMS system, utilizing the Video Recording Manager core components and services, leveraging the unique capabilities of Bosch cameras and recording solutions. Up to two Video Recording Manager servers can be added to a BVMS system running on a DIVAR IP all-in-one device.
– iSCSI storage expansion for a BVMS system, which runs on a different hardware. Up to four of these iSCSI storage expansions can be added to a BVMS system running on a DIVAR IP all-in-one 7000 device.

When setting up the system, in the DIVAR IP System Manager application, you must choose the desired operation mode to configure your system.

With the DIVAR IP System Manager application you can also upgrade the installed software. You can find the latest software and available upgrade packages in the Bosch Security and Safety Systems download store under:
https://downloadstore.boschsecurity.com/

Notice!

Recorded video streams need to be configured in a way that the maximum bandwidth of the system (BVMS /VRM base system plus iSCSI storage expansions) is not exceeded.

4 System setup

4.1 Default settings

All DIVAR IP systems are preconfigured with a default IP address and with default iSCSI settings:

- IP Address: automatically assigned by DHCP (fallback IP address: 192.168.0.200).
- Subnet mask: automatically assigned by DHCP (fallback subnet mask: 255.255.255.0).

Default user settings for administrator account

- User name: **BVRAdmin**
- Password: to be set at first sign-in.
  Password requirements:
  - Minimum 14 characters
  - The password must contain characters from three of the following four categories:
    At least one uppercase letter.
    At least one lowercase letter.
    At least one digit.
    At least one special character.

4.2 Prerequisites

Observe the following:

- DIVAR IP needs to have an active network link during installation. Make sure that the network switch you are connecting to is powered on.
- The default IP address must not be occupied by any other device in the network. Make sure that the default IP addresses of existing DIVAR IP systems in the network are changed before adding another DIVAR IP.

4.3 First sign-in and initial system setup

Notice!
Do not change any operating system settings. Changing operating system settings can result in malfunctioning of the system.

Notice!
To perform administrative tasks, you must sign in to the administrator account.

Notice!
In case of password loss a system recovery must be performed as described in the installation manual. The configuration must be done from scratch or must be imported.

Notice!
For security reasons, User Account Control (UAC) dialog boxes are displayed asking for your confirmation to make the intended changes to your system. You can only proceed with the installation after confirming that you want to make the appropriate changes.

To setup the system:

1. Connect the DIVAR IP all-in-one unit and the cameras to the network.

2. Turn on the unit.
   Wait until the BIOS screen is displayed and setup routines for Microsoft Windows Server IoT 2022 for Storage Standard are performed. This process can take several minutes. Do not turn off the system.
   After the process is completed, the Windows language selection screen is displayed.
3. Select your country/region, the desired operating system language and the keyboard layout from the list, then click **Next**.
   The Microsoft software license terms are displayed.
4. Click **Accept** to accept the license terms and wait until Windows restarts. This can take several minutes. Do not turn off the system.
   After restart, the Windows sign-in page is displayed.
5. Set a new password for the administrator account **BVRAdmin** and confirm it.
   Password requirements:

– Minimum 14 characters
– The password must contain characters from three of the following four categories:
  – At least one uppercase letter.
  – At least one lowercase letter.
  – At least one digit.
  – At least one special character.

   Then press Enter**.**
   The **Software Selection** page is displayed.
6. The system automatically scans the local drive and any connected external storage media for the DIVAR IP System Manager installation file **SystemManager_x64_[software version].exe**, which is located in a folder with the following structure: `Drive root\BoschAppliance\`.
   The scan might take some time. Wait for it to complete.
7. Once the system has detected the installation file, it is displayed on the **Software Selection** page. Click the bar that displays the installation file to start the installation.
   Notice: Make sure that the latest version of DIVAR IP System Manager is installed. You can find the latest software and available upgrade packages in the Bosch Security and Safety Systems download store under: https://downloadstore.boschsecurity.com/.
8. If the installation file is not found during the scan process, proceed as follows:
   – Go to https://downloadstore.boschsecurity.com/.
   – Under the **Software** tab, select **BVMS Appliances** from the list, then click **Select**. A list of all available software packages is displayed.
   – Locate the ZIP file **SystemManager_[software version].zip** and save it to a storage medium such as a USB stick.
   – Unzip the file on the storage medium by making sure that the folder **BoschAppliance** is placed in the root of the storage medium.
   – Connect the storage medium to your DIVAR IP all-in-one system.
     The system will automatically scan the storage medium for the installation file.
     The scan might take some time. Wait for it to complete.
   – Once the installation file is detected, it will be displayed on the **Software Selection** page. Click the bar that displays the installation file to start the installation.
     Note: To be automatically detected, the installation file must be located in a folder with the following structure: `Drive root\BoschAppliance\` (for example `F:\BoschAppliance\`).

If the installation file is located at another location that does not match the pre-defined folder structure, click  to navigate to the respective location. Then click the installation file to start the installation.

9. Before the installation starts, the **End User License Agreement (EULA)** dialog box is displayed. Read the license terms, then click **Accept** to continue.
10. In the following User Account Control dialog boxes, click **Yes** to continue. The installation starts.
11. After the installation is complete, the system restarts and you are directed to the Windows sign-in page. Sign in to the administrator account.
12. The Microsoft Edge browser opens and the **DIVAR IP - System setup** page is displayed. The page shows the device type and the device serial number, as well as the three operation modes and the available software versions for each operation mode.
    You must choose the desired operation mode and the desired software version to configure your DIVAR IP all-in-one system.
    Note: If the desired software version for the respective operation mode is not available on a local drive, proceed as follows:
    - Go to https://downloadstore.boschsecurity.com/.
    - Under the **Software** tab, select **BVMS Appliances** from the list, then click **Select**. A list of all available software packages is displayed.
    - Locate the ZIP files of the desired software packages, for example **BVMS_[BVMS version]_SystemManager_package_[package version].zip**, and save them to a storage medium such as a USB stick.
    - Unzip the files on the storage medium. Do not change the folder structure of the unzipped files.
    - Connect the storage medium to your DIVAR IP all-in-one system.

Notice!
Changing the operation mode after installation requires a full factory reset.

4.3.1 Choosing operation mode BVMS

To operate the DIVAR IP all-in-one system as a full video recording and management system:

1. On the **DIVAR IP - System setup** page, select the operation mode **BVMS** and the desired BVMS version that you want to install, then click **Install operation mode**.
   The BVMS license agreement is displayed.
2. Read and accept the license agreement, then click **Yes, install** to continue.
   The installation starts and the installation dialog box shows the installation progress. Do not turn off the system and do not remove the storage media during the installation process.
3. After all software packages have been installed successfully, the system restarts. After restart, you are directed to the BVMS desktop.
4. On the BVMS desktop, click the desired application to configure your system.

Notice!
For further details, refer to the respective DIVAR IP all-in-one web-based training and to the BVMS documentation.
You can find the training under: www.boschsecurity.com/xc/en/support/training/

4.3.2 Choosing operation mode VRM

To operate the DIVAR IP all-in-one system as a pure video recording system:

1. On the **DIVAR IP - System setup** page, select the operation mode **VRM** and the desired VRM version that you want to install**,** then click **Install operation mode**.
   The VRM license agreement is displayed.
2. Read and accept the license agreement, then click **Yes, install** to continue.
   The installation starts and the installation dialog box shows the installation progress. Do not turn off the system and do not remove the storage media during the installation process.
3. After all software packages have been installed successfully, the system restarts. After restart, you are directed to the Windows sign-in screen.

Notice!
For further details, refer to the VRM documentation.

4.3.3 Choosing operation mode iSCSI storage

To operate the DIVAR IP all-in-one system as an iSCSI storage expansion:

1. On the **DIVAR IP - System setup** page, select the operation mode **iSCSI storage** and the desired iSCSI storage version that you want to install**,** then click **Install operation mode**.
   The installation dialog box is displayed.
2. In the installation dialog box, click **Yes, install** to continue.
   The installation starts and the installation dialog box shows the installation progress. Do not turn off the system and do not remove the storage medium during the installation process.
3. After all software packages have been installed successfully, the system restarts. After restart, you are directed to the Windows sign-in screen.
4. Add the system as an iSCSI storage expansion to an external BVMS or VRM server using BVMS Configuration Client or Configuration Manager.

Notice!
For further details, refer to the BVMS or Configuration Manager documentation.

5 Upgrading software

Make sure that you upgrade DIVAR IP System Manager to the latest version.

5.1 Upgrading DIVAR IP System Manager

1. Go to https://downloadstore.boschsecurity.com/.
2. Under the **Software** tab, select **BVMS Appliances** from the list, then click **Select**.
   A list of all available software packages is displayed.
3. Locate the ZIP file **SystemManager_[software version 2.3.0 or higher].zip** and save it to a storage medium such as a USB stick.
4. Unzip the file on the storage medium.
5. Connect the storage medium to your DIVAR IP all-in-one device.
6. Start DIVAR IP System Manager:
   - If you are signed in to Windows with the **BVRAdmin** administrator account, double-click the DIVAR IP System Manager icon on the Windows desktop.
     DIVAR IP System Manager starts.
   - If your system is running in BVMS operation mode, click the DIVAR IP System Manager icon on the BVMS desktop and sign in to the BVRAdmin administrator account. DIVAR IP System Manager opens in a full screen dialog box (You can exit the dialog box by pressing Alt+ F4).
7. The **Software packages** page is displayed. Select the software package DIVAR IP System Manager, and then click **Install package** to continue.
   The installation dialog box is displayed.
8. In the installation dialog box, click **Yes, install** to continue.
   The installation starts.
   The installation process may take a few minutes. Do not turn off the system and do not remove the storage medium during the installation process.
   Observe the notifications that are displayed at the top of the page.

5.2 Upgrading software using DIVAR IP System Manager

With the DIVAR IP System Manager application you can upgrade the installed software on your system.
You can find the latest software and available upgrade packages in the Bosch Security and Safety Systems download store under:
https://downloadstore.boschsecurity.com/

Notice!
Downgrade of the installed software to an earlier version is not supported.

To upgrade the installed software:

1. Go to https://downloadstore.boschsecurity.com/.
2. Under the **Software** tab, select **BVMS Appliances** from the list, then click **Select**.
   A list of all available software packages is displayed.
3. Locate the ZIP files of the desired software packages, for example **BVMS_[BVMS version]_SystemManager_package_[package version].zip**, and save them to a storage medium such as a USB stick.
4. Unzip the files on the storage medium. Do not change the folder structure of the unzipped files.
5. Start DIVAR IP System Manager:

- If you are signed in to Windows with the **BVRAdmin** administrator account, double-click the DIVAR IP System Manager icon on the Windows desktop.
  DIVAR IP System Manager starts.
- If your system is running in BVMS operation mode, click the DIVAR IP System Manager icon on the BVMS desktop and sign in to the BVRAdmin administrator account. DIVAR IP System Manager opens in a full screen dialog box (You can exit the dialog box by pressing Alt+ F4).

6. The **Software packages** page is displayed, showing the device type and the device serial number on the top of the page.

- In the column **Software package name**, you see all DIVAR IP System Manager software applications that are already installed on your system as well as all further DIVAR IP System Manager software applications that were detected by the system on the **Images** drive or on a storage medium.
- In the column **Installed version,** you see the software application version that is currently installed on your system.
- In the column **Status**, you see the status of the respective software application:
  - The  icon indicates that no later versions of the installed software application were detected by the system on the **Images** drive or on a storage medium.
    Note: To make sure that you use the latest software version, double-check the available software versions in the Bosch Security and Safety Systems download store under:
    https://downloadstore.boschsecurity.com/
  - The icon indicates that the system has detected later versions of the installed software application on the **Images** drive or on a storage medium.
    The icon is also displayed if the system has detected a software application that is not yet installed on your system.
- In the column **Available version**, you see the later versions of the installed software applications. These versions were detected by the system on the **Images** drive or on a storage medium.
  The column also displays the available versions of the detected software applications that are not yet installed on your system.
  Note: Only later versions of the installed software applications are displayed. The downgrade of a software application to an earlier version is not supported.

7. In the column **Software package name**, click the respective option button to select the software application that you want to upgrade or to install.
8. In the column **Available version**, select the desired version to which you want to upgrade your software application, or which you want to install, and then click **Install package**.
   If applicable, a license agreement dialog box is displayed.
9. Read and accept the license agreement, then click **Yes, install** to continue.
   The installation starts and the installation dialog box shows the installation progress. Do not turn off the system and do not remove the storage media during the installation process.
10. After all software packages have been successfully installed, you will receive a confirmation that the installation was successful.

11. If the installation was not successful, you will receive a corresponding message informing you of how to proceed in that case.

6 Remote connection to the system

You can make a remote connection to your DIVAR IP all-in-one system and access it from the internet.

To create a remote connection, you must do the following:

1. *Protecting the system from unauthorized access, page 17*.
2. *Setting up port forwarding, page 17*.
3. *Choosing an appropriate client, page 17*.

You can also connect to your DIVAR IP all-in-one via Bosch Remote Portal and utilize current and future functionality available via Remote Portal. For more information, refer to *Connection to Remote Portal, page 18*.

6.1 Protecting the system from unauthorized access

To protect the system from unauthorized access, make sure to follow strong password rules before you connect the system to the internet. The stronger your password, the more protected your system will be from unauthorized persons and malware.

6.2 Setting up port forwarding

To access a DIVAR IP all-in-one system from the internet through a NAT/PAT capable router, you must configure port forwarding on your DIVAR IP all-in-one system and on the router.

To set up port forwarding:

- ▸ Enter following port rules in the port forwarding settings of your internet router:
- – port 5322 for SSH tunnel access using BVMS Operator Client.
  Note: This connection is only applicable for BVMS operation mode.
- – port 443 for HTTPS access to VRM using Video Security Client or Video Security App.
  Note: This connection is only applicable for BVMS or VRM operation mode.

Your DIVAR IP all-in-one is now accessible from the Internet.

6.3 Choosing an appropriate client

There are two options to make a remote connection to your DIVAR IP all-in-one system:

- – *Remote connection with BVMS Operator Client, page 17*.
- – *Remote connection with Video Security App, page 18*.

Notice!
The compatibility of the versions of BVMS Operator Client or Video Security App is determined by the versions of the BVMS or VRM software installed in DIVAR IP.
For detailed information refer to the respective software documentation and training material.

6.3.1 Remote connection with BVMS Operator Client

Notice!
This connection is only applicable for BVMS operation mode.

To make a remote connection with BVMS Operator Client:

1. Install BVMS Operator Client on the client workstation.
2. After finishing the installation successfully, start Operator Client using the desktop shortcut  .

3. Enter the following, then click **OK**.
   User name: admin (or other user in case one is configured)
   Password: user password
   Connection: ssh://[public-IP-address-of-DIVAR-IP_all-in-one]:5322

6.3.2 Remote connection with Video Security App

Notice!
This connection is only applicable for BVMS or VRM operation mode.

To make a remote connection with Video Security App:
1. In Apple's App Store search for Bosch Video Security.
2. Install the Video Security app on your iOS device.
3. Start the Video Security app.
4. Select **Add**.
5. Enter the public IP address or dynDNS name.
6. Make sure Secure Connection (SSL) is switched on.
7. Select **Add**.
8. Enter the following:
   User name: admin (or other user in case one is configured)
   Password: user password

6.4 Connecting to an Enterprise Management Server

For a central management of multiple DIVAR IP all-in-one systems in BVMS operation mode, you can use a BVMS Enterprise Management Server installed on a separate server.
For detailed information about BVMS Enterprise System configuration and operation, refer to the BVMS documentation and training material.

6.5 Connection to Remote Portal

You can connect to your DIVAR IP all-in-one device via Bosch Remote Portal and utilize current and future functionality such as the Bosch Remote System Management service available via Remote Portal.
For detailed information about the Remote System Management service, refer to the Remote System Management documentation and training material.

Prerequisites

Remote Portal connection
To connect DIVAR IP all-in-one devices to the Remote Portal make sure that the following prerequisites apply:
– DIVAR IP System Manager 2.3.0 (or higher) must be installed on the device.
– A Remote Portal account must be created.

Remote Portal communication
Connectivity requirements for the Remote Portal communication.
Notice: All connections are outgoing.
HTTPS (Port 443)
– https://api.remote.boschsecurity.com/rest/iot/devices
– https://sw-repo-remote.s3.eu-central-1.amazonaws.com
MQTTS (Port 8883)
– tls://a1j83emmuys8gs-ats.iot.eu-central-1.amazonaws.com:8883

6.5.1 Creating a Remote Portal account

To create a Remote Portal account:

1. Go to https://remote.boschsecurity.com/login.
2. Click **Sign up**.
3. Enter your company name and your email.
4. Select your company region.
5. Read the terms and conditions and the data protection notice, and then select the checkboxes to accept them.
6. Click **Sign up** to create an account.

6.5.2 Registering DIVAR IP all-in-one devices to Remote Portal

To register a DIVAR IP all-in-one device to Remote Portal:

1. Start DIVAR IP System Manager.
2. Click the **Remote Portal connection** tab.
3. If you have an existing Remote Portal account, enter your email and password, and then click **Register**. to register your DIVAR IP all-in-one device to Remote Portal.
4. If your email is assigned to multiple company accounts with administrator privileges, a selection dialog is displayed showing the respective company accounts.
   In the selection dialog, select the desired company account to which you want to register your DIVAR IP all-in-one device.

Notice!
SingleKey ID
Bosch has introduced SingleKey ID as an identity provider (IdP) to allow a central sign-in to all Bosch applications, services and platforms.
To connect the device to Remote Portal by using SingleKey ID, follow the instructions on the screen.

5. If you do not have a Remote Portal account yet, click **Create account** to create a Remote Portal account first. Refer to Creating a Remote Portal account.

6.5.3 Unregistering DIVAR IP all-in-one devices from Remote Portal

To unregister a DIVAR IP all-in-one device from Remote Portal:

1. Start DIVAR IP System Manager.
2. Click the **Remote Portal connection** tab.
3. Click **Unregister** to unregister your DIVAR IP all-in-one device from Remote Portal.
   Note: Unregistering the device from Remote Portal does not delete the device configuration in Remote Portal. To delete the device configuration, sign in to the corresponding Remote Portal company account.

7 Maintenance

7.1 Signing in to the administrator account

Signing in to the administrator account in BVMS operation mode

To sign in to the administrator account in BVMS operation mode:

1. On the BVMS desktop, press Ctrl+Alt+Del.
2. Press and hold the left Shift key immediately after clicking **Switch User**.
3. Press Ctrl+Alt+Del again.
4. Select the **BVRAdmin** user and enter the password that was set during the system setup. Then press Enter.

Note: To go back to the BVMS desktop, press Ctrl+Alt+Del and click **Switch user** or **Sign out**. The system will automatically go back to BVMS desktop without a system restart.

Signing in to the administrator account in VRM or iSCSI operation mode

To sign in to the administrator account in VRM or iSCSI operation mode:

- On the Windows sign-in screen, press Ctrl+Alt+Del and enter the **BVRAdmin** password.

7.2 Monitoring the system

7.2.1 Monitoring the system using the ASUS Inband Tool application

The DIVAR IP all-in-one systems come with the pre-installed ASUS **Inband Tool** application, which you can use to monitor your system.

The application service is activated by default.

To start the application:

1. Sign in to the administrator account (refer to *Signing in to the administrator account, page 20*).
2. On the desktop, open the **Tools** folder and double-click the shortcut ASUS Inband Tool. The application starts.
3. Sign in using the following default credentials:

– Account: **admin**
– Password: **admin**

4. After the first sign-in you will be requested to change this initial password.
   Enter a new password and confirm it.
   Make sure to store the new password in a secure location.
   Observe the following password requirements:

– Passwords must have a minimum length of 14 characters.
– Passwords must contain at least one uppercase letter.
– Passwords must contain at least one lowercase letter.
– Passwords must contain at least one special character.
– Passwords must contain at least one number.

5. After you have confirmed the new password, the **Dashboard** page is displayed showing you the overall system status.
6. In the **MENU** pane on the left, you can select the respective pages to receive detailed information about the system health status.
7. In the **SNMP** menu item you can set-up SNMP users and SMMP destinations.
8. On the **Report** page, you can generate a report that contains the appropriate information that you have selected.

7.2.2 Monitoring the system using the BMC web interface

DIVAR IP all-in-one 7000 has a dedicated BMC port on the rear side.

Each DIVAR IP all-in-one 7000 unit is delivered with the default BMC user name **admin** and with an initial BMC password. The initial BMC password is unique for each unit. You can find it on the label at the rear of the unit, below the BMC port.
After the first logon to the BMC web interface, you will be requested to change this initial password. Make sure to store the new password in a secure location.
Observe the following password requirements:
– Passwords must have a minimum length of 14 characters.
– Passwords must contain at least one uppercase letter.
– Passwords must contain at least one lowercase letter.
– Passwords must contain at least one special character.
– Passwords must contain at least one number.

Notice!
For security reasons, do not connect the device to a public network through the BMC port.

Configuring the BMC settings
To configure the BMC settings:
1. Turn on the unit and press Del to enter the BIOS setup.

Notice!
BIOS password
The initial BIOS password is unique for each unit. You can find it on the label at the rear of the unit. Bosch strongly recommends to change this initial password. Make sure to store the new password in a secure location.
Observe the following password requirements:
- Passwords must have a minimum length of 14 characters.
- Passwords must contain at least one uppercase letter.
- Passwords must contain at least one lowercase letter.
- Passwords must contain at least one special character.
- Passwords must contain at least one number.

2. In the BIOS setup, navigate to the tab **Server Mgmt**.
3. Select the option **BMC Network Configuration**, then press Enter.
4. In the next dialog box, select the option **Configuration Address source**, then press Enter.
   The **Configuration Address source** dialog box is displayed.
5. In the **Configuration Address source** dialog box, select the desired option how the BMC address should be configured, then press Enter.
6. Set the desired network configuration parameters.
7. Press F4 and Enter to save and exit.
   The DIVAR IP all-in-one 7000 unit restarts.

Remote operation using the BMC iKVM interface
By default, the DIVAR IP all-in-one 7000 devices are intended to operate with one or two local monitors, connected to the HDMI interfaces on the rear of the unit.
If no local monitors are connected to the HDMI interfaces, the unit can be remotely controlled using the BMC iKVM interface.
To allow remote control to the system:
1. Make sure that no local HDMI monitor is connected to the system.

2. Sign in to the BMC web interface.
3. In the menu pane on the left, select the page **Remote Control.**
4. Click the **Launch H5Viewer** button.
   A window opens, showing the DIVAR IP all-in-one 7000 monitor output and providing control to the mouse and the keyboard of the remote machine.

7.3 Replacing a faulty hard drive and configuring a new hard drive

Notice!
Bosch is not liable for any data loss, damages, or system failures of units equipped with hard drives that are not supplied by Bosch. Bosch cannot provide support if non-Bosch-supplied hard drives are considered to be the cause of the problem. To troubleshoot potential hardware issues, Bosch will require Bosch-supplied hard drives to be installed.

7.3.1 Replacing a faulty hard drive

To replace a faulty hard drive:

- Remove the faulty hard drive from the unit and install the new hard drive.
  Refer to chapter *Installing a SATA hard drive* in the Installation manual.

7.3.2 Rebuilding RAID5 with the new hard drive

Automatic RAID5 rebuild

1. On the DIVAR IP all-in-one desktop, double-click the **Launch LSA** shortcut.
   The **LSI Storage Authority** application starts and the **Remote Server Discovery** page is displayed.
2. Sign in with the **BVRAdmin** administrator account credentials.
   A dialog box is displayed, showing that there is a controller, which has a critical issue.
3. On the top of the page, click **Select Controller**, then click the **Controller ID:** bar to open the controller settings.
   - If you have not yet removed the faulty hard drive, it will be displayed under **Drives** > **Foreign Drives** > **Unconfigured Drives.**
   - Once you have removed the faulty hard drive and installed the new hard drive, the system automatically starts the RAID5 rebuild with the new hard drive and a progress bar shows the rebuild progress.
4. After the rebuild is completed successfully, the  icon is displayed.

Manual RAID5 rebuild

If the RAID5 rebuild of the new hard drive does not start automatically, proceed as follows:

1. In the controller settings dialog box, under **Drives** > **Foreign Drives** > **Unconfigured Drives**, select the hard drive with the status **Unconfigured Bad**, and then in the right pane, select **Make Unconfigured Good**.
   A dialog box is displayed.
2. Select the checkbox **Confirm**, and then click **Yes, Make Unconfigured Good** to continue.
   The system starts the RAID5 rebuild with the new hard drive.
3. After the rebuild is completed successfully, the  icon is displayed.

7.4 Collecting DIVAR IP System Manager log files

The DIVAR IP System Manager application includes a dedicated script that simplifies the log file collection.

To collect DIVAR IP System Manager log files:

1. Sign in to the administrator account (refer to Signing in to the administrator account).
2. On the Windows **Start** menu, right-click **Export System Manager Logs** and run the script as administrator.
   The script exports the log files to the folder `Documents\Bosch` and creates a ZIP file with following name structure `SysMgrLogs-[date]_[time]`.
   You can use this ZIP file to attach it to the detailed error description.

7.5 Recovering the unit

To recover the unit:

1. Turn on the unit and press F7 during the BIOS power-on-self-test to enter Windows PE.
   The **System Management Utility** dialog box is displayed.
2. Select one of the following options:
   - **System factory default**: This option will format video data partitions and restore the OS partition with the factory default image.
     This process will take several minutes.
   - **Full data overwrite and system factory default**: This option will format video data partitions, completely overwriting existing data, and restore the OS partition with factory default image.
     Note: This process might take several days.
   - **OS system recovery only**: This option will restore the OS partition with the factory default image and import existing virtual hard drives from existing video data partitions.
     This process will take several minutes.

   Note:
   The **OS system recovery only** option does not delete video footage that is stored on the data HDDs. However, it replaces the complete operating system partition (including the video management system settings) with a default configuration. To access existing video footage after recovery, the video management system configuration needs to be exported before the system recovery and re-imported afterwards.

Notice!
Do not turn off the unit during the process. This will damage the recovery media.

3. Confirm the selected option.
   The system starts the formatting and image recovery process.
4. After the recovery process is complete, confirm the system restart.
   The system restarts and setup routines are performed.
5. After the process is complete, the Windows language selection screen is displayed.
6. Proceed with the initial system setup.

8 Additional information

8.1 Additional documentation and client software

For more information, software downloads, and documentation, go to the respective product page in the product catalog:
http://www.boschsecurity.com
You can find the latest software and available upgrade packages in the Bosch Security and Safety Systems download store under:
https://downloadstore.boschsecurity.com/

8.2 Support services and Bosch Academy

Support

Access our **support services** at www.boschsecurity.com/xc/en/support/.

Bosch Building Technologies Academy

Visit the Bosch Building Technologies Academy website and have access to **training courses, video tutorials** and **documents**: www.boschsecurity.com/xc/en/support/training/

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