

# Security Advisory: NoTouch deployment service

BVMS Vulnerability – January 2020

BOSCH-SA-815013-BT

CVE-2020-6768 (CVSS v3.1 Base Score: 8.6)

## 1 Overview and Management Summary

A path traversal vulnerability exists in the BVMS NoTouch deployment. If this vulnerability is exploited, an unauthenticated attacker without local shell access to a BVMS Central Server system is able to fetch arbitrary data from the file system of the Central Server computer. Under specific circumstances an attack can also be executed from the internet.

Bosch rates this vulnerability with a CVSS v3.1 Base Score of 8.6 (High) and strongly recommends customers to update vulnerable components with fixed software versions.

The vulnerability was found during internal security tests.

## 2 Technical Details

### 2.1 Vulnerability Classification and Solution Approach

This vulnerability is classified as “CWE-22 Improper Limitation of a Pathname to a Restricted Directory ('Path Traversal')”. CVE-2020-6768 is assigned to this vulnerability.

### 2.2 CVSS Rating

The CVSS v3.1 Base Score is rated at: **8.6 (High)**

[CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:C/C:H/I:N/A:N](#)

### 2.3 Impact

Attacks can be performed over the network, no physical access is required.

The attack complexity is low, a potential attacker does not need to possess any specific knowledge or any specific controlled conditions within the target environment. Successful attacks can be performed without prior authentication against the target system and without end user interaction.

The vulnerable component is the BVMS service. An impacted component is the entire file system of the server operating system, where BVMS server is running.

Successful attacks have critical confidentiality impacts.

## 3 Vulnerability Fix

### 3.1 Software Updates

The recommended approach is to update the software of the affected Bosch product to a fixed version (see chapter 5 and 6).

If an update is not possible in a timely manner, the temporary workaround can be utilized (see chapter 4).

## 4 Mitigations and Workarounds

### 4.1 Deactivating the vulnerable service

The vulnerability can be mitigated by deactivating the BVMS NoTouch deployment service via a Central Server application configuration file. This temporary workaround will also switch off the corresponding functionality completely.

To deactivate the vulnerable service:

1. Open the following configuration file  
*X:\Program Files\Bosch\AppData\Server\CentralServer\ServerDependenciesInjection.xml*
2. Find the following lines:  

```
<entry key="NoTouchDeploymentService.rem">
<ref object="NoTouchDeploymentService" />
</entry>
```
3. Comment them out. The modified lines should look like the following:  

```
<!--<entry key="NoTouchDeploymentService.rem">
<ref object="NoTouchDeploymentService" />
</entry-->
```
4. Restart the Central Service

### 4.2 Firewalling (Network)

It is advised that the devices should not be exposed directly to the internet or other insecure networks.

## 5 Affected Hardware

### 5.1 Bosch DIVAR IP

For Bosch DIVAR IP the following fixed firmware versions are suggested:

DIVAR IP versions	Affected versions	Name of patch to fix the vulnerability
DIVAR IP 3000	See BVMS Chapter 6.1	See BVMS Chapter 6.1
DIVAR IP 7000	See BVMS Chapter 6.1	See BVMS Chapter 6.1
DIVAR IP all-in-one 5000	See BVMS Chapter 6.1	See BVMS Chapter 6.1

## 6 Affected Software

### 6.1 BVMS

For BVMS the following patches are strongly recommended:

BVMS versions	Affected versions	Name of patch to fix the vulnerability
<b>10.0</b>	10.0.0.1225	BVMS10001225_Patch_SecurityIssue_211404_241463.zip
<b>9.0</b>	9.0.0.827	BVMS900827_Patch_SecurityIssue_211404_241463.zip
<b>8.0</b>	8.0.0.329	BVMS800329_Patch_SecurityIssue_211404_241463.zip
<b>7.5 and older</b>		Not provided (please upgrade BVMS to the latest version)

[BVMS Download Area](#)

## 6.2 BVMS Viewer

For the BVMS Viewer the following patches are strongly recommended:

BVMS Viewer versions	Affected versions	Name of patch to fix the vulnerability
<b>10.0</b>	10.0.0.1225	BVMS10001225_VWR_Patch_SecurityIssue_211404_241463.zip
<b>9.0</b>	9.0.0.827	BVMS900827_VWR_Patch_SecurityIssue_211404_241463.zip
<b>8.0</b>	8.0.0.329	BVMS800329_VWR_Patch_SecurityIssue_211404_241463.zip
<b>7.5 and older</b>		Not provided (please upgrade BVMS to the latest version)

[BVMS Viewer Download Area](#)

## 7 Direct Links

[Bosch Building Technologies Security Advisory page](#)

[Bosch PSIRT](#)

Note:

For specific software versions, which are not available in the Bosch Download Area, please contact your Bosch Support.

## 8 Document Change Log

2020.01.29 – Revision 1.00: Initial Release

## A Appendix Bosch DIVAR IP

Family Name	CTN	SAP#	Material description
DIVAR IP 3000	DIP-3042-2HD	F.01U.270.194	Appliance, 4 x 2 TB
DIVAR IP 3000	DIP-3042-4HD	F.01U.270.195	Appliance, 2 x 2 TB
DIVAR IP 3000	DIP-3040-00N	F.01U.270.196	Appliance, no HDD
DIVAR IP 7000	DIP-7180-00N	F.01U.314.520	DIVAR IP 7000 2U w/o HDD
DIVAR IP 7000	DIP-7183-4HD	F.01U.314.521	DIVAR IP 7000 2U 4x3TB
DIVAR IP 7000	DIP-7183-8HD	F.01U.314.522	DIVAR IP 7000 2U 8x3TB
DIVAR IP 7000	DIP-7184-4HD	F.01U.314.523	DIVAR IP 7000 2U 4x4TB
DIVAR IP 7000	DIP-7184-8HD	F.01U.314.524	DIVAR IP 7000 2U 8x4TB
DIVAR IP 7000	DIP-71F0-00N	F.01U.314.525	DIVAR IP 7000 3U w/o HDD
DIVAR IP 7000	DIP-71F3-16HD	F.01U.314.526	DIVAR IP 7000 3U 16x3TB
DIVAR IP 7000	DIP-71F4-16HD	F.01U.314.527	DIVAR IP 7000 3U 16x4TB
DIVAR IP 7000	DIP-7186-8HD	F.01U.329.143	DIVAR IP 7000 2U 8x6TB
DIVAR IP 7000	DIP-7188-8HD	F.01U.329.144	DIVAR IP 7000 2U 8x8TB
DIVAR IP 7000	DIP-71F6-16HD	F.01U.329.145	DIVAR IP 7000 3U 16x6TB
DIVAR IP 7000	DIP-71F8-16HD	F.01U.329.146	DIVAR IP 7000 3U 16x8TB
DIVAR IP 7000	DIP-7184-8HD-WAG	F.01U.343.277	DIVAR IP 7000 2U 8x4TB, WAG Kit
DIVAR IP 7000	DIP-7080-00N	F.01U.282.798	DIVAR IP 7000 w/o HDD
DIVAR IP 7000	DIP-7082-8HD	F.01U.282.797	DIVAR IP 7000 8x2TB
DIVAR IP 7000	DIP-7083-8HD	F.01U.294.541	DIVAR IP 7000 8x3TB
DIVAR IP 7000	DIP-7042-4HD	F.01U.289.875	DIVAR IP 7000 4x 2TB
DIVAR IP 7000	DIP-7042-2HD	F.01U.287.694	DIVAR IP 7000 2x 2TB
DIVAR IP 7000	DIP-7040-00N	F.01U.287.695	DIVAR IP 7000 1U w/o HDD
DIVAR IP 7000	DIP-7083-8HD-WAG	F.01U.303.398	DIVAR IP 7000 2U 8x3TB WAG
DIVAR IP all-in-one 5000	DIP-5240IG-00N	F.01U.361.821	Management Appliance w/o HDD
DIVAR IP all-in-one 5000	DIP-5244IG-4HD	F.01U.362.424	Management Appliance 4x4TB
DIVAR IP all-in-one 5000	DIP-5248IG-4HD	F.01U.362.423	Management Appliance 4x8TB
DIVAR IP all-in-one 5000	DIP-524CIG-4HD	F.01U.362.422	Management Appliance 4x12TB
DIVAR IP all-in-one 5000	DIP-5240GP-00N	F.01U.359.551	Management Appliance GPU wo HD
DIVAR IP all-in-one 5000	DIP-5244GP-4HD	F.01U.359.552	Management Appliance GPU 4x4TB
DIVAR IP all-in-one 5000	DIP-5248GP-4HD	F.01U.359.553	Management Appliance GPU 4x8TB
DIVAR IP all-in-one 5000	DIP-524CGP-4HD	F.01U.359.554	Management Appliance GPU 4x12TB

## B Appendix BVMS

Family Name	CTN	SAP#	Material description
<b>BVMS Professional 8.0</b>	MBV-BPRO-80	F.01U.347.048	License Professional base
<b>BVMS Enterprise 8.0</b>	MBV-BENT-80	F.01U.347.049	License Enterprise base
<b>BVMS Plus 8.0</b>	MBV-BPLU-80	F.01U.347.064	License Plus base
<b>BVMS Viewer 8.0</b>	MBV-BVWR-80	F.01U.347.074	License Viewer base
<b>BVMS Lite32 8.0</b>	MBV-BLIT32-80	F.01U.347046	License Lite32 base
<b>BVMS Lite64 8.0</b>	MBV-BLIT64-80	F.01U.347047	License Lite64 base
<b>BVMS Professional 9.0</b>	MBV-BPRO-90	F.01U.352.132	License Professional base
<b>BVMS Enterprise 9.0</b>	MBV-BENT-90	F.01U.352.133	License Enterprise base
<b>BVMS Plus 9.0</b>	MBV-BPLU-90	F.01U.352.148	License Plus base
<b>BVMS Viewer 9.0</b>	MBV-BVWR-90	F.01U.352.158	License Viewer base
<b>BVMS Lite16 9.0</b>	MBV-BLIT16-90	F.01U.358.969	License Lite16 base
<b>BVMS Lite32 9.0</b>	MBV-BLIT32-90	F.01U.358.970	License Lite32 base
<b>BVMS Lite64 9.0</b>	MBV-BLIT64-90	F.01U.358.971	License Lite64 base
<b>BVMS Professional 10.0</b>	MBV-BPRO-100	F.01U.362431	License Professional base
<b>BVMS Enterprise 10.0</b>	MBV-BENT-100	F.01U.362432	License Enterprise base
<b>BVMS Plus 10.0</b>	MBV-BPLU-100	F.01U.362445	License Plus base
<b>BVMS Viewer 10.0</b>	MBV-BVWR-100	F.01U.362471	License Viewer base
<b>BVMS Lite 10.0</b>	MBV-BLIT-100	F.01U.362455	License Lite base