

Cologne the 16.09.2022

Urgent safety information

Security patches
for
LOWTeqpdms

Sender

LOWTeq GmbH
support department
Mail: support@lowteq.de
Tel: +49 221 502946 12

Addressee

IT departments of the customers of LOWTeq

Identification of the medical devices concerned

All versions of LOWTeqpdms are affected.

Description of the problem including the identified cause

In the course of a security test (also penetration test) a vulnerability in LOWTeqpdms was identified. This vulnerability was already disclosed in advance in the vulnerability disclosure letters:

- LOWTEQ_PDMS_VU_2022/01: Remote Code Execution - Java RMI

Description of LOWTEQ_PDMS_VU_2022/01

The business logic for DRG billing runs in the GlassFish application server. In addition, the ActiveMQ message queue is integrated into the GlassFish application server, via which the synchronization of the PDMS clients with each other (in multiple access) is implemented.

Due to an insecure configuration of the Java JMX interface, it is possible to install custom Java classes on the server and execute it. Due to the disabled "com.sun.management.jmxremote.authenticate" function, no authentication is required and an attacker can access the Java JMX interface.

This vulnerability requires that the attacker has penetrated the internal network and has access to the server where GlassFish is installed. Additionally, the code must be uploaded to be executed and the attacker must know how the specific function to load the classes is to be invoked.

Impact

Remote code execution allows an attacker to execute code from the server. This makes it possible to take over the system completely.

Risks

The risk to patients is classified as **medium** due to the very specific attack scenario, which requires both access to the internal network infrastructure and very specific knowledge.

The CVSS 3.1 scores for this vulnerability (calculated with NVD - CVSS v3 Calculator) are 6.4 (Base) and 5.9 (Temporal), Overall 6.3: Medium. (see CVSS v3.1 Specification Document)

AV:L/AC:H/PR:H/UI:R/S:C/C:L/I:H/A:L/E:F/RL:O/RC:C/CR:M/IR:M/AR:M/MAV:N/MAC:H/MPR:H/MUI:R/MS:C/MC:L/MI:H/MA:L

There is no risk for already treated patients, users or third parties.

What measures are to be taken by the addressee

A configurational change must be made to secure the SMB shares. The detailed instructions for performing this are enclosed with this security information.

In the meantime, no additional measures need to be taken. The operation of LOWTeqpdms is safe.

The configurational change can be done by you independently of updates.

Disclosure of the information described herein

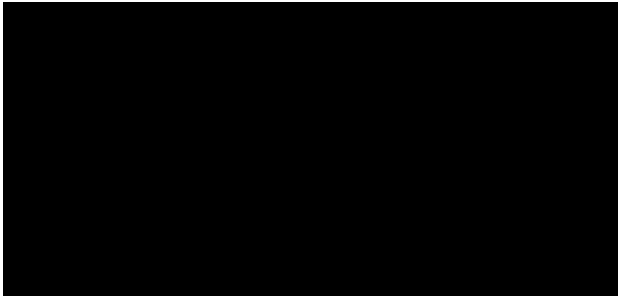
Please ensure that all users of LOWTeqpdms and other persons to be informed are made aware of this **Urgent Safety Information**. If you have given the products to third parties, please forward a copy of this information or inform the contact person listed below.

Please keep this information at least until the action has been completed.

The Bundesinstitut für Arzneimittel und Medizinprodukte has received a copy of this "Urgent Safety Information".

Contact

Contact person is the head of support: Mr. Andreas Heidenreich
Mr. Heidenreich can be reached via the support e-mail address, the telephone number given is
manned 24 hours a day-.



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Identification of the medical devices concerned

All versions of LOWTeqpdms are affected.

Description of the problem including the identified cause

In the course of a security test (also penetration test) a vulnerability in LOWTeqpdms was identified. This vulnerability was already disclosed in advance in the vulnerability disclosure letters:

- LOWTEQ_PDMS_VU_2022/02: Security Misconfiguration- SMB Shares

Description of LOWTEQ_PDMS_VU_2022/02

The SMB shares are primarily used to store the PDMS configuration data (rules, scores, billing catalogs) and the PDMS archives to be distributed. If necessary, the .pdf documents for dispatch by the interfaces are also stored here. These SMB shares are partially insufficiently protected against unauthorized access.

This vulnerability requires that the attacker has penetrated the internal network and has access to the server where the SMB shares are set up.

Impact

Through write access to network drives, for example, malware can be introduced onto the customer's systems. Every employee who accesses this data (e.g. application data in the Client folder) could possibly open his system to the attacker.

Risks

The risk for patients is classified as **Low** due to the very specific attack scenario, which requires both access to the internal network infrastructure and very specific knowledge with low damage severity.

The CVSS 3.1 scores for this vulnerability (calculated with NVD - CVSS v3 Calculator) are 5.9 (Base) and 5.5 (Temporal), Overall (3.6). Low. (see CVSS v3.1 Specification Document)

AV:N/AC:L/PR:H/UI:R/S:C/C:L/I:L/A:L/E:F/RL:O/RC:C/CR:M/IR:L/AR:M/MAV:N/MAC:L/MPR:H/MUI:R/MS:C/MC:N/MI:H/MA:N

There is no risk for already treated patients, users or third parties.

What measures are to be taken by the addressee

A configurational change must be made to secure the SMB shares. Detailed instructions on how to do this are included with this security information.

In the meantime, no additional measures need to be taken. The operation of LOWTeqpdms is safe. The configurational change can be performed by you independently of updates.

Disclosure of the information described herein

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Identification of the medical devices concerned

Affected are all versions of LOWTeqpdms up to version 7.24.02. Higher versions are not affected.

Description of the problem including the identified cause

In the course of a security test (also penetration test) a vulnerability in LOWTeqpdms was identified. This vulnerability was already disclosed in advance in the vulnerability disclosure letters:

- LOWTEQ_PDMS_VU_2022/03 : SQL injection - patient search function

Description of LOWTEQ_PDMS_VU_2022/03

In general, the communication of the PDMS with the database is protected against SQL injections. The patient search dialog and the protocol load dialog are the exception here, since SQL statements are still sent directly via the JDBC interface at this point.

This vulnerability requires that the attacker has physical access to the clients on which the PDMS is installed. In addition, the attacker must authenticate on both Windows and PDMS and open the search dialog. The attacker also needs knowledge of SQL and how to formulate SQL statements for injections.

Impact

An SQL injection allows an attacker to read, write or manipulate database contents. The attack is executed via the input fields of the search dialog. The attacker manipulates an SQL command using special characters, allowing authentication bypass or database manipulation. It is possible for an attacker to read modify and delete data from the database.

Risks

The risk for patients is graded due to the very specific attack scenario, which requires both access to the internal network infrastructure and very specific knowledge as a **medium**.

The CVSS 3.1 scores for this vulnerability (calculated with NVD - CVSS v3 Calculator) are 6.7 (Base) and 6.2 (Temporal), Overall 6.4: Medium. (see CVSS v3.1 Specification Document)

AV:P/AC:H/PR:H/UI:R/S:C/C:H/I:H/A:L/E:F/RL:O/RC:C/CR:H/IR:H/AR:H/MAV:P/MAC:H/MPR:H/MUI:R/MS:C/MC:H/MI:H/MA:N

There is no risk for already treated patients, users or third parties.

What measures are to be taken by the addressee

You have to update LOWTeqpdms to version 7.24.03 or higher.

In the meantime, no additional measures need to be taken. The operation of LOWTeqpdms is safe. The update will be carried out in consultation with you as part of the usual update cycles, but at the latest by the end of 2022.

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