

SSA-701903: SMBv1 Vulnerabilities in Ultrasound Products from Siemens Healthineers

Publication Date 2017-05-22
Last Update 2017-06-14
Current Version V1.2
CVSS v3.0 Base Score 9.8

SUMMARY

Select Ultrasound products from Siemens Healthineers are affected by the Microsoft Windows SMBv1 vulnerabilities. The exploitability of the vulnerabilities depends on the actual configuration and deployment environment of each product.

Siemens Healthineers provides updates for ACUSON SC2000™, *syngo*® SC2000™, ACUSON P500™, and ACUSON X700™. Siemens Healthineers is working on patches for the remaining affected products, and recommends specific countermeasures until patches can be applied.

AFFECTED PRODUCTS

- ACUSON SC2000™ ultrasound system: Version 4.x without US010/17S
- ACUSON SC2000™ ultrasound system: Version 5.x without US011/17/S
- *syngo*® SC2000™ Workplace: Version 4.x without US010/17/S
- *syngo*® SC2000™ Workplace: Version 5.x without US011/17/S
- ACUSON X700™ ultrasound system: All versions V1.0 without US013/17/S
- ACUSON X700™ ultrasound system: All versions V1.1 without US014/17/S
- ACUSON P500™ ultrasound system: Version VA10 without US015/17/S
- ACUSON P500™ ultrasound system: Version VB10 without US016/17/S
- ACUSON P300™ ultrasound system: All versions

DESCRIPTION

Siemens Healthineers ACUSON SC2000 ultrasound systems and *syngo* Workplace products are used in clinical environments as connected or stand-alone devices for ultrasound imaging and image review purposes, respectively.

Siemens Healthineers ACUSON X700 ultrasound systems are used in clinical environments as connected or stand-alone devices for ultrasound imaging purposes.

Siemens Healthineers ACUSON P500 ultrasound systems and ACUSON P300 ultrasound systems are used as portable devices in clinical or point-of-care environments for ultrasound imaging purposes.

Detailed information about the vulnerabilities is provided below.

VULNERABILITY CLASSIFICATION

The vulnerability classification has been performed by using the CVSS scoring system in version 3.0 (CVSS v3.0) (<http://www.first.org/cvss/>). The CVSS environmental score is specific to the customer's environment and will impact the overall CVSS score. The environmental score should therefore be individually assessed by the customer to accomplish final scoring.

Vulnerability 1 (CVE-2017-0143)

An unauthenticated remote attacker could execute arbitrary code via specially crafted requests sent to the SMBv1 server of affected Microsoft Windows systems.

CVSS Base Score 9.8
CVSS Vector CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H/E:H/RL:O/RC:C

Vulnerability 2 (CVE-2017-0144)

An unauthenticated remote attacker could execute arbitrary code via specially crafted requests sent to the SMBv1 server of affected Microsoft Windows systems.

CVSS Base Score 9.8
CVSS Vector CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H/E:H/RL:O/RC:C

Vulnerability 3 (CVE-2017-0145)

An unauthenticated remote attacker could execute arbitrary code via specially crafted requests sent to the SMBv1 server of affected Microsoft Windows systems.

CVSS Base Score 9.8
CVSS Vector CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H/E:H/RL:O/RC:C

Vulnerability 4 (CVE-2017-0146)

An unauthenticated remote attacker could execute arbitrary code via specially crafted requests sent to the SMBv1 server of affected Microsoft Windows systems.

CVSS Base Score 9.8
CVSS Vector CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H/E:H/RL:O/RC:C

Vulnerability 5 (CVE-2017-0147)

An authenticated remote attacker could potentially disclose information from the server by sending specially crafted packets to the SMBv1 server of affected Microsoft Windows systems.

CVSS Base Score 5.3
CVSS Vector CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N/E:H/RL:O/RC:C

Vulnerability 6 (CVE-2017-0148)

An unauthenticated remote attacker could execute arbitrary code via specially crafted requests sent to the SMBv1 server of affected Microsoft Windows systems.

CVSS Base Score 9.8
CVSS Vector CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H/E:H/RL:O/RC:C

SOLUTION

Siemens Healthineers provides security updates for the following software versions of the affected devices:

- ACUSON SC2000™ ultrasound system: Version 4.x: US010/17S
- ACUSON SC2000™ ultrasound system: Version 5.x US011/17/S
- *syngo*® SC2000™ Workplace: Version 4.x: US010/17/S
- *syngo*® SC2000™ Workplace: Version 5.x: US011/17/S
- ACUSON X700™ ultrasound system: Version V1.0: US013/17/S
- ACUSON X700™ ultrasound system: Versions V1.1: US014/17/S
- ACUSON P500™ ultrasound system: Version VA10: US015/17/S
- ACUSON P500™ ultrasound system: Version VB10: US016/17/S

The update for ACUSON P500 VB10 will be automatically available for customers with remote support. If no remote support is available or for questions regarding the update procedure, please contact customer service.

The update for the other products will be available for customer onsite installation.

The correct installation can be verified by checking if the correct software version is installed by checking the following menus:

- ACUSON X700™ ultrasound system: “Preset -> Select Device -> Verify”
- ACUSON P500™ ultrasound system: “Config -> Select Device -> Verify”

Until patches can be applied by the customer support and for end-of-support products, Siemens Healthineers recommends to isolate affected products that are listening on network ports 139/tcp, 445/tcp or 3389/tcp from any infected system within its respective network segment (e.g. by firewall blocking access to above network ports.)

If the above cannot be implemented we recommend the following:

- If patient safety and treatment is not at risk, disconnect the uninfected product from the network and use in standalone mode.
- Reconnect the product only after the provided patch or remediation is installed on the system. Siemens Healthineers is able to patch systems capable of Remote Update Handling (RUH) much faster by remote software distribution compared to onsite visits. Therefore customers of RUH capable equipment are recommended to clarify the situation concerning patch availability and remaining risk in the local customer network with the Siemens Customer Care Center first and then to re-connect their systems in order to receive patches as fast as possible via Remote Update Handling. This ensures smooth and fast receipt of updates and therefore supports re-establishment of system operations.

In addition, Siemens Healthineers recommends:

- Ensure you have appropriate backups and system restoration procedures.
- For specific patch and remediation guidance information contact your local Siemens Healthineers Customer Service Engineer, portal or our Regional Support Center.

ADDITIONAL RESOURCES

[1] Customer Information on WannaCry Malware for Siemens Healthineers Imaging and Diagnostics Products is available here:

https://www.siemens.com/cert/pool/cert/siemens_security_bulletin_ssb-412479.pdf

[2] For further inquiries on vulnerabilities in Siemens products and solutions, please contact the Siemens ProductCERT:

<https://www.siemens.com/cert/advisories>

HISTORY DATA

V1.0 (2017-05-22): Publication Date
V1.1 (2017-06-01): Added update information
V1.2 (2017-06-14): Added information on Remote Update Handling (RUH)

DISCLAIMER

See: https://www.siemens.com/terms_of_use