

Manufacturer Disclosure Statement for Medical Device Security – MDS²

DEVICE DESCRIPTION

Device Category Ultrasound	Manufacturer FUJIFILM SonoSite, Inc.	Document ID D18692 Rev D	Document Release Date September, 2018
Device Model Edge II	Software Revision 3.0		Software Release Date November, 2018
Manufacturer or Representative Contact Information	Company Name FUJIFILM SonoSite, Inc.	Manufacturer Contact Information FUJIFILM SonoSite Technical Support	
	Representative Name/Position FUJIFILM SonoSite Technical Support	Phone: 877-657-8118	
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Intended use of device in network-connected environment:
[DICOM based communications including but not limited to: Ultrasound Image Storage, Modality Worklist, Print, Storage Commitment, Modality Performed Procedure Step](#)

MANAGEMENT OF PRIVATE DATA

Refer to Section 2.3.2 of this standard for the proper interpretation of information requested in this form.		Yes, No, N/A, or See Note	Note #
A	Can this device display, transmit, or maintain private data (including electronic Protected Health Information [ePHI])?	Yes	1
B	Types of private data elements that can be maintained by the device :		
	B.1 Demographic (e.g., name, address, location, unique identification number)?	Yes	—
	B.2 Medical record (e.g., medical record #, account #, test or treatment date, device identification number)?	Yes	—
	B.3 Diagnostic/therapeutic (e.g., photo/radiograph, test results, or physiologic data with identifying characteristics)?	Yes	—
	B.4 Open, unstructured text entered by device user/operator ?	Yes	—
	B.5 Biometric data ?	N/A	—
	B.6 Personal financial information?	No	—
C	Maintaining private data - Can the device :		
	C.1 Maintain private data temporarily in volatile memory (i.e., until cleared by power-off or reset)?	Yes	—
	C.2 Store private data persistently on local media?	Yes	—
	C.3 Import/export private data with other systems?	Yes	2
	C.4 Maintain private data during power service interruptions?	Yes	—
D	Mechanisms used for the transmitting, importing/exporting of private data – Can the device :		
	D.1 Display private data (e.g., video display, etc.)?	Yes	—
	D.2 Generate hardcopy reports or images containing private data ?	Yes	—
	D.3 Retrieve private data from or record private data to removable media (e.g., disk, DVD, CD-ROM, tape, CF/SD card, memory stick, etc.)?	Yes	—
	D.4 Transmit/receive or import/export private data via dedicated cable connection (e.g., IEEE 1073, serial port, USB, FireWire, etc.)?	No	—
	D.5 Transmit/receive private data via a wired network connection (e.g., LAN, WAN, VPN, intranet, Internet, etc.)?	Yes	—
	D.6 Transmit/receive private data via an integrated wireless network connection (e.g., WiFi, Bluetooth, infrared, etc.)?	Yes	—
	D.7 Import private data via scanning?	Yes	—
	D.8 Other?	—	—

1) Along with ultrasound images and clips, the device has the ability to store and transmit the following ePHI items:

Management of [full patient name, DOB, gender, patient ID, accession number and indications.](#)

Private Data notes: 2) [The device must be licensed and configured for data communications](#)

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SECURITY CAPABILITIES

Refer to Section 2.3.2 of this standard for the proper interpretation of information requested in this form.		Yes, No, N/A, or See Note	Note #
1	AUTOMATIC LOGOFF (ALOF) The device's ability to prevent access and misuse by unauthorized users if device is left idle for a period of time.		
1-1	Can the device be configured to force reauthorization of logged-in user(s) after a predetermined length of inactivity (e.g., auto-logout, session lock, password protected screen saver)?	Yes	—
1-1.1	Is the length of inactivity time before auto-logout/screen lock user or administrator configurable? (Indicate time [fixed or configurable range] in notes.)	Yes	1,2
1-1.2	Can auto-logout/screen lock be manually invoked (e.g., via a shortcut key or proximity sensor, etc.) by the user ?	No	—
ALOF notes:	1) Inactivity timer to enter sleep mode configurable to off, 5 minutes or 10 minutes. 2) Inactivity timer to power down configurable to off, 15 minutes or 30 minutes.		
2	AUDIT CONTROLS (AUDT) The ability to reliably audit activity on the device .		
2-1	Can the medical device create an audit trail ?	Yes	1
2-2	Indicate which of the following events are recorded in the audit log:		
2-2.1	Login/logout	Yes	—
2-2.2	Display/presentation of data	No	—
2-2.3	Creation/modification/deletion of data	No	—
2-2.4	Import/export of data from removable media	No	—
2-2.5	Receipt/transmission of data from/to external (e.g., network) connection	No	—
2-2.5.1	Remote service activity	N/A	1
2-2.6	Other events? (describe in the notes section)	See Note	2
2-3	Indicate what information is used to identify individual events recorded in the audit log:		
2-3.1	User ID	Yes	—
2-3.2	Date/time	Yes	—
AUDT notes:	1) There is no remote access to the device. 2) Audit functions only provided when system is configured for Administrative mode. Individual user accounts are required when configured for Administrative mode.		
3	AUTHORIZATION (AUTH) The ability of the device to determine the authorization of users.		
3-1	Can the device prevent access to unauthorized users through user login requirements or other mechanism?	Yes	—
3-2	Can users be assigned different privilege levels within an application based on 'roles' (e.g., guests, regular users , power users , administrators, etc.)?	Yes	1
3-3	Can the device owner/ operator obtain unrestricted administrative privileges (e.g., access operating system or application via local root or admin account)?	No	—
AUTH notes:	1) Individual user accounts are required when the device is configured for Administrative mode. Accounts can be created for device administrators and general users.		

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4 CONFIGURATION OF SECURITY FEATURES (CNFS)				
The ability to configure/re-configure device security capabilities to meet users' needs.				
4-1	Can the device owner/operator reconfigure product security capabilities ?		Yes	1
1) With the appropriate administrative privileges, the device owner may reconfigure the security capabilities.				
CNFS notes:				
5 CYBER SECURITY PRODUCT UPGRADES (CSUP)				
The ability of on-site service staff, remote service staff, or authorized customer staff to install/upgrade device's security patches.				
5-1	Can relevant OS and device security patches be applied to the device as they become available?		Yes	1
5-1.1	Can security patches or other software be installed remotely?		No	2
1) FUJIFILM SonoSite will provide system updates to deploy any applicable security patches.				
2) There is no remote access to the device.				
CSUP notes:				
6 HEALTH DATA DE-IDENTIFICATION (DIDT)				
The ability of the device to directly remove information that allows identification of a person.				
6-1	Does the device provide an integral capability to de-identify private data ?		Yes	1,2
1) The device can be configured to mask PHI on the display screen.				
2) The device has a feature to anonymize patient data prior to USB export.				
DIDT notes:				
7 DATA BACKUP AND DISASTER RECOVERY (DTBK)				
The ability to recover after damage or destruction of device data, hardware, or software.				
7-1	Does the device have an integral data backup capability (i.e., backup to remote storage or removable media such as tape, disk)?		No	—
DTBK notes:				
8 EMERGENCY ACCESS (EMRG)				
The ability of device users to access private data in case of an emergency situation that requires immediate access to stored private data .				
8-1	Does the device incorporate an emergency access ("break-glass") feature?		No	—
EMRG notes:				
9 HEALTH DATA INTEGRITY AND AUTHENTICITY (IGAU)				
How the device ensures that data processed by the device has not been altered or destroyed in an unauthorized manner and is from the originator.				
9-1	Does the device ensure the integrity of stored data with implicit or explicit error detection/correction technology?		No	—
IGAU notes:				

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10 MALWARE DETECTION/PROTECTION (MLDP)					
The ability of the device to effectively prevent, detect and remove malicious software (malware).					
10-1	Does the device support the use of anti-malware software (or other anti-malware mechanism)?			No	1
10-1.1	Can the user independently re-configure anti-malware settings?			N/A	—
10-1.2	Does notification of malware detection occur in the device user interface?			N/A	—
10-1.3	Can only manufacturer-authorized persons repair systems when malware has been detected?			N/A	—
10-2	Can the device owner install or update anti-virus software ?			No	1
10-3	Can the device owner/ operator (technically/physically) update virus definitions on manufacturer-installed anti-virus software ?			N/A	—
MLDP notes:	1) FUJIFILM SonoSite ultrasound systems feature whitelist software, which prevents third-party software from being installed and/or executed on the product. No third party software can be installed and/or executed on FUJIFILM SonoSite ultrasound systems.				
11 NODE AUTHENTICATION (NAUT)					
The ability of the device to authenticate communication partners/nodes.					
11-1	Does the device provide/support any means of node authentication that assures both the sender and the recipient of data are known to each other and are authorized to receive transferred information?			Yes	1
NAUT notes:	1) When optionally configured for DICOM based communications, the modality (sender) and the recipient must be identified.				
12 PERSON AUTHENTICATION (PAUT)					
Ability of the device to authenticate users					
12-1	Does the device support user/operator -specific username(s) and password(s) for at least one user ?			Yes	—
12-1.1	Does the device support unique user/operator -specific IDs and passwords for multiple users?			Yes	—
12-2	Can the device be configured to authenticate users through an external authentication service (e.g., MS Active Directory, NDS, LDAP, etc.)?			No	—
12-3	Can the device be configured to lock out a user after a certain number of unsuccessful logon attempts?			No	—
12-4	Can default passwords be changed at/prior to installation?			N/A	2
12-5	Are any shared user IDs used in this system?			Yes	1
12-6	Can the device be configured to enforce creation of user account passwords that meet established complexity rules?			No	—
12-7	Can the device be configured so that account passwords expire periodically?			No	—
PAUT notes:	1) User authentication is required when the system is configured in the optional Administrative mode. Up to 20 user accounts can be created, and may be shared. 2) FUJIFILM SonoSite systems do not ship with default passwords				
13 PHYSICAL LOCKS (PLOK)					
Physical locks can prevent unauthorized users with physical access to the device from compromising the integrity and confidentiality of private data stored on the device or on removable media .					
13-1	Are all device components maintaining private data (other than removable media) physically secure (i.e., cannot remove without tools)?			Yes	—
PLOK notes:					

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14	ROADMAP FOR THIRD PARTY COMPONENTS IN DEVICE LIFE CYCLE (RDMP)				
	Manufacturer's plans for security support of 3rd party components within device life cycle.				
14-1	In the notes section, list the provided or required (separately purchased and/or delivered) operating system(s) - including version number(s).			Yes	1
14-2	Is a list of other third party applications provided by the manufacturer available?			Yes	2
RDMP notes:	<p>1) FUJIFILM SonoSite systems run on a closed proprietary operating system which includes components from WindRiver VxWorks (5.4.2) and Windows Embedded Compact 7 (WEC7).</p> <p>2) FUJIFILM SonoSite ultrasound systems does not contain any third party applications, but makes use of third party libraries which are available upon request.</p>				
15	SYSTEM AND APPLICATION HARDENING (SAHD)				
	The device's resistance to cyber attacks and malware .				
15-1	Does the device employ any hardening measures? Please indicate in the notes the level of conformance to any industry-recognized hardening standards.			Yes	1
15-2	Does the device employ any mechanism (e.g., release-specific hash key, checksums, etc.) to ensure the installed program/update is the manufacturer-authorized program or software update?			No	—
15-3	Does the device have external communication capability (e.g., network, modem, etc.)?			Yes	2
15-4	Does the file system allow the implementation of file-level access controls (e.g., New Technology File System (NTFS) for MS Windows platforms)?			No	—
15-5	Are all accounts which are not required for the intended use of the device disabled or deleted, for both users and applications?			Yes	3
15-6	Are all shared resources (e.g., file shares) which are not required for the intended use of the device , disabled?			Yes	—
15-7	Are all communication ports which are not required for the intended use of the device closed/disabled?			Yes	1
15-8	Are all services (e.g., telnet, file transfer protocol [FTP], internet information server [IIS], etc.), which are not required for the intended use of the device deleted/disabled?			Yes	—
15-9	Are all applications (COTS applications as well as OS-included applications, e.g., MS Internet Explorer, etc.) which are not required for the intended use of the device deleted/disabled?			Yes	—
15-10	Can the device boot from uncontrolled or removable media (i.e., a source other than an internal drive or memory component)?			No	—
15-11	Can software or hardware not authorized by the device manufacturer be installed on the device without the use of tools?			No	—
SAHD notes:	<p>1) All ports and services not needed for the device to operate as intended have been disabled or removed.</p> <p>2) The device can to connect to a wired or wireless network. The DICOM ports are configurable in Settings.</p> <p>3) There are no default service accounts on the device.</p>				
16	SECURITY GUIDANCE (SGUD)				
	The availability of security guidance for operator and administrator of the system and manufacturer sales and service.				
16-1	Are security-related features documented for the device user ?			Yes	—
16-2	Are instructions available for device /media sanitization (i.e., instructions for how to achieve the permanent deletion of personal or other sensitive data)?			Yes	—
SGUD notes:					

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17 HEALTH DATA STORAGE CONFIDENTIALITY (STCF)				
The ability of the device to ensure unauthorized access does not compromise the integrity and confidentiality of private data stored on device or removable media .				
17-1	Can the device encrypt data at rest?		Yes	1
1) The device uses AES-256 bit encryption to protect data at rest.				
STCF notes:				
18 TRANSMISSION CONFIDENTIALITY (TXCF)				
The ability of the device to ensure the confidentiality of transmitted private data .				
18-1	Can private data be transmitted only via a point-to-point dedicated cable?		No	—
18-2	Is private data encrypted prior to transmission via a network or removable media ? (If yes, indicate in the notes which encryption standard is implemented.)		No	1
18-3	Is private data transmission restricted to a fixed list of network destinations?		Yes	—
1) Customers can order an optional FIPS 140-2 validated WiFi module to ensure data confidentiality between the system and their access point.				
TXCF notes:				
19 TRANSMISSION INTEGRITY (TXIG)				
The ability of the device to ensure the integrity of transmitted private data .				
19-1	Does the device support any mechanism intended to ensure data is not modified during transmission? (If yes, describe in the notes section how this is achieved.)		Yes	1
FUJIFILM SonoSite systems use industry standard error redundant protocols such as TCP based transmission schemes.				
TXIG notes:				
20 OTHER SECURITY CONSIDERATIONS (OTHR)				
Additional security considerations/notes regarding medical device security.				
20-1	Can the device be serviced remotely?		No	—
20-2	Can the device restrict remote access to/from specified devices or users or network locations (e.g., specific IP addresses)?		N/A	—
20-2.1	Can the device be configured to require the local user to accept or initiate remote access?		N/A	—
OTHR notes:				