YOKOGAWA	DOCUMENT NUMBER: SNW-EM-513

DOCUMENT TITLE:

Antivirus Policy for FAT target and in-house systems

HISTORY LOG				
Rev.	**Date**	**Description of Changes**	**Originator**	**Approver**
0	31 Mar 11	Initial	Jeffrey Foo	Lee Kock Hin
1	20-Sep-12	Approved	Jeffrey Foo	Lee Kock Hin

1. Purpose and scope

This policy document outlines the steps necessary to assure proper functionality of the FAT target and in-house systems and to assure the Yokogawa System is free of viruses and patched with the latest approved Windows updates at the time of connecting to staging network and delivery by Yokogawa Electric International Pte Ltd.

1.1 Abbreviations

AV	Antivirus
WSUS	Windows Server Update Services
FAT target Systems	Windows-based systems that belong or will be shipped to customer
In-house Systems	Windows-based systems that belong to YEI for testing or demo purpose
FAT	Factory Acceptance Test
YEI	Yokogawa Electric International Pte Ltd

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Responsibilities

It is the Lead Project/Solutions Engineer's responsibility to make sure the steps listed below are carried out during staging, internal testing, and FAT before delivery to the customer. The Lead Project Engineer shall plan with Project Manager sufficient time for execution of the tests and for corrective actions (if any).

The Lead Project/Solutions Engineer will acquire Anti-virus software for the FAT target systems. For any PCs or Severs used by FAT target /in-house / third parties systems, the Project Lead Engineer shall ensure installation of antivirus and update of virus definition file by the implementation engineers or third party vendor. Also, any external peripherals like thumb-drive/external hard-disk should be scanned and cleaned of virus before using them with the above systems.

In the event the AV software and licenses does not belong to customers for FAT target systems, the project manager must ensure the proper un-installation of antivirus software from the FAT target systems prior to shipment.

All systems with Windows Operating system installed should be patched with the latest Yokogawa approved updates. A centralize server installed with WSUS is highly recommended to ensure all the targeted systems have successfully installed the patches, it will also prevent all the targeted systems from accessing the Internet.

The Project/Solutions Lead Engineer shall ensure no illegal licenses issues for FAT target system. (For other in-house machine issued by other depts., the respective department managers are to ensure the same.)

Antivirus and WSUS software

In-house systems (Yokogawa Assets)

Project Manager can approach ISS via e-support for purchase of AV software. Note: the in-house systems are to be tagged with Yokogawa asset tag before purchasing.

FAT TARGET systems (Customer Assets or non-Yokogawa Assets)

Project Manager can approach the Network and Security Sales Team members for quotation of AV software and professional services.

WSUS software can be downloaded from Microsoft website without any additional cost in licensing.

Tests

The tests carried out shall include:

- Verification of licensing issues and antivirus software
- Ensure that all Microsoft patches are the latest approved with reference to Yokogawa website: http://www.yokogawa.com/vps/update/msup/vps-msup-en.htm
- Scan for viruses

The execution of the tests and the test results shall be documented properly. The documents shall be stored electronically with each project in the projects folder on the project file server.

1.2 Verification of licensing issues and antivirus software

It shall be verified that valid and legal licenses exist for all components of the Control System. Licenses are usually issued for software components and must have been purchased for:

- Operating System (OS)
- Application program if applicable (e. g. spreadsheet program, word processor, etc.)
- Yokogawa software package (e. g. Exaquantum, AAM, OmegaLand, etc.)
- Antivirus software and licenses

Besides licensing the Operating Systems, additional licenses may be required for certain functionalities of the operating system. Examples are CALs (client access license) for Server OS'es, TS-CALs (client access licenses for terminal services) etc.

The tests must be documented for each project. The documents shall include

- List of items being checked
- Result of test ("GO"/"NG"/NA)
- Date of test and person's name in charge

If the result of any test is "fail", corrective actions need to be performed to achieve a "pass" result of the specific test.

*Note The project manager must ensure that the implementation engineer check with the product owner on which antivirus is compatible with the application and Yokogawa software packages.

1.3 Installation of antivirus and WSUS solution

Protecting the FAT target and in-house systems from virus is an important measure to assure correct and reliable system behavior. For this reason and also to prevent other systems connected to the Control System from getting infected, an overall installation and virus scan of all PCs (including servers) of a certain project shall be executed before any connection to staging network.

1.4 Scan for viruses

Scanning for and elimination of viruses is an important measure to assure correct and reliable system behavior. For this reason and also to prevent other systems connected to the Control System from getting infected an overall virus scan of all PCs (including servers/thumb-drive/external hard-disk) of a certain project shall be executed before staging, internal testing, and FAT, and prior to delivery. The scan shall include all files on all partitions of all hard disks.

For the scan to show meaningful results it is essential to use up-to-date virus definition files. For this reason the antivirus software must be loaded with the latest virus definition files before testing.

The tests must be documented for each project. The documents shall include

- List of PC's/server's/ thumb-drive/hard-disk being scanned for viruses
- Result of test ("GO"/"NG")
- Date of test and person's name in charge

If the result of any test is "fail", corrective actions need to be performed to achieve a "pass" result of the specific test.

1.5 Antivirus definition update

As the staging network has no connection to Yokogawa network or internet. Updates on antivirus engine and virus pattern files must be manually download from the AV website. It is recommended that this manual download of virus pattern files to be done on weekly basis unless there is a known notification of major virus outbreak. If there is a major virus outbreak, it is recommended downloading the files immediately. All external tools (like thumb drive) used for transferring of virus pattern file must also be scanned using company issued PC which are already automatically updated with the latest virus pattern file. The project manager must ensure the implementation engineer to download the latest AV definition files update from the AV website and installed into the FAT target or in-house devices individually for the duration of the project.

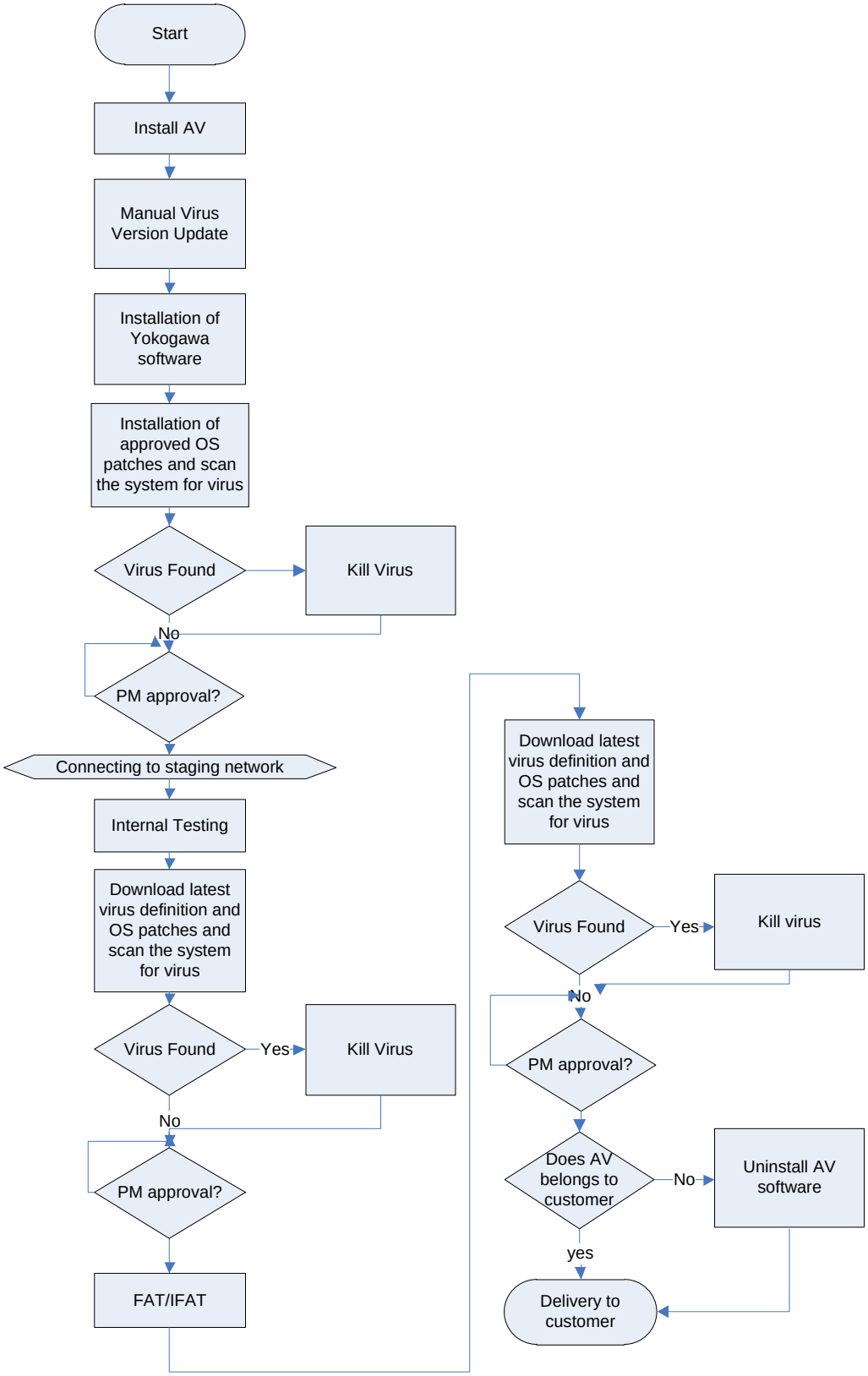
WSUS updates download

As the same situation with Antivirus updates, only the WSUS server will get all the approved patches. Either from Internet directly or manually downloaded. All the Windows systems should be configured to get the updates from the dedicated WSUS server.

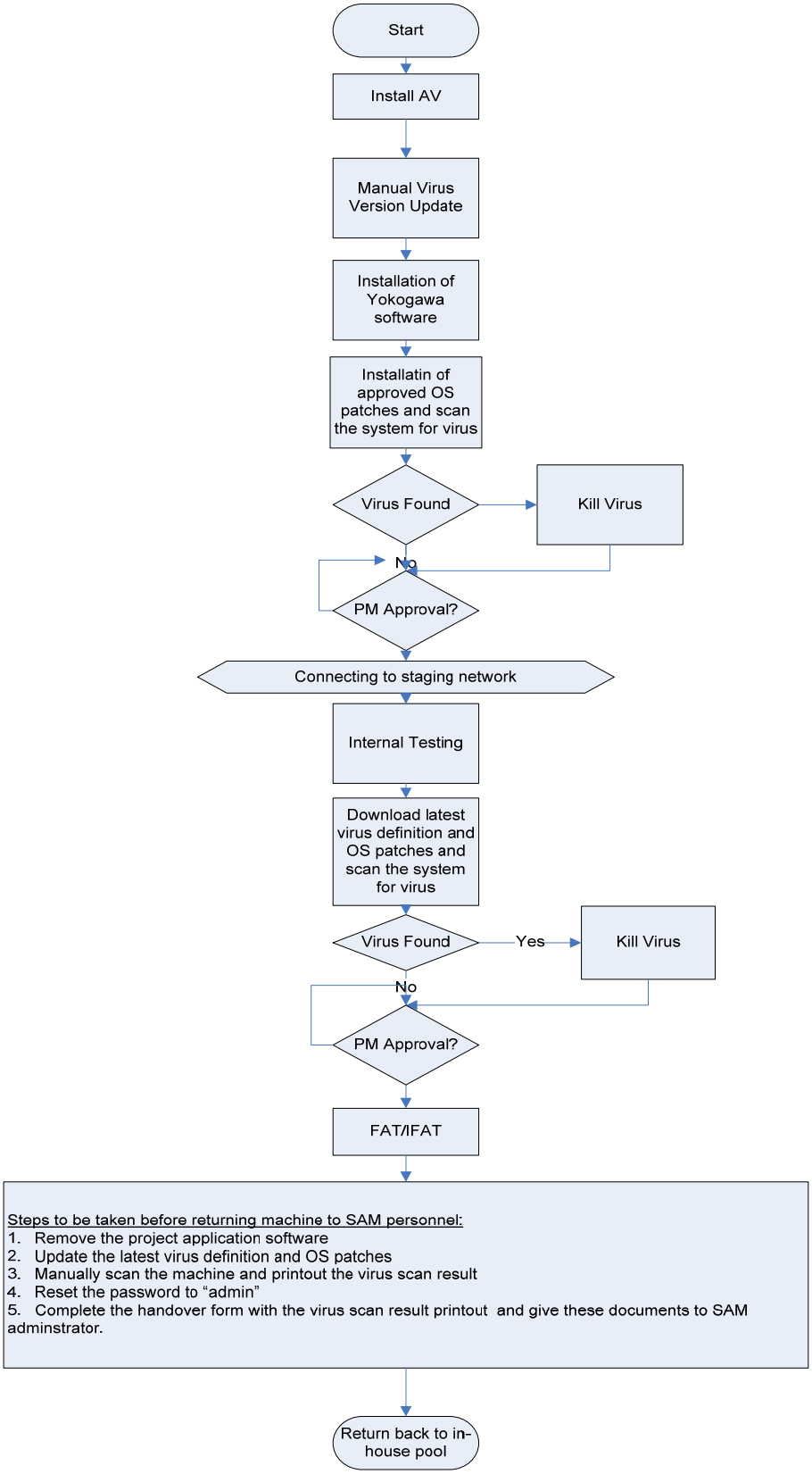
Completion of Inspection & Virus Scan

After completion of all tests mentioned above, all test documents shall be passed to the specific Lead Project/Solutions Engineer for review. If any test failed to complete successfully and correction was not possible, the Lead Project/Solutions Engineer shall be made aware of this situation. Unless the inspection and virus scan is a success, the relevant PC/server/thumb-drive/hard-disk cannot be connected to the FAT target/in-house system setup.

Appendix A – Antivirus Workflow for FAT Target systems



Appendix B – Antivirus Workflow flow chart for in-house systems



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