



ACCELERATING
INNOVATION

**[3-1868] Patch in a Flash! Use DeltaV
Integrated Patch Management to Quickly
and Securely Patch Your System**

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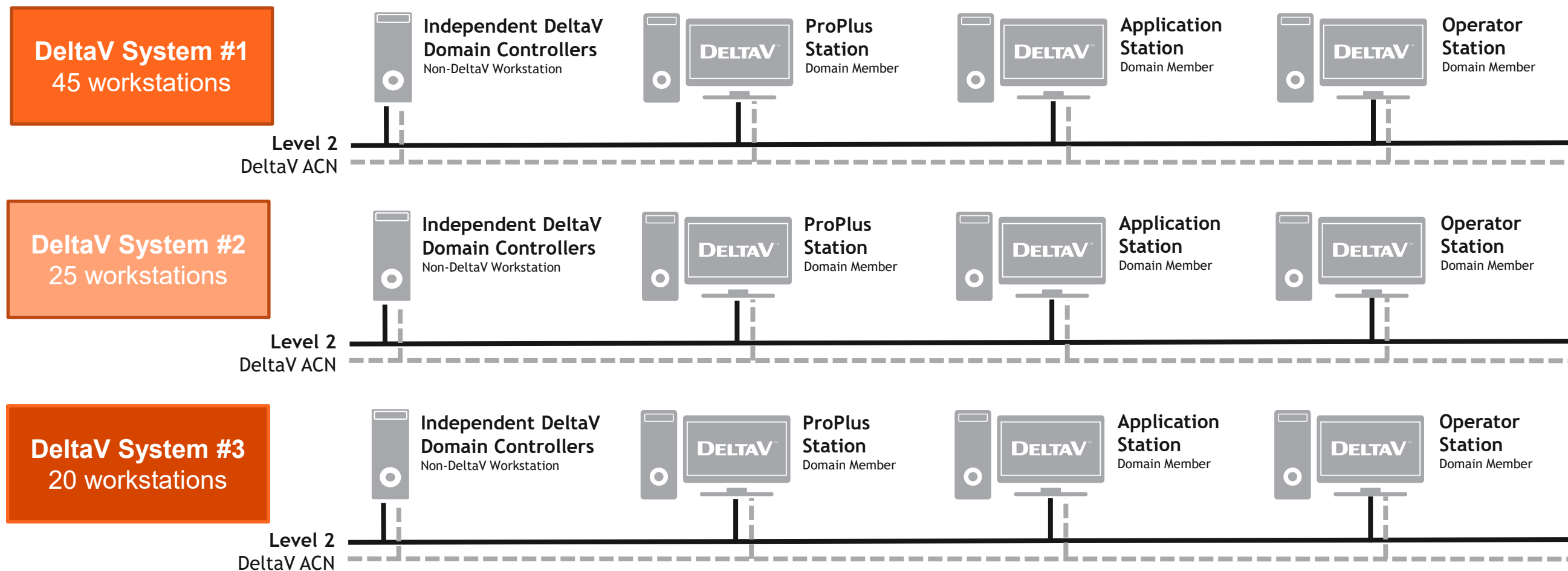
Matthew Kane

Lifecycle Services Program Manager / Emerson



MS Windows Security Updates / Antivirus / DeltaV Hotfixes

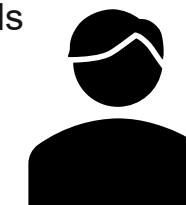
- Emerson qualifies and approves updates for installation. MS Windows Security Updates monthly, AV bi-weekly.
- 90 workstations on site, what is the effort to install these Emerson-approved updates to all workstations?



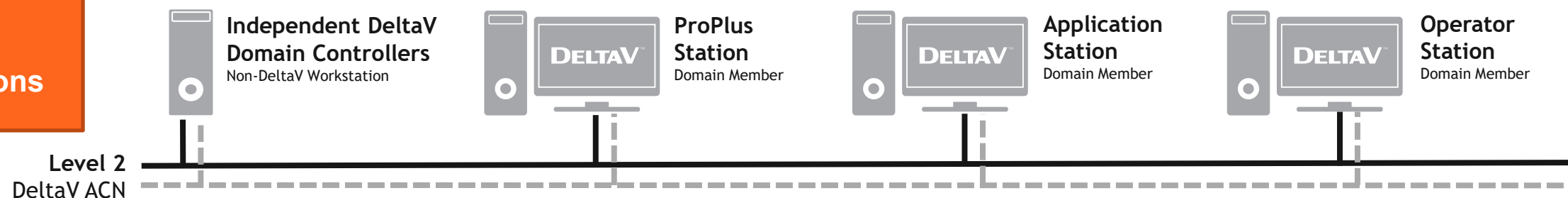
Problem Statement (Acquisition)

Pre-requisite step: Upload the latest system registration file for each system.

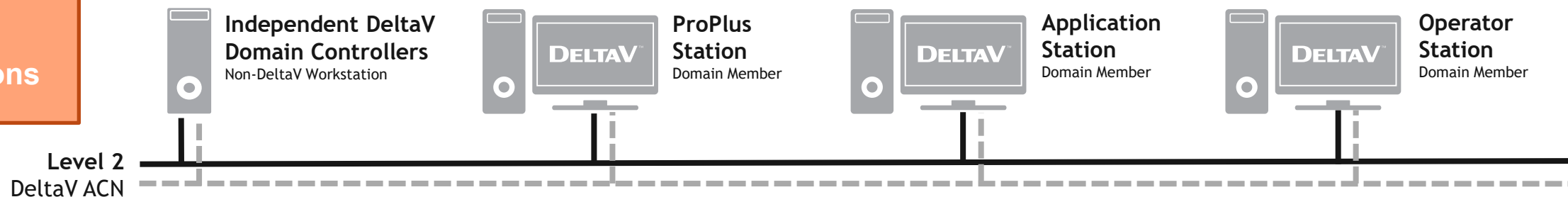
1. Logs in to Guardian and downloads the latest software updates



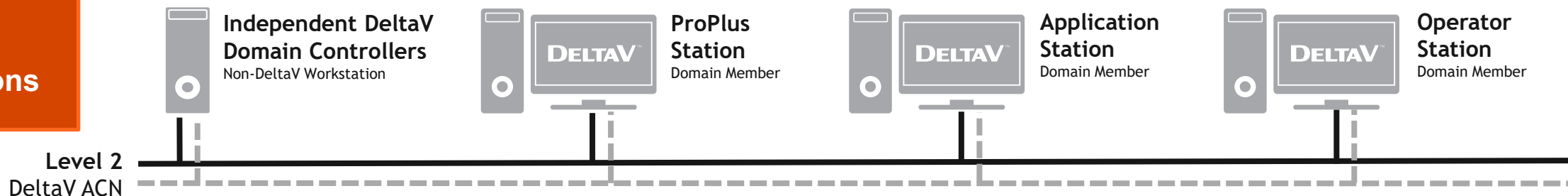
System #1
45 workstations



System #2
25 workstations

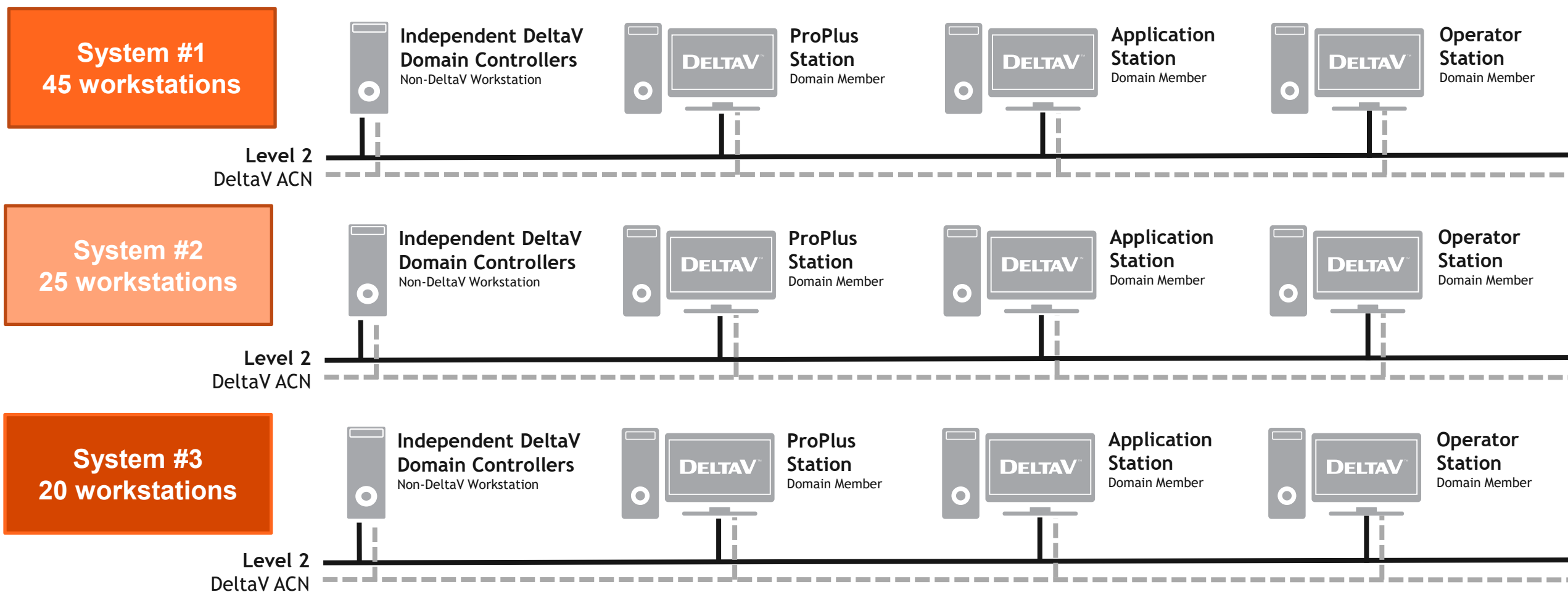
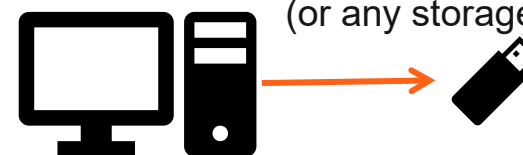


System #3
20 workstations



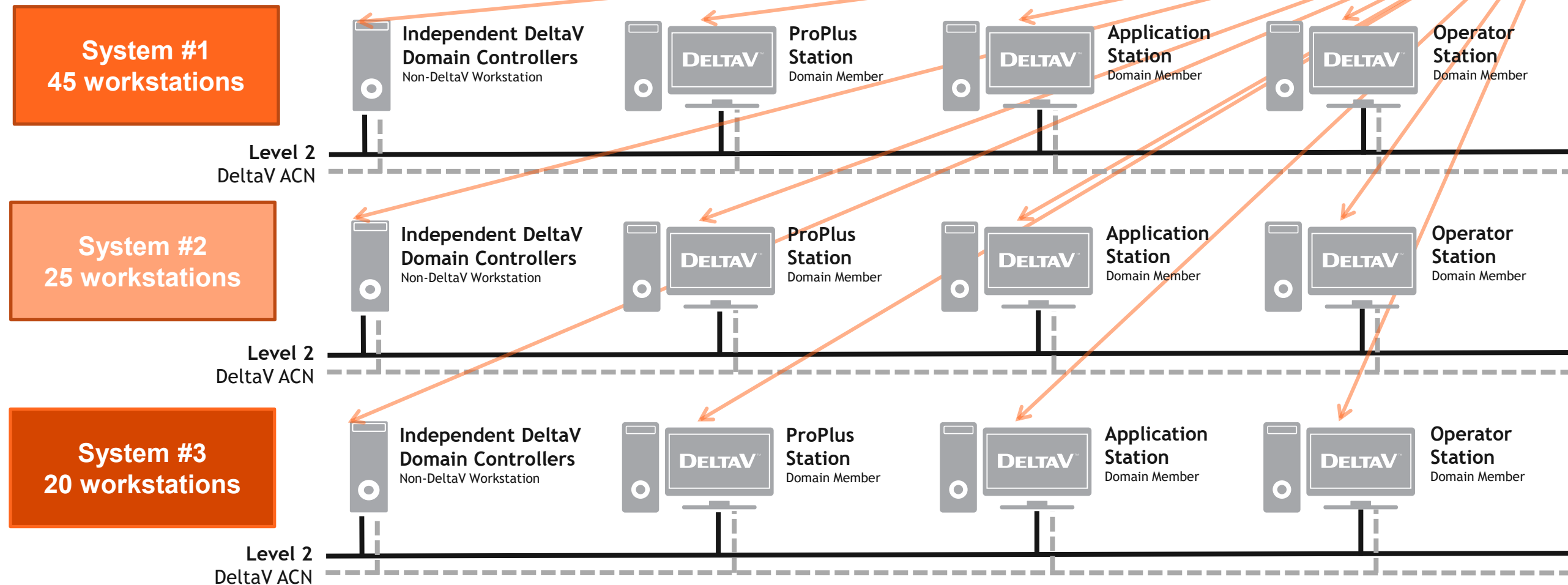
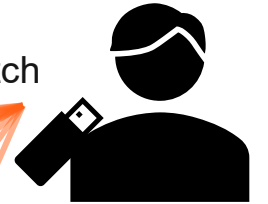
Problem Statement (Distribution)

2. Saves software updates to a USB stick
(or any storage accessible from the DeltaV Systems)



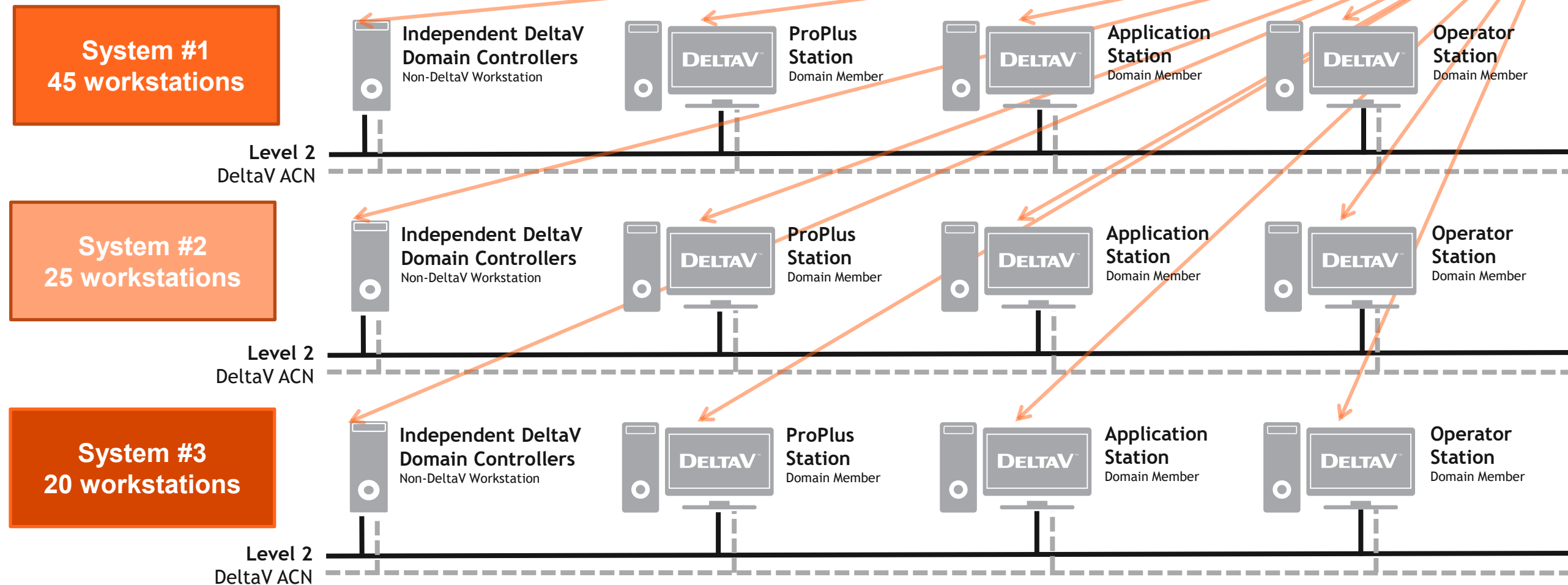
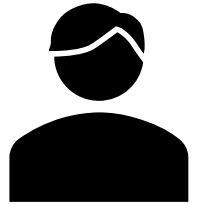
Problem Statement (Distribution)

3. Copies the software updates from the storage to **every** DeltaV workstation to patch



Problem Statement (Installation + Validation)

4. Installs **every** software update to **every** DeltaV workstation to patch.



Problem Statement

Given this maintenance work that plant personnel are required to perform to keep their system(s) up to date with the latest security updates, how can Emerson provide them a convenient way in managing the installation of software updates to every workstation?

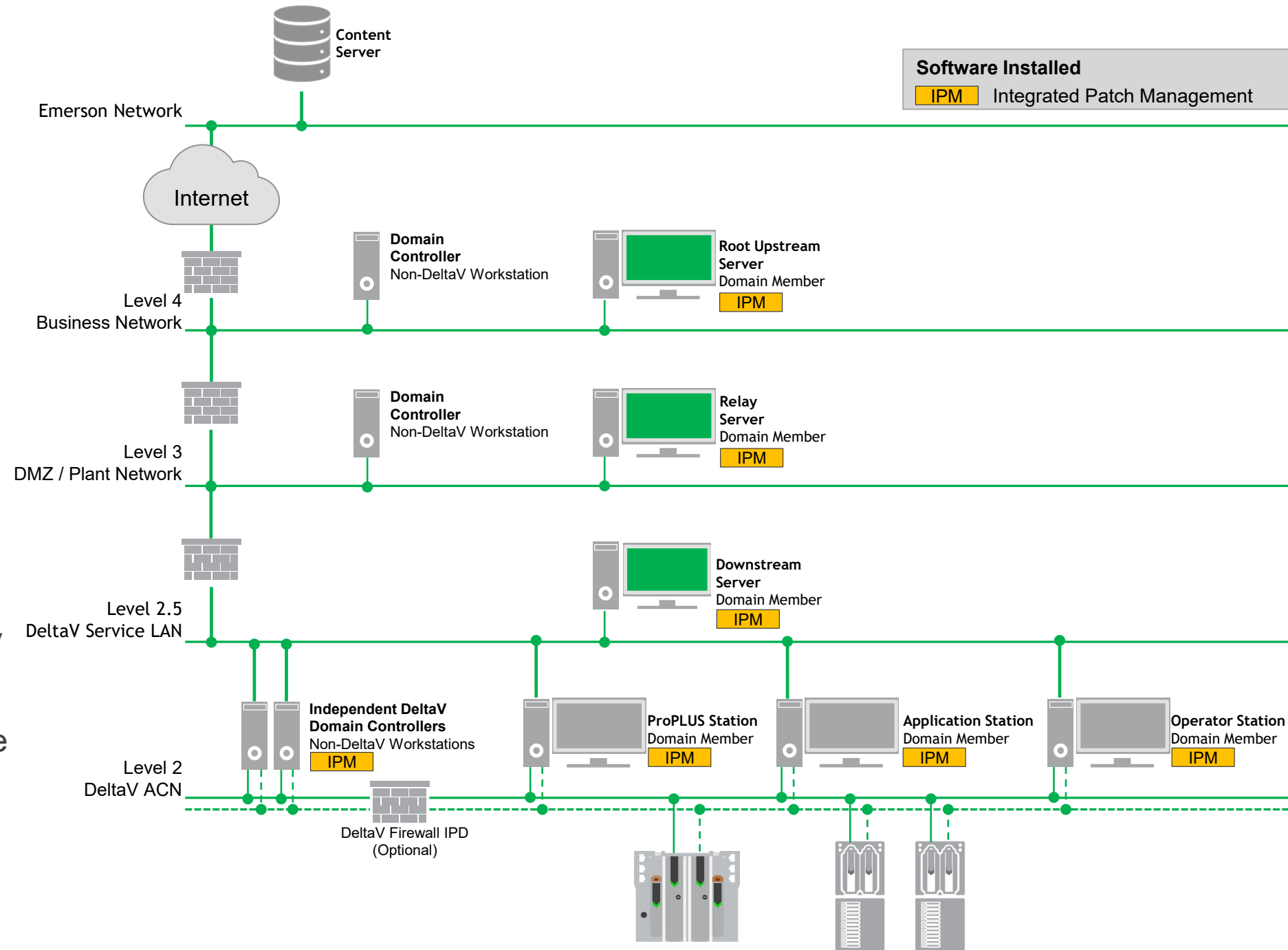
Product Overview

DeltaV Integrated Patch Management (IPM)

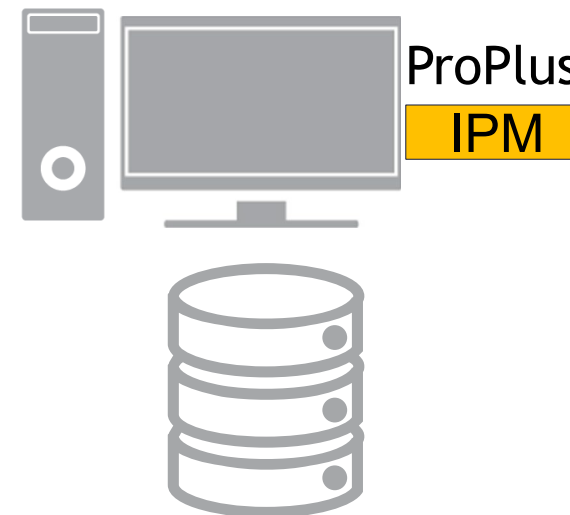
The next-generation patch management solution for DeltaV.

Key Features

- Most secure patching solution available
- Easy to use interface for both locally or remotely maintaining your assets
- Flexible & scalable architecture to accommodate customer requirements
- Save hours of effort through automation



How IPM Works

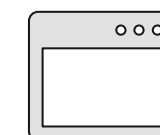


DeltaV Database

Populate IPM database with all workstation and device data



DeltaV workstations and servers provide current patch and hotfix levels (included embedded nodes) to the Downstream Server



Installed Programs (Patches)



Embedded Device Firmware

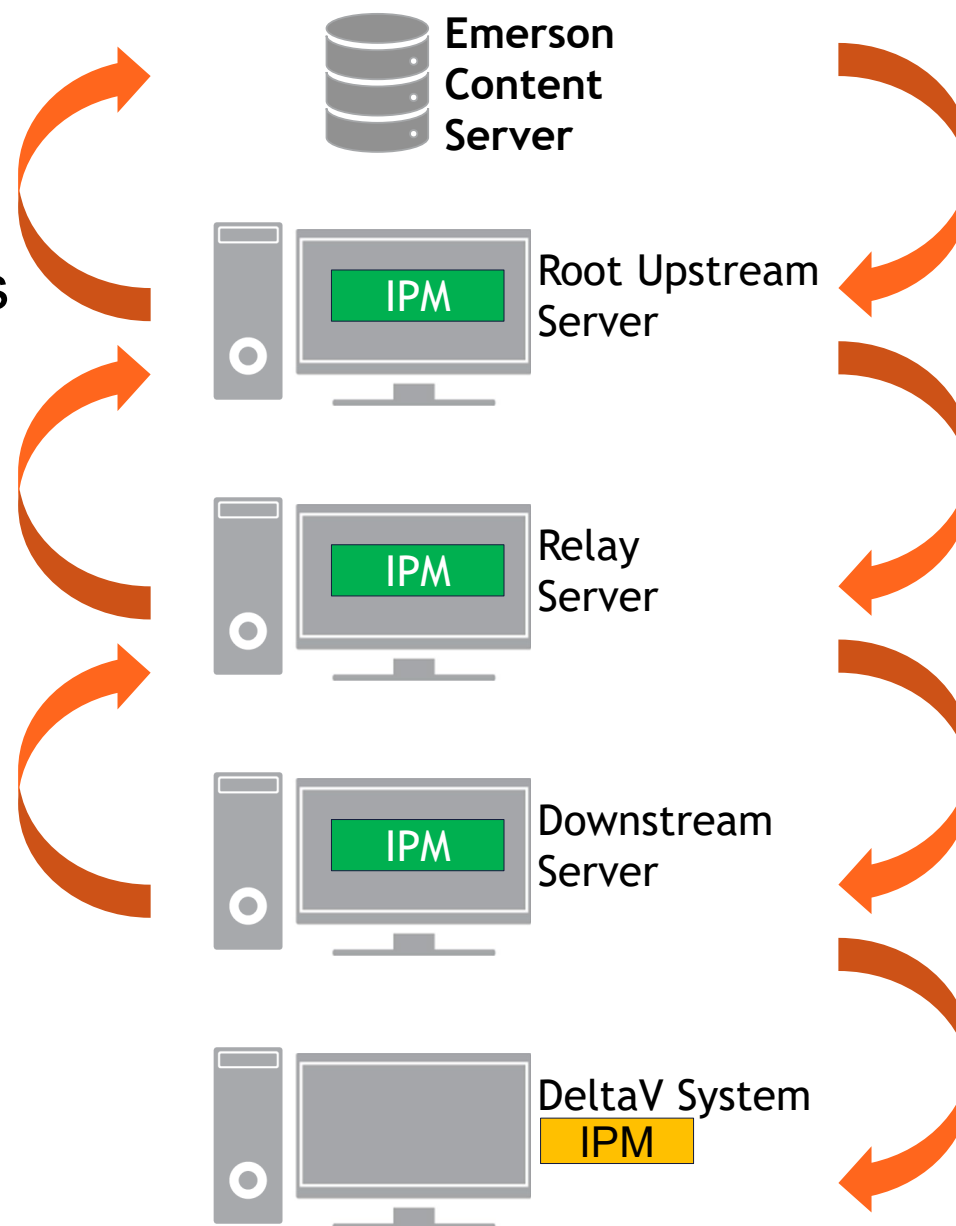
How IPM Works (continued)

4

The Root Upstream server passes information onto the Emerson content server for processing.

3

Information about current patch levels are passed up to the Root Upstream Server.



5

The content server determines what patches/hotfixes are required for each node. The Root Upstream downloads this information along with the required updates.

6

Downstream Server delivers patches to the DeltaV stations, waiting for installation.

Most Secure Patching Solution Available for the DeltaV DCS

Emerson Content Server communication via **HTTPS** secure channel

Encrypted with Emerson **X.509 certificate**

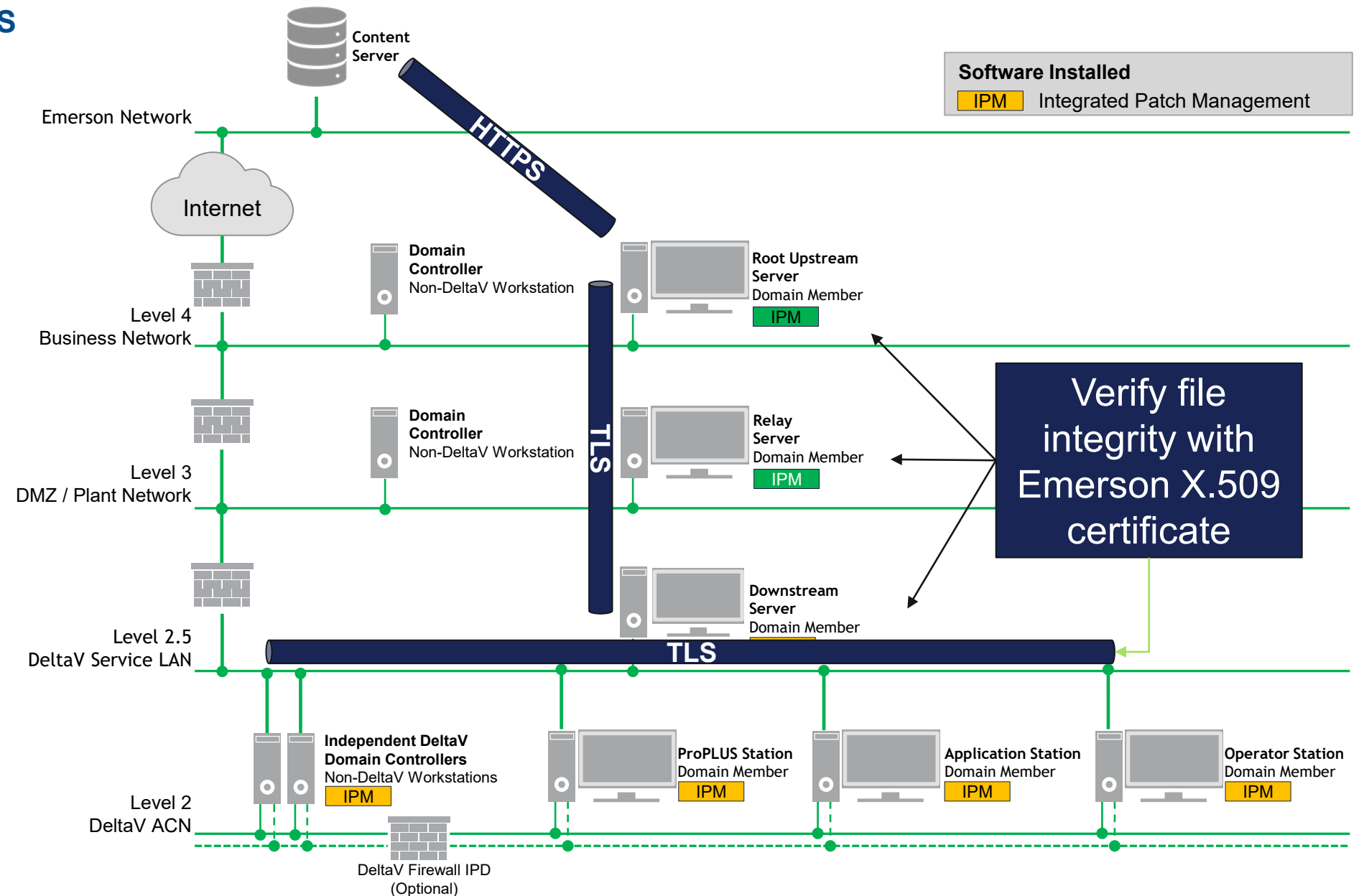
Downstream/Upstream communication via **TLS** secure channel

Key Takeaways:

Secure end-to-end process

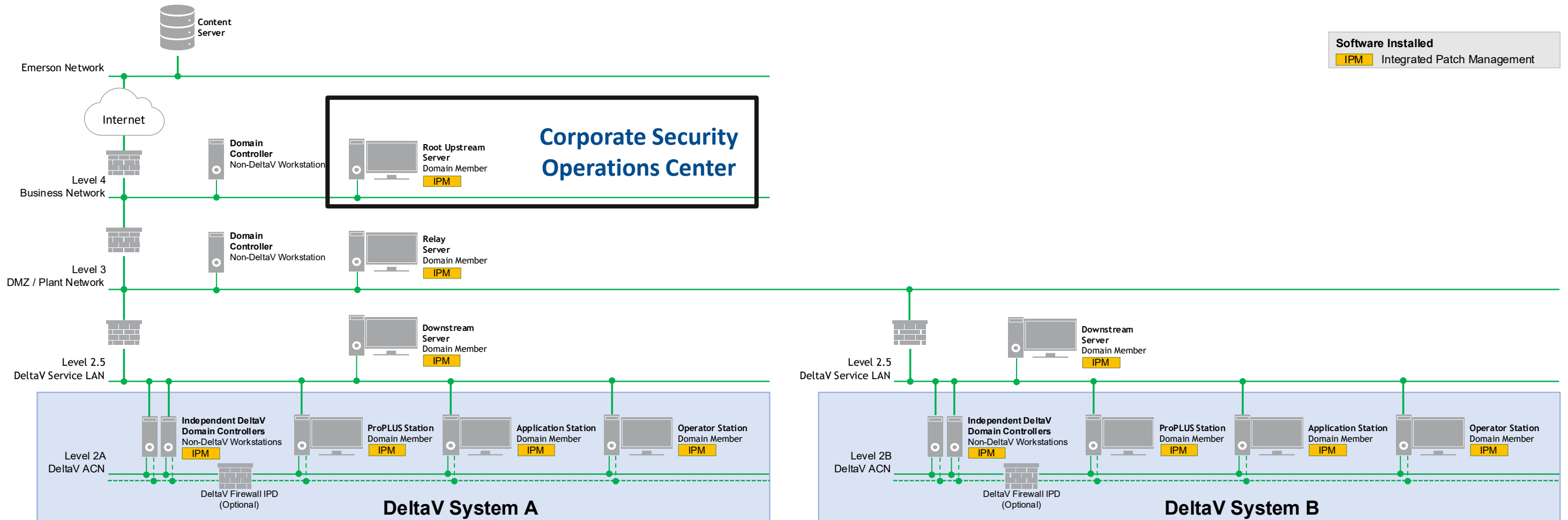
File integrity is verified at every point

Significant risk reduction as compared to file transfer through USB media or other unsupported tools.



Scalable Architecture

- Control all patching from central location
- View all reports and alerts from Root Upstream Server
- Downstream Server recommended for each site



IPM User Experience – Management Console

The **Management Console** is the main user interface for the Integrated Patch Management System.

Functions within the Management Console:

- Download Microsoft patches
- Install patches to DeltaV workstations
- Monitor installation results
- Audit installed patches
- Set preferences for Integrated Patch Management Operations

The screenshot displays the IPM Management Console interface. The browser address bar shows 'localhost:49177/#/node-view'. The interface includes a 'Check for Updates' button and a settings icon. The left sidebar shows a tree view with 'IPMDS14LTS' expanded to show 'System ID SI2019-0227-2576' and its associated workstations: TDVN110DVIDDC01, TDVNPABATCH01, TDVNPABATCH01_S, TDVNPAOPS01, and TDVNPAPRPLUS. The main content area is divided into 'General Information' and 'Available Updates (1)'. The 'General Information' section shows the system name 'IPMDS14LTS', last patched on 'Feb 15, 2024', and identifies it as a 'Downstream Server' running 'Windows Server 2022 Standard'. The 'Available Updates' section features an 'Install Updates' button and a message: 'The following updates are available for this computer. Click Install Updates to start the installation.' Below this is a table of available updates:

Update Name	Update Type	Restart Required
Security Update for Microsoft Windows (KB5037782)	Microsoft	Yes

Below the table, it states '1 out of 1 available update(s) selected.' The 'Installed Updates' section is partially visible at the bottom, with the text 'The following updates are installed on this computer.'

IPM User Experience - Patch Installation

DeltaV Workstation

IPMDS14LTS Not Available

The following updates are available for this computer.
Click Install Updates to start the installation.

Install Updates

Update Name	Update Type	Restart Required
Security Update for Microsoft Windows (KB5034767)	Microsoft	Yes
Security Update for Microsoft Windows (KB5034862)	Microsoft	Yes

2 out of 2 available update(s) selected.



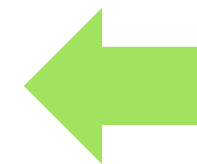
Updates Available - Integrated Patch Management

EMERSON Integrated Patch Management

Updates are available for this computer.
The following updates are available for this computer.

All Updates (2)	Update Name	Update Type	Restart Required
	Security Update for Microsoft Windows (KB5034767)	Microsoft	Yes
	Security Update for Microsoft Windows (KB5034862)	Microsoft	Yes

Install Now **Do Not Install**



IPMDS14LTS Not Available

The following updates are being installed.
Please wait for the installation to complete.

Installing Updates...

Update Name	Update Type	Restart Required
Security Update for Microsoft Windows (KB5034767)	Microsoft	Yes

Installing Updates - Integrated Patch Management

EMERSON Integrated Patch Management

The following updates are being installed.
Please wait for the installation to complete.

All Updates (1)	Update Name	Update Type	Restart Required
	Security Update for Microsoft Windows (KB5034767)	Microsoft	Yes

Installing Security Update for Microsoft Windows (KB5034767) (1/1)...

IPM User Experience - Patch Installation Continued

Management Console

TDVNPAPRPLUS 14.3.1.7386.xr

Available Updates (1)

Restart is ongoing.
Please wait for the machine to complete the restart process.

Restarting...

Update Name	Update Type	Restart Required
✓ Security Update for Microsoft Windows (KB5034767)	Microsoft	Yes

DeltaV Workstation

Installation Complete - Integrated Patch Management

EMERSON Integrated Patch Management

Installation completed. Restart is pending.
All running applications will be terminated during a restart. If this is a DeltaV node, please ensure that restarting this machine will not have an impact on the running process.

Click Restart Now if you want to proceed, or Do Not Restart to restart your computer later.

Success (1)	Update Name
✓	Security Update for Microsoft Windows (KB5034767)

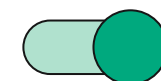
Restart Now Do Not Restart



Check for Updates

- Update All Workstation Data
- Update All Workstation and Device Data
- Remote Software Update Installation**
- Show the Client Interface on DeltaV Desktop
- Authenticate the Root Upstream Server
- Proxy Settings
- About Integrated Patch Management

Remote Software Update



Enabled: Will not prompt local users on the DeltaV Workstation

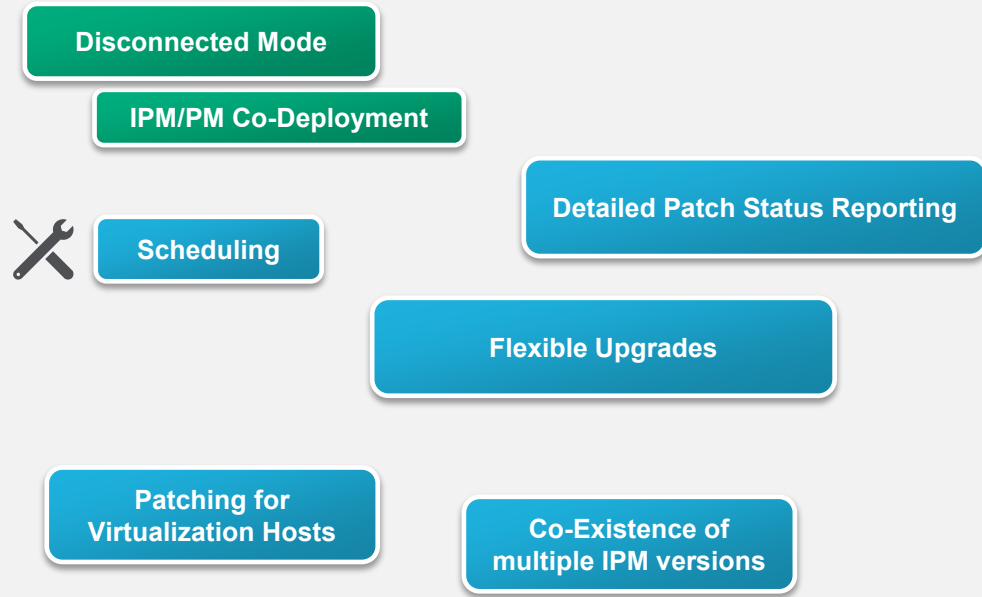


Disabled: Local user must answer prompts

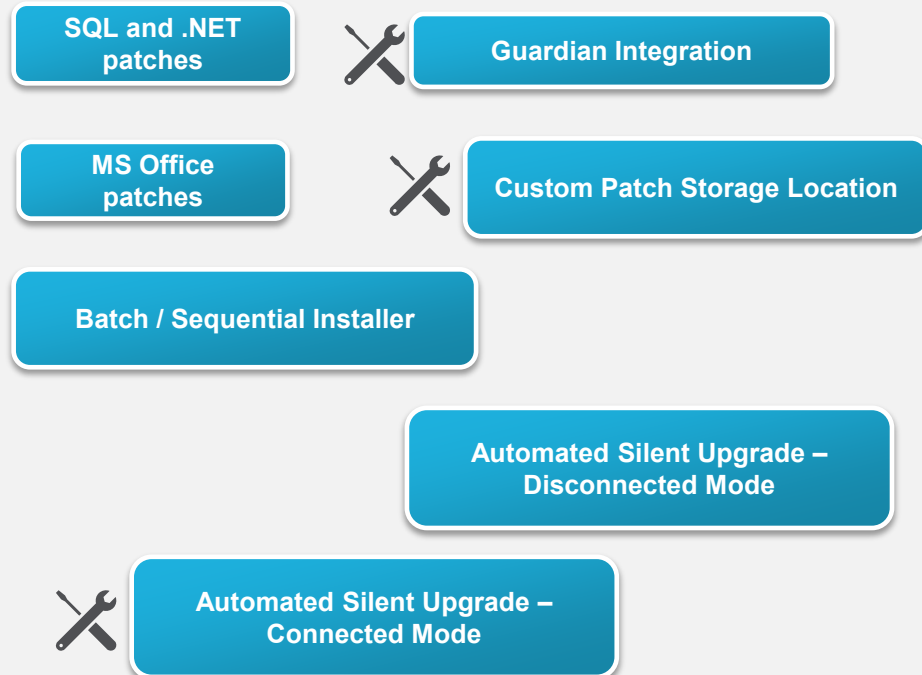
Release Roadmap & New Product Features

Integrated Patch Management Feature & Release Roadmap

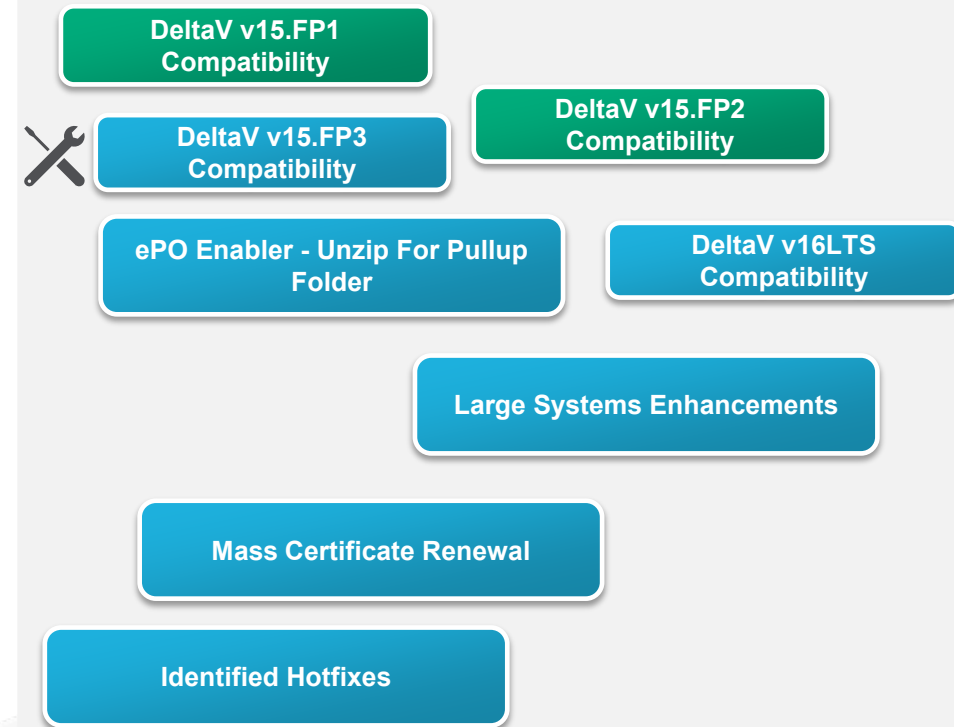
New: Customer Needs



Enhance User Experience



Ensure Operational Continuity



IPM 1.5

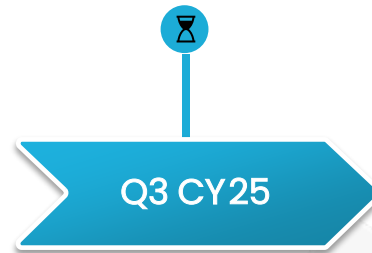


Completed

20

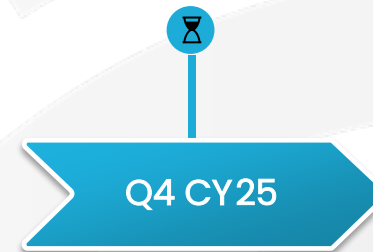
Release notes document covers details of past releases

IPM 1.6



Planned for IPM 1.6

IPM 2.0



IPM 3.0



Features are contingent on release, and we are constantly evaluating priorities. Subject to change at any time.

IPM 1.6 New Feature - Scheduling

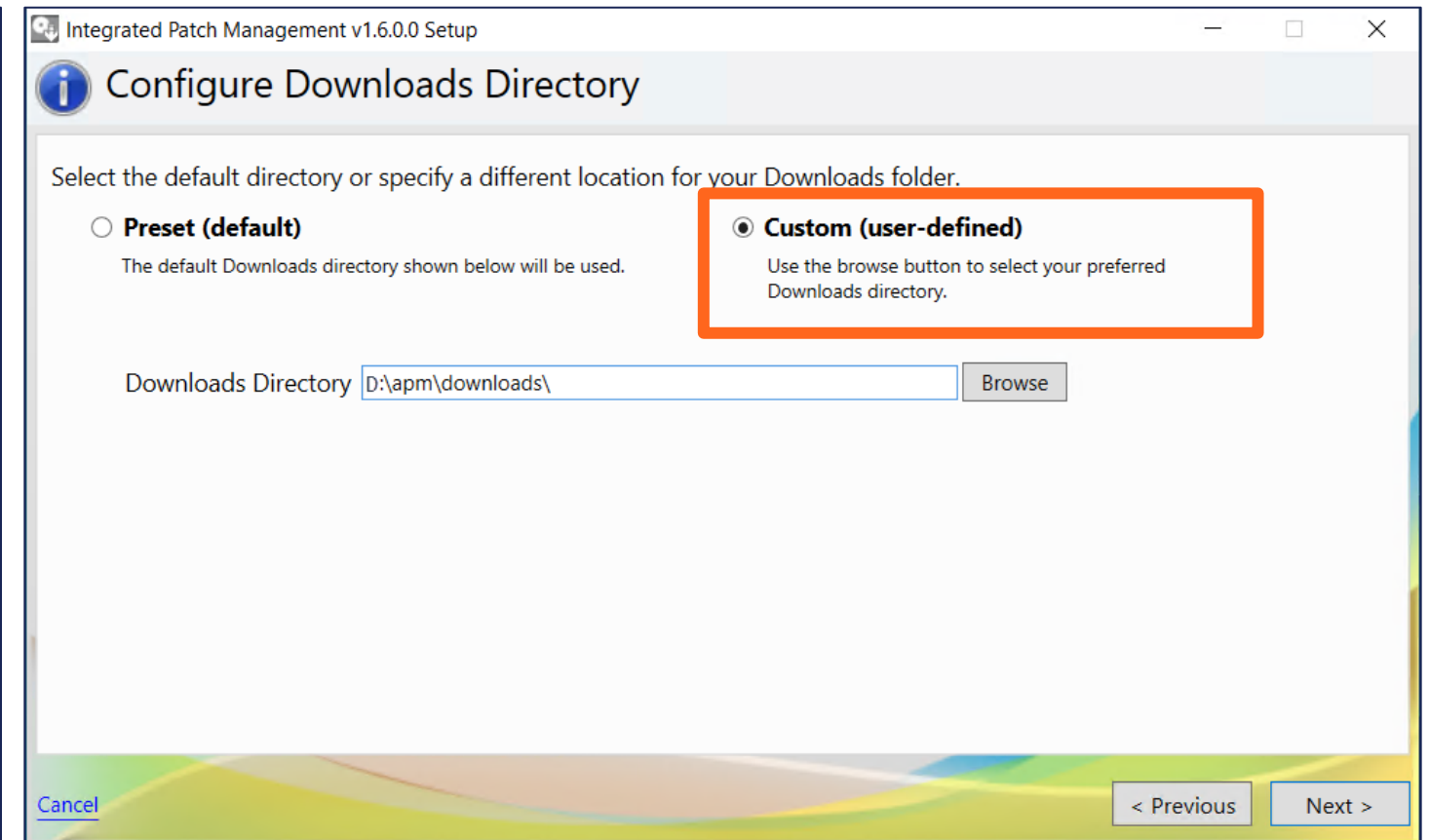
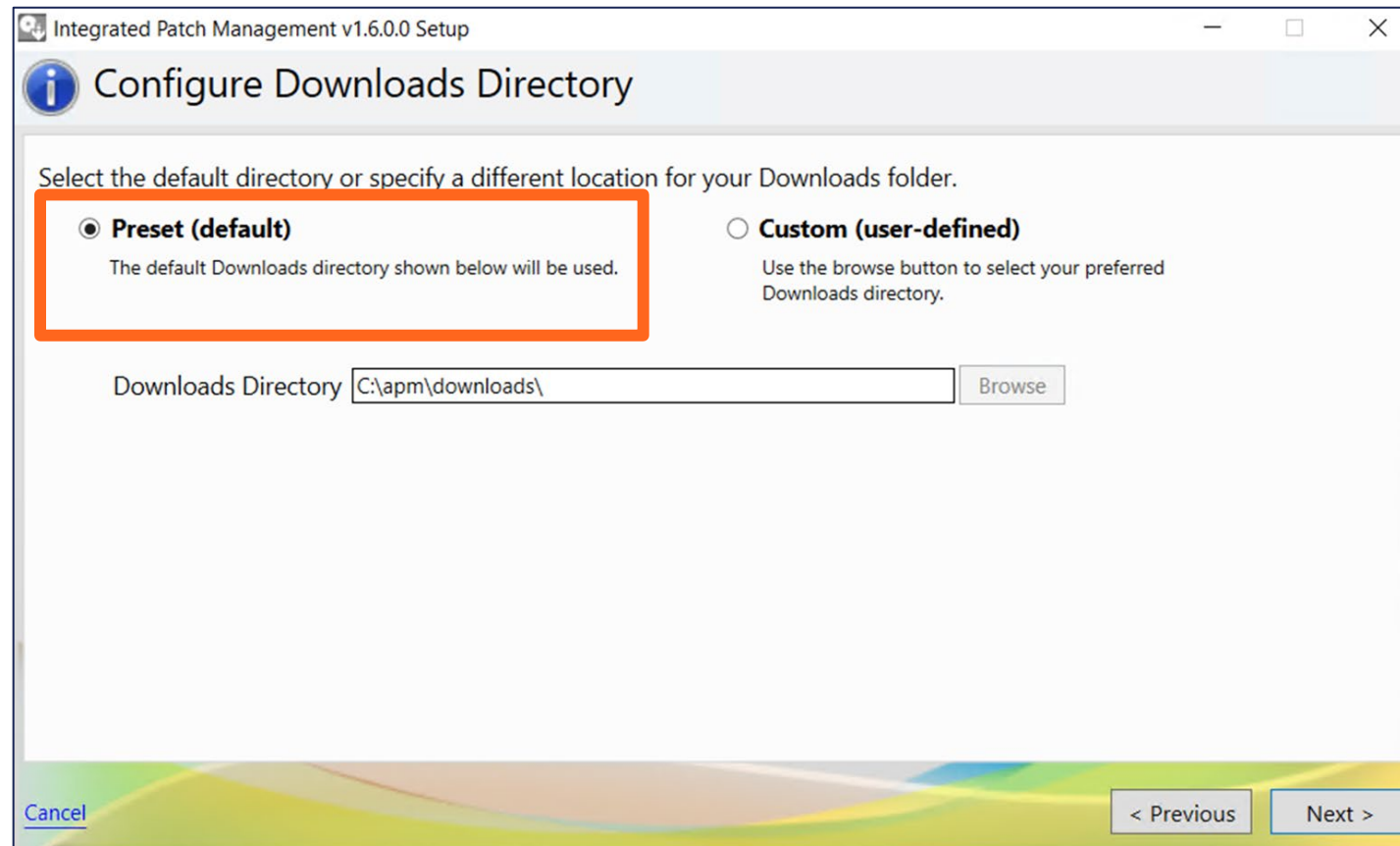
- New Scheduling Icon on Downstream Server
- Configure UAWD / UAWDD
 - Specific day each month
 - Specific time
- Up to 20 schedules

Add additional schedules

Past Activity

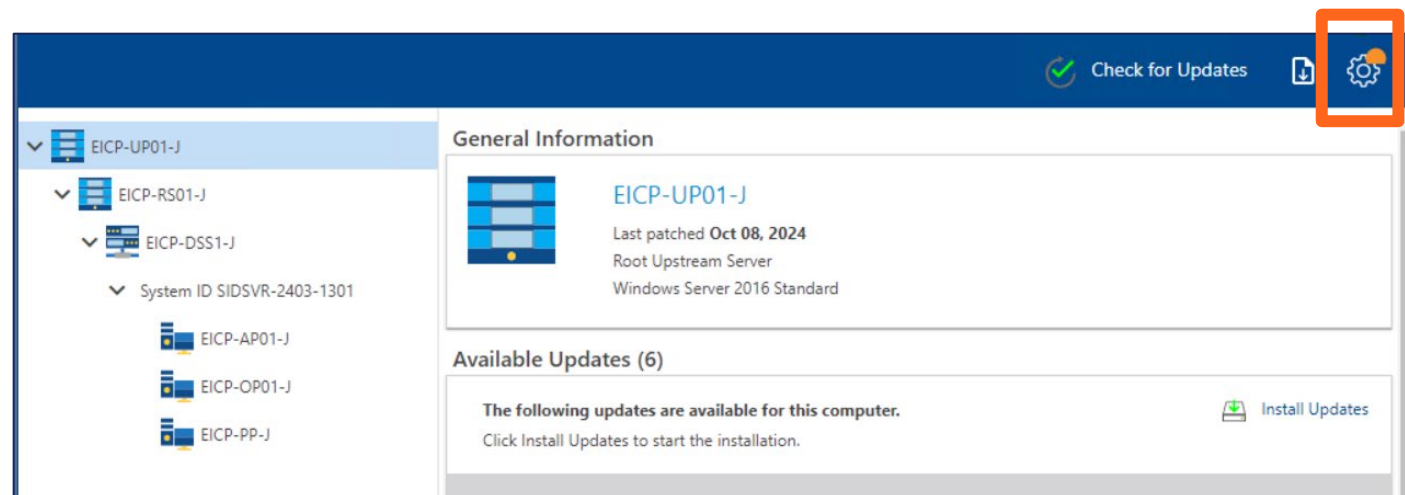
Schedule in Progress indicator

IPM 1.6 New Feature – Patch Storage Location

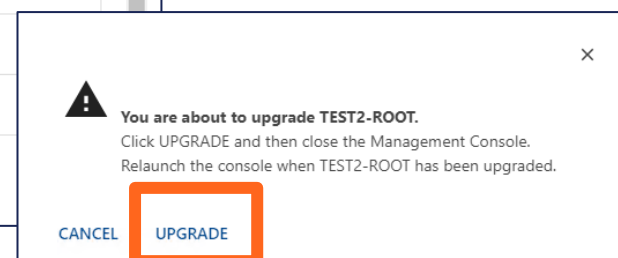
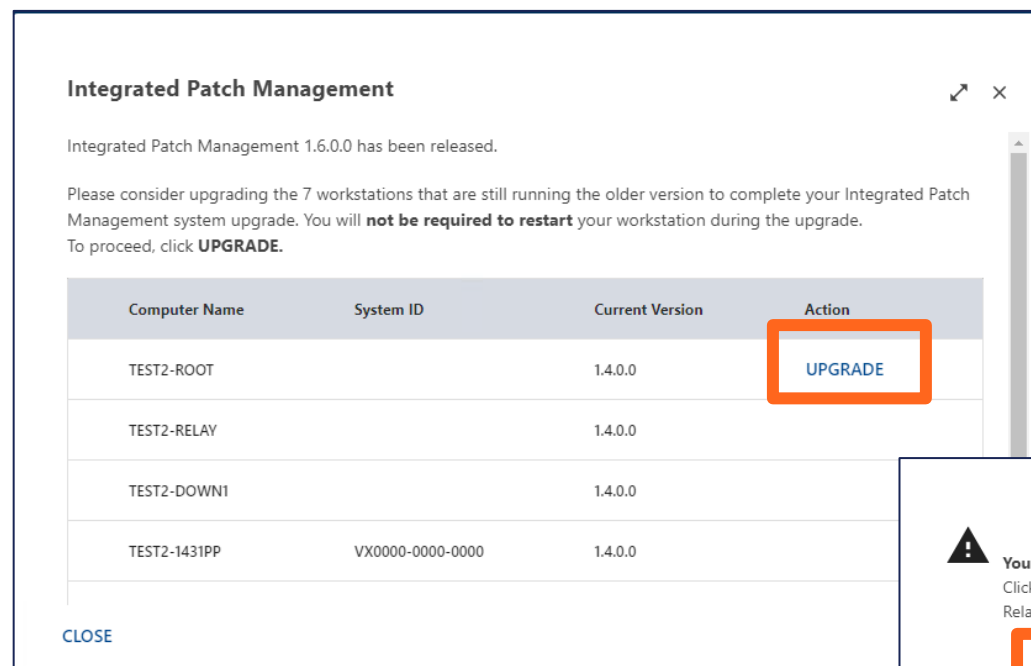


- During client installation
- Choose any local storage drive for the Download folder

IPM 1.6 New Feature – Silent Upgrades



- Silently upgrade client services
- Operational disruption minimized
 - No login
 - No reboot
 - Upgrades are transparent to local users



Guardian Integration

The screenshot displays the Guardian Virtual Advisor interface. The top navigation bar includes the Guardian logo, 'Guardian Virtual Advisor', and dropdown menus for '20 Product Lines' and '4 Systems'. The main navigation menu contains: Dashboard, Knowledge Base, Software Updates, Assets, Support, System Info, Maintenance Services (highlighted), Performance Services, Downloads, and Subscriptions. The 'Integrated Patch Management' section is active, showing a tree view on the left with nodes like EXRoot, EXRelay, EXDown1, Non-DeltaV Workstations (containing EXNDV01-04), and System ID VX0001-0001-9402 (containing EXAP06-08, EXIDDC03, EXOP08, and EXIDDC04). The main content area shows 'General Information' for EXRoot (Root Upstream Server, Windows Server 2022 Standard, last patched Nov 28, 2024) and a table of installed updates.

UPDATE NAME	UPDATE TYPE
KB2565063	Microsoft
Security Update for Microsoft Windows (KB5044414)	Microsoft
Security Update for Microsoft Windows (KB5046616)	Microsoft
Service Pack 3 for Shared Management Objects Extensions (64-bit) (KB5003279)	Microsoft
Update for Microsoft Windows (KB5004330)	Microsoft
Update for Microsoft Windows (KB5007374)	Microsoft

- Aggregate patch compliance data
- Strengthen governance
- Improve security posture across the enterprise
- Reduce risk

Exhibit #229 Guardian Software & Solutions / IPM

Find More Information

6-1600 Let Integrated Patch Management Help Make You More Cybersecure and Efficient

– Wednesday 10:15-11:00 AM

5-1703 Streamlining Cybersecurity: Air Liquide and DeltaV Integrated Patch Management

– Thursday 2:15-3:00 PM

3-1868 Patch in a Flash! Use DeltaV Integrated Patch Management to Quickly and Securely Patch Your System

– Tuesday 1:15-2:00 PM, Wednesday 1:15-2:00 PM

MTE-1907 Are you Ready for the Future of Industrial Cybersecurity?

– Wednesday 9:15-10:00 AM, Thursday 3:15-4:00 PM

Contacts

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Thank You