



Fusion UDM Premium
vxl software

Product capability whitepaper

Fusion Device Manager Premium Edition

Contents

3	Why do we need Device Management Software?
3	What is expected from a good Device Management software?
3	Flexibility in Management
4	Manage Schedule and Deploy Tasks
4	OS Imaging and Software Distribution
5	Discovering Devices Efficiently
5	Device Configuration, Asset and Inventory Management
6	Logging, Reporting and Dashboards
7	Software License Metering
7	Remote Control
8	Power Management
8	Task Management
9	Software, OS Update and Patch Management
9	Desktop and Data Security
9	How Do I Obtain Fusion Premium Edition

Why do we need Device Management Software?

Today, end user computing devices have turned into essential and vital tools of any business, be they in the retail, services, medical, or hospitality sectors. What does this mean to the organization? Well, it implies that the business's ongoing success is totally subject to how efficiently these technologies and devices are harnessed. Therefore, in order to ensure that the business runs as smoothly and seamlessly as possible, the introduction of an efficient and affordable device management technology ensures that devices are continuously monitored, software updates delivered and installed and users receive an experience they enjoy. A good device management system also reduces Total costs of operations (TCO) within the company by ensuring that the IT support teams' time is well spent by not having to attend the desktop in person unless absolutely required.

What is expected from a good Device Management software?

IT Administrators around the world will have differing opinions on what they require in terms of device management. These nuances are often seen because of the different types of IT infrastructure or differing visions of what is important. However, what is clear is that a device management system is required – one that will aid the support and administration of the varieties of devices on the ground.

So let us look at the functional solutions provided by Fusion Device Manager:

Flexibility in Management

The device management system should be flexible in both the types of devices it can manage, as well as the operating systems that can be managed.

Fusion Premium provides administrators to manage or monitor almost any device on the network. Fusion Premium can manage:

- Desktop Personal Computers
- Laptop Computers
- Portable Tablet Computing Devices
- Mobile Phones
- Handheld Data Acquisition Devices such as Symbol etc.
- Network components: Routers, switches and other SNMP empowered devices.



This vast set of endpoints are powered by an equally large variety of operating systems and Fusion Premium can monitor and manage the following OS types:

- Microsoft Windows Desktop OS: Windows 7 / Windows 8 / Windows 10
- Microsoft Windows Embedded: XP / Windows 7 / Windows 8 / Windows 10
- Microsoft Windows Server OS*: Windows 2003 / Windows 2008r2 / Windows 2012
- Microsoft Windows Phone: Windows IoT v10*
- Linux OS: VXL Gio Linux / Ubuntu Linux* / GNU Linux*
- Apple Mac OS*: OS X Mavericks / Yosemite
- Apple iOS*: iOS v9 and above
- Android OS*: Android v4.0-4.0.4 / v4.1-4.3.1 / v4.4-4.4.4 / v5.0-5.1

Also planned on Fusion's roadmap is the management of operating systems such as:

- Blackberry v10
- QNX Neutrino RTOS

This multi-OS management capability is backed up by a multitude of tasks that can be configured by administrators, allowing them to manage the range of hardware endpoints as well as other custom devices powered by one of the supported operating systems.

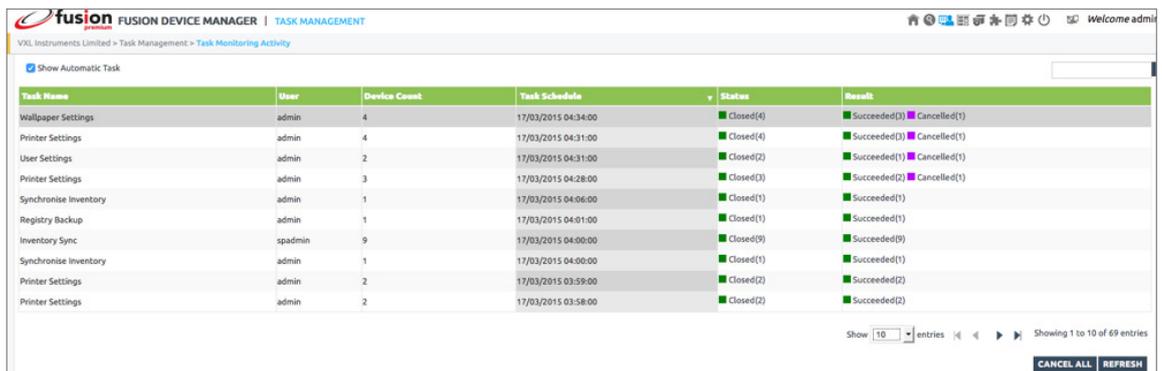
* Product function that is part of a phased release

17

Manage Schedule and Deploy Tasks

The administrator and the support team should have the capability to design and construct templates built up using either one or many from a selection of tasks, and then schedule them for deployment at a time of their choosing. These tasks could be very simple or highly complex ones, but the essence should be on the simplicity and ease of operation for this process itself.

Within Fusion Premium, each device OS category has a module comprising a set of pre-defined tasks available to the administrator for configuring and deploying immediately or, adding together to make a template.



Task Name	User	Device Count	Task Schedule	Status	Result
Wallpaper Settings	admin	4	17/03/2015 04:34:00	Closed(4)	Succeeded(3) Canceled(1)
Printer Settings	admin	4	17/03/2015 04:31:00	Closed(4)	Succeeded(3) Canceled(1)
User Settings	admin	2	17/03/2015 04:31:00	Closed(2)	Succeeded(1) Canceled(1)
Printer Settings	admin	3	17/03/2015 04:28:00	Closed(3)	Succeeded(2) Canceled(1)
Synchronise Inventory	admin	1	17/03/2015 04:06:00	Closed(1)	Succeeded(1)
Registry Backup	admin	1	17/03/2015 04:01:00	Closed(1)	Succeeded(1)
Inventory Sync	spadmin	9	17/03/2015 04:00:00	Closed(9)	Succeeded(9)
Synchronise Inventory	admin	1	17/03/2015 04:00:00	Closed(1)	Succeeded(1)
Printer Settings	admin	2	17/03/2015 03:59:00	Closed(2)	Succeeded(2)
Printer Settings	admin	2	17/03/2015 03:58:00	Closed(2)	Succeeded(2)

Once a template is created, it can be stored for later use within the template manager repository. When used, it can be deployed to a single device, set of devices, a group and even a set of groups or sub-groups.

This flexibility in architecture makes micro managing your network assets a much simpler and efficient task.

OS Imaging and Software Distribution

The deployment of new versions of operating systems and the consequential migration of the users' data is paramount in the administrator's eye. Although such requirements are rare, they do pose significant issues in terms of time and resources if manual intervention at the endpoint is required. The provision of an OS imaging and migration capability will save the IT administration teams considerable amounts of both time and money.

The OS Imaging capability allows the administrator to take a master device and then extract a master image from that device. This image consists of the device's entire OS and can be stored in the repository for distribution to other devices of the same hardware configuration.

Software can also be distributed and installed remotely onto target devices. Software is loaded into the repository and then distributed using commands within Fusion. When there are a large number of devices involved, the distribution process can be optimized by using the 'buddy' system built into Fusion agents.

The 'buddy' system comprises a master, slave concept. Specific devices within the target groups can be configured to be 'masters' and the remainder of the target group ('slaves') seek out the 'masters'. Software is then sent only to the 'masters' and this is then distributed to the 'slaves' for installation. This concept significantly improves network usage, especially in wide area instances – thereby reducing bandwidth requirements and deployment times substantially.



Discovering Devices Efficiently

Discovery of devices within the network can be one of the more frustrating aspects of device management software. There are multitudes of devices with different operating systems, and each category pose their own problems when it comes to discovering them. To add to this, there are different topologies of networks and devices controlling access to the different network segments such as VLANs. Finally, there are existing categories of devices that may not possess a Fusion agent and pose a challenge.

Fusion has a range of different discovery methods that allow administrators to conquer most of the challenges that they may come across during the discovery process.

Agentless Discovery and Agent Deployment: This is one of the most powerful features of Fusion Premium. It allows administrators to discover Windows based personal computers that are not equipped with a Fusion agent, and then remotely install a Fusion agent making the device manageable.

Fusion is also equipped with a number of other discovery techniques:

Discovery by DNS Name: The Fusion agents are all pre-programmed to look for a specific DNS name in the first stage of the discovery process. They will make a DNS request and then use the IP address provided by the DNS server. By default, they look for a DNS name of FUSIONSRV, although this can be changed by the administrator if **so desired**.

Discovery by DHCP Scope Options: This is the standard method used by most management systems, and comprises of a specific Scope Option being set with the IP address or hostname of the Fusion server.

Other methods include discovery by IP, Hostname, IP Range, Network Range and UDP Broadcast.



Device Configuration, Asset and Inventory Management

The entire essence of a device management system is to manage end-point devices, which explicitly means that it is not only the task of discovering and listing the inventory of devices, but also of managing them through granular configuration. Fusion Premium is able to do all this, using its vast knowledge of supported operating systems.

The device configuration capabilities of Fusion are extremely agile and allow you to set or change a huge number of settings from display resolution to mouse acceleration and Citrix connections to printer settings. This ability is provided for all the operating systems that Fusion can manage and configure. These configuration settings can be performed in near real time onto individual devices using the One-2-One mode or, templated, scheduled and delivered en-masse to multiple devices.

Asset management is also one of Fusion's powerful fortes. The recording of assets - be they hardware or software, is paramount for any business that considers it important to know where any purchased product is within the company structure. This is without doubt applicable to almost all businesses.

Fusion's highly powerful and flexible agent is capable of gathering the information contained within each of the devices that have been discovered and registered with the Fusion system. It also helps to track the location of assets within the organization and can be highly useful in creating the reports that management require on regular basis.

MAC Address	IP Address & Host Name	Processor Name & Speed	Hard Disk	RAM Details	Graphics Card	CD Drive
00-00-72-23-2A-3F	192.168.0.101 VXL-ANUNIDURCHG	Intel(R) Atom(TM) CPU D2520 @ 1.86GHz	8GB SATA Flash Drive ATA Device 27.56 GB	2033 MB	N/A	N/A
00-00-72-23-2A-3F	192.168.0.101 VXL-ANUNIDURCHG	VIA Nano U3300@1200MHz	8GB SATA Flash Drive ATA Device 27.56 GB	1791 MB	N/A	N/A
00-00-72-23-2A-3F	192.168.0.101 VXL-ANUNIDURCHG	Intel(R) Atom(TM) CPU D2520 @ 1.86GHz	8GB SATA Flash Drive ATA Device 27.56 GB	2033 MB	N/A	N/A
00-00-72-23-2A-3F	192.168.0.101 VXL-ANUNIDURCHG	Intel(R) Atom(TM) CPU D2520 @ 1.86GHz	8GB SATA Flash Drive ATA Device 27.56 GB	2033 MB	N/A	N/A
00-00-72-23-2A-3F	192.168.0.101 VXL-ANUNIDURCHG	Intel(R) Atom(TM) CPU D2520 @ 1.86GHz	8GB SATA Flash Drive ATA Device 27.56 GB	2033 MB	N/A	N/A
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00-00-72-23-2A-3F	192.168.0.101 VXL-ANUNIDURCHG	Intel(R) Atom(TM) CPU D2520 @ 1.86GHz	8GB SATA Flash Drive ATA Device 27.56 GB	2033 MB	N/A	N/A

In addition to the standard hardware inventory and asset information, the Fusion agent is also constantly gathering details of software that is installed within the devices. This allows the administrator to view devices with say, Sage Line 50 Accounts as an example.



Logging, Reporting and Dashboards

Modern management requirements invariably need the IT department to keep a sufficient level of logs and perform regular reporting to. Reporting and logging can be highly useful to both medium businesses and large enterprises, and forms the backbone of efficient IT operations, allowing granular analysis of the IT assets and resources to allow for efficient budget planning.

ACTIVE MONITORING	COMPUTER ACTIVE STATUS
<ul style="list-style-type: none"> Configuration: Below 30% (0) Between 31-70% (0) Exceeded 70% (0) Mail Queue: Below 30% (0) Between 31-70% (0) Exceeded 70% (0) Web Server: Below 30% (0) Between 31-70% (0) Exceeded 70% (0) 	<ul style="list-style-type: none"> Total Computers: (10) On Computers: (9) Off Computers: (1)

The Fusion system continually logs Fusion server actions that is performed allowing senior staff members to audit all the actions of staff via the Fusion server. The logs that are produced can be output for further use in Excel or PDF format.

Also included with Fusion is a series of comprehensive reports that can be presented to management when needs arise. The reporting system also allows the exporting of report data in Excel or PDF format.

Client Name	Asset Type	MAC Address	IP Address	Host Name	Client Status	Group Name	OS Data Width	Security/Network Group
Android	1985B-00C-30300E-1	37-19-8C-AC-F3-B9	192.168.1.34	Android-37-19-8C-AC-F3-B9	OFF	DEFAULT	32bit	WORKGROUP (PaaSGroup)
Linux	8A4-GS-3-841-001-51	00-00-72-23-2A-3F	192.168.1.170	000072232A3F	OFF	DEFAULT	32bit	vxl.com (Domain)
Windows 7 Embedded Service Pack 1, 32-bit	Desktop	00-00-72-23-2A-3F	192.168.1.101	VXL-ANUNIDURCHG	ON	DEFAULT	32bit	WORKGROUP (PaaSGroup)
Windows 7 Embedded Service Pack 1, 32-bit	Desktop	00-00-72-23-2A-3F	192.168.1.102	00	ON	DEFAULT	32bit	vxl.com (Domain)
Windows 7 Professional Service Pack 1, 32-bit	Desktop	04-00-7E-65-44-44	192.168.1.81	VXL-CUP-04	OFF	DEFAULT	32bit	WORKGROUP (PaaSGroup)
Windows 7 Professional Service Pack 1, 32-bit	Desktop	04-00-7E-65-44-44	192.168.1.12	04	ON	DEFAULT	32bit	WORKGROUP (PaaSGroup)
Windows 7 Professional Service Pack 1, 32-bit	Desktop	7E-65-44-44-44	192.168.1.102	VXL-ANUNIDURCHG	ON	DEFAULT	32bit	vxl.com (Domain)
Windows 7 Professional, 64-bit	Desktop	44-8A-5B-70-9B-31	192.168.1.37	VXL-04	ON	DEFAULT	64bit	WORKGROUP (PaaSGroup)
Windows 7 Professional Service Pack 3	Desktop	00-00-72-23-2A-3F	192.168.1.103	000072232A3F	ON	DEFAULT	32bit	vxl.com (Domain)
Windows 7 Professional Service Pack 3	Desktop	00-00-72-23-2A-3F	192.168.1.102	000072232A3F	ON	DEFAULT	32bit	vxl.com (Domain)

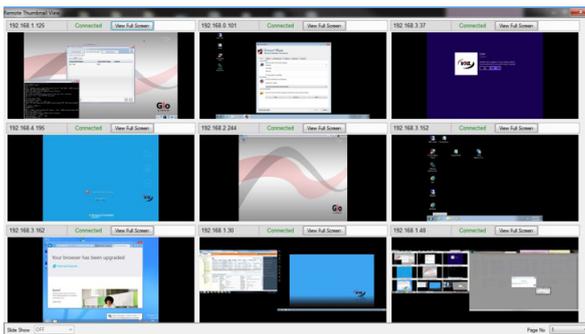
In future versions of Fusion a new report designer will allow administrators to construct their own particular data combinations into printable reports, thereby providing administrators complete flexibility in report generation.

Fusion Premium Device Manager is equipped with the ability to do any of the following:

VNC Proxy: Fusion will send an instruction to the device that it needs to VNC for assistance. This is followed by two secure tunnels being created by the client and the support engineer browsers to the Fusion server. These are then married up to provide the VNC access. Several such tunnels can be opened by each support engineer.

By RDP: Establishes an RDP connection between the support engineer's machine and the end user's desktop device. This is only valid for Windows machines but makes use of the highly efficient Microsoft Remote Support technology.

There is also a third and unique offering from Fusion called Multiview. The Multiview system allows you to simultaneously remote to a number of devices and show the results in a grid of miniature displays.



You can then click and zoom into any of the displays, control the device and revert to the Multiview display whenever you wish. The miniature displays all show their contents in near-real time and allow the administrator to watch for any anomalies taking place.



Power Management

In every TCO calculation carried out by IT departments, the most significant factor in terms of costs is the power consumption of IT equipment. Computers and other devices consume a lot of power, and visualization of this is clear and visible in a TCO study. In fact, energy usage is so high in most businesses, that any cost savings made due to improved power consumption of IT equipment will translate into thousands, if not tens of thousands of Dollars.

With Fusion Device Manager, you can reduce the power consumption of your endpoint devices by configuring the system to shut them down when not required, or even put them into standby mode. In addition to this, the endpoints can be configured with power plans that allow for the best power consumption metrics.

These actions can be carried out at a set time for all, select devices or groups of devices. When it comes to 'wake' them into action, Fusion can be configured to send down a wake up command so they are ready when staff arrive at their desks.



Task Management

Everything we do and ask others to do are tasks. The entire world operates along a task-orientated methodology and Fusion is no different.

Within Fusion, we have a number of tasks that can be performed. These are numerous and range from something as simple as changing the mouse speed to one as complex as defining a Citrix StoreFront connection. Whatever the task to be configured and deployed, Fusion presents you with a clear and concise method.

Tasks once configured can be deployed immediately to devices, or can be configured in sets and put together to form templates and saved for future use, containing one single task or many configured tasks.

Whatever the task, it can be deployed whenever the administrator requires using Fusion's sophisticated scheduling engine. Tasks may also be scheduled as repetitive ones if so required.



Software, OS Update and Patch Management

One of the highly critical requirements within any modern IT department is the task of deploying OS patches and updates, especially security patches that are very regularly released from the operating system vendors.

In order to facilitate this requirement, Fusion has a sophisticated patch and update monitoring and execution system built into its Premium edition. The IT support staff can see the non-compliant devices at a glance from the Fusion dashboard, then navigate to a view that shows them all and finally deploy the missing patches to them through an approval workflow

This ability to update is also extended to application updates and patches allowing applications to stay as secure and useable as possible.



Desktop and Data Security

Fusion is not just about simple device management as you have seen from the information you have read so far. Fusion has much more to it.

Available as add-ons you can purchase, Secure Desktop Services and KeyGuard are two of Fusion's unique services that allow us to deliver real desktop and data security to your organization.

Secure Desktop Services (SDS) allows the creation of secure, encrypted zones on the user's Windows PC/Laptop. These zones can take the form of single files or complete directory structures. The secured zones are mapped to the username, or set of users allowing both singular privacy and secured collaboration.

KeyGuard is a unique solution within Fusion Premium. It allows the use of secured USB pen drives and USB drives within the corporate organization. Secured KeyGuard drives cannot be used outside of the organization and insecure USB devices are equally banned within the Fusion monitored network.

How Do I Obtain Fusion Premium Edition

Getting Fusion Premium Edition could not be simpler. All you have to do is one of the following:

Call VXL at any of the following locations:

- United Kingdom: +44 161 775 4755
- Germany: +49 (0) 8761 1093
- India: +91 (0) 22 42203100
- Singapore: +65 6278 8180
- United States: +1 877 242 7801

Write using Email to:

- VXL Sales: sales@vxl.net

Download the trial version from the VXL website:

- <http://www.vxl.net/getfusion>

About VXL Software

VXL Software is a global company, with offices in Asia, Europe and the USA. VXL Software is a division of VXL Instruments. Established in 1976, VXL is a global leading manufacturer of thin-, zero- and cloud-client devices. VXL Software has locations in the USA, UK, France, Germany, the United Arab Emirates, India and Singapore. VXL Software's Americas Group is headquartered in Houston, Texas. The European headquarters is in Manchester. VXL Software's development team, and the Asia Pacific headquarters, are based in Bangalore, India.

Web: www.vxlsoftware.com

E-mail: sales@vxlsoftware.com

Americas

403 Corporate Woods Drive, Magnolia, TX 77354, USA
Tel: +1 877 242 7801

Europe

Carrington Business Park, Manchester Road,
Manchester. M31 4DD, UK
Tel: +44 (0) 161 775 4755

United Arab Emirates

1610, Tiffany Tower, Cluster 'W', Jumeirah Lake Towers,
Dubai, UAE
PO Box : 337111
Tel: +971 4 4508361

India

4th Floor, Kimatrai Building, 77/79, Maharshi Karve Marg,
Marine Lines(E), Mumbai - 400002, India
Tel: +91 (0) 22 42203100

Asia Pacific

167, Jalan Bukit Merah, # 06-12(SR-25) The Connection II,
Singapore -150167
Tel: +65 6278 8180



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