Lenovo XClarity Administrator and Lenovo XClarity Pro help IT organizations deploy physical systems faster and with less effort

**Overview**

Lenovo XClarity is a new hardware resource management solution that is designed to simplify and automate foundational infrastructure tasks, enabling administrators to deploy systems faster and with less effort. The new solution seamlessly integrates into System x M5 and X6 rack servers and the Flex System converged infrastructure platform, providing a future-proof approach that centralizes and virtualizes resource management across multiple systems. The new solution is available in two editions: Lenovo XClarity Administrator and Lenovo XClarity Pro.

- Simplified hardware resource management through an intuitive, graphical user interface (GUI) and agentless, virtual appliance architecture
- Automated firmware updates, configuration patterns, and bare metal provisioning of operating systems and hypervisors for more rapid delivery of Lenovo systems into production
- Extensibility to integrate hardware resource management into external, higher level management, automation, and orchestration tools through REST application programming interfaces (APIs)
- Scripting and command-line control over hardware resources using Windows™ PowerShell

Lenovo XClarity Pro is a new suite that includes Lenovo XClarity Administrator and two software plugin modules: Lenovo XClarity Integrator for Microsoft™ System Center and Lenovo XClarity Integrator for VMware vCenter. Additional highlights of Lenovo XClarity Pro include:

- Centrally view and manage virtual and physical resources from Microsoft System Center or VMware vCenter consoles
- Reduce workload downtime in clustered environments by dynamically migrating workloads during rolling firmware updates, rolling server reboots, and predicted hardware failures
Licenses for the offerings in this announcement include one, three, or five years of Software Subscription and Support (S&S). Software Subscription and Support entitlements are managed in Passport Advantage® Express®. Refer to the Order handling section of this announcement for further details.

If a new release or version of an offering is made generally available in Passport Advantage Express after the announcement of the offering in the Lenovo ordering systems, clients with valid Software and Subscription contracts may elect to take electronic delivery of the latest release or version.

Key prerequisites

Refer to the Technical information section.

Planned availability date

April 30, 2015

Refer to the Availability of national languages section for national language availability.

Description

**Lenovo XClarity Administrator**

Delivered as an agentless, software virtual appliance that seamlessly integrates into System x M5 and X6 rack servers and the Flex System, Lenovo XClarity Administrator provides:

- Flexible solution setup onto a hypervisor inside or external to the pool of managed systems
- An intuitive, easy-to-use graphical user interface (GUI) to accomplish tasks faster
- Auto-discovery and monitoring of servers and chassis nodes, I/O modules, and components
- Unattended firmware updates and compliance enforcement
- Configuration patterns to define hardware configurations once, and apply repeatedly without errors
- Bare metal provisioning of operating systems and hypervisors to speed delivery into production
- Integration into existing management, automation, and orchestration platforms through open REST application programming interfaces (APIs) and PowerShell support

By simplifying and automating only foundational hardware resource management tasks, Lenovo XClarity Administrator delivers following benefits:

- Improves business agility by enabling rapid rollout of Lenovo System x servers and Flex System
- Saves administrators time through a software-defined approach to system deployment and firmware compliance
- Enables IT teams to manage hardware resources on their terms through an intuitive GUI, through Windows PowerShell scripting, or from external, higher-level tools using REST APIs

**Lenovo XClarity Pro**

Lenovo XClarity Pro is a new suite that includes Lenovo XClarity Administrator and two software plugin modules: Lenovo XClarity Integrators for Microsoft System Center and Lenovo XClarity Integrator for VMware vCenter. The Pro edition provides
all the capabilities of Lenovo XClarity Administrator plus the following additional capabilities:

- Centrally manage virtual and physical resources from VMware vCenter or Microsoft System Center virtualization management platforms
- View Flex System chassis maps from within the virtualization management platform
- Ability to apply hardware Configuration Patterns to Flex System and System x servers
- Automated workload evacuation during rolling firmware updates, rolling server reboots, and predicted hardware failures to eliminate workload downtime in clustered ESXi or Hyper-V environments

Lenovo XClarity Pro delivers all the benefits of Lenovo XClarity Administrator plus the following additional benefits:

- Save time with capability that enables administrators to centrally view and manage virtual and physical resources
- Apply server firmware updates and configuration patterns from the virtualization management console
- Reduce planned and unplanned downtime in clustered environments by automatically evacuating workloads during rolling firmware updates, rolling server reboots, and predicted hardware failures

**Accessibility by people with disabilities**

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested from your Lenovo representative.

**Product positioning**

The new Lenovo XClarity solution is ideal for clients who require simplified hardware resource management and faster deployment of Lenovo M5 and X6 rack servers and Flex System into production.

**Reference information**

Refer to Hardware Announcement ZG15-0070, dated April 07, 2015.

**Availability of national languages**

Lenovo XClarity Administrator and Lenovo XClarity Pro are enabled to support all language environments and are translated into the following languages.

- English
- Spanish
- Japanese
- Simplified Chinese

**Program number**

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<th>Program number</th>
<th>VRM</th>
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Product identification number

Program PID number
5641-MF1
5641-MF3
5641-MF5
5641-PF1
5641-PF3
5641-PF5

Offering Information

Product information is available via the Offering Information website


Publications

No hardcopy publications are shipped with this program.

Services

Technology Services

Contact your Lenovo representative for the list of selected services available in your country, either as standard or customized offerings for the efficient installation, implementation, or integration of these products.

Technical information

Specified operating environment

Hardware requirements

Lenovo XClarity Administrator: Managed System x and Flex System infrastructure

- Flex System chassis, compute nodes, I/O modules
- System x3550 M5 machine type 5463
- System x3650 M5 machine type 5462
- System x3850 X6 / x3950 X6 machine type 6241

Support for Lenovo X6 servers will be delivered with the X6 Haswell model announce in May, 2015. Lenovo XClarity Administrator will be supported on all Lenovo X6, 6241 Machine Types; however, non-Haswell models will require a firmware update to the Haswell level system code. Earlier IBM-branded models of X6 will not be supported by Lenovo XClarity Administrator.

Lenovo XClarity Pro: Managed System x and Flex System infrastructure

- Lenovo XClarity Administrator supported hardware systems
Other System x and BladeCenter infrastructure can be managed directly from the Lenovo XClarity Integrators for Microsoft System Center or VMware vCenter

**Software requirements**

Hypervisors for installing the management solution virtual appliance:

- Microsoft Windows (includes Hyper-V): 2012 r1, or later, with Hyper-V installed
- VMware vSphere (ESXi): 5.1u1, 5.5, and later, operating systems for deploying images onto bare metal servers and compute nodes
- Microsoft Windows (includes Hyper-V): 2012 r1, r2
- Red Hat Enterprise Linux™ (includes KVM): 6.2, 6.3, 6.4, 6.5, 6.6, 7.0
- VMware vSphere (ESXi): 5.1, 5.1u1, 5.1u2, 5.1u3, 5.5, 5.5u1, 5.5u2, 6.0

The program’s specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a readme file, or other information published by Lenovo, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

**Limitations**

Refer to Usage restriction in the Terms and conditions section of this announcement or to the License Information document that is available on the Lenovo Software License Agreement website

http://www.lenovo.com/sla

**Planning information**

**Installability**

Refer to the Software requirements section.

**Packaging**

For the software products in this announcement, physical media and hardcopy documentation are not included in the deliverable package.

After receipt of an order, the Business Partner or user client will be required to register and accept Passport Advantage Express terms and conditions. These products include the license and one, three, or five years of Software Subscription and Support.

Your Proof of Entitlement is a copy of a paid sales receipt, purchase order, invoice, or other sales record from Lenovo or its authorized reseller from whom you acquired the program, provided that it states the license charge unit (the characteristics of intended use of the program; for example, number of servers) and quantity acquired. These programs, when downloaded from a website, contains the applicable license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

**Direct customer support**

Software Subscription and Support (also referred to as Software Maintenance) is included with licenses purchased. Product upgrades and technical support are provided by the Software Subscription and Support (Software Maintenance) offering as described in the Agreements. Product upgrades provide the latest version and releases to entitled software, and technical support provides voice and electronic access to Lenovo support organizations, worldwide.

Subscription and Support (Software Maintenance) can be extended by the purchase of a renewal option, if available.
Security, auditability, and control

The offerings in this announcement use the security and auditability features of the system in which they are installed. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering information

Consult your Lenovo representative.

Order handling

To allow for ease of order submission, the offerings in this announcement can be configured in conjunction with eligible hardware, software, and license-only configurations that can be created for these offerings based on existing supported hardware in a given business environment.

Licenses for these offerings include one, three, or five years of Software Subscription and Support. Software Subscription and Support renewals for all features are aligned through Passport Advantage Express, reducing the administrative burden of keeping your Subscription and Support up to date.

If a new release or version of a given offering in this announcement is made generally available in Passport Advantage Express after the announcement of the offering in the original ordering systems, you may elect to take delivery of any release or version generally available for that offering during the product registration process.

Software and Subscription Entitlements for orders placed for the eligible offerings in this announcement will be routed and managed through Passport Advantage Express. Invoicing for the initial license orders will occur through the order management system in which the initial order was placed. Subscription and Support renewals will be managed through Passport Advantage Express.

Passport Advantage Express allows you to have a common anniversary date for Software Subscription and Support renewals. The anniversary date, established at the order ship date for the initial product acquisition, will remain unchanged while your Passport Advantage Express Agreement remains in effect. New software purchases initially include 12, 36, or 60 months of Subscription and Support coverage. Subscription and Support in the second year (the first year of renewal) can be prorated to be coterminous with your common anniversary date but managed and invoiced through Passport Advantage Express. Thereafter, all Software Subscription and Support will renew at the common anniversary date and include 12 full months of Subscription and Support.

New license

Orders for new licenses will be accepted April 7, 2015.

Basic license

To order the programs described in this announcement, specify the type model number, order type description, supply feature, and quantity of desired licenses for the appropriate one-time charge (OTC) features listed in the tables below. After receipt of your order, you will be requested to register through Passport Advantage Express to allow for entitlement for support and notification of upgrades. Upon registration completion you will be provided with a website for the electronic download. The one-time charge for the product includes the license and Software Subscription and Support (S&S).
Except where noted, configuration aids, either Lenovo Configurator for e-business or Lenovo Hardware Configurator, must be used for creation of valid software and hardware orders for the offerings in this announcement as well as other referenced and affiliated announcement offerings.

To order single entity offering (SEO) numbers, specify the SEO number and quantity of desired licenses for the appropriate one time charge (OTC) listed in the table below. The SEO numbers in the table below are equivalent to the type model number, description, and OTC billing feature numbers as designated in the table. After receipt of your order, you will be requested to register through Passport Advantage Express to allow for entitlement for support and notification of upgrades. Upon registration completion, you will be provided with a website for the electronic download. The one-time charge for the product includes the license and Software Subscription and Support.

**Stand-alone ordering**

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**Pseudo ordering**

In some instances these offerings can be configured as an option with select hardware. In these instances the output of the configurator tools will include the following program number, OTC feature, and registration feature depending on the option selected.

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Charge metric

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License metric definitions

Managed chassis

Managed chassis is a unit of measure by which the Program can be licensed. A chassis is a physical enclosure structure that provides services such as power, cooling, networking, various interconnects, and management to IT elements which dock inside the enclosure. Licensee must obtain managed chassis entitlements for each chassis managed by the program.

Terms and conditions

The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with Lenovo are contained in the applicable contract documents such as the Lenovo International Program License Agreement and International Passport Advantage Express Agreement.

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http://www.lenovoFS.com

Licensing

Lenovo International Program License Agreement including the License Information document and Proof of Entitlement (PoE) govern your use of the program. PoEs are required for all authorized use.
This software license includes Software Subscription and Support (also referred to as Software Maintenance).

**Agreement for Acquisition of Software Maintenance**

These programs are licensed under the Lenovo Program License Agreement (IPLA). Lenovo includes one, three, or five years of Software Subscription and support (also referred to as Software Maintenance) with the initial license acquisition of each program acquired.

**License Information number**

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<td>L-VJOI-9SXC8N</td>
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On or near the planned availability date, the current License Information documents will be available for review on the Lenovo Software License Agreement website

http://www.lenovo.com/sla

**Limited warranty applies**

Yes

**Limited warranty**

Lenovo warrants that when the program is used in the specified operating environment, it will conform to its specifications. The warranty applies only to the unmodified portion of the program. Lenovo does not warrant uninterrupted or error-free operation of the program or that Lenovo will correct all program defects. You are responsible for the results obtained from the use of the program.

Lenovo provides you with access to IBM® databases containing information about known program defects, defect corrections, restrictions, and bypasses at no additional charge. For further information, consult the Lenovo Software Support Handbook found at

http://support.lenovo.com

Lenovo will maintain this information for at least one year after the original licensee acquires the program (warranty period).

**Program technical support**

Technical support of a program product version or release will be available for a minimum of five years from the general availability date, as long as your Software Subscription and Support (also referred to as Software Maintenance) is in effect. This technical support allows you to obtain assistance (via telephone or electronic means) from Lenovo for product-specific, task-oriented questions regarding the installation and operation of the program product. Software Subscription and Support (Software Maintenance) also provides you with access to updates (modifications or fixes), releases, and versions of the program. You will be notified, via announcement letter, of discontinuance of support with 12 months notice. If you require additional technical support from Lenovo, including an extension of support beyond the discontinuance date, contact your Lenovo representative or Lenovo Business Partner. This extension may be available for a fee.

**Money-back guarantee**

If for any reason you are dissatisfied with the program and you are the original licensee, you may obtain a refund of the amount you paid for it, if within 30 days of
your invoice date you return the program and its PoE to the party from whom you obtained it. If you downloaded the program, you may contact the party from whom you acquired it for instructions on how to obtain the refund.

Other terms

**Volume orders (IVO)**

No

**IBM International Passport Advantage Agreement**

**Passport Advantage applies**

Yes, and through the Passport Advantage website at

http://www.ibm.com/software/passportadvantage

**Usage restriction**

Yes

**Software Subscription and Support applies**

Yes.

The offerings in this announcement include one, three, or five years of Software Subscription and Support (Software Maintenance) in the price of the license.

While your Software Subscription and Support is in effect, Lenovo provides you assistance for your routine, short duration installation and usage (how-to) questions, and code-related questions. Lenovo provides assistance via telephone and, if available, electronic access, only to your information systems (IS) technical support personnel during the normal business hours (published prime shift hours) of your Lenovo support center. (This assistance is not available to your end users.) Lenovo provides Severity 1 assistance 24 hours a day, every day of the year. For additional details, consult your Lenovo Software Support Handbook at

http://support.lenovo.com

Software Subscription and Support does not include assistance for the design and development of applications, your use of programs in other than their specified operating environment, or failures caused by products for which Lenovo is not responsible under this agreement.

**System i® Software Maintenance applies**

No

**Variable charges apply**

No

**Educational allowance available**

Yes. When ordering through the program number process, a 15% education allowance applies to qualified education institution customers.

Education Software Allowance Program applies when ordering through the program number process.
ESAP available

No

Prices

For all local charges, contact your Lenovo representative or Business Partner.

Announcement countries

All European, Middle Eastern, and African countries.

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