

Lenovo XClarity

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The Lenovo logo is displayed vertically on a red rectangular background. The word "Lenovo" is written in white, with a small "TM" trademark symbol at the top right of the text.

Lenovo™

Contents

- XClarity Administrator
- XClarity Mobile
- XClarity Integrators
- XClarity Online Community
- Get More Information

The background of the slide is a dark blue-grey color. It features several decorative elements: a horizontal strip at the top showing server racks with blue and orange lights; a horizontal strip in the middle showing server racks with blue and orange lights; a horizontal strip on the right side showing a server rack with a blue light; a horizontal strip at the bottom showing server racks with blue and orange lights; and a large, rounded blue rectangle on the left side, partially overlapping the title text.

XClarity Administrator

Foundational Software for Precision Execution and IT Productivity

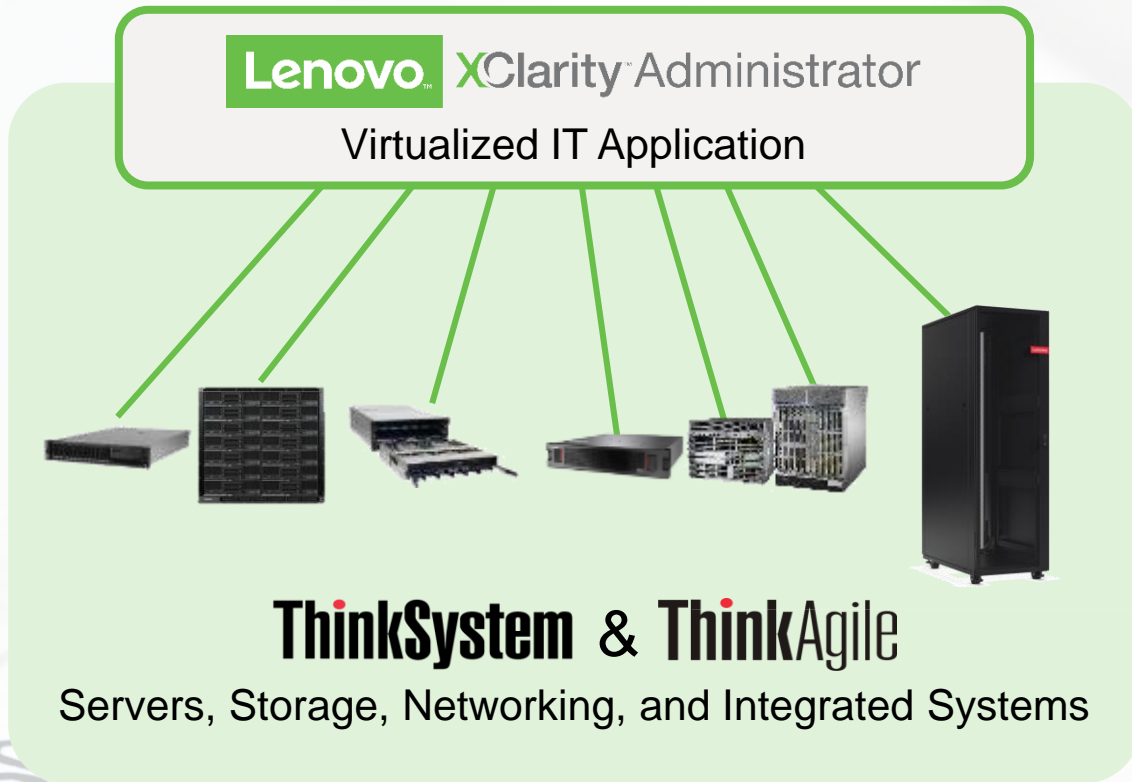
Key Data Center Management Challenges

- Hardware provisioning and maintenance
- Data-driven, connected view of data center operations
- Transforming infrastructure resources into services



Lenovo XClarity Administrator

Foundational Infrastructure Software for Precision Execution



Faster Provisioning

48% Less time to deploy than competitor solutions^{1,2}

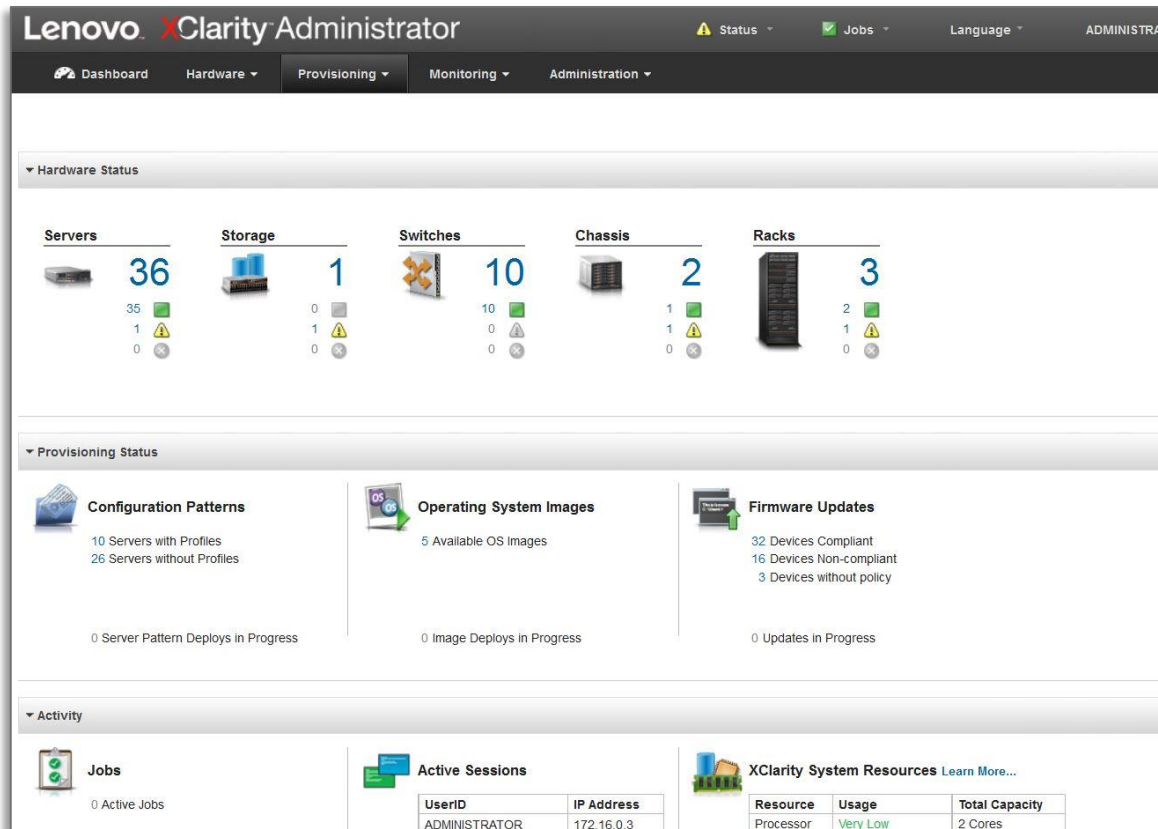
Improved IT Productivity

72% Fewer steps to deploy than competitor solutions^{1,2}

1. http://www.lenovo.com/images/products/system-x/pdfs/white-papers/xclarity_vs_cisco_ucs_manager_wp.pdf
2. http://www.lenovo.com/images/products/system-x/pdfs/white-papers/xclarity_vs_hp_oneview_wp.pdf

Simplify Infrastructure Management with XClarity

[Download the XClarity Administrator virtual appliance](#)



- Reusable Patterns and Policies
 - Configuration Patterns define the state of physical systems
 - Jump start provisioning with pre-defined UEFI settings optimized for specific workloads
 - Firmware level policy management streamlines ongoing maintenance
- Real-Time Monitoring
 - Forward alerts, emails, and events
 - Call Home to create service tickets
 - Centrally launch remote control sessions to manage endpoints as if you were at the local console
- Automated OS installation
 - Minimize manual steps with scalable installation of hypervisors and operating systems to multiple bare metal servers

Strengthen Infrastructure and End User Security with XClarity

- User validation, authentication, auditing
 - Authenticate users with external Active Directory (AD) Servers
 - Provide single sign-on and multi-factor authentication with external Active Directory Federation Services (AD FS)
 - Encapsulate managed endpoints to establish a single, tamper-proof system of record of user activity
- Secure connections and messages
 - Centrally manage endpoint SSL certificates
 - [Perfect Forward Secrecy](#) strengthens communication
 - Implement [NIST SP 800-131A](#) and [FIPS 140-2](#) levels of encryption compliance
- Run only validated, trusted system software
 - Firmware and XClarity software updates will only execute if digitally signed by Lenovo



Flexible Programmatic Control of Lenovo Infrastructure

Lenovo XClarity™ Administrator APIs

PowerShell cmdlets



- Command-line task automation and configuration management
- Consistent, reliable task execution
- Modular, re-usable code
- PowerShell help is available in the XClarity Administrator user [documentation](#)
- [Download the XClarity Administrator PowerShell Toolkit from the PowerShell Gallery](#)

Python CLI



- Clean object-oriented design and extensive support libraries simplify development of Web services
- Open source development and collaboration
- Run Python commands from an interactive shell, Python shell, or as a Python script
- Python CLI toolkit help is available in the XClarity Administrator user [documentation](#)

REST APIs



- Logical, efficient, and widespread API standard for Internet-based services
- Simplified, secure interface between systems using HTTPS to obtain data and execute operations
- REST API help is available in the XClarity Administrator user [documentation](#)

XClarity Administrator Install

Supported Host Systems

The Lenovo XClarity management appliance runs in a virtual machine on the host system.

- Nutanix Acropolis Hypervisor (AHV)
- Microsoft Windows Server 2016 with Hyper-V installed
- Microsoft Windows Server 2012 R2 with Hyper-V installed
- Microsoft Windows Server 2012 with Hyper-V installed
- Red Hat Enterprise Linux 7.x with Kernel-based Virtual Machine (KVM) v1.2.17 installed
- VMware ESXi 6.7
- VMware ESXi 6.5
- VMware ESXi 6.0 U1 and U2
- VMware ESXi 5.5 U1 and U2
- VMware ESXi 5.1 U1, U2, and U3

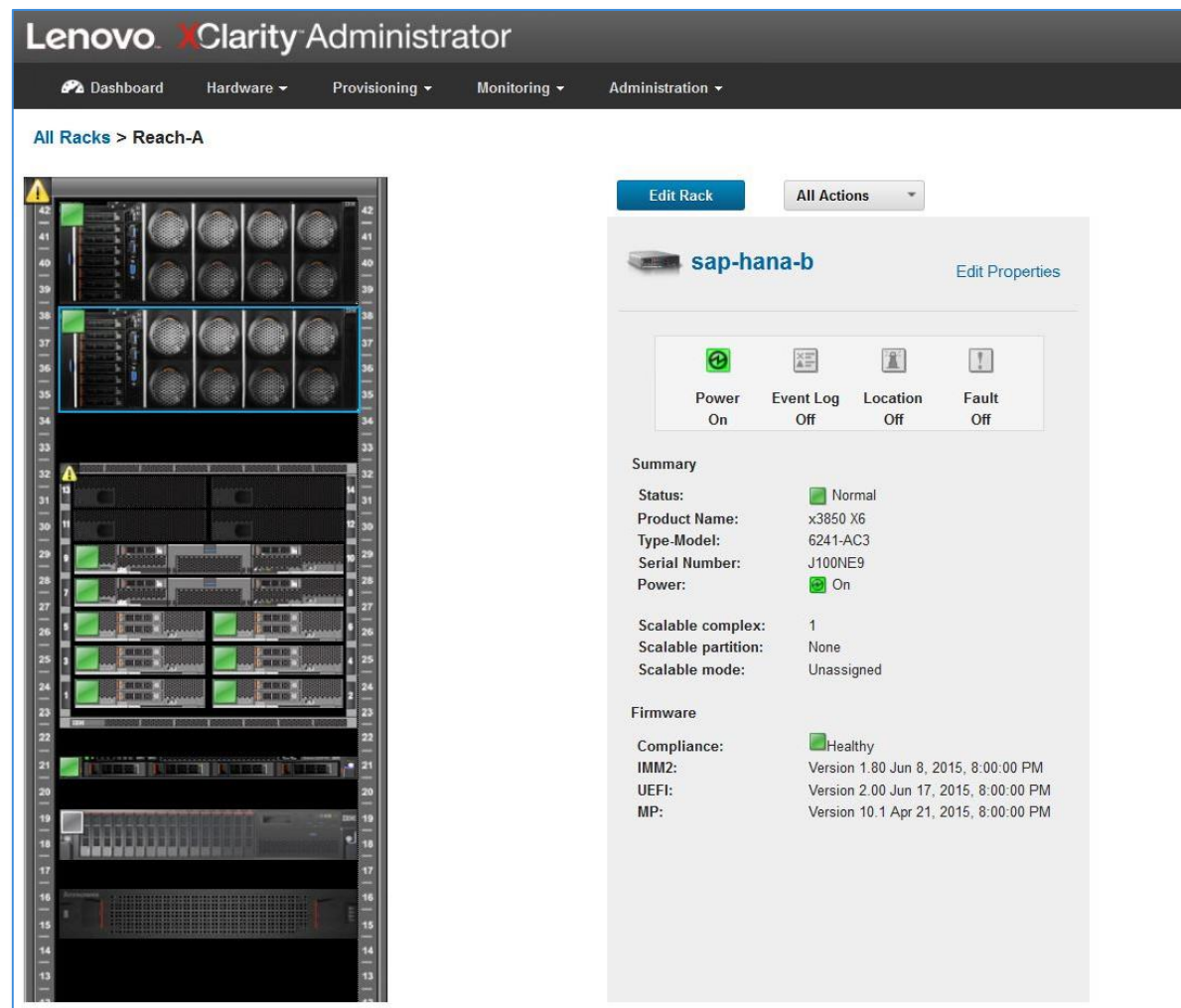
For VMware, the virtual machine is available as an OVF template. For Hyper-V and Nutanix AHV, the virtual machine is a virtual-disk image (VHD). For KVM, the virtual machine is available as qcow2 format.

The host system that is running the Lenovo XClarity virtual machine has the following minimum requirements:

- Two virtual microprocessors.
- 8 GB of memory
- A minimum of 192 GB of storage for use by Lenovo XClarity virtual appliance.

Discover, Track, and Monitor System Inventory in Real-Time

- Auto-discover local and remote inventory to manage
- Visualize managed system inventory
- Handle alerts and events in real-time
 - Subscribe to SNMPv3 events
 - Forward events to remote syslogs
 - Push notifications to XClarity Mobile app
 - Forward service data to your choice of SFTP server
 - Generate email notifications
 - Automatically call home to create service tickets
- Centrally launch remote control sessions to manage endpoints as if you were at the local console



- Create and apply firmware compliance policies on target Compute, Storage, and Networking
- Quickly update firmware on target systems without creating a policy (**New**)
- Apply updates to one or more systems
- Eliminate maintenance windows for physical hosts in Hyper-V and vSphere clusters with advanced automation

Lenovo XClarity Administrator

Dashboard Hardware Provisioning Monitoring Administration

Firmware Updates: Apply / Activate

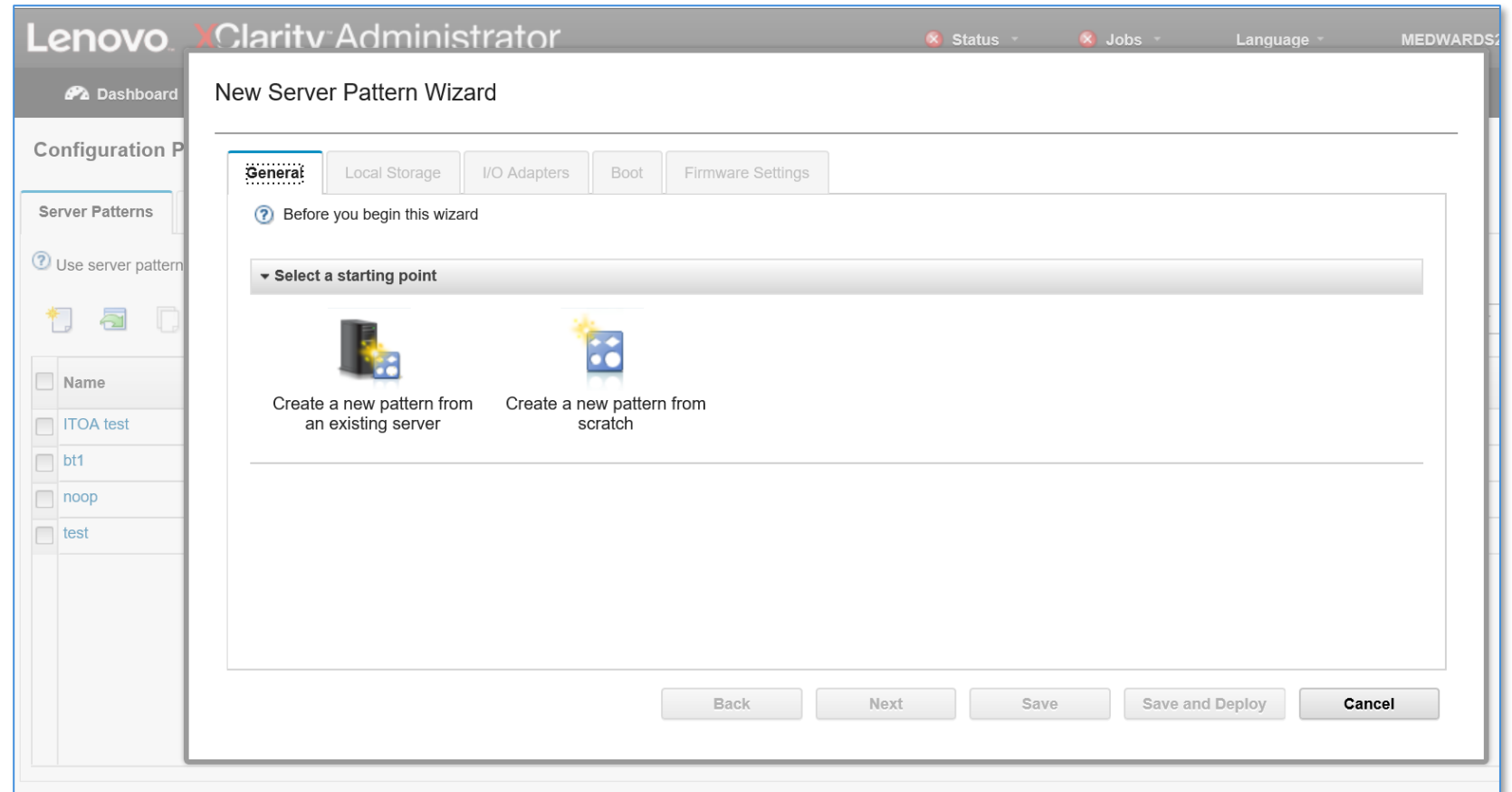
To update firmware on a device, assign a compliance policy and select Perform Updates.

Update with Policy Update without Policy

All Actions * Critical Release Information Filter By Show: All Devices

Device	Rack Name / Unit	Chassis / Bay	Power	Installed Version	Assigned Compliance Policy	Compliance Target
SN#Y034BG16E0C0 10.243.1.141	Rack 13 / Unit 11	Boulder Chassis / Bay 1	On	2.5.9 / 2PET37C	DEV-2017-03-22	2PET35D-v2.5.8d / 2PET35D-2.5.8d
IO Module 01 10.243.12.186	Rack 13 / Unit 11	Boulder Chassis / Bay 1	On	Compliant	DEV-2017-03-22	7.8.15.10 / 0708
ite-cc-bld10l 10.243.12.72	Rack 13 / Unit 11	Boulder Chassis / Bay 10:1	On	Compliant	DEV-2017-03-22	ibm_fw_scsn_en2092-7.8
ite-cc-bld10u 10.243.13.70	Rack 13 / Unit 11	Boulder Chassis / Bay 10:2	On	Compliant	DEV-2017-03-22	
ite-bt-bld2 10.243.10.180	Rack 13 / Unit 11	Boulder Chassis / Bay 11	Off	Compliant	DEV-2017-03-22	
ite-cc-bld4l 10.243.12.156	Rack 13 / Unit 11	Boulder Chassis / Bay 12:1	On	Compliant	DEV-2017-03-22	

- Wizard-based, reusable configuration patterns streamline provisioning
- Each pattern can be used to define multiple target systems
- Ensure optimal system performance with pre-populated UEFI settings tuned for specific workloads



Lenovo XClarity Administrator

Centrally Deploy Hypervisors and Operating Systems to Bare Metal Systems to Further Streamline Provisioning

- Automate to accelerate and scale installation of hypervisors and operating systems to bare metal servers
- Software is installed utilizing pre-boot environment, eliminating need for PXE booting



Lenovo XClarity Administrator

Dashboard Hardware Provisioning Monitoring Administration

Deploy Operating Systems: Manage OS Images

You can import and delete operating-system images, device drivers, and boot files. You can also configure remote file servers and customize operating-system profiles. [Learn More...](#)

OS Images Driver Files Boot Files

Total OS Image Repository Usage:	5.8 GB of 25 GB
OS Image Usage:	5.0 GB
Device Driver Usage:	319.6 MB
Boot File Usage:	410.8 MB

win2012r2|win2012r2-x86_64-install-Datacenter

Import/Export Profile All Actions

OS Name	Type	Customization	Description
win2012r2	Base OS Image	Customizable	
win2012r2-x86_64-install-Datacenter	Predefined Profile		
win2012r2-x86_64-install-Datacenter_Virtualization	Predefined Profile		
win2012r2-x86_64-install-Datacenter_Virtualization_core	Predefined Profile		
win2012r2-x86_64-install-Datacenter_core	Predefined Profile		
win2012r2-x86_64-install-Standard	Predefined Profile		
win2012r2-x86_64-install-Standard_Virtualization	Predefined Profile		
win2012r2-x86_64-install-Standard_Virtualization_core	Predefined Profile		
win2012r2-x86_64-install-Standard_core	Predefined Profile		

Lenovo XClarity Administrator is Available in Two Editions

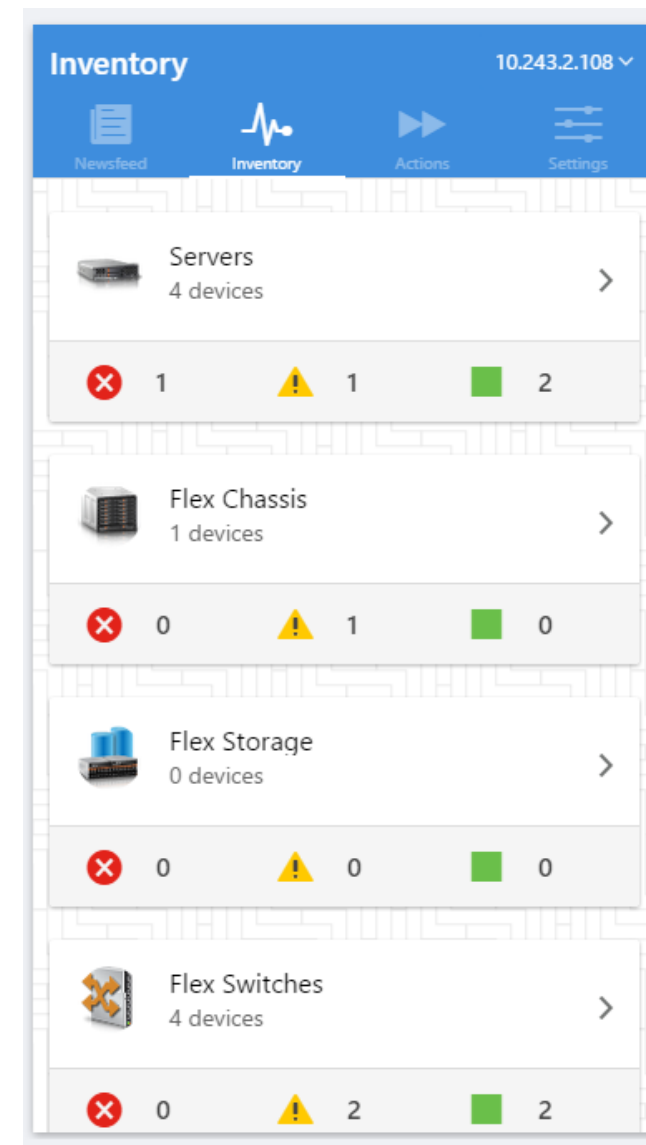
	XClarity Administrator	XClarity Pro
Cost structure	Free	Fee-Based
Service and Support		✓
REST APIs, Python CLI, and PowerShell	✓	✓
XClarity Mobile app	✓	✓
XClarity Integrator software plugins	✓	✓
Auto-discover and track inventory of managed hardware	✓	✓
Monitor and handle faults in real-time	✓	✓
Manage firmware levels with compliance policies	✓	✓
Define hardware with software-based configuration patterns	90 Day Trial	✓
Install hypervisors and operating systems to bare metal	90 Day Trial	✓

The background features several horizontal rounded rectangles containing images of server racks. These images are positioned at the top, middle-right, and bottom of the slide, showing various server components like fans, cables, and labels.

XClarity Mobile

Anywhere Systems Management

- Anywhere management
 - Securely monitor systems from Android and iOS devices
 - Get real-time newsfeeds on status, alerts, logs, and jobs
 - See detailed inventory and alert information
 - Filter and search through data
 - Take action on common system level tasks to minimize the risk of disruptions and downtime
 - Forward emails to share status, alerts, and events
- **New for ThinkSystem**
 - Perform initial configuration of new servers
 - Retrieve diagnostic information (Virtual LCD) and perform basic actions
 - Initiate XClarity Administrator from mobile device



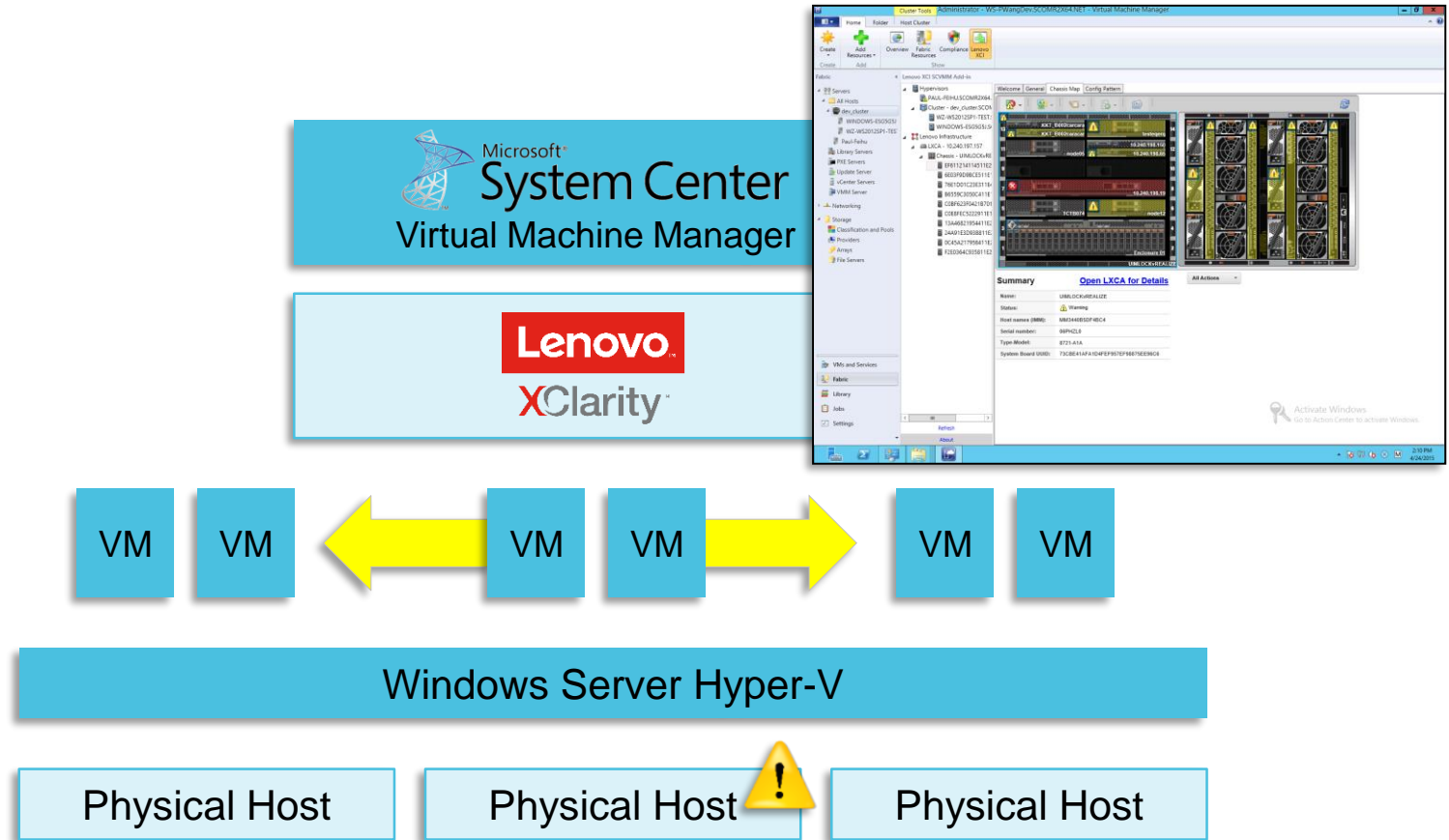
The slide features a dark blue background with several decorative elements: rounded rectangular images of server racks are placed at the top, middle, and bottom. A solid blue horizontal bar is positioned below the title. The text is in a clean, white, sans-serif font.

XClarity Integrators

Transform Infrastructure Resources into Services

XClarity Integrator for Microsoft System Center Virtual Machine Manager (VMM)

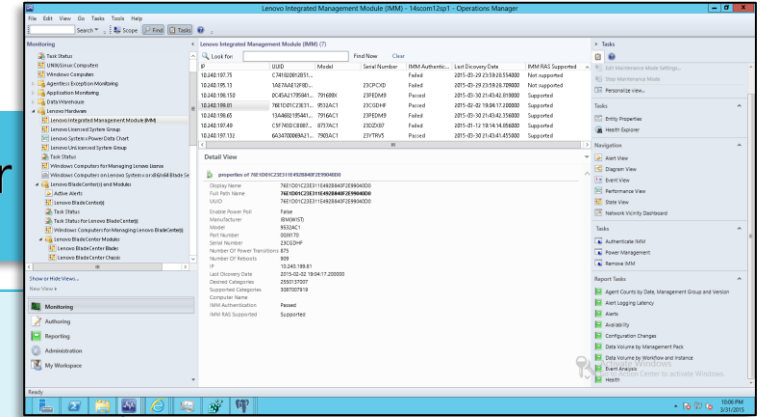
- Consolidate virtual and physical infrastructure management using your familiar console
 - Discovery
 - Monitoring
 - Firmware updates
 - Configurations
- Eliminate downtime in Hyper-V clusters
 - Automate rolling reboots & firmware updates
 - Automate evacuation of VMs from impacted hosts based on user-defined events
- Advisory PRO tips for existing and predictive hardware problems



[Download XClarity Integrator for Microsoft System Center](#)

XClarity Integrator for Microsoft System Center Operations Manager (SCOM)

- Monitor physical system health and events
- Correlate events across domains
- Monitor power utilization of systems running Windows
- Monitor overall system power usage, and generate alerts when consumption rises above thresholds
- Enable Power Capping and set the maximum power consumption wattage
- Remote power on and off of systems
- Hardware Management Software Configuration Advisor detects the presence of hardware MP software dependencies and makes configuration recommendations



- Inventory and monitoring
- Event correlation
- Platform alert handling
- Power capping

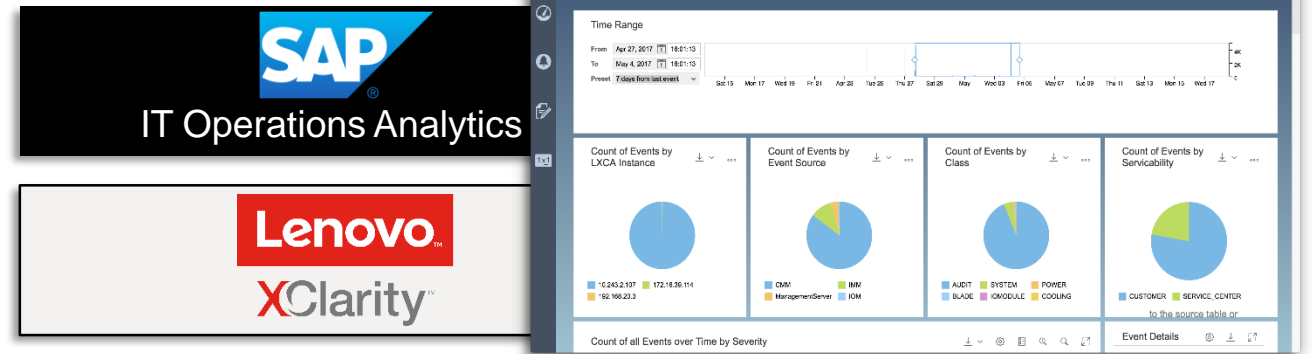
[Download XClarity Integrator for Microsoft System Center](#)

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SAP IT Operations Analytics (ITOA) and Lenovo XClarity **NEW**

Available from **Lenovo DCG Services**

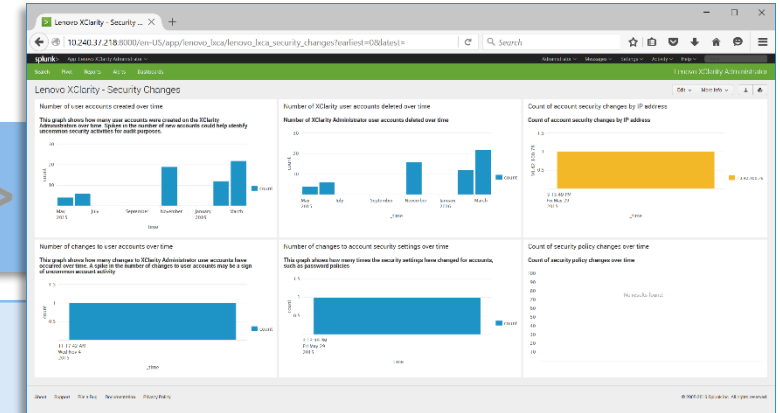
- Single, integrated joint solution
- Clear visibility into Lenovo systems and SAP applications
- Proactive user-friendly analytics and predictive capabilities
- Deeper insights with pre-built visualizations and dashboards
- Expedite root cause analysis with powerful drill-down, filtering, and analytics
- Manage millions or billions of streaming IT signals across servers, operating systems, and applications
- Analyze data from other external monitoring tools to manage the entire data center landscape



- Holistic monitoring of the entire data center
- Collect, process, and analyze massive volumes of streaming IT signals
- Resolve both system and application issues in real time
- Download the [SAP ITOA and XClarity solution brief](#)

XClarity Integrator for Splunk Enterprise

- Centralized platform for Operational Intelligence
- Generate insights from machine data to increase productivity and security
 - Collect, analyze, and act on the Big Data generated by your IT infrastructure
 - Centrally monitor events across workloads, virtual resources, and physical resources
- Quickly identify trends including thresholds, failures, and PFAs (Predicted Failure Analytics)
- Monitor and audit for security changes

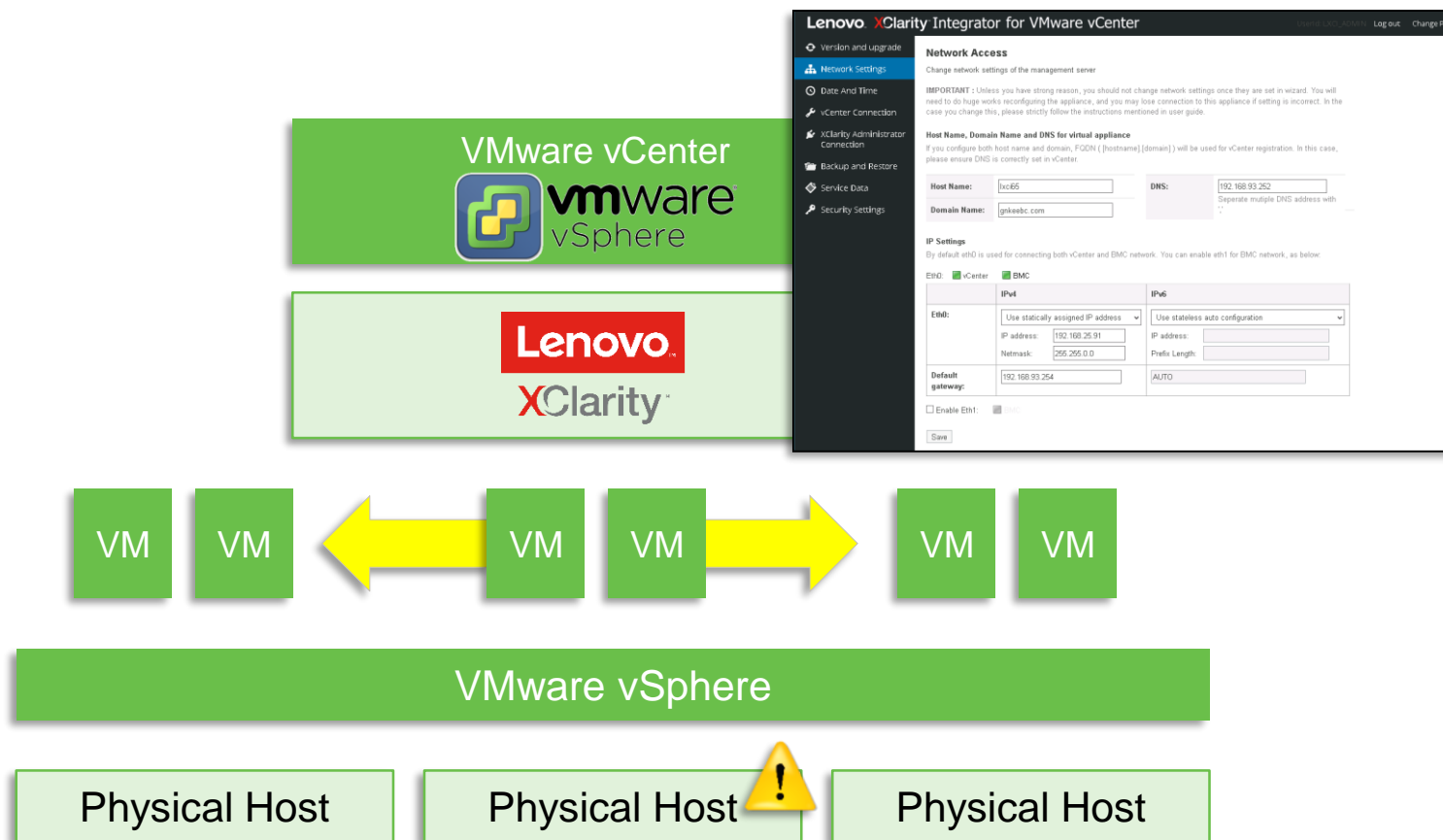


- Track and audit user logins and actions
- Track provisioning events
- Visualize power consumption and thermal property thresholds that are reached
- Visualize serviceable events

[Download XClarity Integrator for Splunk](#)

XClarity Integrator for VMware vCenter

- Consolidate virtual and physical infrastructure management using your familiar console
 - Discovery
 - Monitoring
 - Firmware updates
 - Configurations
- Eliminate downtime in vSphere clusters
 - Automate rolling reboots & firmware updates
 - Automate evacuation of VMs from impacted hosts based on user-defined events



[Download XClarity Integrator for VMware vCenter](#)

XClarity Integrator for VMware vRealize Automation and vRealize Orchestrator

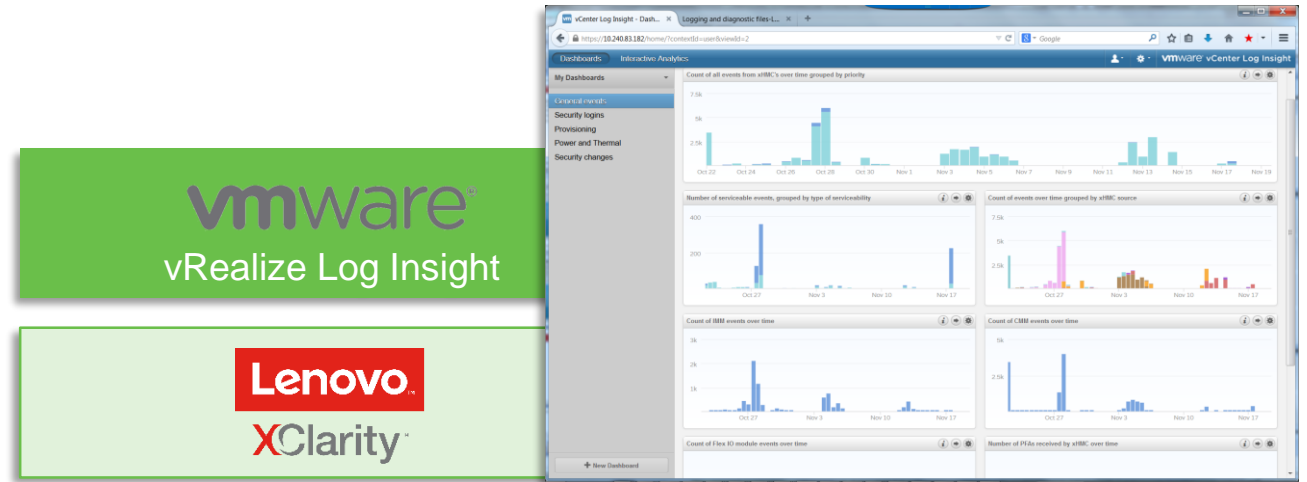
- Abstract infrastructure resources and transform them into services
- Deliver infrastructure faster through repeatable, scalable execution of tasks across software and hardware domains



- Blueprints to help create and manage pools of resources, such as provisioning end-to-end hosts and clusters
- [Download XClarity Integrator for VMware vRealize Automation](#)

XClarity Integrator for VMware vRealize Log Insight

- Collect, trend, and analyze data center events to provide real-time answers to problems related to systems, services, and applications
- Graph and visualize hardware event data to generate insights
- Configure alerts when specific conditions occur
- Query event data to build reports



- Visualize event quantity and priority, and the number of hardware events requiring intervention
- Identify which systems surface the most events
- Find out who is accessing XClarity
- Discover unauthorized users trying to access XClarity
- [Download XClarity Integrator for VMware vRealize Log Insight](#)

The background of the slide is a dark blue-grey color. It features several decorative horizontal bands with rounded ends, each containing a close-up photograph of server rack components. These include various ports, cables, and cooling fans. The bands are positioned at the top, middle, and bottom of the slide. The main text is centered on the left side of the slide.

XClarity Online Community

Provide Us with Feedback and Ask Questions

Lenovo XClarity™ - Online Forum

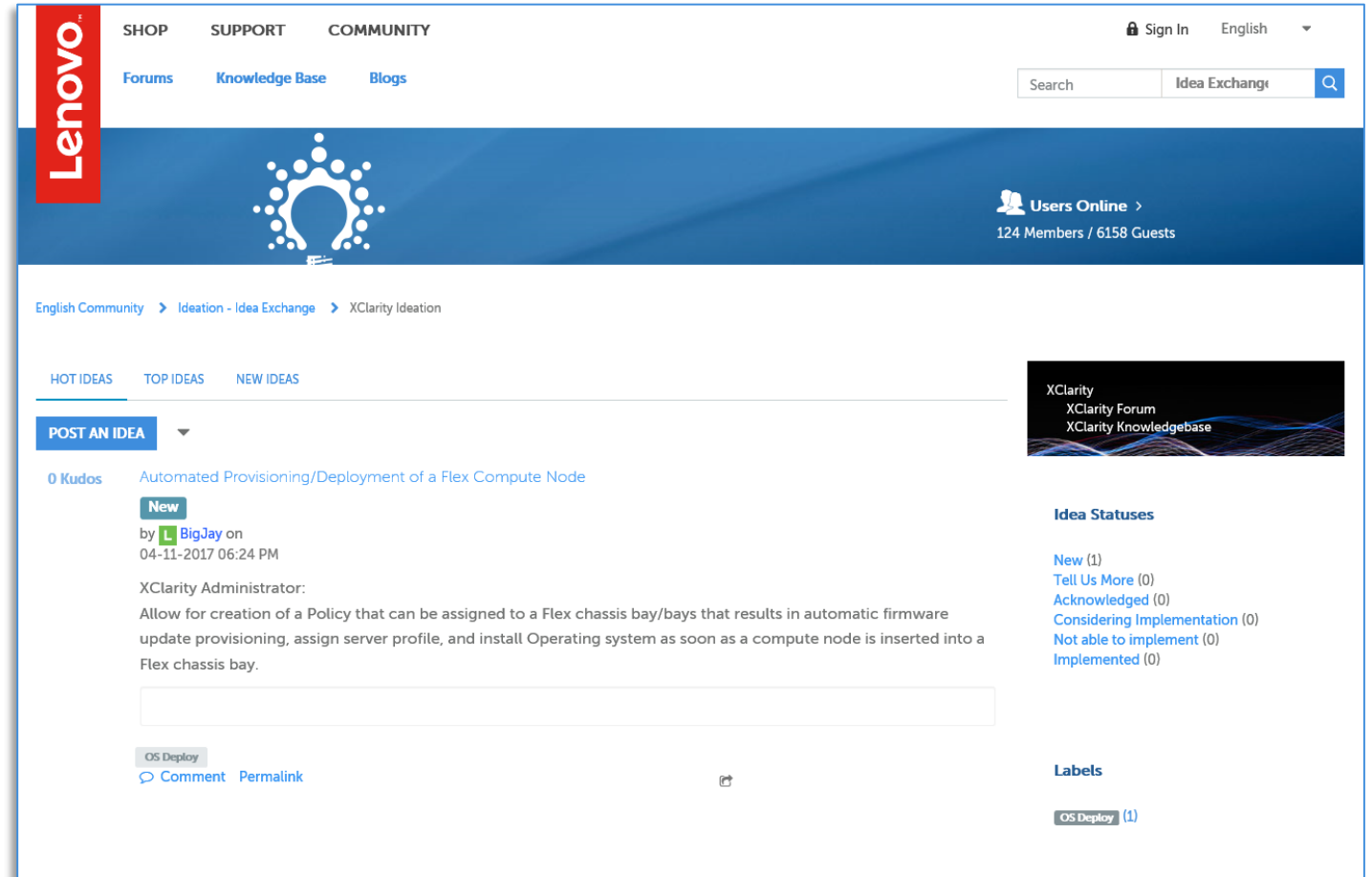
- Start and respond to topics
 - Ask and answer questions
 - Provide instructions and tips
 - See XClarity related announcements
- [Link to Forums](#)

The screenshot displays the Lenovo XClarity Online Forum. At the top, there's a navigation bar with 'SHOP', 'SUPPORT', and 'COMMUNITY' links. Below this, 'Forums', 'Knowledge Base', and 'Blogs' are listed. A search bar and a 'Board' button are on the right. A 'Sign In' link and language selector are in the top right corner. A banner shows 'Users Online' with '121 Members / 5947 Guests'. The main content area shows a breadcrumb trail: 'English Community > Datacenter Systems Management > Lenovo XClarity'. Below this is a 'START A TOPIC' button and a list of forum topics. Each topic includes a user profile picture, the topic title, the author, the date and time of the first post, the date and time of the latest post, the number of replies, and the number of views. The topics are: 'Introducing Lenovo XClarity Administrator - Available now!' (4 replies, 2827 views), 'Introducing: Lenovo XClarity Mobile' (0 replies, 1151 views), 'xClarity Administrator - Scripting' (2 replies, 157 views), 'XClarity download error' (1 reply, 83 views), 'bogus alert flooding' (2 replies, 124 views), 'xClarity Integrator for VMware collection error' (0 replies, 39 views), and 'Using XClarity for System X deployment : questions' (3 replies, 116 views). On the right side, there are two boxes: 'Community Guidelines' with a link to review guidelines, and 'XClarity Knowledgebase XClarity Ideation'. At the bottom right, there's a 'Forum Home' section with links to 'Introduction', 'Special Events', 'ThinkPad Notebooks', and 'Lenovo Notebooks'.

Topic	Author	Date/Time	Latest Post	Replies	Views
Introducing Lenovo XClarity Administrator - Available now!	Inca_Roads	05-04-2015 10:37 AM	09-18-2015 03:29 AM by ashingare	4	2827
Introducing: Lenovo XClarity Mobile	Sard	12-14-2015 07:52 AM		0	1151
xClarity Administrator - Scripting	BenceBertalan	03-17-2017 06:40 AM	04-11-2017 07:12 PM by BigJay	2	157
XClarity download error	adamhuffman	04-10-2017 02:04 AM	04-11-2017 06:54 PM by BigJay	1	83
bogus alert flooding	princexizor	03-28-2017 04:31 AM	04-07-2017 05:03 AM by princexizor	2	124
xClarity Integrator for VMware collection error	KiwiJJ	04-02-2017 01:33 PM		0	39
Using XClarity for System X deployment : questions	ThomasFR	03-29-2017 01:23 AM	03-31-2017 07:21 AM by BigJay	3	116

Lenovo XClarity™ - Ideation Requirements Input

- Provide input on product requirements
 - Enter requirements
 - Vote and comment on requirements
 - View status of requirement requests
- [Link to Ideation Site](#)



thanks.

Different is better

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