

The future-defined Data center

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Lenovo Bulgaria & Macedonia

28 November 2017
IBS IT Compass





25 YEARS OF
LENOVO
THINKPAD



Lenovo

28 НОЕМВРИ 2017, 19:30 ЧАСА, КЛУБ CARRUSEL

ЗАПОВЯДАЙТЕ ДА ОТПРАЗНУВАМЕ
ТОЗИ СПЕЦИАЛЕН РОЖДЕН ДЕН
ЗАЕДНО.

Моля потвърдете Вашето присъствие най-късно до 27 ноември
на е-mail адрес: syankova@lenovo.com

Екипът на Lenovo Bulgaria

МЯСТОТО:

Клуб Carrusel
Ул. Г. С. Раковски 108
Гр. София



Lenovo

+ A Strong Foundation

#1

CUSTOMER
SATISFACTION

In the latest TBR survey (1H 2017), Lenovo was #1 for the 7th consecutive study going back to January 2015, and in 23 of 29 studies since 2H 2009. Also, lead in 22 of 22 satisfaction attributes in latest survey.

#1

X86 SERVER
RELIABILITY

#1 in ITIC Reliability Survey for 4 ½ years running.

#1

MICROSOFT
SQL 2017
PERFORMANCE

SR650 TPC-E Performance and Price/Performance¹ and SR950 TPC-H²

#1

SAP HANA
TCO

SAP runs their SAP on Lenovo. Lenovo has the lowest TCO with X6 systems providing up to 31% lower cost over three years for SAP HANA.

#2

TOP500 HPC
VENDOR

Lenovo is the fastest growing TOP500 HPC vendor worldwide and ranks 2nd in the number of fastest systems.

88

Current World
Record x86
Benchmarks

Lenovo enables faster performance and data analysis for mission critical applications.

#24

GARTNER
SUPPLY CHAIN

Of 300 companies over \$12B rev across industries recognizing supply chain leadership and best practices.

+ Lenovo New Brand

ThinkServer

System x



ThinkSystem

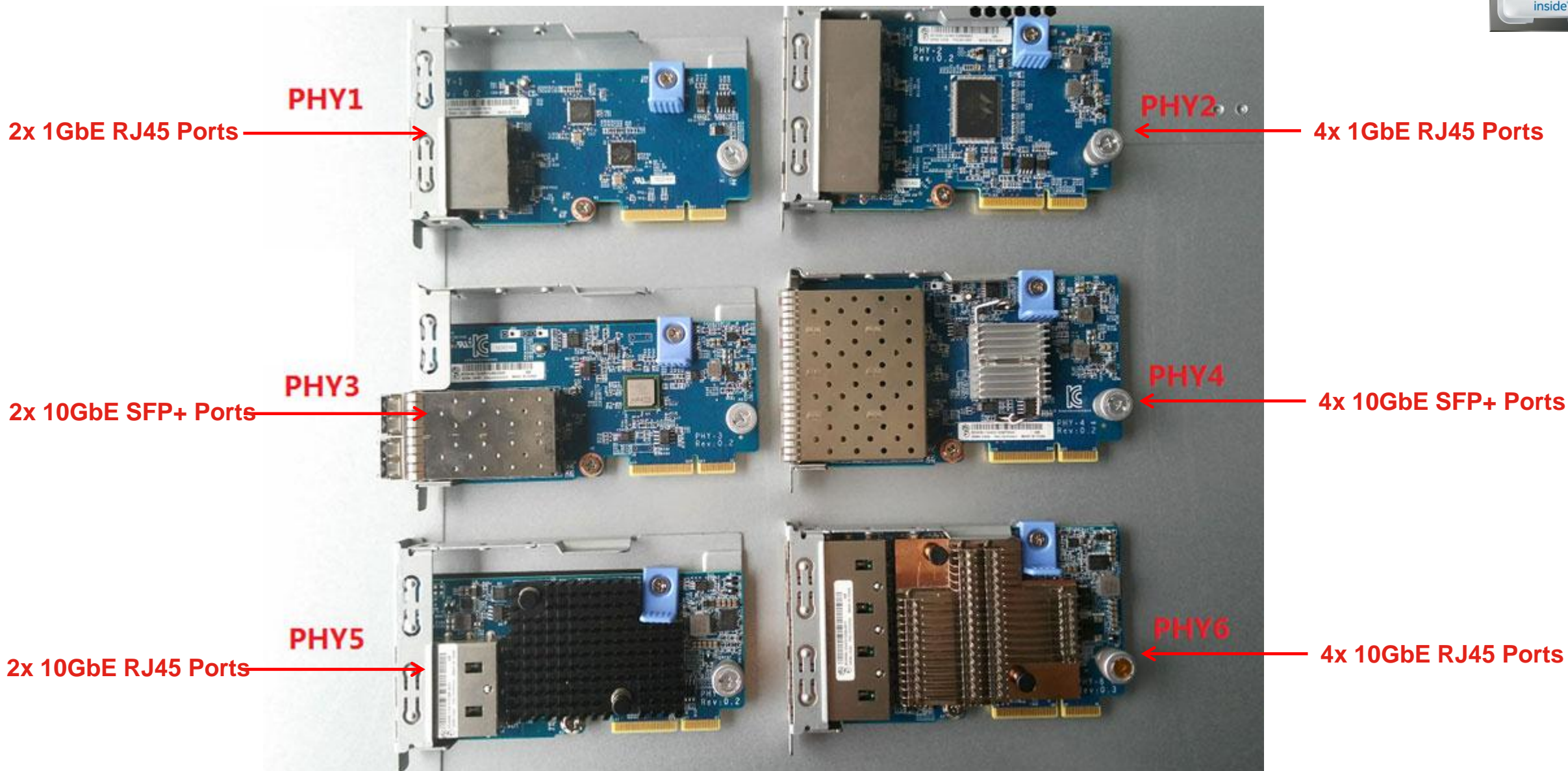
Lenovo™

+ Main Changes With Purley

- Single unified socket for 2,4,8 Socket
 - Core counts (up 28 cores)
 - Big performance increase but higher costs for the top
- Faster Native Networks + More High Speed Options
 - 10Gb delivered from the chipset
 - 25GbE – 50GbE - 100GbE optional NIC's
 - Infiniband
- More Memory Channels, Falling Memory Prices
 - more memory channels per processor
 - Higher memory capabilities at lower cost – 32GB sweet spot
- Flash/NAND/SSD Technology Everywhere
 - 7.68TB & 15.36TB 12Gb SAS Enterprise Capacity 2.5" G4HS SSD
 - 32GB & 128GB SATA Boot M.2 SSD



+ Intel Selectable LOM Photos



+ M.2 Boot Adapter



- Two options available – used across the Purley Portfolio

- Dual M.2 SATA Boot Solution

- Connects to the PCH
- Provides 6Gb SATA connectivity to TWO M.2 devices
- Based on Marvel 88SE9230
- Can be configured in JBOD, RAID 0 or RAID 1 mode



- Single M.2 SATA/PCIe Boot Solution

- Connects to the PCH
- Provides 6Gb SATA or PCIe x2 connectivity to ONE M.2 device



- Driver support in uEFI, Windows 2012 R2/2016, RHEL 6.9/7.3, SLES 12 SP2, 11 SP4, VMWare 6.0+

+ AnyBay











AnyBay is a trademark of Lenovo's and is an **advantage** for Lenovo servers.

AnyBay is used for the unique design of the drive bay that offer the **flexibility** for user to install a U.2 drive or SAS drive or SATA drive.

This feature differentiates Lenovo server from competitors as competitor products often do not have the flexible capability. Instead, an U.2 drive bay is dedicated for U.2 and cannot support SAS/SATA drives and a SAS/SATA drive bay cannot support an U.2 drive.

+ The Lenovo Purley Portfolio

-  Datacenter
-  Business Intelligence
-  Analytics
-  Cloud
-  Virtualization
-  Retail
-  Distributed Enterprise
-  Small/Med Business

Tower



2P



ST550

Racks



2P



SR630

SR650

SR570

SR590

SR530

1U

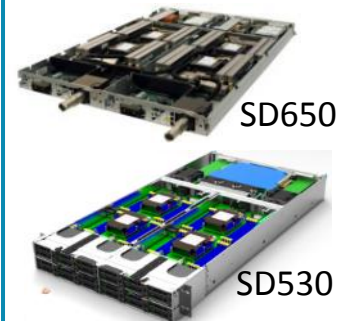
SR550

2U

Dense



2P



SD650

SD530

Blades



4P



SN850

2P



SN550

High End

8P



SR950

4P



SR860

4P



SR850



Lenovo

+ Portfolio Positioning – 2P Rack Servers

2P Racks

Value

ValuePlus

Mainstream

1U



SR530

2x Xeon up to **125W**
12 DDR4 DIMMs
 Up to 4 3.5" HDD/SSD
 Up to 8 2.5" HDD/SSD
SW & HW RAID
 2x 1GbE onboard LAN

*Networking / Entry
 Cloud / Management /
 Web Serving*

2U



SR550

2x Xeon up to **125W**
12 DDR4 DIMMs
 Up to 12 3.5" HDD/SSD
 Up to 16 2.5" HDD/SSD
SW & HW RAID
 2x 1GbE onboard LAN

*File & Print / Entry Cloud
 / Media Streaming / E-
 mail / Workgroup*

1U



SR570

2x Xeon up to **150W**
16 DDR4 DIMMs
NVMe support
Hot-swap fans
 Up to 4 3.5" HDD/SSD
 Up to 8 2.5" HDD/SSD
SW & HW RAID
 2x 1GbE onboard LAN

*Authentication / Cloud /
 Web Serving /
 Virtualisation /
 Application Development*

2U



SR590

2x Xeon up to **150W**
16 DDR4 DIMMs
NVMe support
Hot-swap fans
Rear HDD 3.5 "
 Up to 14 3.5" HDD/SSD
 Up to 16 2.5" HDD/SSD
SW & HW RAID
 2x 1GbE onboard LAN

*Proxy Caching / Cloud /
 Security / Virtualisation /
 Media Streaming /
 Database-driven Web
 Serving*

1U



SR630

2x Xeon up to **205W**
24 DDR4 DIMMs
3D XPoint DIMM Enabled*
NVMe support
Hot-swap fans
Rear HDD 2.5"
Up to 12 2.5" HDD/SSD
 Up to 4 3.5" HDD/SSD
 HW RAID
Flexible LAN up to 4 ports

*Network Appliance / VDI /
 Virtualisation / Cloud /
 HPC / ERP, CRM / OLTP
 / Database*

2U



SR650

2x Xeon up to **205W**
24 DDR4 DIMMs
3D XPoint DIMM Enabled*
NVMe support
Hot-swap fans
Rear HDD 3.5"
Up to 24 2.5" HDD/SSD
 Up to 14 3.5" HDD/SSD
 HW RAID
Flexible LAN up to 4 ports

*VDI / Virtualisation /
 Cloud / Database /
 Analytics / SAP /
 Machine Learning*

*3D XPoint DIMM will be available upon Intel release

Cost

Lenovo

+ Lenovo Dense Family

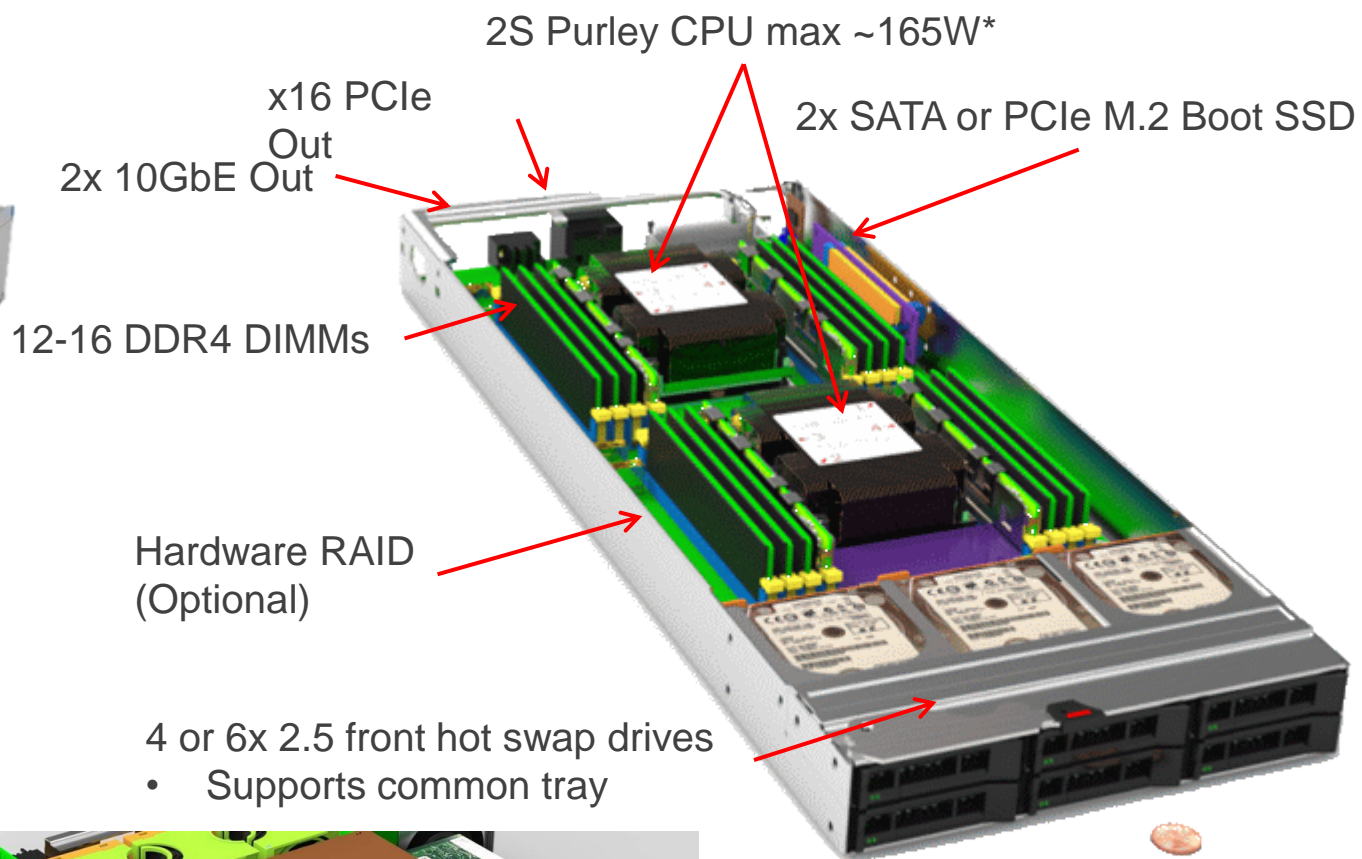
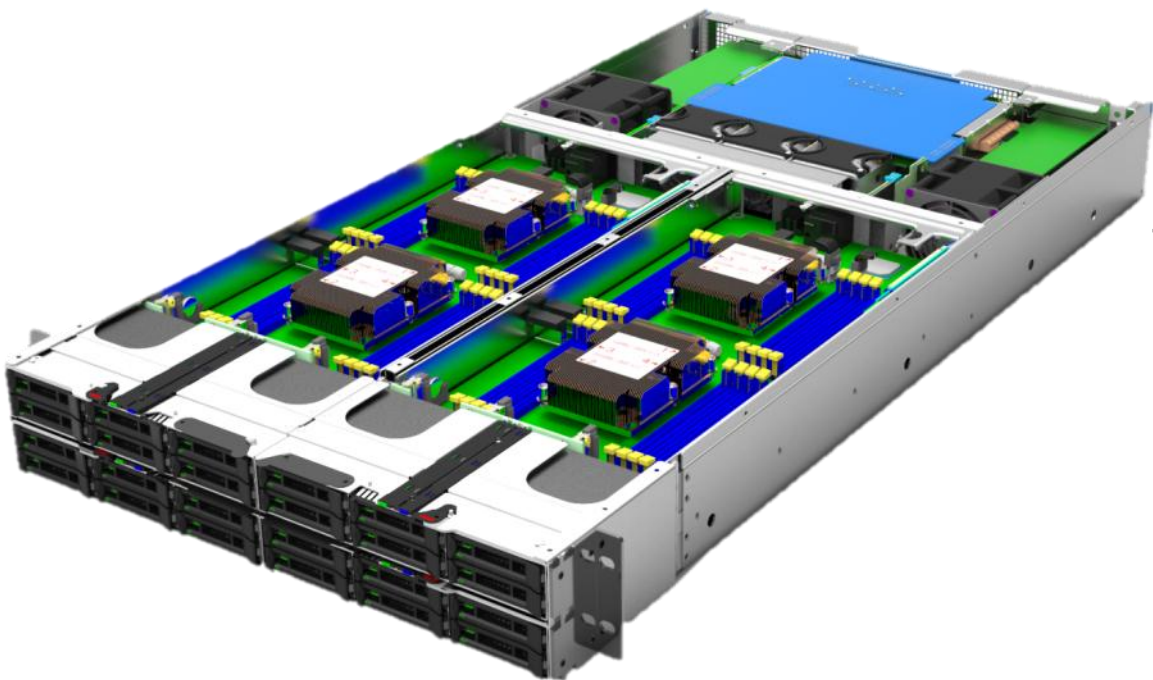


- Dense solution
- Designed to scale out
- Clustered
- Extreme compute capability
- Hyperconverged

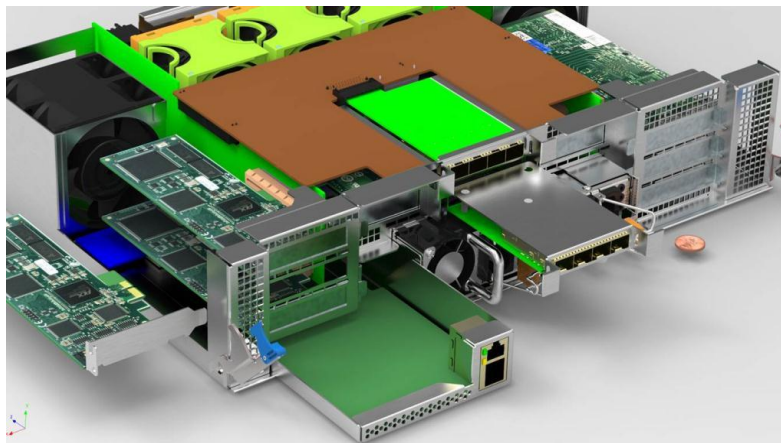
Workloads:

- High performance computing (HPC)
- Analytics
- Modeling & simulation
- Artificial intelligence (AI)

+ Lenovo Dense Servers – SD530



*in 4x drive configuration only



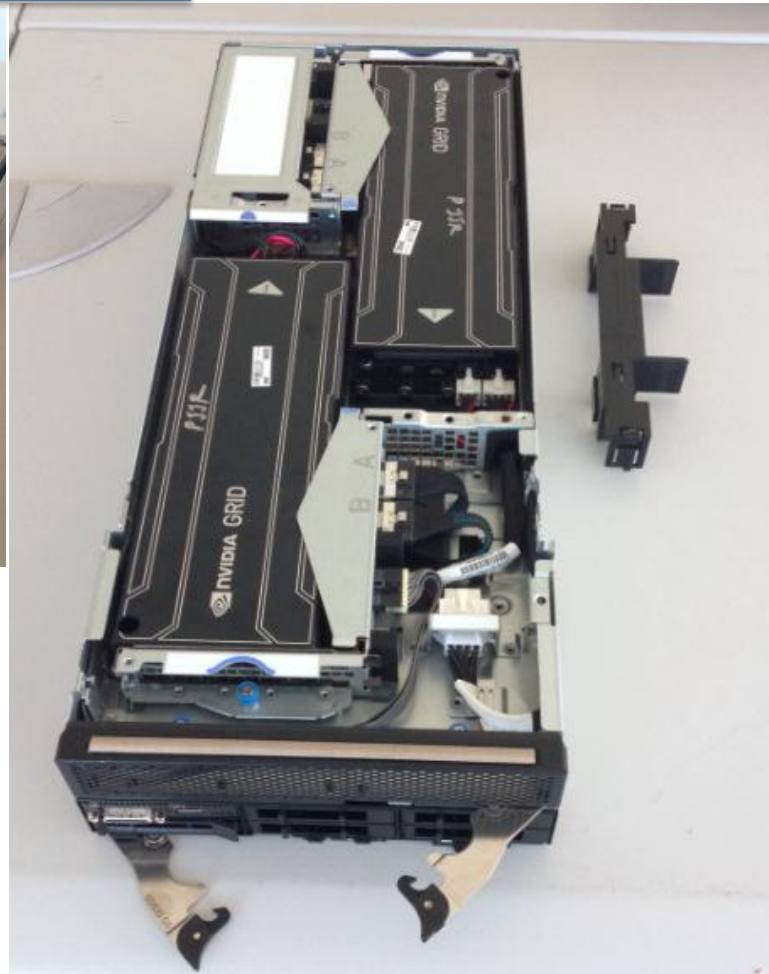
+ SD530 GPU Tray at Glance



SD530 with cables ready for GPU node install



Rear PCIe extension board



Supported GPGPUs

NVIDIA Tesla P40 24GB (250 W)



AI and Deep learning application

NVIDIA Tesla M10 32GB (250 W)



VDI Application

NVIDIA Tesla M60 16GB (300 W)



Performance Virtualization Workload

NVIDIA Tesla P100 16GB (250 W)



Mixed App - HPC

Intel Xeon Phi 7240P 16GB, 1.3 GHz, 68 Core (275 W)



Highly parallel applications include animation, energy, finance, life sciences, manufacturing, medical, public sector, weather.

+ High End 4-8 Socket Rack Portfolio Overview

The most efficient enterprise infrastructure with Advanced RAS Features / Self Healing



Price

Mainstream

SR850



- 2, 4 x Intel Purley Gold & Platinum CPUs
 - 48 DDR4 DIMMs slots
- Up to 16 x 2.5" HDD/SSD bays
 - Up to 8 NVMe drive bays
 - HW RAID
- Common Lenovo Management
 - General business consolidation*
 - High Performance and dense computing*
 - Scientific*

Mainstream (GPU)

SR860



- 2, 4 x Intel Purley Gold & Platinum CPUs
 - 48 DDR4 DIMMs slots
- Up to 16 x 2.5" HDD/SSD bays
 - Up to 8 NVMe drive bays
 - HW RAID
- GPU support or additional PCIe slots
- Common Lenovo Mgmt
 - General business consolidation*

Enterprise

SR950



- 2, 4, 8 x Intel Purley Gold & Platinum CPUs
 - Up to 96 DDR4 DIMMs slots
- Up to 24 2.5" HDD/SSD bays
 - Up to 12 NVMe bays
 - HW RAID
- Common Lenovo Management
 - Business Analytics*
 - Database*
 - Business Logic, ERP & CRM*
 - Virtualization*

Performance

Lenovo

+ SR850 2+2 CPU placement



Two CPU – Processor and Memory Expansion Tray Removed



Two CPUs – 24 DIMMs
Four CPUs – 48 DIMMs
Up to 6TB with expansion tray (48 DIMMs)

+ SR950 Product Summary



Processor

- Intel® Xeon® Processor Scalable family (Gold/Platinum) supporting up to 28C/205W

Memory

- Up to 96 DIMM slots; DDR4 DIMM capable
- 16GB, 32GB RDIMM, 64GB LRDIMM and 128GB 3DS RDIMM

Expansion Slots

- Up to 16 total expansion slots in the rear (14 PCI, 2 ML2)
- Up to 13 x16 slots (8S), 7 x16 slots (4S) – includes ML2
- Up to 2 ML2 slots (8S) and NW LOM
- Up to 2 PCIe Gen 3 x8 slots dedicated for RAID embedded in front

Enclosure

- 4U rack enclosure on fixed rail
- Front and rear access to all components
- Up to 24 drives bays on front of chassis

Cooling System

- 12 (8S) or 6 (4S) Redundant fans; Hot Swap

System Power

- Two or Four hot-swap 1100/1600W PSU
- 80-PLUS Platinum

Storage

- Up to 24 x 2.5" hot-swap drive bays and/or up to 12 NVMe drive bays
- RAID-up to (2) embedded PCIe RAID adapter slots

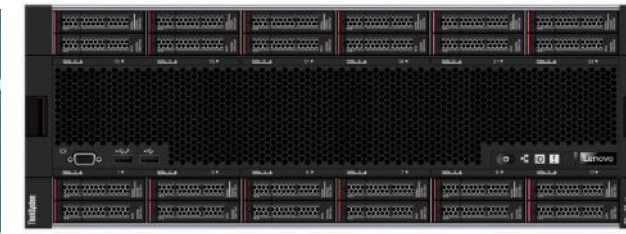
I/O

- Front I/O: Power Button, LED panel (optional), two USB 2.0 ports, Video port
- Rear I/O: Two USB 3.0, Video port, serial port, Management Ethernet

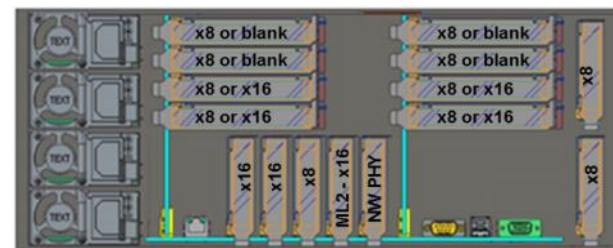
12 HDD front view



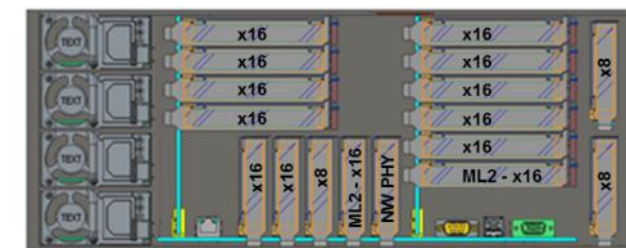
24 HDD front view



4S rear view



8S rear view



Configuration	Shipped Sockets	4S Topology	Max Storage	Upgrade to 8S?
4S Performance	4S	Mesh	12 HDD	No
4S Performance/Storage Rich	4S	Mesh	24 HDD	No
4S Upgradeable	4S	Ring	12 HDD**	Yes
4S Upgradeable/Storage Rich	4S	Ring	24 HDD	Yes
8S Storage Rich	8S	NA	24 HDD	NA

** Max Storage will be 24 HDD after upgrade

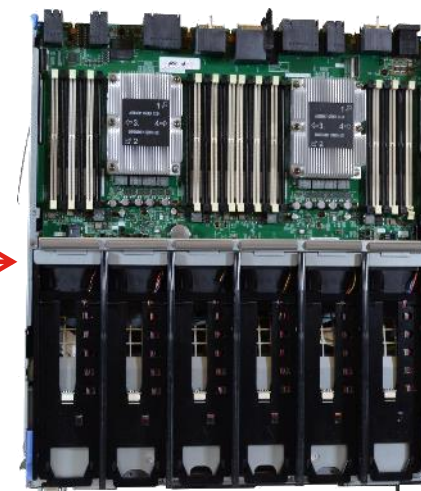
+ Compute Trays

Each system has 1 or 2 Compute Trays, that can contain 4 CPUs, 48 DIMM, 12 HDD, 1 RAID and 6 Fans



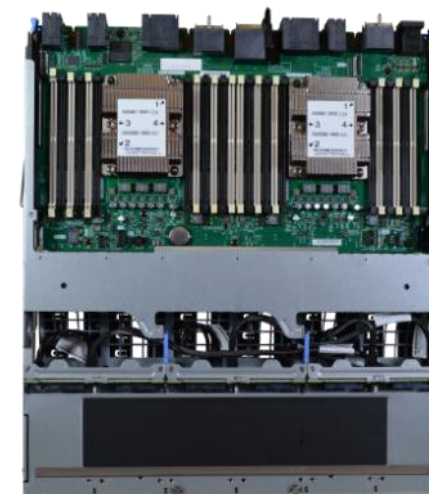
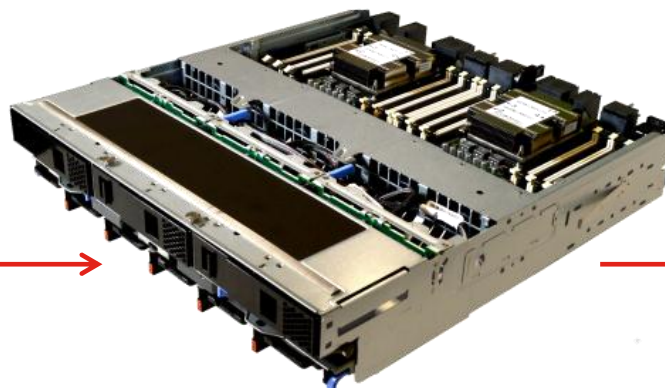
Lower Compute Tray being pulled out

Lower Compute Tray



Upper Compute Tray being pulled out

Upper Compute Tray



ThinkSystem DS2200, DS4200, DS6200

Lenovo™

+ DS Series Positioning

Common SW Stack, Common HW Chassis, Drive Trays & Power Supply

Best Value
for SMB



DS2200

- Target 100K IOPS
- Up to 96 drives
- 12Gb Host & BE
- 2U12/2U24

Best Value
with Improved Performance



DS4200

- Target 235K IOPS
- 2x faster than S3200
- Up to 240 drives
- 12Gb Host & BE
- 2U12/2U24
- SPC-1 benchmark planned as proof point (\$/GB leader)

Best Performance for Value
in the Industry



DS6200

- Target 375K IOPS
- Up to 240 drives
- 12Gb Host & BE
- 2U24
- Breakthrough performance & scale at best-in-class pricing
- SPC-1 benchmark planned as proof point (\$/IOP leader)



Performance targets are 100% read, 4K blocks, virtual mode

+ Lenovo Storage DS and V Series Positioning

Best Value for SMB

- Target 100K IOPS in DS2200
- Up to 96 drives in DS2200
- Target 50K IOPS in V3700 V2
- Up to 240 drives in V3700 V2
- 12Gb Host & BackEnd
- 2U12/2U24
- Target workloads:
 - Entry Shared storage
 - Remote & Branch Office

DS2200

V3700 V2

Best Value with Improved Performance

- Target 235K IOPS in DS4200
- Target 110K IOPS in V3700 V2 XP
- Up to 240 drives
- 12Gb Host & BackEnd
- 2U12/2U24
- Target workloads:
 - Primary Storage
 - Remote & Branch Office
 - Virtualization, Backup

DS4200

**V3700 V2
XP**

Best Performance for Value in the Industry

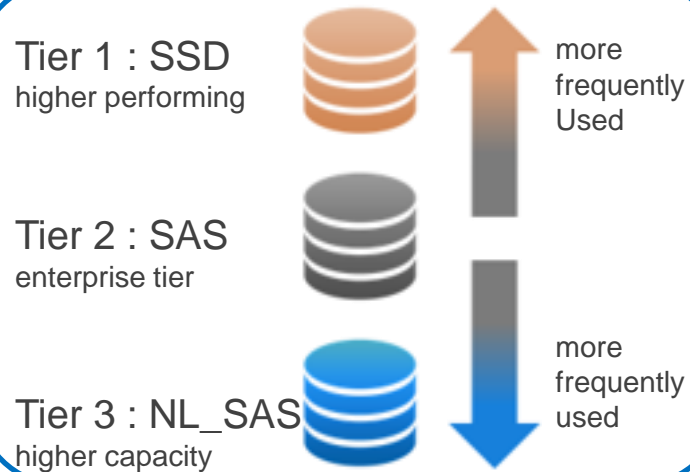
- Target 375K IOPS in DS6200
- Up to 240 drives
- Target 175K IOPS in V5030
- Up to 504 drives non-clustered
- 12Gb Host & BackEnd
- 2U12/2U24
- Target workloads:
 - Enterprise Storage
 - Transaction & I/O intensive
 - OLTP Databases

DS6200

**V5030
V5030F**

+ DS Series functions

DATA TIERING



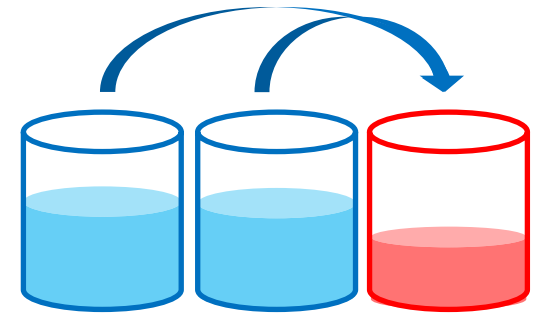
RAPID RAID REBUILD

increase data
RAID restoration
speed rebuilding
only used data
and not the full
RAID set



REBALANCING

improves
performance by
distributing I/O
requests



READ CACHING

to accelerate
the fulfillment of
future requests
for the data



THIN PROVISIONING

Allocating
space
when data
is written to
disk



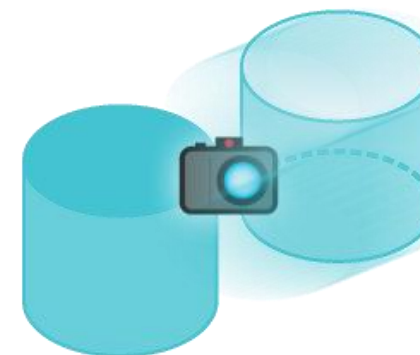
STORAGE POOLING

pooling drives and make
them look as if they were
all part of a single pool of
disk space



SNAPSHOTS

state of a
system at a
particular
point in time



+ DS Series - Revolutionizing Storage Economics

Application optimized for Performance & Scalability

Three performance levels DS2200, DS4200, DS6200



AFFORDABLE



Lowest \$/IOP

Industry leading in both price/performance and \$/GB without compromise

INTUITIVE



Operational Simplicity

Setup in less than 15 minutes
Manage all storage arrays from common GUI
XClarity Integrated HW Management

FAST



RAPID Technology

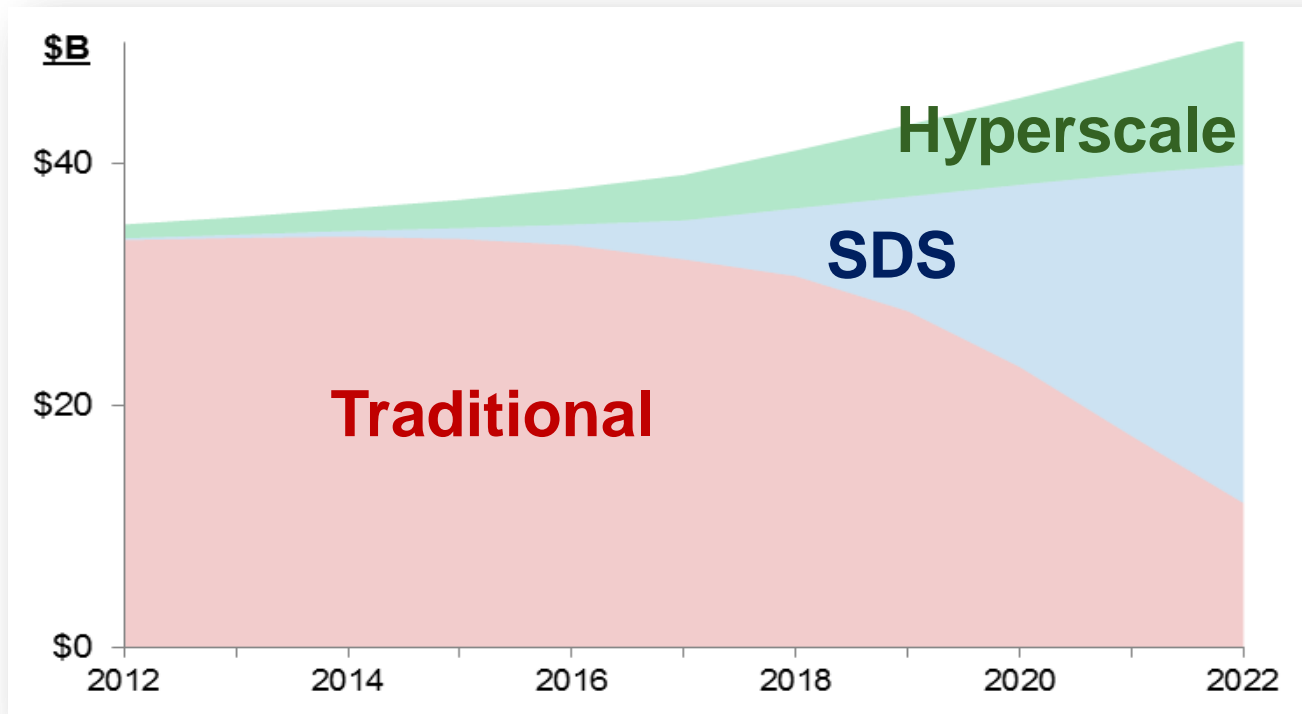
More than 375K IOPS @ <1ms latency without sacrificing availability

What is the Future of Storage???

Lenovo™

+ Software Defined Storage (SDS): New Storage Approach

Major disruptive market shifts underway



Source: Wikibon

Rapid Growth

- \$1.8B 2015 SDS TAM (HW+SW)
- \$6.2B TAM by 2019
- 34.6% CAGR vs 3% Traditional

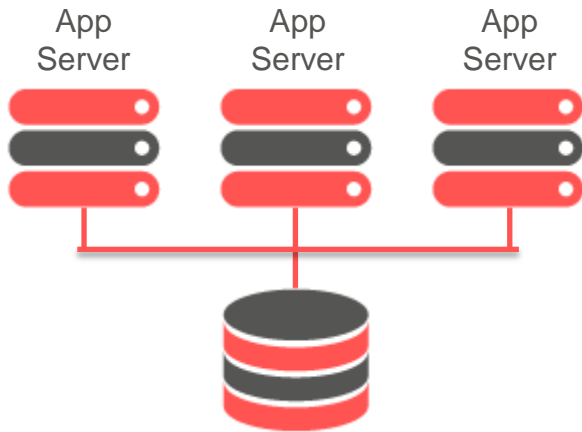
Emerging opportunities

- Multiple industry solutions
- Early adoption stage
- Customers need trusted supplier

+ Traditional Storage, SDS and HCI Definitions

Traditional Storage

Dedicated storage hardware with its own dedicated storage software.



Storage Server with Storage Software

IBM

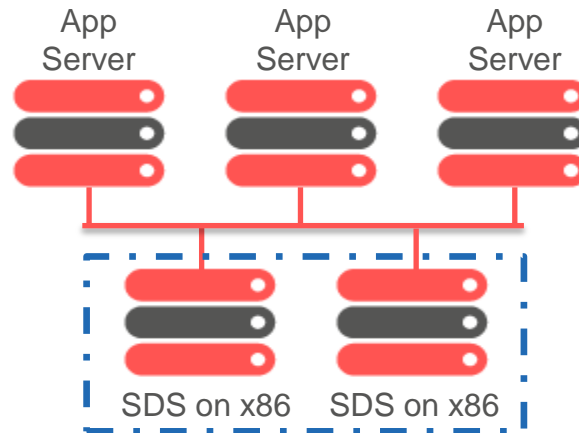


EMC²

NetApp

Software Defined Storage (SDS)

Storage software stack on x86 servers - offers full suite of storage services (including dynamic allocation of storage data) on underlying hardware.

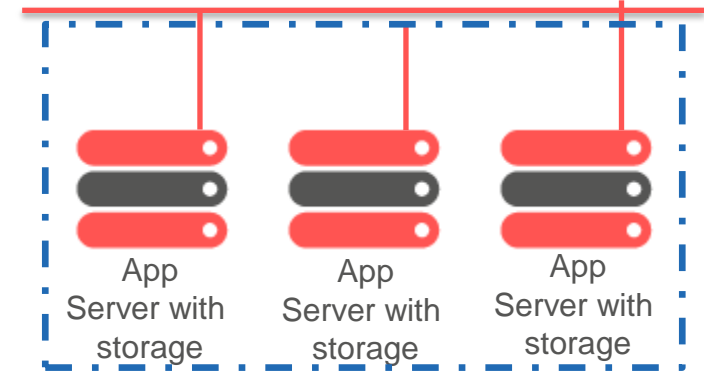


Storage software on x86 servers—accessed by application servers



Hyperconverged Infrastructure (HCI)

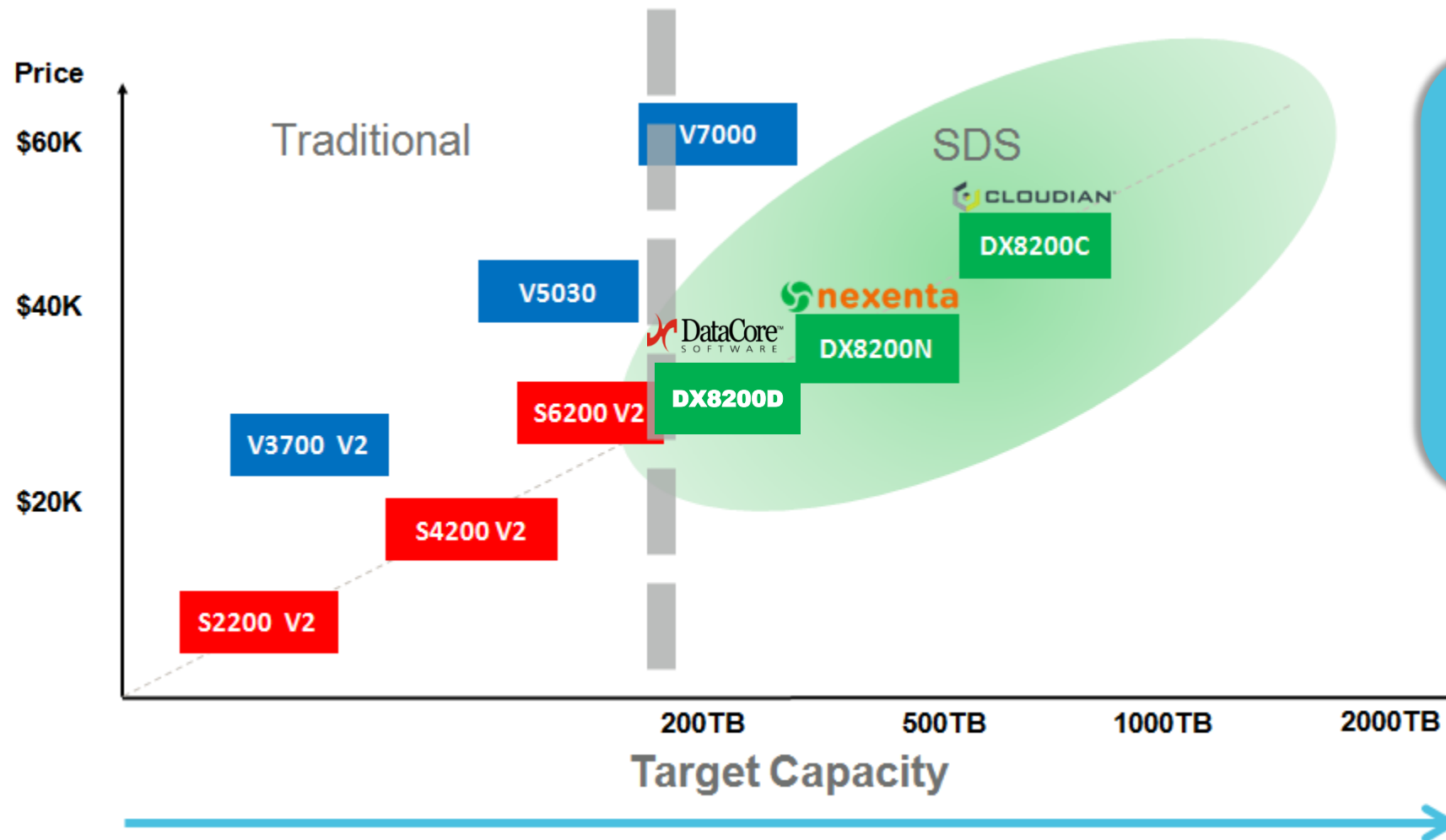
Software stack with consolidated compute, storage, and virtualized resources + orchestration SW on x86 servers. Runs applications.



Virtualized compute + storage building block – plus application SW

NUTANIX




+ SDS Strategically Fills Portfolio



SDS Offerings Address:

1. Large capacity
2. Object storage
3. Unified block/file
4. Storage Virtualization
5. ServerSAN

+ StorSelect Software Defined Storage Positioning

Lenovo Offering	DX8200N <i>Powered by Nexenta</i> 	DX8200C <i>Powered by Cloudian</i> 	DX8200D <i>Powered by DataCore</i> 
SDS Type	Block & File, >300TB Scale-up	Object Storage, >300TB Scale-out	Block & File, <250TB Scale-up or scale-out
Value Proposition	Capex Savings Enterprise Scale Flash Support	Storage mgt of objects S3 Standards Based Capex Savings -\$.01/GB	High Performance Storage Virtualization Internal Storage
Primary Use Cases	Transactional DB, Email Near-line Archive	Backup/Archive Public/Private Cloud Media Content Store	Extend existing storage life Transactional databases, Analytics, ERP, CRM
Usage Focus	Scale-up File storage Transactional apps	Large Sets of Unstructured Data Service providers	Virtualize existing HW Non-disruptive upgrades
	BLOCK AND FILE STORAGE	OBJECT STORAGE	STORAGE VIRTUALIZATION

DCG Networking

The Lenovo logo is positioned in the top right corner of the slide. It consists of the word "Lenovo" in white, sans-serif font, oriented vertically within a solid blue rectangular background. A small trademark symbol (TM) is located at the top right of the word.

Lenovo™

+ Portfolio Positioning – Data Center

Software / Solutions (CNOS)



DC LEAF / SPINE 25G / 40G / 100G ToR



RackSwitch G8332
40GbE



ThinkSystem NE2572
25GbE/100 GE



ThinkSystem NE10032 RackSwitch
100GbE

DC LEAF / ACCESS 1G / 10G ToR



RackSwitch G7028, G7052 & G8052 - 1GbE



ThinkSystem NE1032 RackSwitch
10GbE



ThinkSystem NE1032T RackSwitch 10G Base-T



RackSwitch G8272/G8296 - 10GbE



ThinkSystem NE1072T RackSwitch 10G Base-T

DC Access Flex Portfolio



Flex System EN2092
1GbE



Flex System EN4023 / EN4093R
10GbE



Flex Switch
25GbE -

Servers



Lenovo

Accelerating Lenovo Networking Portfolio to address next Gen Data Center Solutions

DCG Services



Lenovo™

Simplified Portfolio Services



Base Warranty	9x5 Next Business Day Onsite (CRU/FRU Mix) (CRU Parts Shipped, FRU Onsite Tech Dispatch) 1 Year or 3 Years Coverage Depending on Machine Type		
Upgrades + Extensions	Foundation	Essential	Advanced
	<p>Upgrade your base warranty and extend support of your systems.</p> <ul style="list-style-type: none"> • 9x5 Next Business Day Response • CRU/FRU* Onsite Tech. Dispatch • Extend coverage up to 5 years • 1 and 2 year Post Warranty Options 	<p>Best choice for systems where maximum uptime is essential to the business.</p> <ul style="list-style-type: none"> • 24x7 4 Hour Response • CRU/FRU* Onsite Tech. Dispatch • Includes YourDrive YourData • Extend coverage up to 5 years • 1 and 2 year Post Warranty Options 	<p>Robust coverage for systems supporting workloads that are mission critical to the business.</p> <ul style="list-style-type: none"> • 24x7 6Hr Committed Repair • CRU/FRU* Onsite Tech. Dispatch • Includes YourDrive YourData • Extend coverage up to 5 years • 1 and 2 year Post Warranty Options
Recommended Add-On Services	<ul style="list-style-type: none"> • YourDrive YourData • Enterprise Software Support (ESS) • Hardware Installation 	<ul style="list-style-type: none"> • Upgrade to 24Hr Committed Repair • Enterprise Software Support (ESS) • Hardware Installation 	<ul style="list-style-type: none"> • Enterprise Software Support (ESS) • Hardware Installation

Remember YourDrive YourData includes HDDs, SSDs, and RAM modules

*** Onsite Engineer to fit all Parts (CRU and FRU)**

DCG Tools Overview

Lenovo™

XClarity

The Lenovo logo is displayed vertically in white text on a blue rectangular background. The text "Lenovo" is in a bold, sans-serif font, with a small "TM" trademark symbol at the top right. The background of the entire slide is dark blue with a pattern of light blue dots of varying sizes, some of which are arranged in a circular pattern on the right side.

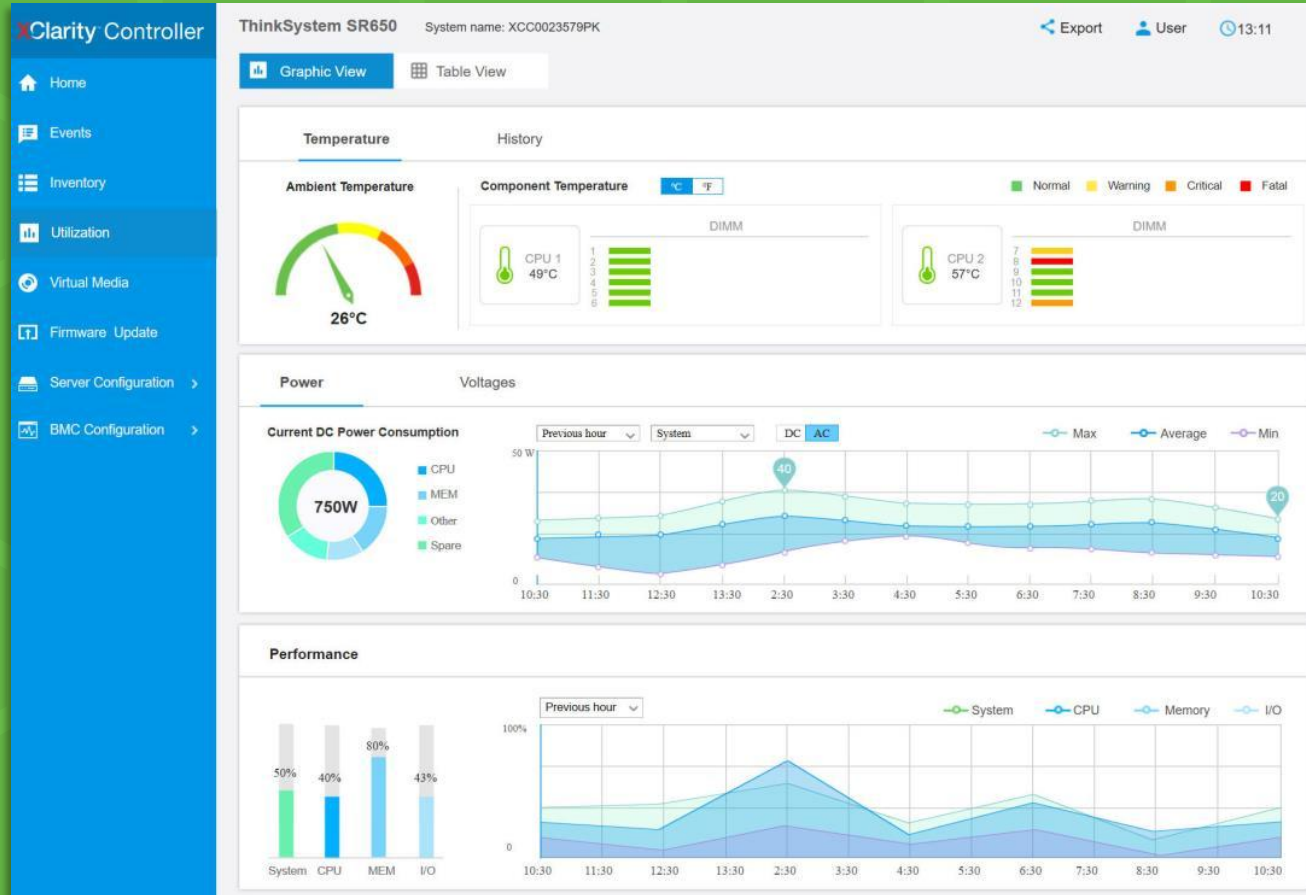
Lenovo™

for

ThinkSystem Servers

• New for Purley

- Full function **REST API (Redfish)**
- Mobile access for local 1-1 management via front USB port / Management Ethernet port or 1-many via Lenovo X Clarity Administrator
- Clientless Remote KVM – no Java or Active x clients supported
- SSDP and SLP discovery standards
- NLS support to interact with system in language of your choice
- International keyboard mapping support in remote KVM



Faster Boot Time

2x

Faster time to OS screen than prior generation

Faster Update Execution

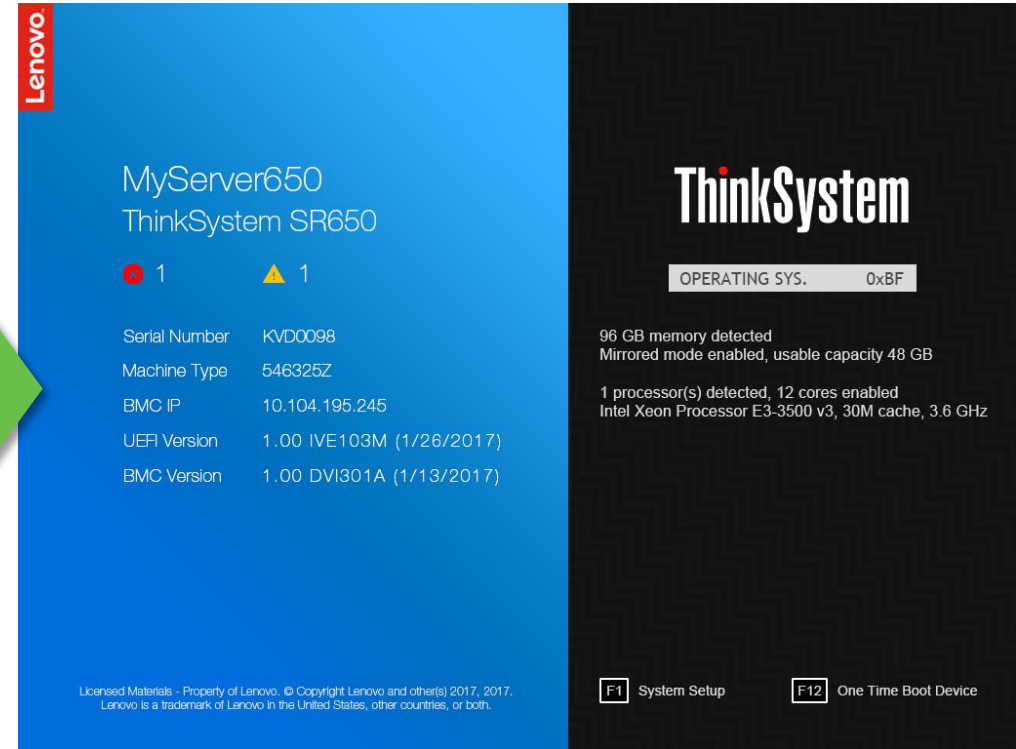
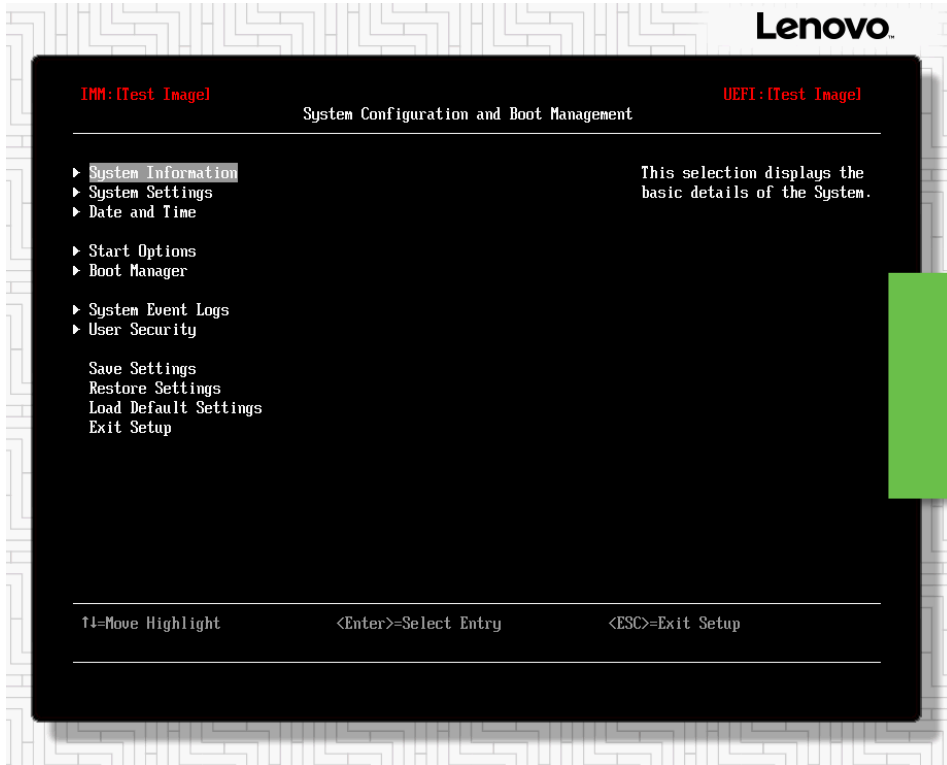
6x

Faster firmware updates than prior generation

Modernized graphical user experience

From IMMv2

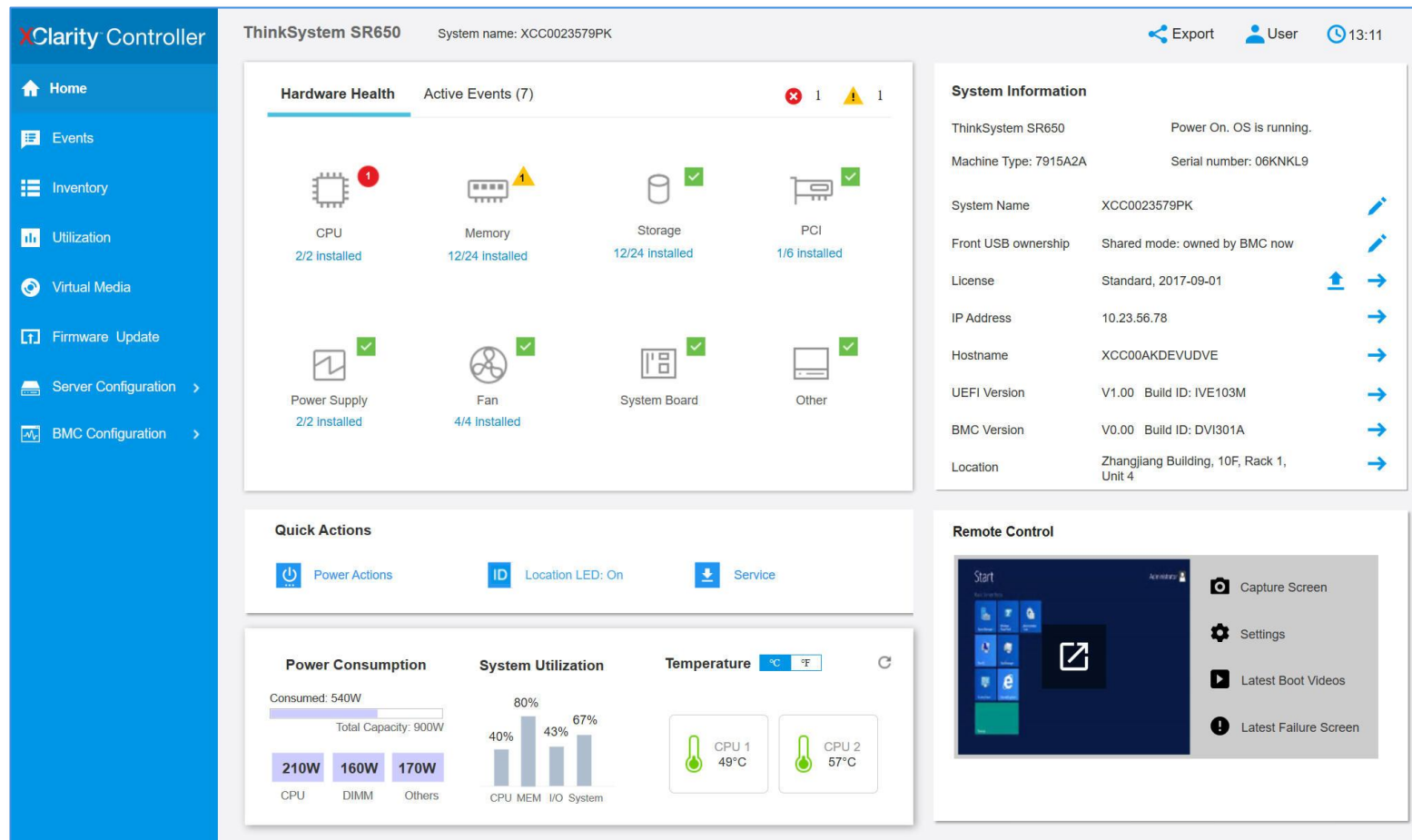
To All-New XClarity Controller



- Circa 1990s
- Monochromatic text-only
- Requires deep system-level technical skills

- Future-defined
- Based on user experience best practices
- Visual, intuitive, and streamlined

+ XClarity Controller User Experience



All-New Management Engine

- Succeeds IMMv2

Elegant User Experience

- Fresh & uncluttered graphical interface

Modernized Inter-operability

- Built on Redfish-compliant APIs

Vastly Improved Performance

- 2x faster boot time to OS screen
- 6x faster firmware updates

HTML5-based Graphical User Interface and Remote Control

Feature comparison across editions. Upgrades completed via Software Key.

Core Features		Standard	Advanced	Enterprise
Standards-Based Interfaces	<ul style="list-style-type: none"> Out-of-band modernized & streamlined web interface CIM, IPMI, SNMPv3, Redfish conforming REST APIs 	X	X	X
User Authentication	<ul style="list-style-type: none"> LDAP-based user authentication 	X	X	X
Inventory Status & Real-Time Monitoring	<ul style="list-style-type: none"> Collect hardware & environmental information for asset management, maintenance, health, performance, & diagnostics 	X	X	X
Diagnostics	<ul style="list-style-type: none"> System diagnostics, log collection, and fault handling 	X	X	X
Configuration	<ul style="list-style-type: none"> In-band & out-of-band platform configuration Graphical BIOS configuration Basic RAID configuration for OS installation 	X	X	X
Updates	<ul style="list-style-type: none"> In-band & out-of-band updates to UEFI, XClarity Controller, LEPT, and related driver packages for OS installation 	X	X	X
OS Installation	<ul style="list-style-type: none"> Installation of Linux, Microsoft Windows, & VMware vSphere 	X	X	X
	<ul style="list-style-type: none"> Boot capture 			X
Cloning	<ul style="list-style-type: none"> Replicate UEFI, XClarity Controller, & RAID settings to other servers Save settings to USB or network-based file Apply configuration & OS install from an existing file 	X	X	X
Energy	<ul style="list-style-type: none"> Usage tracking 	X	X	X
	<ul style="list-style-type: none"> Lenovo XClarity Energy Manager entitlement 			X
Remote presence	<ul style="list-style-type: none"> KVM and virtual media 		X	X
	<ul style="list-style-type: none"> Collaboration across users within the remote session 			X
	<ul style="list-style-type: none"> Mount ISO/IMG files 			X

+ XClarity Deployment Manager

Consolidated launch center for simplified setup and deployment

- Provides Intuitive Flow
 - BIOS Configuration
 - Firmware Updates
 - RAID Configuration
 - OS Installation /w Embedded Drivers
- Also Includes Diagnostics
- ToolsCenter still available for enterprise users.

The screenshot shows the XClarity Deployment Manager interface for a ThinkSystem SR650 G6 server. The left sidebar contains a navigation menu with the following options: System Summary (selected), BIOS Setup, Platform Update, Storage Management, Deployment, Cloning, and Diagnostic. The main content area displays system information for the selected server. The top header shows the server name 'ThinkSystem SR650 G6' and icons for globe, settings, help, and share. The system information is organized into sections: Product Name (Lenovo ThinkSystem SR550 G6 with a 'Modify VPD' button), BIOS Version (PB2TS130), IMM Version (1.31.73357), CPU Information (CPU Count: 1, CPU Name: Genuine Intel CPU @ 2.20GHz, CPU Family: Intel Nehalem Family, CPU Model: Haswell Server Model, CPU Max Frequency: 2800 MHz, Core Count: 4), DIMM Information (DIMM Count: 1, DIMM Size: 64G, DIMM Type: RDIMM, DIMM Speed: 2133 MHz, DIMM Vendor: Samsung), and PCI Device Information (PCI Device Count: 4, PCI Device Description: Lenovo ThinkServer RAID 510i, QLE2672-LNV[SlotID 5 <PCI_SLOT5>], OCe14102-UX-L[SlotID 6 <PCI_SLOT6>]).

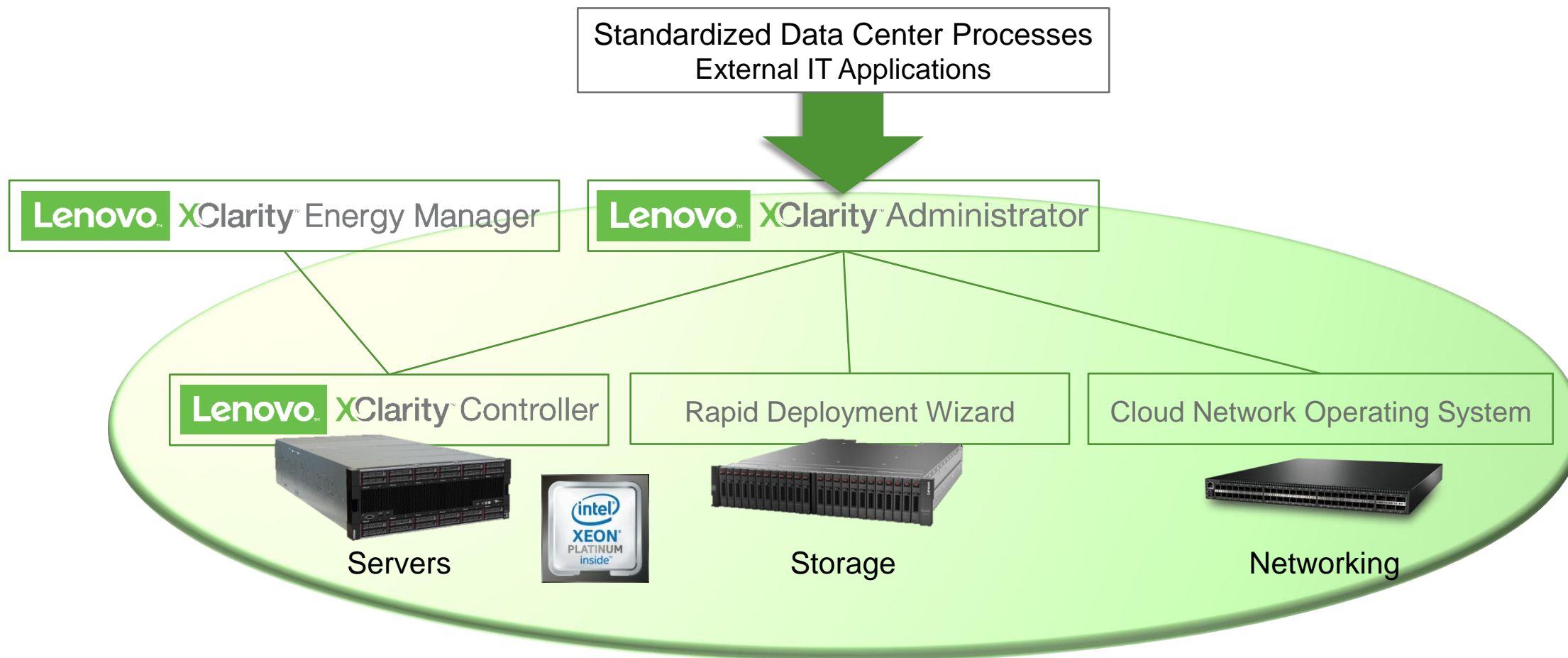
Section	Value
Product Name	Lenovo ThinkSystem SR550 G6 Modify VPD
BIOS Version	PB2TS130
IMM Version	1.31.73357
CPU Information	
CPU Count	1
CPU Name	Genuine Intel CPU @ 2.20GHz
CPU Family	Intel Nehalem Family
CPU Model	Haswell Server Model
CPU Max Frequency	2800 MHz
Core Count	4
DIMM Information	
DIMM Count	1
DIMM Size	64G
DIMM Type	RDIMM
DIMM Speed	2133 MHz
DIMM Vendor	Samsung
PCI Device Information	
PCI Device Count	4
PCI Device Description	Lenovo ThinkServer RAID 510i
PCI Device Description	QLE2672-LNV[SlotID 5 <PCI_SLOT5>]
PCI Device Description	OCe14102-UX-L[SlotID 6 <PCI_SLOT6>]



Lenovo XClarity Family of Software



Foundational Infrastructure Software for Precision Execution



ThinkSystem



	XClarity Controller	XClarity Essentials	XClarity Administrator	XClarity Pro	XClarity Energy Manager
Configure a server	X	X	X	X	
Update a server	X	X	X	X	
Handle server faults	X	X	X	X	
Integrate into external IT apps through Redfish-compliant REST APIs	X				
Integrate into external apps through Integrators or REST APIs			X	X	
Manage servers, network, and storage			X	X	
Auto-discover systems			X	X	
Monitor and track multiple systems, and handle faults including call home			X	X	
Manage server, network, and storage updates with policies			X	X	
Configure multiple servers with software patterns			90-day trial	X	
Install operating systems and hypervisors			90-day trial	X	
View and control server thermals					X
Included with servers	X				
Free & unsupported		X	X		
Licensed & supported				X	X

Configuration Tool

Lenovo™

DATA CENTER CONFIGURATORS

Standalone Solution Configuration Tool (SSCT)

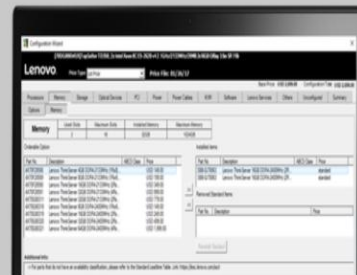
Now includes ThinkSystem products!

ThinkSystem and ThinkServer Configurator

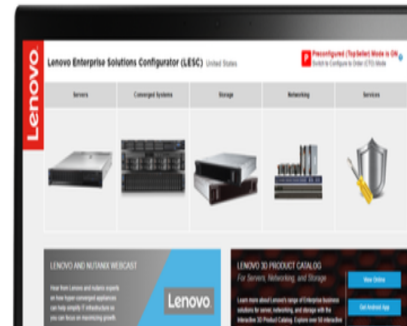
SSCT is designed to determine the price, ideal environment, available rack cabinet space and available resources along with other operations associated with ordering and configuring data center solutions. **Partner Portal Login Required.**

[PSAT to SSCT Training Presentation \(PDF\)](#)

[Slideshow \(PPSX\)](#)



Launch SSCT >



Launch LESC >

Lenovo Enterprise Solutions Configurator (LESC)

Now includes ThinkSystem and ThinkAgile products!

ThinkSystem, ThinkAgile and System x Configurator

LESC (also known as DCACT) is a web-based Hardware Configurator tool where you can create ThinkSystem, ThinkAgile and System x solutions.

[LESC/DCACT 4.0 Presentation](#)

WE BELIEVE THAT SUCCESSFUL BUSINESSES NEVER STAND STILL

MAINTAIN CONTINUOUS
MOMENTUM

DRIVE VALUE &
EFFICIENCY

balance

REMAIN AGILE &
FLEXIBLE

ARE PREPARED
FOR THE FUTURE

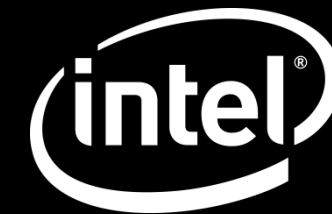
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Q&A





thanks.

Different is better

