

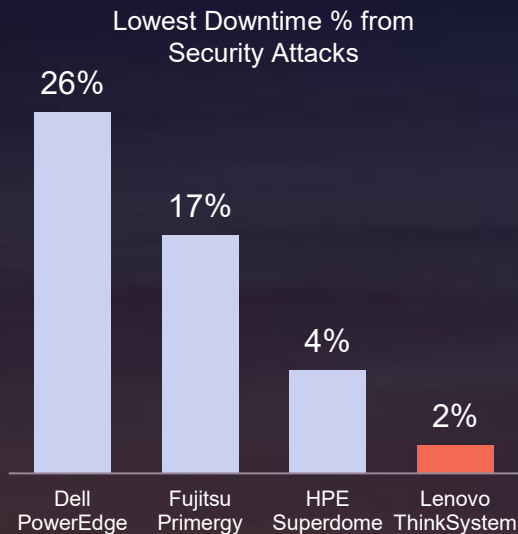
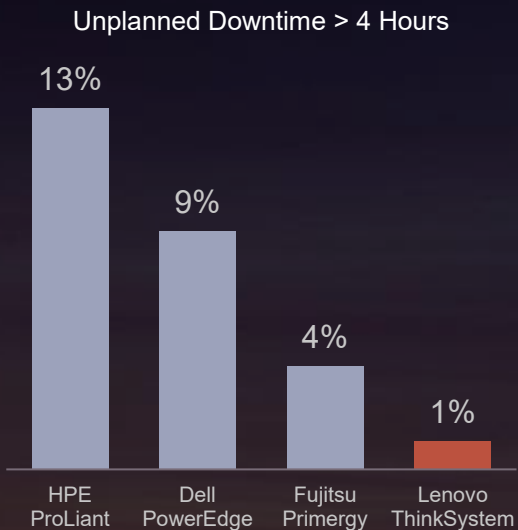
Smarter technology for all

# Lenovo ThinkAgile HX/FX

Łukasz Borkowski  
Lenovo  
[lborkowski@lenovo.com](mailto:lborkowski@lenovo.com)

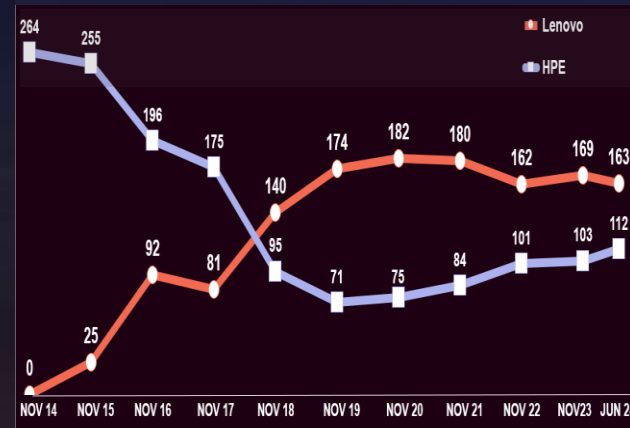
Lenovo

# ISG Server Leadership



**695**  
Current World Record Workloads

>6x as many #1 Results



**#1**

x86 Server Reliability for 11 Consecutive Years

**#1**

x86 Security for 5 Consecutive Years

**#1**

Current World Record Performance Workloads

**#1**

Top 500 Supercomputers for 6 Consecutive Years

Source: ITIC (Mar 2025), Benchmark Report (February 2025) & Top500.org (June 2025)

# Made in Europe for Europe

- Lenovo delivers customized solutions in the heart of Europe from our manufacturing plant in Ullo, Hungary.
- Our Ullo plant shipped one million workstations & servers in its first year, enabling deeper collaboration, transparency, and understanding with Lenovo customers across the EMEA region.



# Lenovo Data Storage Solutions Portfolio

## ThinkSystem

Enterprise storage

Unified Storage

SAN Storage

Disk Enclosures  
& Tape

HPC Storage



DM Series



DE Series



DS Series



DB Series



D Series



Tape Solutions



DSS

## ThinkAgile

Hyperconverged infrastructure

Nutanix

Microsoft

VMware

Multi-vendor

NUTANIX



HX Series

Microsoft



MX Series

vmware



VX Series

NUTANIX  
vmware



FX Series

Neptune

Lenovo services

Advise

Implement

Support

Manage

Solution partners



# Lenovo ThinkSystem Server Portfolio

Comprehensive compute capabilities from the edge to the enterprise

## ThinkSystem ST series

Powered by Intel®



ST650 V3

ST250 V3

ST50 V3

Powered by AMD



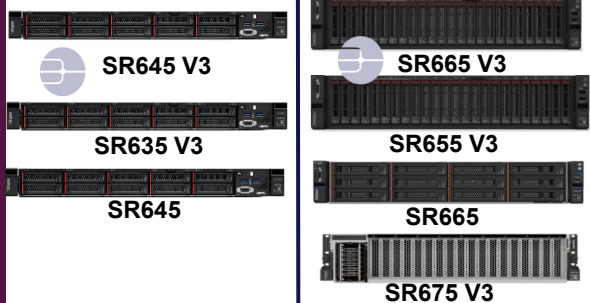
ST45 V3

## ThinkSystem SR series

1U

2U

Powered by AMD



SR645 V3

SR635 V3

SR645

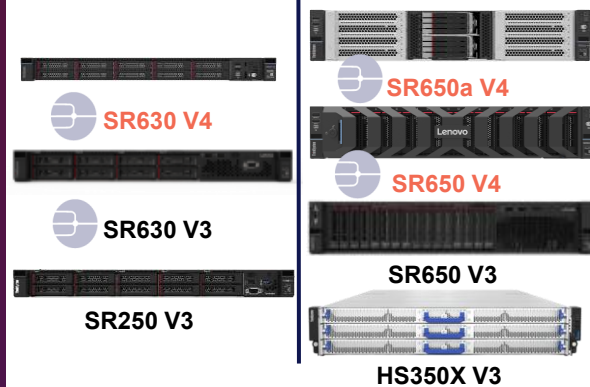
SR665 V3

SR655 V3

SR665

SR675 V3

Powered by Intel®



SR630 V4

SR630 V3

SR250 V3

SR650a V4

SR650 V4

SR650 V3

HS350X V3

## ThinkSystem Modular

### SD series (Multi-Node)

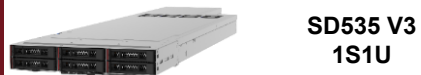
Powered by Intel®



SD550 V3  
2S2U

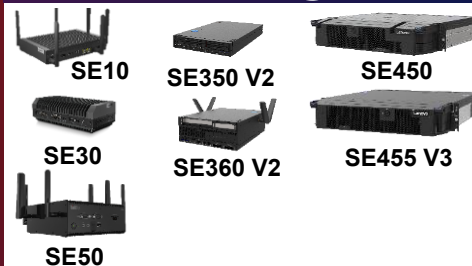
SD530 V3  
2S1U

Powered by AMD



SD535 V3  
1S1U

## ThinkEdge



SE10

SE350 V2

SE450

SE30

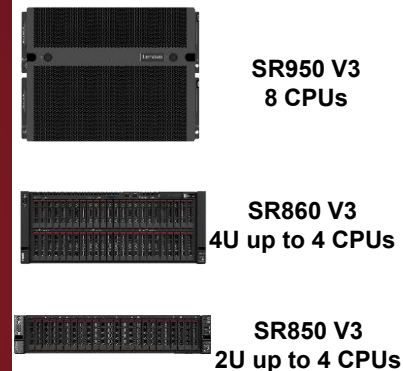
SE360 V2

SE455 V3

SE50

## ThinkSystem Mission Critical

Powered by Intel®



SR950 V3  
8 CPUs

SR860 V3  
4U up to 4 CPUs

SR850 V3  
2U up to 4 CPUs

### HR & MGX Systems

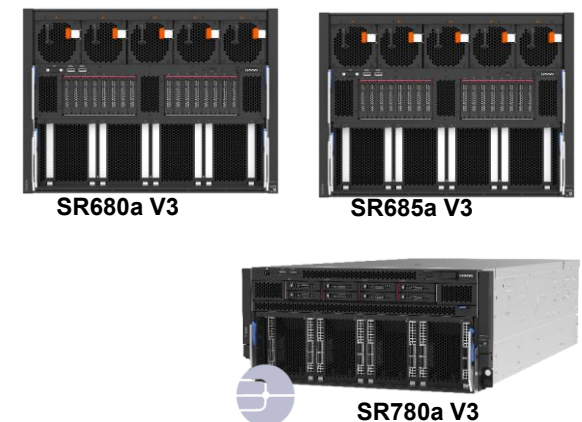
HR650  
HR630  
HG630N  
HG650N  
HG660X V3  
HR650N



## ThinkSystem Segment Optimized

### 8GPU AI Servers

AMD & Intel®



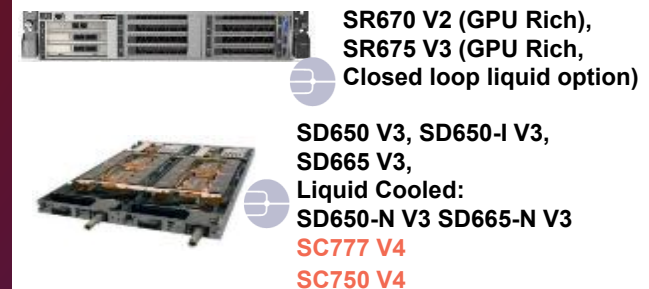
SR680a V3

SR685a V3

SR780a V3

HPC/AI Optimized

AMD & Intel®



SR670 V2 (GPU Rich),  
SR675 V3 (GPU Rich,  
Closed loop liquid option)

SD650 V3, SD650-I V3,  
SD665 V3,  
Liquid Cooled:  
SD650-N V3 SD665-N V3  
SC777 V4  
SC750 V4



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Neptune liquid cooling models available

# Why HCI - Enterprise IT Challenges



## AI and Innovation

**Need turn-key AI and application platforms**



## IT Skills Gap

**Need simple solutions, not complex DIY projects**



## Security and Sustainability

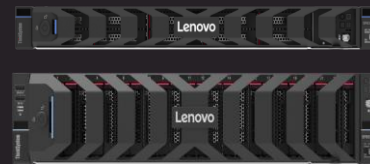
**Need built-in full-stack security and sustainability**

# Lenovo HCI – Hyper Converged Infa. offering

ThinkAgile

Software-Defined  
Infrastructure

NUTANIX



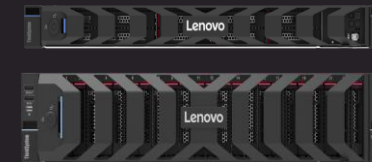
HX

vmware



VX

Microsoft



MX

# Lenovo & Nutanix Partnership

## 10 Years of Collaboration

---

**CPU Generations**

11+

**HX Customers**

6,000+

**Success Stories**

60

# Setting a New Benchmark in Hyperconverged Solutions

Lenovo and Nutanix have nurtured a strong partnership since 2015, resulting in most complete HCI solution through go-to-market, engineering and support collaboration

**Lenovo**

## Best-in-class compute and infrastructure management

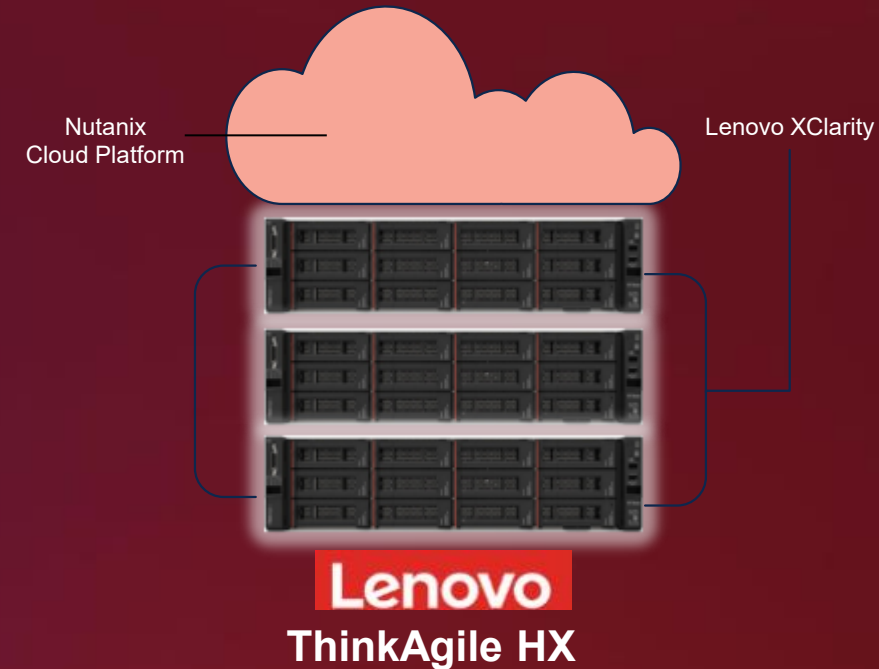
- Stateless, programmable policy-based systems
- See, control, and automate infrastructure from one place
- Proactive, automated health monitoring and support capabilities



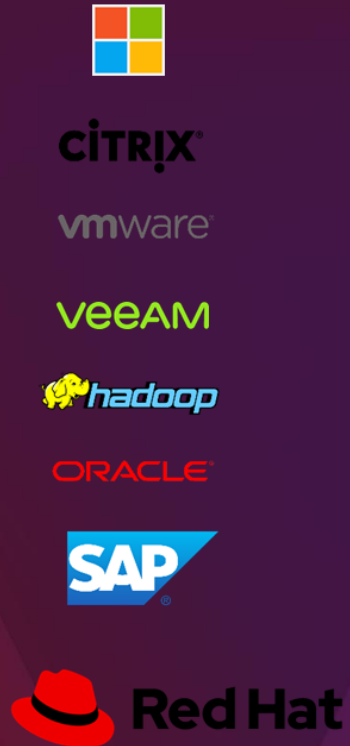
**NUTANIX**

## Leader in hyperconverged software

- One unified platform enables seamless workload mobility
- A complete set of enterprise and cloud features
- Enterprise grade disaster recovery and security capabilities



# ThinkAgile HX Portfolio



Edge  
ROBO  
Enterprise Applications  
Virtual Desktops (VDI)

File Storage  
Backup & Recovery  
Big Data

Blockchain  
Databases  
BI / Analytics  
Containers

ThinkAgile HX



HX360 V2 Edge  
HX630 V3 ROBO

HX645 V3  
HX630 V4

HX665 V3 Storage  
HX650 V4 Storage

HX665 V3  
HX650 V4  
HX650a V4\*

# 1<sup>st</sup> & Only

Nutanix Certified Liquid Cooled  
Appliance

## AI Inference with NAI

Supporting 2x RTX6000 GPUs at full  
performance

# #1 Reliability

Ranked #1 globally for 11  
consecutive years

[Link](#)

## 10-Day Platform Delivery

for selective HX configurations

# Accelerate AI Innovation with Lenovo ThinkAgile HX

1<sup>st</sup>

Liquid cooled HCI Appliance

Up to  
25%

Power Savings 

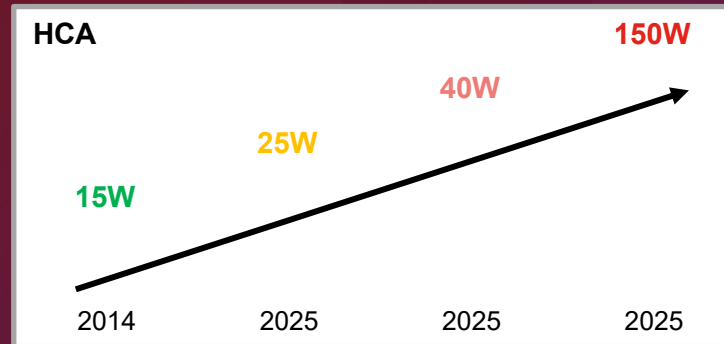
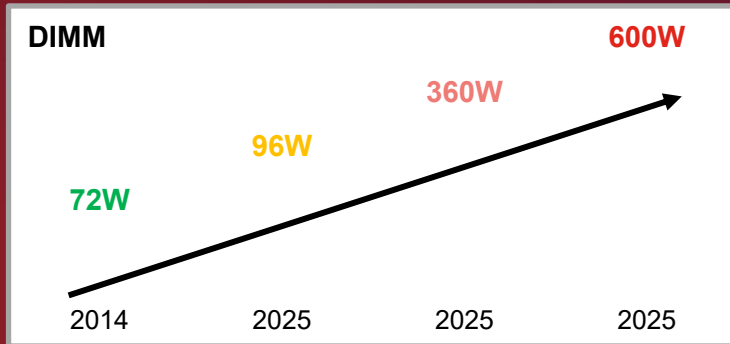
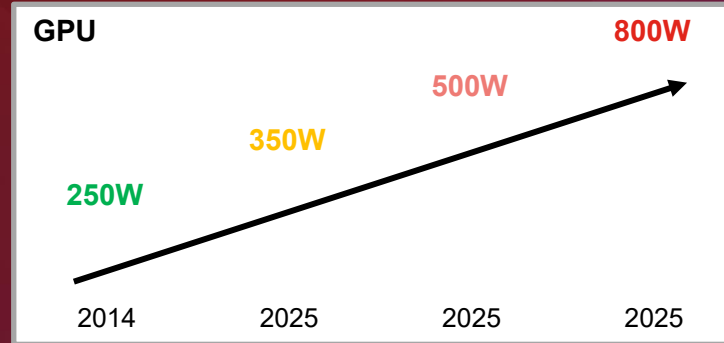
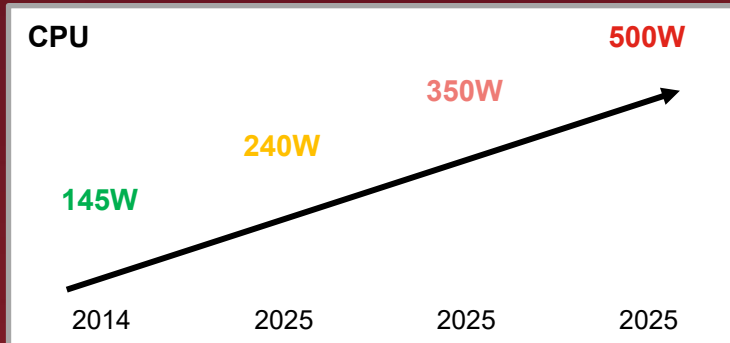
Maximize performance, reduce heat with high-density AMD & Intel solutions

Robust GPT in a box 2.0 Validated Design for LLM Fine tuning & inference

Rapid deployment of leading AI models with Nutanix Enterprise AI

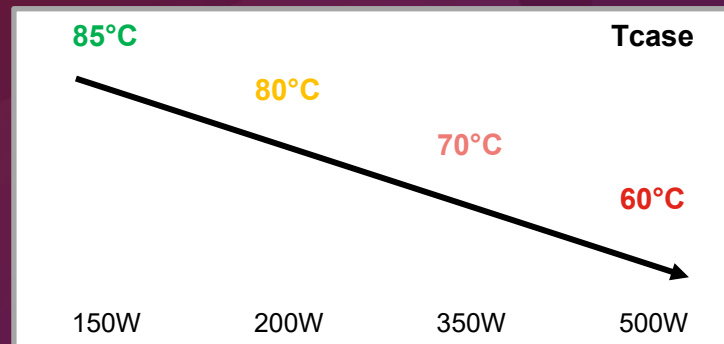
Scalable LLM inference at the Edge with ThinkAgile HX360 V2 Edge

# Technology Evolution forces our hands



**The constraints of physics**

- Max CPU Junction temperature ( $T_{junc}$  or heat sink to die) is relative to  $T_{case}$  and Power.
- As Thermal Design Power goes **up**,  $T_{case}$  must come **down** to keep  $T_{junc}$  within max temp range.



**HIGHER  
WIDER  
WATER**

# ThinkAgile HX Series – Customer Choice

## HX Integrated System



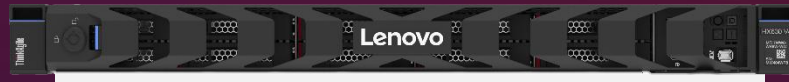
- One-stop-shop for all HW, SW and Services
- Single point of contact for SW and HW support
  - Single quote without a hassle for multiple contracts with different companies
- Fully certified software & hardware, with **Lenovo Premier Support**
  - SW Licensing Included
  - Lenovo Deployment Services Included

## HX Certified Node



- Fully-certified software & hardware - with separate support contract for software
  - Separate Software License  
“Bring your own”
  - Flexibility to choose Lenovo Deployment services

# ThinkAgile HX Solutions



## HX630 V4 / HX645 V3

Cost optimized entry-level,  
dual socket

Medium density virtualization and  
Cloud-Native requiring  
low-medium local storage

(up to 3 SW GPUs)

Traditional database and  
scale out database with low-medium  
local storage



## HX650 V4 / HX665 V3

Designed to boost acceleration performance  
across the widest range

Maximizes results from AI to  
Modeling & Simulation apps  
with maximum flexibility  
(up to 8 SW GPUs)

AI-ML/DL inferencing, Metaverse, Digital Twins  
modeling,  
high-performance compute,  
render farms and virtualization



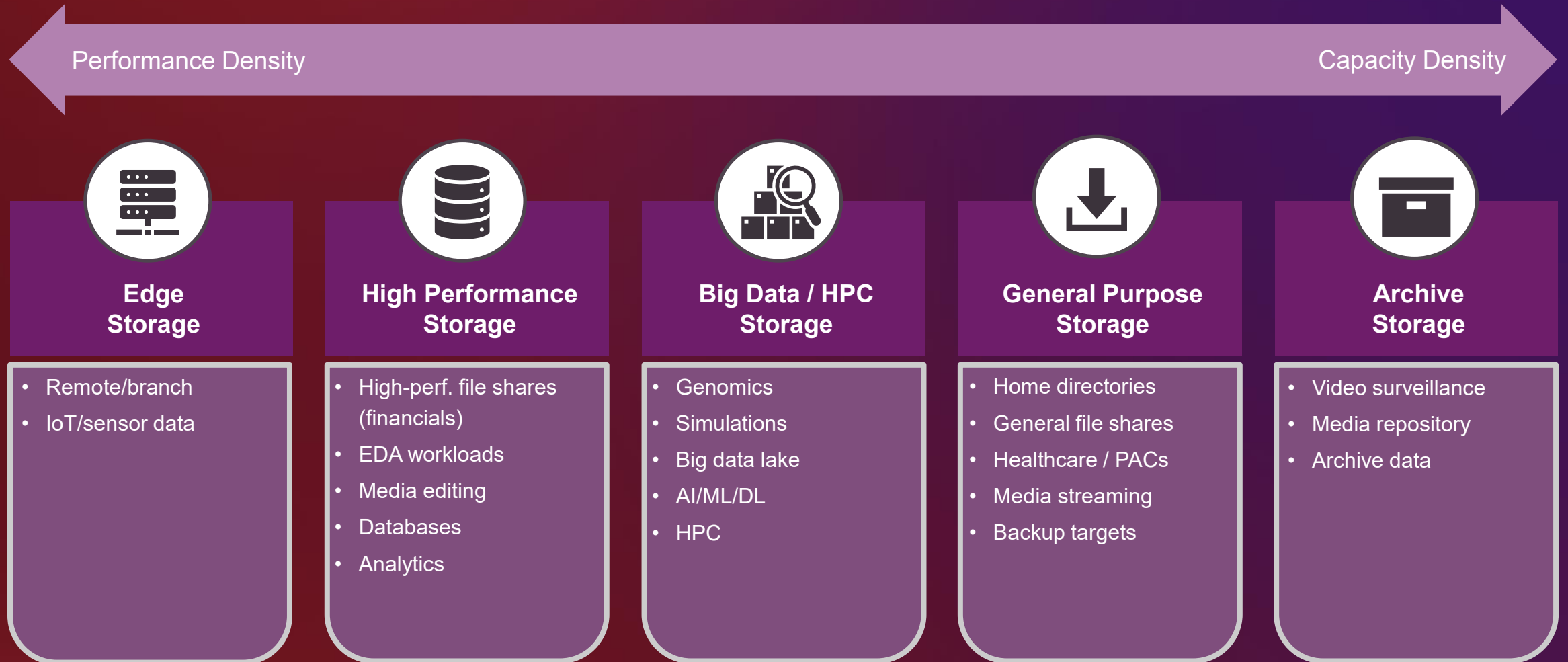
## HX650 V4 Storage / HX665 V3 Storage

Capacity and performance  
optimized platform

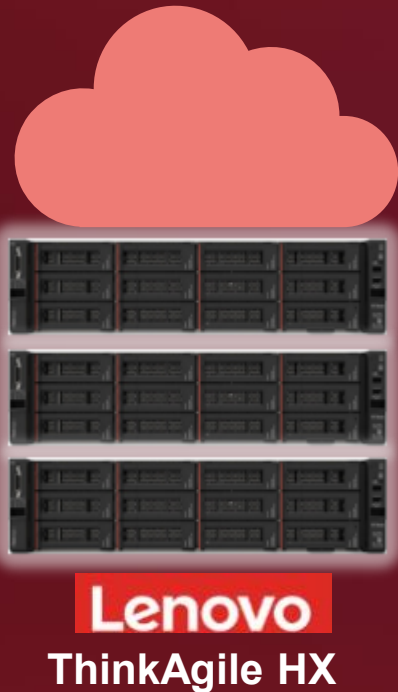
Built for high performance database  
applications (Microsoft SQL,  
PostgreSQL, Oracle) and storage  
heavy enterprise applications  
(Exchange, Sharepoint)

Model	1U	Storage 2U	2U
Target Workloads	General Virtualization and Virtual Desktop Infrastructure (VDI), ROBO	File & Object Storage, Data Protection, Development & Test	VDI, Database & Enterprise Application, Development & Test, AI/ML, Messaging, Collaboration and Unified Communications
Memory	64GB - 6TB (AMD) / 8TB (Intel)	64GB - 6TB (AMD) / 8TB (Intel)	64GB - 6TB (AMD) / 8TB (Intel)
SSD Options (Hybrid Config)	No hybrid config support	2x-4x, 1.6TB, 1.92TB, 3.84TB, 7.68TB	No hybrid config support
HDD Options (Hybrid Config)	No HDD support	4x-12x 4TB, 6TB, 8TB 8x 10TB, 12TB, 16TB, 20TB	No HDD support
SSD Options (All-Flash Config)	22x-12x 960GB, 1.92TB, 3.84TB, 7.68TB	2x-12x 800GB, 960GB, 1.6TB, 1.92TB, 3.84TB, 7.68TB	2x-16x 1.92TB, 3.84TB, 7.68TB
NVMe Options (All-Flash Config)	0, 2, or 4x 1.6TB, 3.2TB, 3.84TB, 6.4TB, 7.68T	None	0, 2, or 4x 1.6TB, 3.2TB, 3.84TB, 6.4TB, 7.68TB
Drive Bays	Up to 10x 2.5" + 2x 2.5" drives Up to 4x NVMe drives (requires 2 CPUs)	Up to 12x 3.5"+4x 2.5" drives	Up to 24x 2.5" drives+ 8x 2.5" NVMe drives (for Integrated Systems)

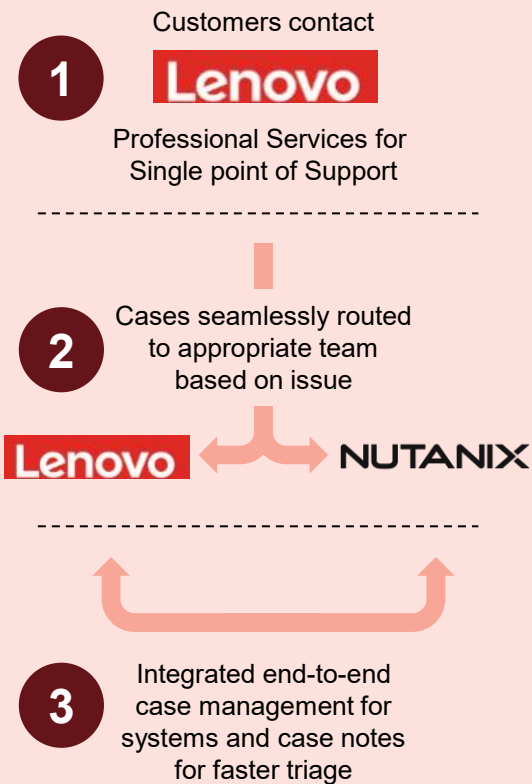
# Driving a variety of use cases



# Assured Global Support



## Seamless Integrated Support Model



## Case Generation Options

Manual



User Initiated

Automated

**NUTANIX Insights**

for Hardware & Software Alerts

**Lenovo**

**XClarity**

for Hardware Alerts

Customers can contact Lenovo Professional Services to open a case

## Reducing Support Burden on Customers

**NUTANIX Insights**

- In-depth system health checks
- Security advisories and notifications
- Recommendations to remediate problems
- Automated log bundle collection

**Lenovo**

**XClarity**

- Audit and correlate historical cluster events such as alerts, discoveries, upgrades, hardware replacement and more via Cluster Timeline
- Live PCI error recovery
- Drive alert in RAID configuration through XCC
- Alerts on memory failures, predicted memory failures

# Future Proof Only Multi- vendor HCI Appliance Investment Protection

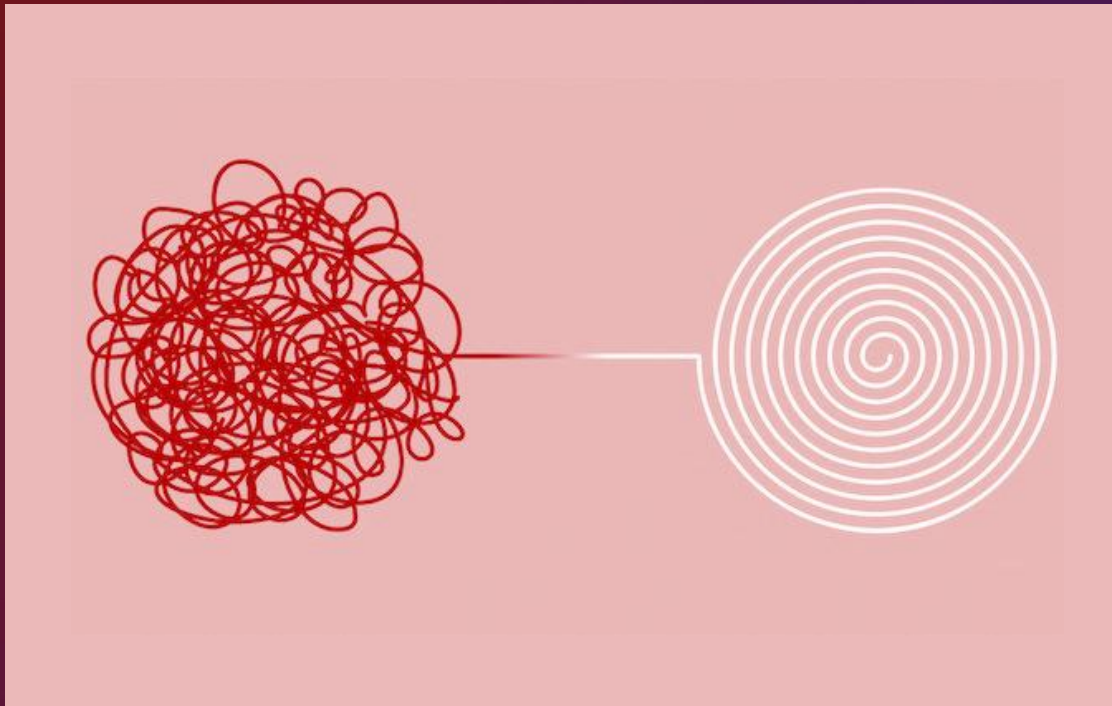
## New ThinkAgile FX Series

Designed for maximum Flexibility, Resilience and Adaptability



- Open ecosystem
- Solution-level validation w/ ISV partners
- Streamlined Conversion
- Appliance-grade Simplicity with managed Best Recipes

# ThinkAgile FX simplifies your Hybrid Cloud journey



	DIY Solutions	FX
Easy to Order Preconfigured HW	✗	✓
Factory SW Preload	✗	✓
Automated Updates at Scale	✗	✓
Optimized Conversion	✗	✓
Streamlined Premier Support Experience	✗	✓

# Deepest integration with ISV partners

**NUTANIX**

**vmware**<sup>®</sup>  
by **Broadcom**

One-click simplicity

Native VMware integration

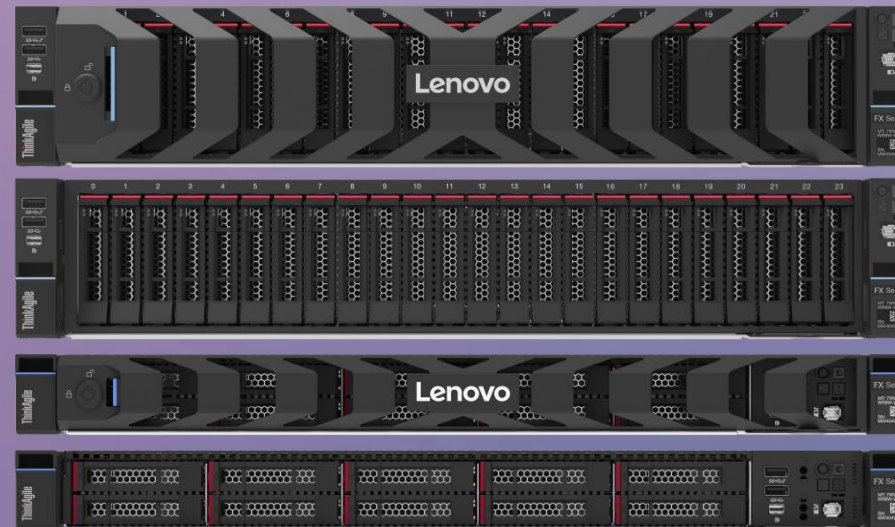
Easy scalability for limited IT teams

Unified mgmt. via VMware Cloud Foundation

Built-in data protection

Higher storage needs (disaggregation)

## ThinkAgile FX



# Comprehensive Approach to Faster Deployment



## Lenovo Factory Preinstall

- Pre-configured systems direct from Lenovo.
- Ensures HW & SW compatibility before arrival.
- Reduces deployment time and eliminates integration risk.



## Lenovo Best Recipes

- Lenovo-curated configs for firmware, drivers, and software.
- Guarantees consistency across clusters.
- Minimizes upgrade risk and prevents version drift.



## Lenovo Professional Services

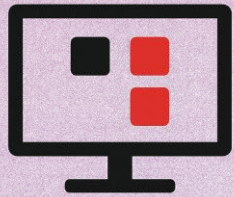
- Lenovo experts manage installation, testing, and handoff.
- Accelerates time-to-production with proven methodologies.
- Frees internal IT teams to focus on business priorities.



## Lenovo Premier Single point of support

- Unified Lenovo support for hardware and software.
- Simplifies troubleshooting and reduces resolution time.
- Improves reliability with end-to-end accountability.

# ThinkAgile Operations: Guiding Principles



## Single-Pane for cluster mgmt.

Operate through one console — Prism or vCenter— with Lenovo XClarity data integrated directly inside.



## Seamless HW- to-SW Visibility

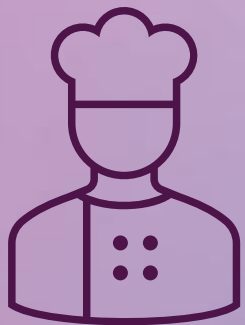
ISV tools track VM health; XClarity ensures the HW stays optimized.



## Unified Operations for Entire Cluster

Keep firmware, drivers, and OS in sync using Lenovo XClarity aligned with Nutanix or VMware validated stacks.

# What are ThinkAgile Best Recipes



Configuration blueprints that unify Lenovo hardware, firmware, drivers, and ISV software into a single validated update package



Faster, Zero-Error Updates



Simplified Lifecycle Management



No Guess-work on Update Sequencing



Predictable Perf. and Compliance

# ThinkAgile FX Series - Configurations

## Choice of Models

Rack-Optimized 1U Servers  
**FX630 V4**



Rack-Optimized 2U Servers  
**FX650 V4**



## Choice of Components

### CPU

- 2 sockets
- 19 Intel GraniteRapids CPUs

### NVMe Flash

- 1.6TB to 15.36 TB

### NIC

- 10 GbE
- 25 GbE
- 100 GbE

### GPU

- L4, L40S

## Solution Experience

### Hypervisor Choice

- VMware vSphere (vSAN) - ESXi
- Nutanix AOS - AHV

### Secure

- UEFI & Secure Boot Ready

### Lifecycle Management

- Nutanix LCM
- vLCM in vCenter

### Easy Setup

- Factory Installed SW

### Sizer

- Nutanix Sizer (Post GA)

# Comparison with Standalone SDI offerings

Description	FX Series	VX Series	HX Series
ISV SW Flexibility	Yes (VMware & Nutanix)	No – VMware only	No - Nutanix only
Conversion Service	Yes (Mandatory)	No (not supported)	No (not supported)
Configurations	Limited	Broad	Broad
Supported Hardware Platform	Intel Only	Intel & AMD	Intel & AMD
ISV Software	No	No	Yes (Optional)
Additional Pro Services like Migration, HW Installation, etc.	Yes (Optional)	Yes (Optional)	Yes (Optional)
Premier Support and HW Warranty	Yes	Yes	Yes
Deployment and LCM	Yes	Yes	Yes

Smarter  
technology  
for all

Lenovo

thanks.