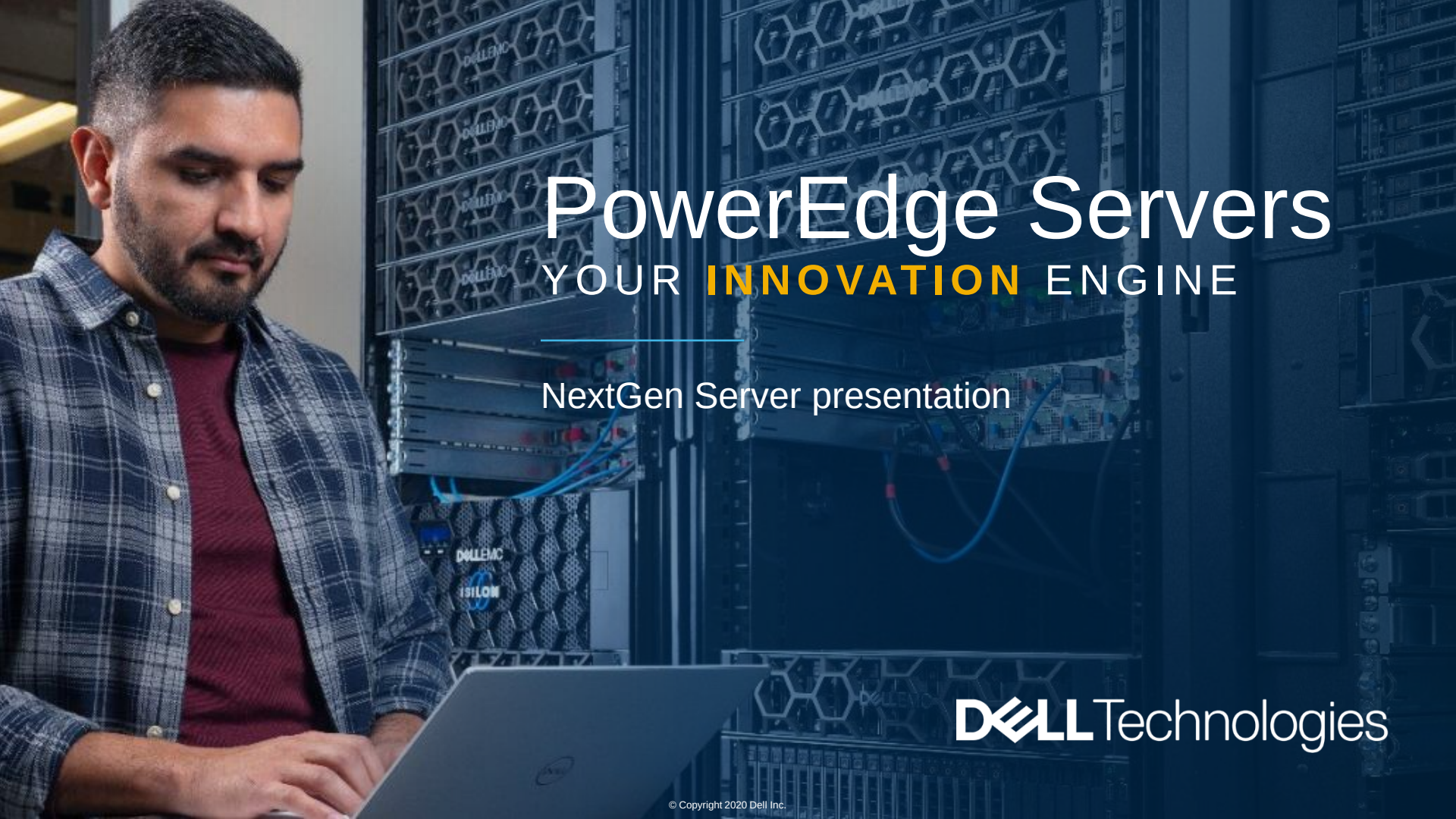

PowerEdge Servers

YOUR **INNOVATION** ENGINE

NextGen Server presentation

DELL Technologies

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INTRODUCING THE NEW

Dell EMC PowerEdge Server Portfolio

YOUR **INNOVATION ENGINE**

*Technology and solutions that help you **innovate**, **adapt**, and **grow***

Current Dell EMC PowerEdge Server Portfolio 15G Intel Q3 Update

Specialized– EDGE&TELCO

XR11

XR12

C-SERIES

C6520

MODULAR

MX750c

Specialized– GPU OPTIMIZED

R750xa

1S RACK & TOWER

R250

R350

T150

T350

2S TOWER

T550

2S RACK

R550

R450

R750xs

R650xs

R750

R650

YOUR INNOVATION ENGINE

Technology and solutions that help you innovate, adapt, and grow

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Prior Platform Comparison

New capabilities, relative to the prior Mehlow platform with Intel Xeon E-2200 processors, in Bolded Blue

Platform	Prior Platform	New Platform
CPU	Intel Xeon E-2200 processors (Coffee Lake-E)	Intel Xeon E-2300 processors (Rocket Lake-E)
Socket	Socket H4 (LGA 1151)	Socket H5 (LGA 1200)
Scalability	1-Socket Only	1-Socket Only
Core	Up to 8 Cores No Server Graphics Support	Up to 8 Cores Gen12 Graphics Support (direct display support only)
Memory	2 channels DDR4 2 DPC UDIMM ECC Up to 2666 MT/s	2 channels DDR4 2 DPC UDIMM ECC Up to 3200 MT/s
PCIe	16 lanes PCIe 3.0 Bifurcation support: 1x16+1x4, 2x8, 1x8+2x4	20 lanes PCIe 4.0 Bifurcation support: 1x16+1x4, 2x8+1x4, 1x8+3x4
PCH	Intel C240 Series Chipsets DMI x4 3.0 Up to 8 SATA ports Up to 24 PCIe 3.0 lanes Up to 10 USB 3.2 Gen 1x1 (5 Gb) ports Up to 6 USB 3.2 Gen 2x1 (10 Gb) ports eSPI Supported	Intel C250 Series Chipsets DMI x8 3.0 Up to 8 SATA ports Up to 24 PCIe 3.0 lanes USB 3.2 Gen 2x1 (10 Gb) up to 10 ports USB 3.2 Gen 2x2 (20 Gb) up to 3 ports eSPI supported
Performance	Baseline	Up to a 17% performance improvement over the prior generation[1]

[1] See backup for workloads and configurations. Results may vary.

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Dell EMC PowerEdge R250

Support for up to 4 Drives

- 4 x 3.5” cabed/hot-plug SATA/SAS HDD/SSDs
- BOSS-S1 (PCIe)
- HW RAID, Internal PERC

Support for high-speed and memory capacity

- Support 3200 MT/Sec DDR4 and 32GB DIMMS, up to 128GB

1 Socket Capable

- Latest Intel Rocket Lake processors; up to 28% faster IO than Coffee Lake
- . Xeon® E3 and Pentium CPUs

Flexible I/O

- Faster I/O throughput: PCIe Gen 4

- Latest Intel Technology - Rocket Lake E2300 series CPUs
- Designed for budget-conscious businesses
- Industry-leading manageability and security

Offers up to **17% CPU** performance Increase

Increases memory speed by **20%** from 2666MT/s to 3200MT/s

Up to **2x** memory capacity increase

Up to **2x** bandwidth & frequency with PCIe 4.0

TARGET WORKLOADS

Web Server/Hosting
Performance, storage and memory capacity to process, store, and deliver web pages to clients

File and print
Get organized efficiently with simple set-up and operations

Mail and messaging
Share and connect quicker with powerful computing capability

Collaboration / sharing
Built-in features to enable collaborative applications and share information

Backup Recovery
Embedded software RAID to replicate and safeguard your data

Whether users are installing a server for the first time or enhancing existing IT infrastructure, this new server is an excellent platform for growing businesses and organizations

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Dell EMC PowerEdge R350

Availability features

- Hot-plug redundant power supplies,
- Hot-plug BOSS
- Hot-plug HDD/SSD
- PERC10.5 & 11 SW and HW RAID, Internal PERC and Add-in Card options

Support for high-speed and memory capacity

- Support 3200 MT/Sec DDR4 and 32GB DIMMS, up to 128GB

1 Socket Capable

- Latest Intel Rocket Lake processors; up to 28% faster IO than Coffee Lake
- . Xeon® E3 and Pentium CPUs

Flexibility

- Faster I/O throughput: PCIe Gen 4
- Up to 4x 3.5” SATA/SAS or 8x 2.5” SATA/SAS

- Latest Intel Technology - Rocket Lake E2300 series CPUs
- Designed for budget-conscious businesses
- Industry-leading manageability and security

Offers up to **17% CPU** performance Increase

Increases memory speed by **20%** from 2666MT/s to 3200MT/s

Up to **2x** memory capacity increase

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TARGET WORKLOADS

Web Server/Hosting
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Collaboration / sharing
Built-in features to enable collaborative applications and share information

Backup Recovery
Embedded software RAID to replicate and safeguard your data

These servers are suitable for data centers, cloud infrastructure, and some edge environments with high-availability and redundancy features where serviceability is a priority (SMB rack infrastructure environments).

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Dell EMC PowerEdge T150

Support for up to 4 Drives
- Cabled drives
- Hot plug BOSS-S1
- HW RAID, Internal PERC

Support for high-speed and memory capacity
- 4 DDR4 DIMMs, up to 1298GB
- 3200 MT/s

1 Socket Capable
- Latest Intel Rocket Lake processors; up to 28% faster IO than Coffee Lake
- Xeon® E3 and Pentium CPUs

Flexible I/O
- Faster I/O throughput: PCIe Gen 4

- Latest Intel Technology
- Enhanced thermal efficiency and quiet office friendly acoustics
- Industry-leading manageability and security

Offers up to **17% CPU** performance Increase

Increases memory speed by **20%** from 2666MT/s to 3200MT/s

Up to **2x** memory capacity increase

Up to **2x** bandwidth & frequency with PCIe 4.0

TARGET WORKLOADS

File and print
Get organized efficiently with simple set-up and operations

Point of sale
Faster and reliable payment processing with secure infrastructure

Mail and messaging
Share and connect quicker with powerful computing capability

Collaboration / sharing
Collaborate and connect efficiently

Databases
Work quicker with powerful computing capability

My First Server - Ideal for value-sensitive customers looking for full performance, small business and service providers seeking small foot-print tower servers that are easy to install and manage inside or outside of the data center.

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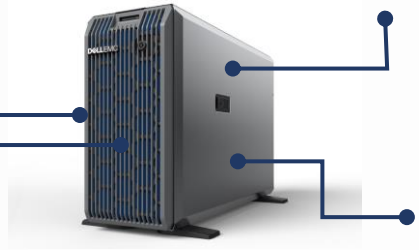
Dell EMC PowerEdge T350

1Socket Capable

- Latest Intel Rocket Lake processors; up to 28% faster IO than Coffee Lake
- Xeon® E3 and Pentium CPUs

Support for high-speed and memory capacity

- Up to 4 x UDIMMs, up to 128GB
- ECC DDR4 up to 3200 MT/s



Flexible storage

- Hot-plug BOSS
- Hot-plug HDD/SSD
- PERC10.5 & 11 SW and HW RAID, Internal PERC and Add-in Card options

Expandable I/O and Storage

- Faster I/O throughput: PCIe Gen 4
- Up to 8:x 3.5” SATA/SAS or 8: 2.5” SATA/SAS
- Hot-plug redundant power supplies

- Latest Intel Technology - Rocket Lake E2300 series CPUs,
- New smaller streamlined chassis design chassis, reduces the size by 37% without losing any features
- Industry-leading manageability and security

37% smaller size without compromise

Offers up to **17% CPU** performance Increase

Increases memory speed by **20%** from 2666MT/s to 3200MT/s

Up to **2x** memory capacity increase

PCI EXPRESS

Up to **2x** bandwidth & frequency with PCIe 4.0

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TARGET WORKLOADS

File and print
Get organized efficiently with simple set-up and operations

Point of sale
Faster and reliable payment processing with secure infrastructure

Mail and messaging
Share and connect quicker with powerful computing capability

Collaboration / sharing
Collaborate and connect efficiently

Databases
Work quicker with powerful computing capability

Reliable and scalable tower server with a smaller streamlined chassis for small and medium business, remote offices, branch offices, and service providers seeking a secure and scalable tower server that is easy to install, manage, and deploy.

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Dell EMC PowerEdge T550

- Maximize performance with up to two 3rd Generation Intel® Xeon® Scalable processors with up to 32 cores
- Office-friendly acoustics, ease of management and industry-leading security
- Expandability for growth and performance
- DDR4: up to 16 x DDR4 RDIMMs (1TB max)
- Up to 5x PCIe Gen4 slots (all x16) + 1x PCIe Gen3 (x8)
- Support for up to two double-width, or five single-width accelerators (Nvidia T4, A10, A30 and A40)
- Mix and match NVMe, HDD and SSD drives to create ideal configuration for customers

- Latest Intel Technology - 3rd Generation Intel® Xeon® SP series CPUs
- New smaller chassis design offers higher performance technologies in a quieter, more management-friendly enclosure
- Industry-leading manageability and security

Smaller size
Full features

Offers up to **40% CPU** performance Increase

GPU support in tower mode

Front access hot plug BOSS 2.0

Up to **2x** bandwidth & frequency with PCIe 4.0

TARGET WORKLOADS

Ideal for traditional corporate IT, virtualization, database and analytics, AI/ML, and inferencing. High performance compute and accelerator configuration options enables enterprise-class workloads

Edge computing: where data is acted on near its point of creation

TARGET CUSTOMERS

SMB customers
Departments and ROBO of large enterprises and organizations
Data centers
Value-sensitive customers looking for full performance

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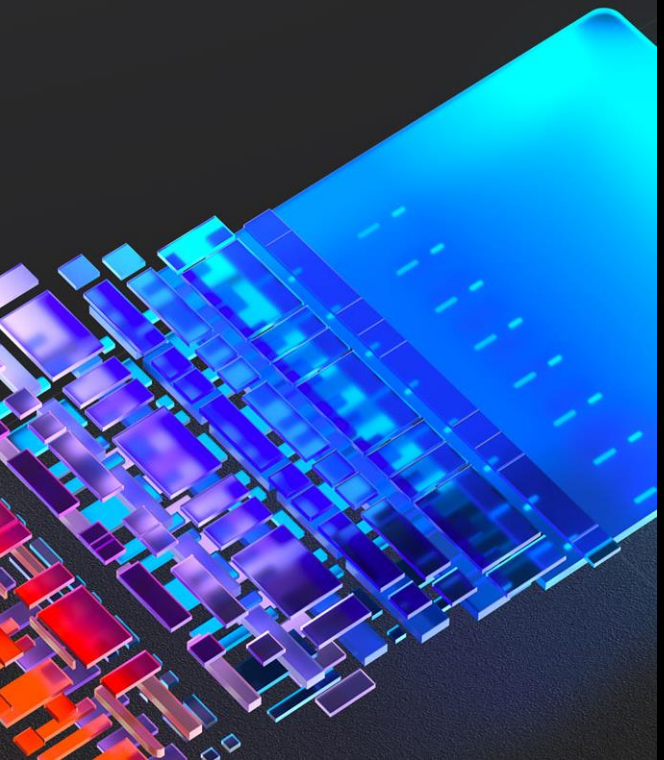

- Advanced multi-layer security
- Hybrid Capabilities
- Flexible Remote Working
- Application Modernization

Launch Overview

On **Tuesday 7 September 2021** we will begin selling Windows Server 2022 OEM

Product Availability Matrix

	Current Version	Downgrade Media
PowerEdge 15G	• Windows Server 2022 Datacenter, Standard, Essentials • Windows Server 2022 OS User CALs and Device CALs • Windows Server 2022 RDS CALs	Windows Server 2019 and 2016 Windows Server 2019 and 2016 CALs
PowerEdge 14G Servers – R240, R340, T140 and T340	• Windows Server 2019 Datacenter, Standard, Essentials • Windows Server 2019 OS User CALs and Device CALs • Windows Server 2019 RDS CALs	Windows Server 2016 and 2012 R2
PowerEdge 14G Servers – All Other Models	• Windows Server 2022 or 2019 Datacenter, Standard, Essentials • Windows Server 2022 or 2019 OS User CALs and Device CALs • Windows Server 2022 or 2019 RDS CALs	Windows Server 2019 and 2016 Windows Server 2016 and 2012 R2

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Windows Server 2022 Editions

Enterprise class technology to drive any sized business

Windows Server 2022 Essentials Edition	**Windows Server 2022** Standard Edition	**Windows Server 2022** Datacenter Editions
is ideal for small businesses with up to 25 users and 50 devices	is ideal for customers with physical or minimally virtualized environments	is ideal highly virtualized and software defined datacenter environments.
25 users/**50** devices CALs are included	**Unlimited**, based on CALs	**Unlimited**, based on CALs
1 physical or virtual[1]	**2** VMs	**Unlimited** VMs
Must be root of domain	**2** Hyper-V containers[2]	**Unlimited** Hyper-V containers
Available in ROK and OEM	Available in COEM, ROK, and OEM	Available in COEM, ROK, and OEM

Windows Server 2022 Licensing:

Windows Server 2022 Essentials update

New SKU to replace Essentials – Windows Server 2022 Essentials (10 Core)

No changes to Windows Server 2022 Standard and Datacenter licensing

Windows Server 2019 Essentials	Windows Server 2022Essentials (10 Core)
1-5 CPUs	10 cores single socket server (1 CPU)
Up to 25 users or 50 devices – CALs are included	Up to 25 users or 50 devices – CALs are included
1 physical and virtual instance	1 physical and virtual instance
Must be root of domain	Must be root of domain; may not market to bypass the 16-core minimum Windows Server license

Windows Server 2022 Feature Summary

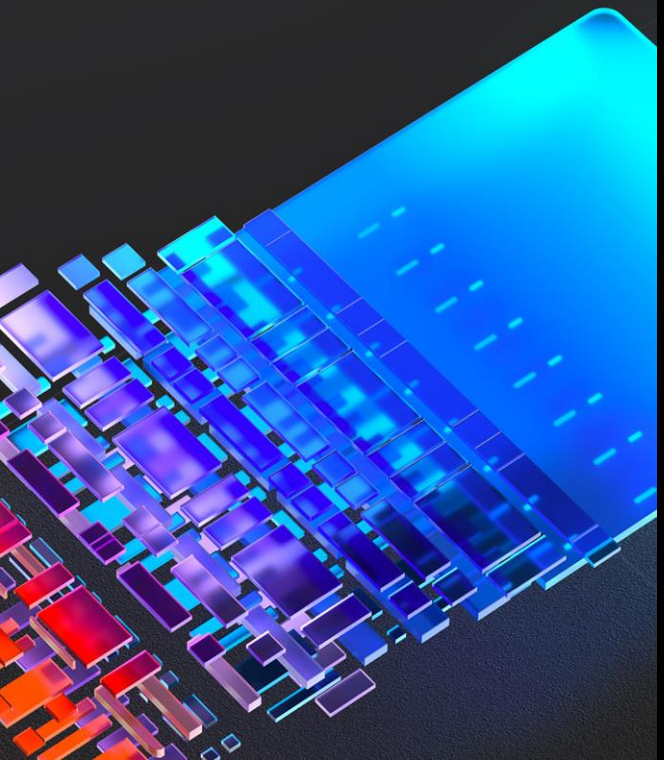
Use Cases	Key Features	WS 2019 Std	WS2019 DC		WS2022 Std	WS2022 DC	AzStack HCI
Security All-up	Secured Core	–	–		●	●	●
	System Guard for data corruption attacks	–	–		◑	◑	◑
	Secure DNS client over HTTPS (DoH)	–	–		●	●	●
	Secured data at rest and in transit (AES-256 Encryption)	–	–		●	●	●
	Support for TLS 1.3	–	–		◑	◑	◑
Physical Machine	Increased Memory Support (5-level paging support to support larger memory servers)	–	–		◑	◑	◑
Virtualization Server	Virtualization Rights	2 VMs	unlimited		2 VMs	Unlimited	–
	Software Defined Network/Storage	–	○		-	◔	●
	Storage Spaces Direct	–	○		-	◔	●
	Storage Replica	–	○		-	◔	●
	In-place upgrades from WS2012 to WS2021	–	-		●	●	●
Containers	Containers Rights	Unlimited	Unlimited		Unlimited	Unlimited	–
	Hyper-V containers	Limited	○		Limited	◔	◔
	Faster and small images	○	○			◑	◑
Hybrid	Hotpatch	–	–		–	–	●
	Extended Network	–	–		–	–	●
	SMB over QUIC	–	–		–	–	●

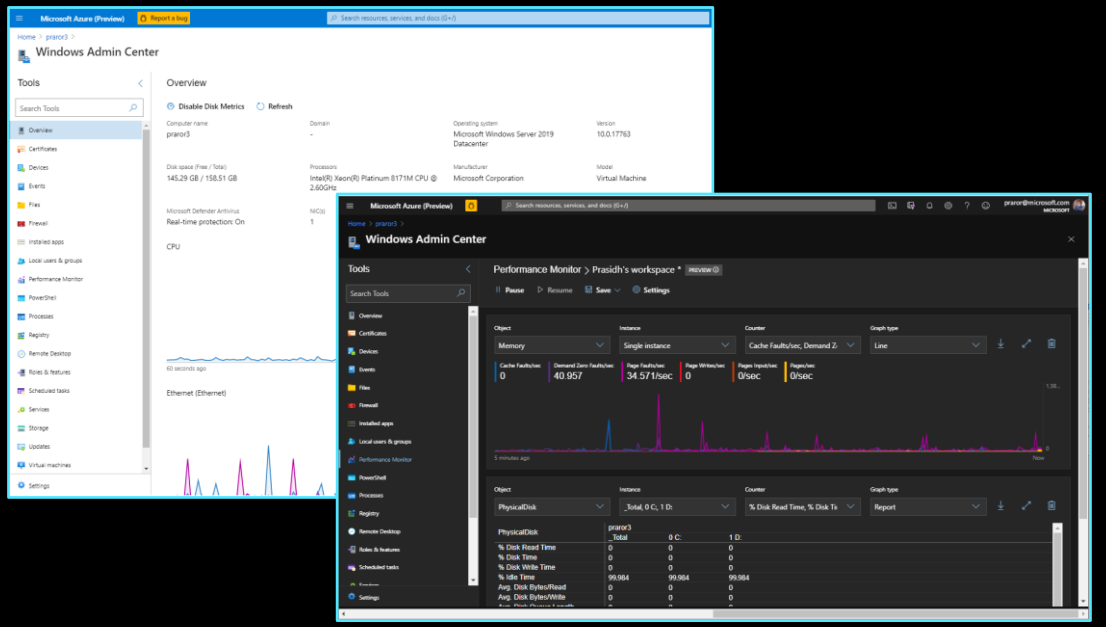
● 2021 new feature ◑ Enhancement ◔ Quality improvement ○ 2019 feature as is – Not present

*Only major and medium value features listed

Windows Admin Center

Available in Public Preview Azure





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