

New trends in Data Center solutions from Eaton



ALSO Bulgaria CTV Event
Kalin Georgiev 4 June 2026



Powering Business Worldwide

Technology trends for upcoming years



Grid-interactive UPS providing flexibility and grid services to support energy transition

Driven by corporate image, sustainability goals, additional revenue or savings and regulations (future)



Abandon diesel (fossil fuels) and find cleaner alternatives for back-up power

Driven by corporate image, sustainability goals, savings (?) and regulations (today)



Sustainable products and operations of a supplier

Driven by corporate image, sustainability goals and regulations (today)



New power conversion and battery technologies

Driven by improved lifecycle cost and efficiencies, supporting other drivers



New data centre architectures and power distribution topologies

Driven by higher power densities and new IT applications such as AI / ML

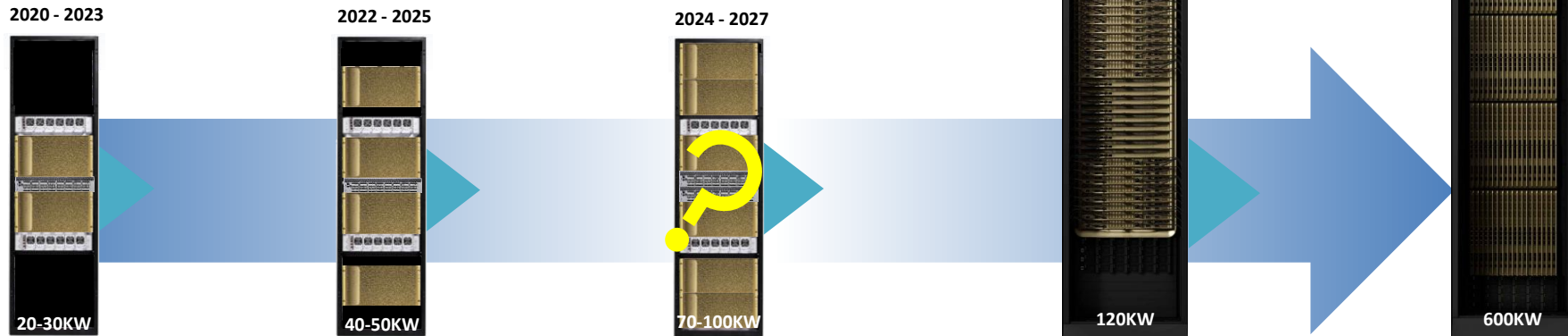
The AI server revolution

AI is changing everything,
including server designs

So physical IT
infrastructure has to
change too



Increasing compute and memory demands are driving rack scale system designs



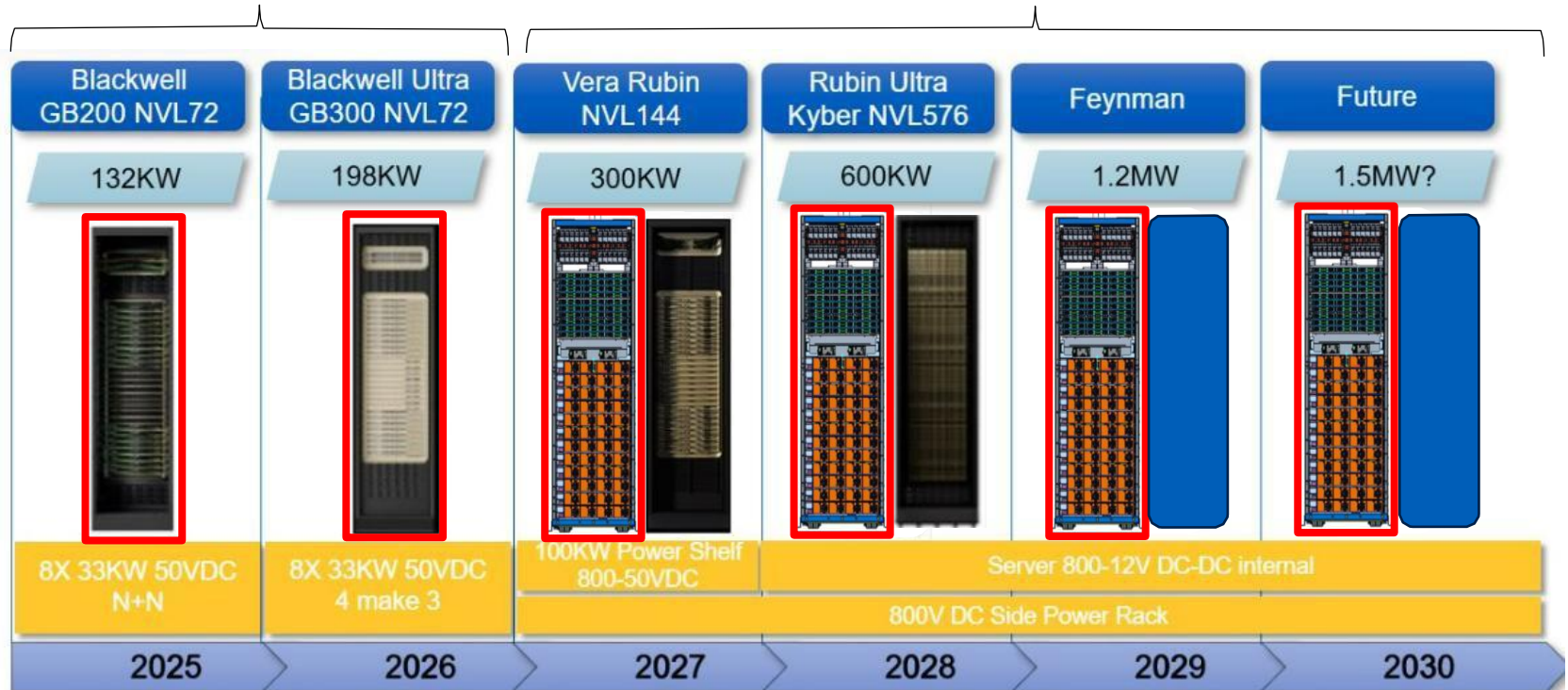
- Surging high-power chip shipments will drive liquid cooling deployments with direct-to-chip cooling coming out as the preferred technology.
- Single-phase direct-to-chip liquid cooling will face thermal dissipation limitations once thermal flux surges beyond 150–200W/cm² unless further increase flow velocity which could raise new technical problems.
- This will drive adoption of two-phase direct-to-chip liquid cooling for next generation processors over immersion. Two-phase direct to chip cooling also makes use of existing infrastructure without the need to redesign/retrofit data centers.
- Immersion cooling will face multiple adoption barriers including technology costs, capital expenditures, and longer deployment timelines, posing no immediate threat to cold plate dominance.

Data Center White Space architecture evolution

– the Nvidia example

ORV3 rack with 33kW PSU / BBU

Sidecar





White Space AI Update

Addressing current and next
generation AI requirements



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What is driving AI?



Machine Learning

Using sample data to train computer programs to recognise patterns based on algorithms



Neural Networks

Computer systems designed to imitate the neurons in a brain



Natural Language Processing

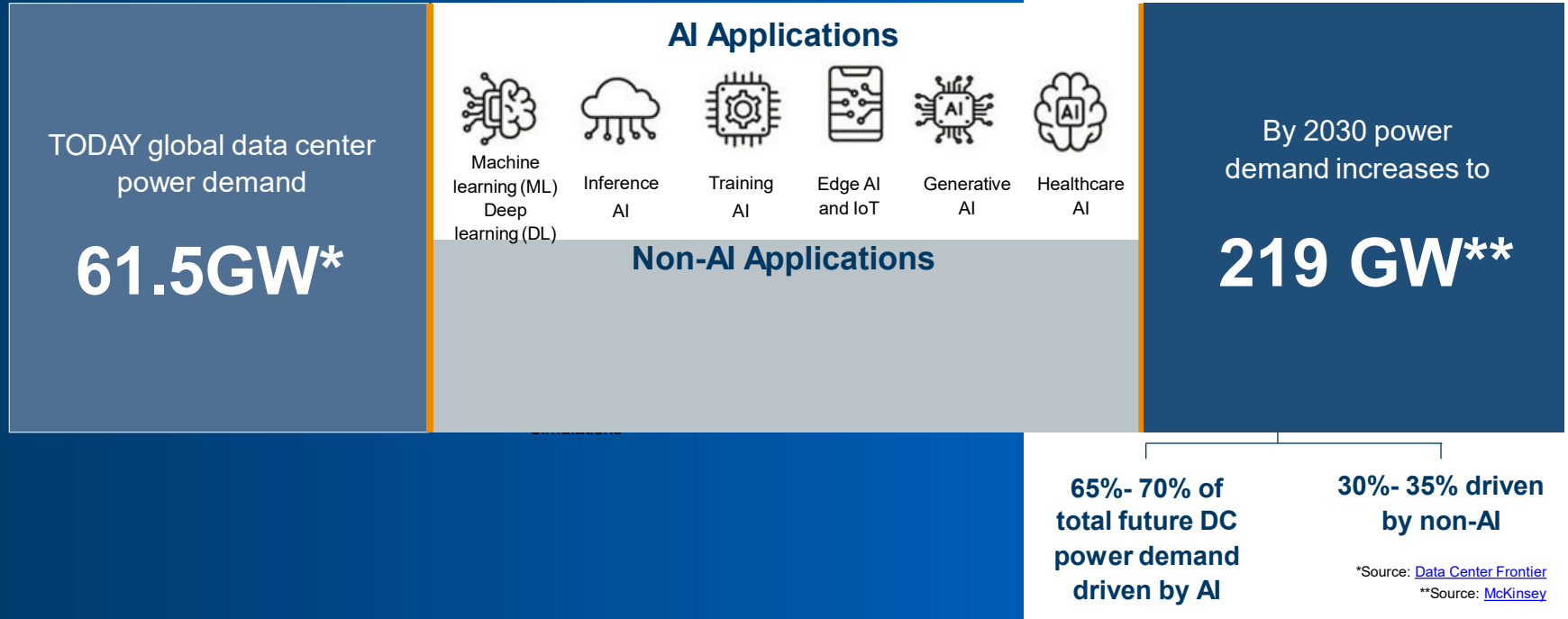
The ability to understand speech, as well as understand and analyse documents



Robotics

Machines that can assist people without actual human involvement

The result: explosive growth in power demand



Do we have all the building blocks to support AI applications?

Key challenges: AI-driven trends

- Chip power is rising
- More chips co-located within a rack
- Higher volume consumed by IT inside the rack
- Reduced volume inside the rack for power, battery, networking & cooling
- Increased in rack power and power density

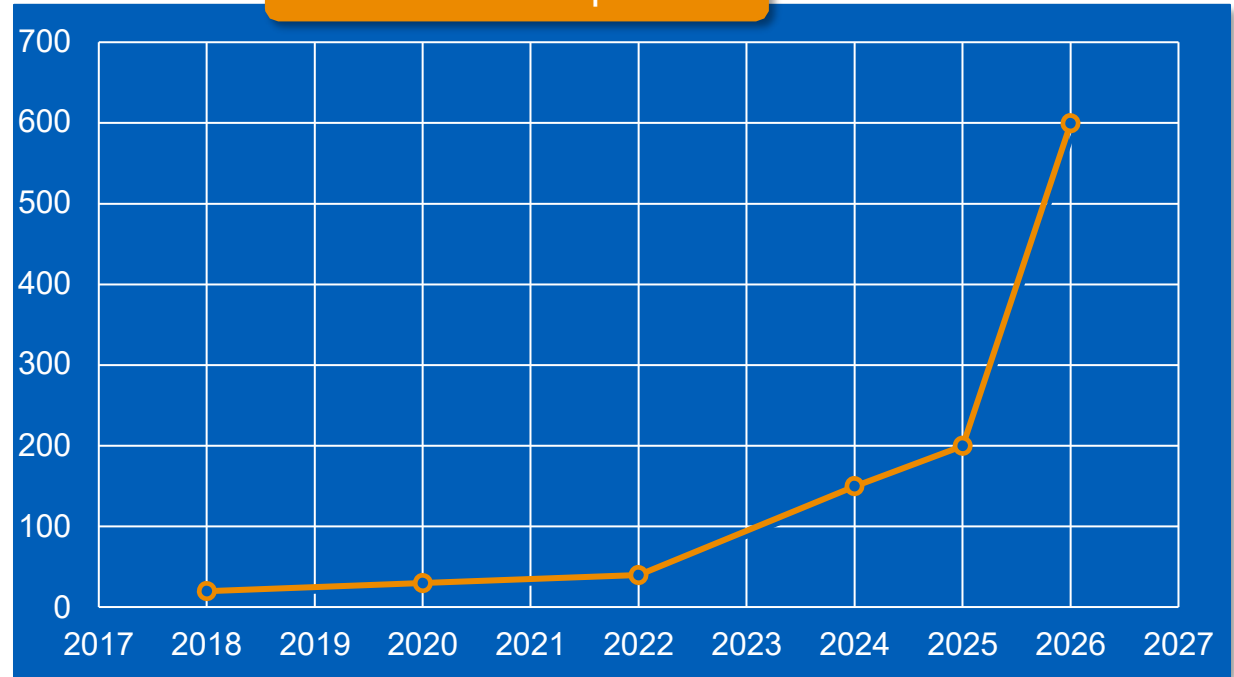
New technology challenges:

- Power delivery to the chip
- Heat extraction from the chip, system/racks
- Rack power outpacing battery PSU improvements



Getting prepared for high rack power

AI / HPC rack power



IT Infrastructure – Distributed IT to Data Centre

Copper & fiber connectivity



KVM & console servers



Software for DC



1Ph & 3Ph UPS



PDU (Power Distribution Unit)

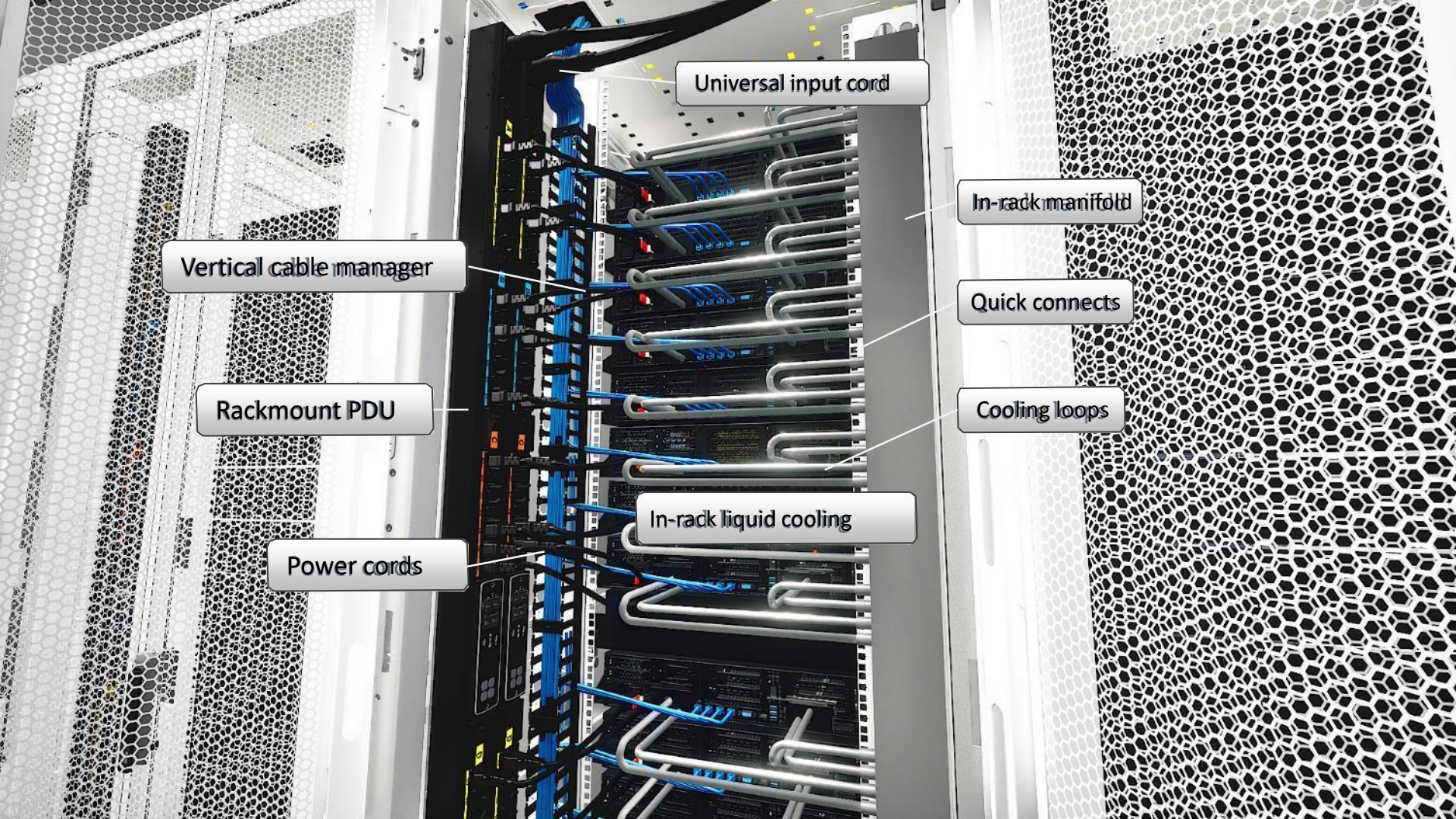


Aisle containment



Rack & accessories





Universal input cord

Vertical cable manager

Rackmount PDU

Power cords

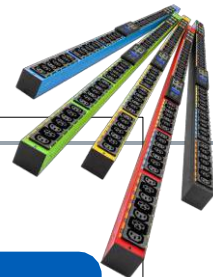
In-rack liquid cooling

In-rack manifold

Quick connects

Cooling loops

Rack PDU road map overview



FlexPDU G2 **Essential** February 2026

Introducing a new range FlexPDU G2 that offers competitive pricing along with essential features.



Rack PDU G4 **1U-2U** Coming June 2026

New horizontal PDU G4 range, with high-end features including combo outlet and cybersecure gigabit network module.



Rack PDU G4 High Power **43.5kW** Coming Q4 2026

New High Power PDU G4 range, designed specifically for high density IT infrastructure, delivering 44.3kW 63A 3Ph fully equipped with combo outlets.



Rack PDU G4 High Power **88kW** Coming Q3 2026

New High Power PDU G4 range, designed specifically for AI infrastructure, delivering 88kW 125A 3Ph fully equipped with combo outlets.



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Rack PDU G4 Power range



Rack PDU G4 range	16A	32A	63A	125A
1ph	3.7kW	7.4kW	14.5kW	
3ph	11kW	22kW	43.5kW	88kW

Standard infrastructure

Mix of C13 and C39 outlets with 24, 42 or 48 outlets
available in 0U, 1U/2U



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High power infrastructure

Full combo C39 outlets 24, 48 outlets



DGX H100



2.55kW/PSU

PDU Feed A

PDU Feed B

ATS Feed A/B

11.1A/
outlets

24 outlets / 24 breakers

PDU Feed A

ATS 16A Feed A/B

PDU Feed B

Devices	U Size	No. of PDU outlets
DGX H100	8U	
Rack PDU G4 125A/88kW	3U	
EATS16N 16A	1U	
TOTAL U / 1 server (+10U/server) 10.2kW	8+6+2 = 16U	4
2x H100 20.4kW	26U (Eaton 10U)	8
3x H100 30.6kW	36U (Eaton 12U)	12
4x H100 40.8kW	46U (Eaton 14U)	16



Eaton Racks & Enclosures for AI Data Center White Space

Introducing

Heavy-duty SmartRack enclosures



Designed for AI factories

The AI server revolution

Deeper, heavier,
hotter AI servers
do not fit well
in standard racks



The AI server revolution

Standard servers:
~30 inches deep
~750mm



GPU-based AI servers:
~44 inches deep
~1100mm



The AI server revolution



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Standard servers:

~9-18 Kg per 1U

AI servers:

~18-45 Kg per 1U

Heavy-duty SmartRack enclosures

Eaton heavy-duty SmartRack enclosures are built to support ultra-high-density applications like AI servers

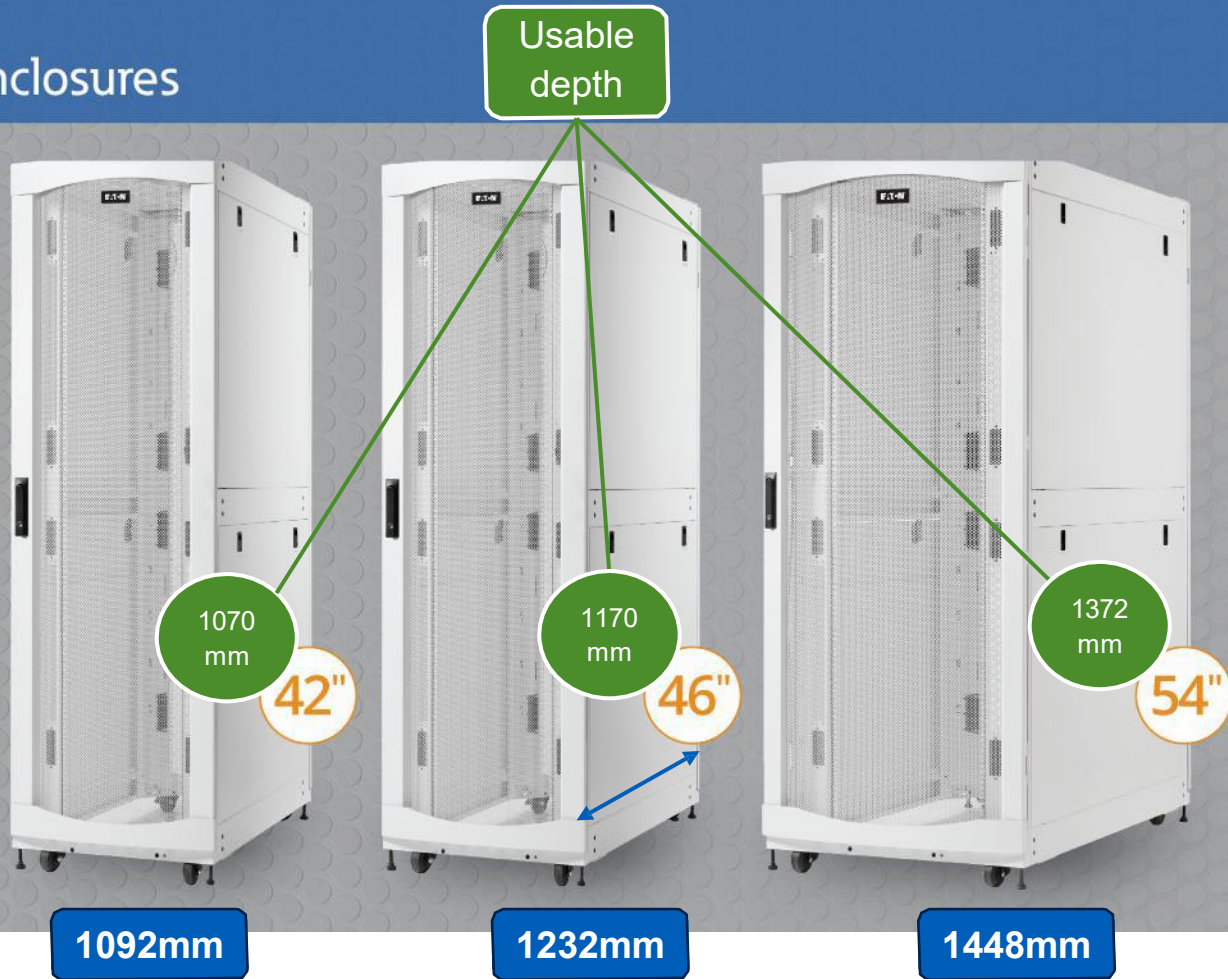
- ✓ 2268kg stationary / 1588kg rolling load
- ✓ 2.5 mm thick steel frame includes extra welds and gussets for greater strength
- ✓ Extra connection points
- ✓ Upgraded casters & levelers



Heavy-duty SmartRack enclosures

Eaton offers
the only
racks with this
combination of
extreme depth
and weight
capacity

Stationary / rolling load
2268kg / 1588kg



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Heavy-duty SmartRack enclosures

Heavy-duty SmartRack enclosures – 18 models

Depth options	• Extra deep – 54 in. 1372mm • Deep – 46 in. 1170mm • Standard – 42 in. 1070mm
Weight capacity	2268kg static (stationary) 1588kg dynamic (rolling)
Height options	• 48U, 45U, 42U
Width options	• Wide – 800 mm (31.5 in.) • Standard – 600 mm (23.6 in.)
Color	• White powder coat finish • White blanking panels available



SRH line –

Only brand to offer combination of:

- ✓ Weight capacity over 2,000 kg
- ✓ Extra deep 1448mm (1372mm)
- ✓ 42U and taller
- ✓ 600mm & 800mm wide
- ✓ White

Tanlock Rack Access Control Portfolio

Tanlock 3 variants:

RFID + 4-digit PIN [TL3-POE-DUAL]

RFID + 10-digit PIN Touchscreen [TL3-POE-TCH]

RFID + Fingerprint authentication [TL3-POE-FNGR]

- ✓ Complements Eaton whitespace offering
- ✓ Enables physical security layer at the rack



Dedicated 3m Door Contact Sensor [TL3-DCS]



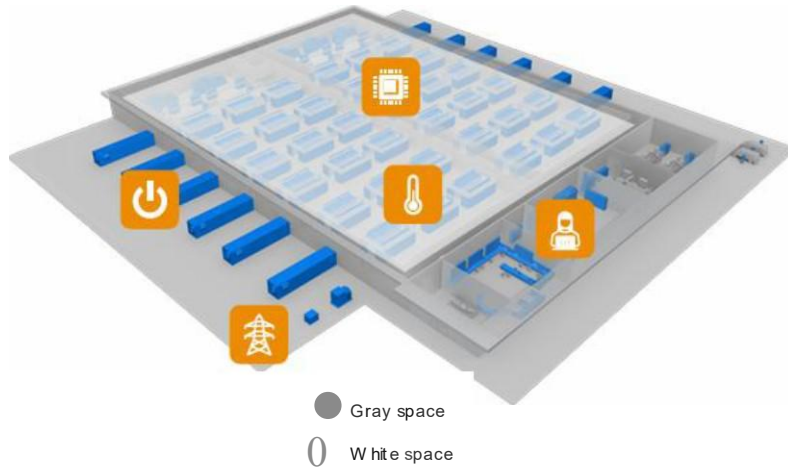
EAT•N

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BOYD

The acquisition of Boyd Thermal further strengthens Eaton's ability to serve our customers as they continue to evolve data center architectures from the chip all the way to the grid

AI data center



D Chips

Thermal management

Cooling solutions to manage the thermal needs of AI chips, high performance compute and other microprocessors, storage, power supplies, busbars

White space power distribution and infrastructure

Data hall power distribution and structural infrastructure including power distribution equipment, racks, cabinets, and enclosures

Gray space power distribution, power quality and infrastructure

Medium and low voltage power distribution and circuit protection equipment, power quality solutions, and gray space infrastructure

Power generation & grid connection

Generation assets and front-of-the-meter utility connections to facilitate the reliable delivery of power to the data center

Software and service

Solutions to monitor and manage end-to-end power and IT infrastructure

Grid

Boyd Thermal is the global leader in liquid cooling, providing data center operators with world-class thermal performance, reliability and scalability

2026E sales

\$1.7 billion

2026E adj. EBITDA

-25%

Employees

5,200+ total (500+ engineers)

Manufacturing locations

16

Broad portfolio of cooling solutions

Coolant distribution units (CDU)



Cold plates and manifolds

liquid cooling loops

Heat exchangers



Heat spreaders



Thermal control units and sockets



Heat sinks



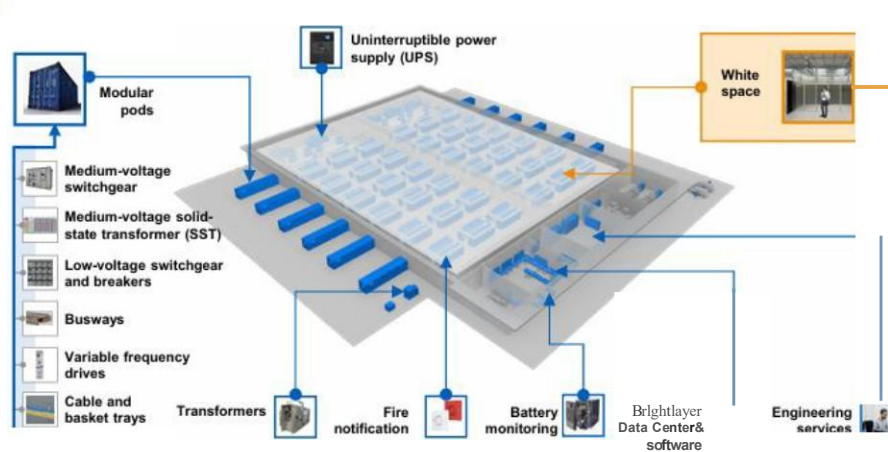
Liquid cooled chassis



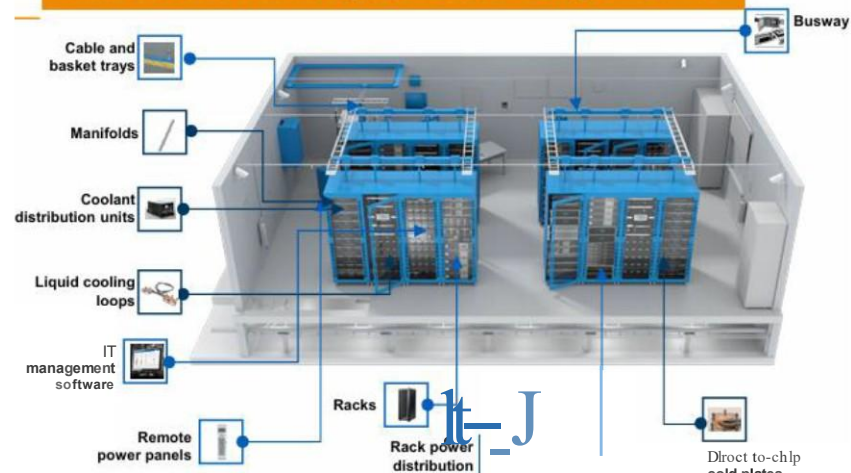
- Boyd Thermal's engineering expertise enables the business to solve for complex thermal challenges, working closely with customers' engineering teams throughout the lifecycle of their platforms
- Boyd Thermal's global manufacturing and supply chain teams support hyperscale and colocation customers during the rapid build out of data center infrastructure around the world
- -80% of the Boyd Thermal's business supports the data center segment, and it also supports other strategic segments requiring high performance and highly-reliable liquid cooling solutions like aerospace & defense and industrial

By combining Boyd Thermal's leading liquid cooling solutions with our broad power management portfolio, Eaton can meet the accelerating needs of data center customers for more integrated, modular and scalable systems solutions

AI data center

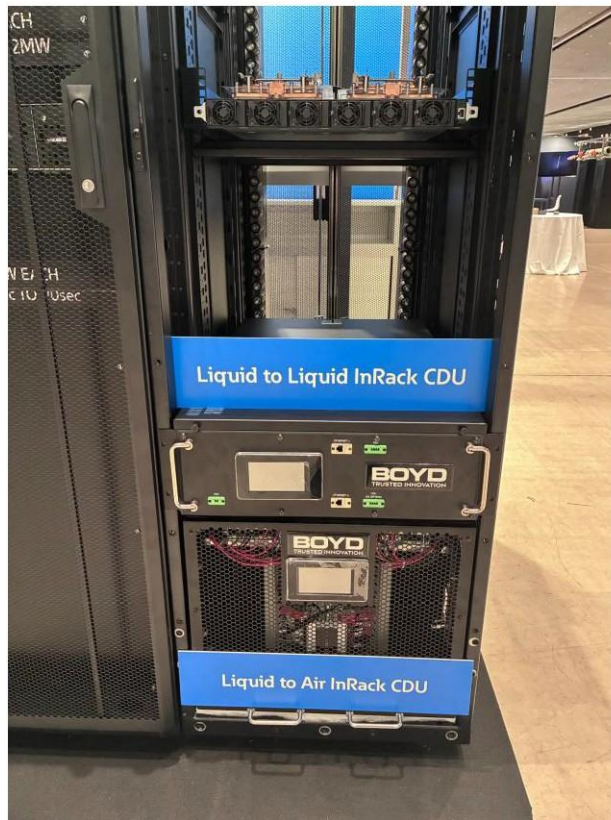


AI data center white space: Eaton + Boyd Thermal



Combined portfolio covers the critical power and cooling needs in the data center white space

Eaton OCP Rack/Busbar/Powershelf and BOYD Liquid-cooling



Front

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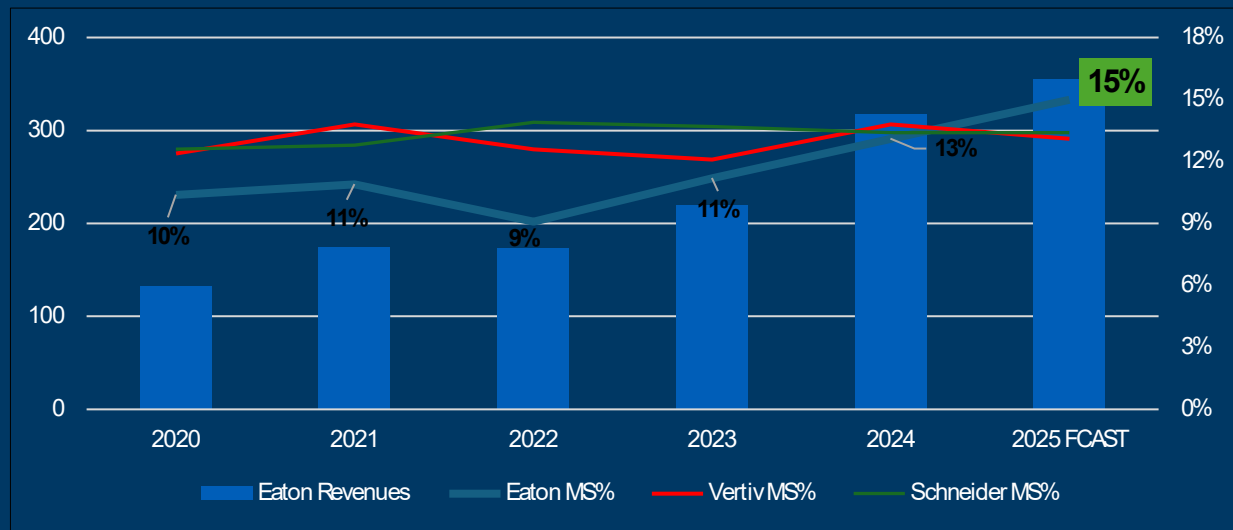


Rear

3-Phase UPS for IT



Eaton 3ph UPS EMEA market share evolution – Dell'Oro Group Sep 2025



Eaton Market Shares 2025 H1:

- Total 3ph UPS 15%
- Large (>250 kW) 20%
- Small/Flow (≤ 250 kW) 9%

2025 forecast:

- ~\$350M revenue
- 5200 UPS's
- Delivering 1.9 GW of UPS power to the market

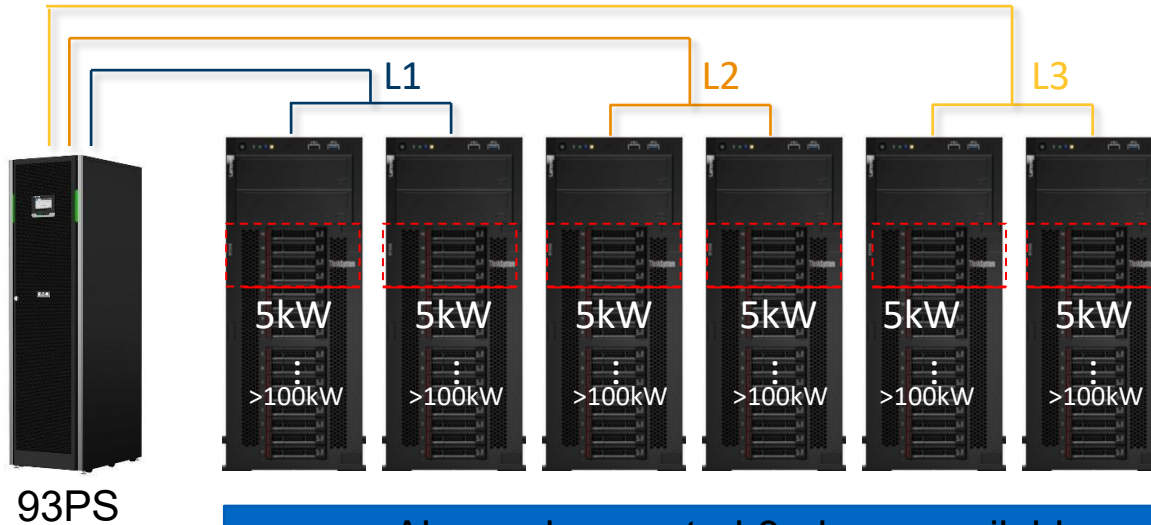
Growing power density

More power is needed per rack as power density grows



Growing power density

More power is needed per rack as power density grows



Benefits

- More server space
2U+2U
- Space for more revenue generating equipment
- Usually higher efficiency
- Internal redundancy (N+1)
- Maintenance



Also rack-mounted 3-phase available

93PX 15-20 kW UPS

Now also with backfeed protection included!



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Standard 3-phase UPSs

Modular Offering

Eaton 91PS & 93PS
8 – 40 kVA

Power Xpert 9395P
250 – 1200 kVA

Eaton 9395X
1020 – 2250 kVA

Eaton 93PM
30 – 500 kVA

Eaton 93PM G2
50 – 360 kVA

Tower Offering

Eaton 93E G2
100 – 200 kVA

Eaton 93T
15 – 80 kVA

Rack Mount

Eaton 93PX
15 – 20 kVA

Redundancy – maximum availability

50 kW
UPM



Example: customer needs 150 kW uninterrupted power with redundancy

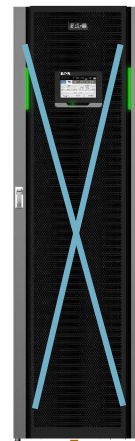
UPM level redundancy

- 3 x 50 kW = 150 kW
 - Provide 4 x 50 kW for redundancy
-
- + Tolerates one UPM failure
 - + Faulty UPM automatically isolated
 - Critical failure outside UPMs leaves load unprotected

UPS level redundancy

- 2 x 150 kW UPSs
 - Parallel connection
-
- + Tolerates one UPM failure
 - + Tolerates one UPS failure
 - + Faulty UPM automatically isolated
 - Failure upstream/downstream may compromise load

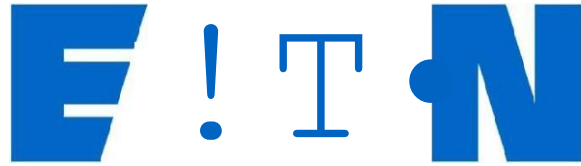
150 kW
UPS



150 kW
UPS



Parallel connection



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