

Online Seminar

“Go and Grow” – All-in-one Edge Data Center
Garvin Scheuermann





*Das Online Seminar
findet live statt und wird
aufgezeichnet.
Keine Aufzeichnung von
Teilnehmerbeiträgen.*



*Bitte das Mikrofon
stummschalten, um
Störungen zu vermeiden.*



Für Fragen bitte Chat nutzen.



*Bei speziellen Anliegen,
bitte eine E-Mail senden:
Garvin.Scheuermann@deltaww.com*

Herzlich Willkommen!



1 COMPANY INTRODUCTION

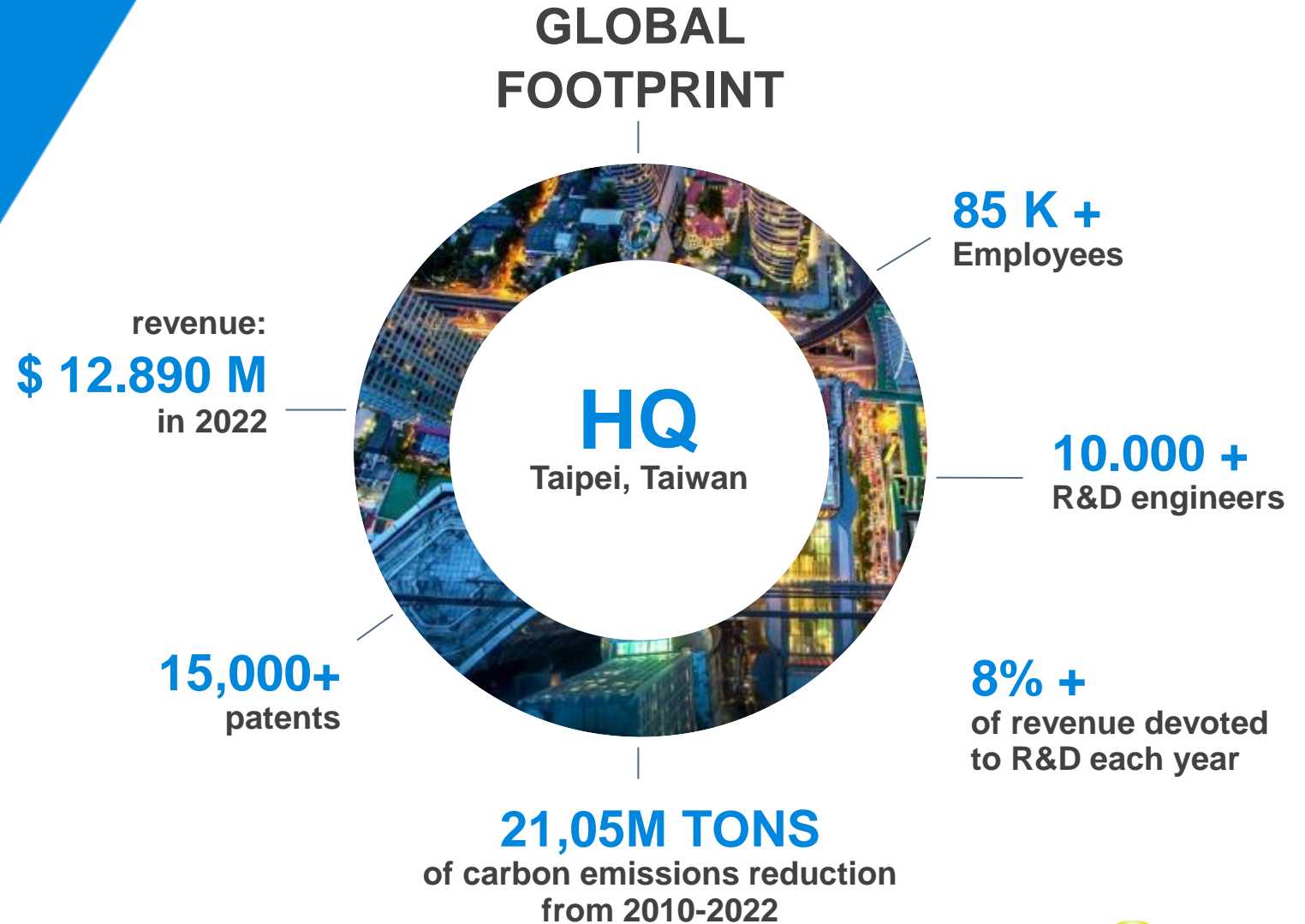
2 INDUSTRY AND APPLICATION OF XUBUS NODE SOLUTION

3 XUBUS NODE INTRODUCTION



A global leader - Since 1971

Delta Electronics is a global leader in Power Electronics, Automation and Infrastructure. For more than 50 years, we have been providing the world with innovative, clean and energy-efficient solutions for a better tomorrow.





Providing Energy-saving Solutions for Your Industry



**Power
Electronics**



**Industrial
Automation**



**Building
Automation**



**LED Lighting
Solutions**



**Vivitek &
Delta Display**



**EV Charging
Infrastructure
Solutions**



**Solar
Solutions**



**Open
Networking**



**Telecom Power
Solutions**



**Mission Critical
Infrastructure
Solutions**

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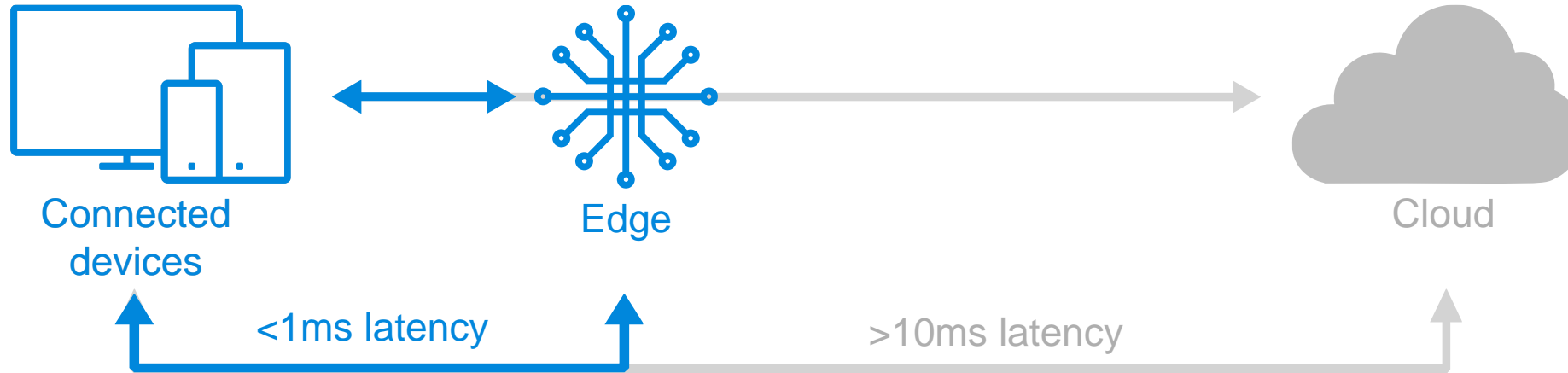
3
XUBUS NODE
INTRODUCTION









5G

The emerging 5G infrastructure opens new opportunities for enterprises and institutions offering critical services to customers and the public. Players within telecom, healthcare, banking and insurance, manufacturing industries, the military and more, are met with high and growing expectations for a superior user experience, with unprecedented speed, capacity, reliability and data security.

Delta Xubus Node solutions are the perfect answer for supporting 5G needs, offering turnkey data centers available in five different IT load configurations from 18 to 90kW. It is an all integrated, plug-and-play solution for rapid deployment with excellent reliability and flexibility

– ready to deliver on the promise of 5G.



Connected Home  <ul style="list-style-type: none"> • Home automation • Building security • Network equipment • Routers • White goods • Tracking applications • Household devices 	Connected Work  <ul style="list-style-type: none"> • Building automation • Building security • Office equipment • Routers • Commercial appliances 	Connected Car  <ul style="list-style-type: none"> • Fleet management • In-vehicle entertainment • Navigation • Self driving • Stolen Vehicle recovery • Insurance management 	Manufacturing Supply Chain  <ul style="list-style-type: none"> • Mining & extraction • Warehousing • Storage
Connected Health  <ul style="list-style-type: none"> • Health monitors • Assisted living • Medicine dispensers • Clinical trials • Telemedicine 	Connected Cities  <ul style="list-style-type: none"> • Public safety • Public advertising • Public transport • Road traffic management 	Retail  <ul style="list-style-type: none"> • Retail goods monitoring • Retail venue access • ATM machines 	Connected Energy  <ul style="list-style-type: none"> • New energy sources • Smart grid & distribution • Micro-generation

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XUBUS NODE
INTRODUCTION

Solution and Capability



Provides total data center life cycle services.

Including consulting, design, simulation, implementation and after sales service.



Provides five standard configurations for quick selection.

Pre-approved options available to meet customer requirements for optimal solutions.



Offers comprehensive power supply implementation.

Including UPS power distribution, cooling system, modular racks and DCIM solutions.



Delivers ALL-IN-ONE solutions that can be highly integrated with different systems.

Prefabricated Data Center Solution



Delta Xubus Node

Key Features

Complete - prefabricated solution equipped with power systems, cooling, distribution elements, IT racks, fire protection and other optional auxiliary systems

Fast - with less planning, less complexity and fewer things that can go wrong, deployment time is reduced to a few days

Smart - exploit available space indoors or outdoors, stand-alone or in connection with existing infrastructure

High performance and predictability - well defined and tested, all-integrated solution, with documented quality

Standardized - yet flexible - available in five different configurations

Prefabricated Data Center Solution

Fully designed and optimized,
deliverable in 5 standard solutions
from 18 to 90 kW IT load with
optional auxiliary systems.

18 kW



35 kW



50 kW

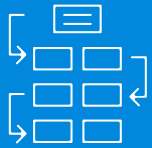


70 kW



90 kW





Conception

Needs & Requirements
Design
Project Plan
Consultancy



Execution

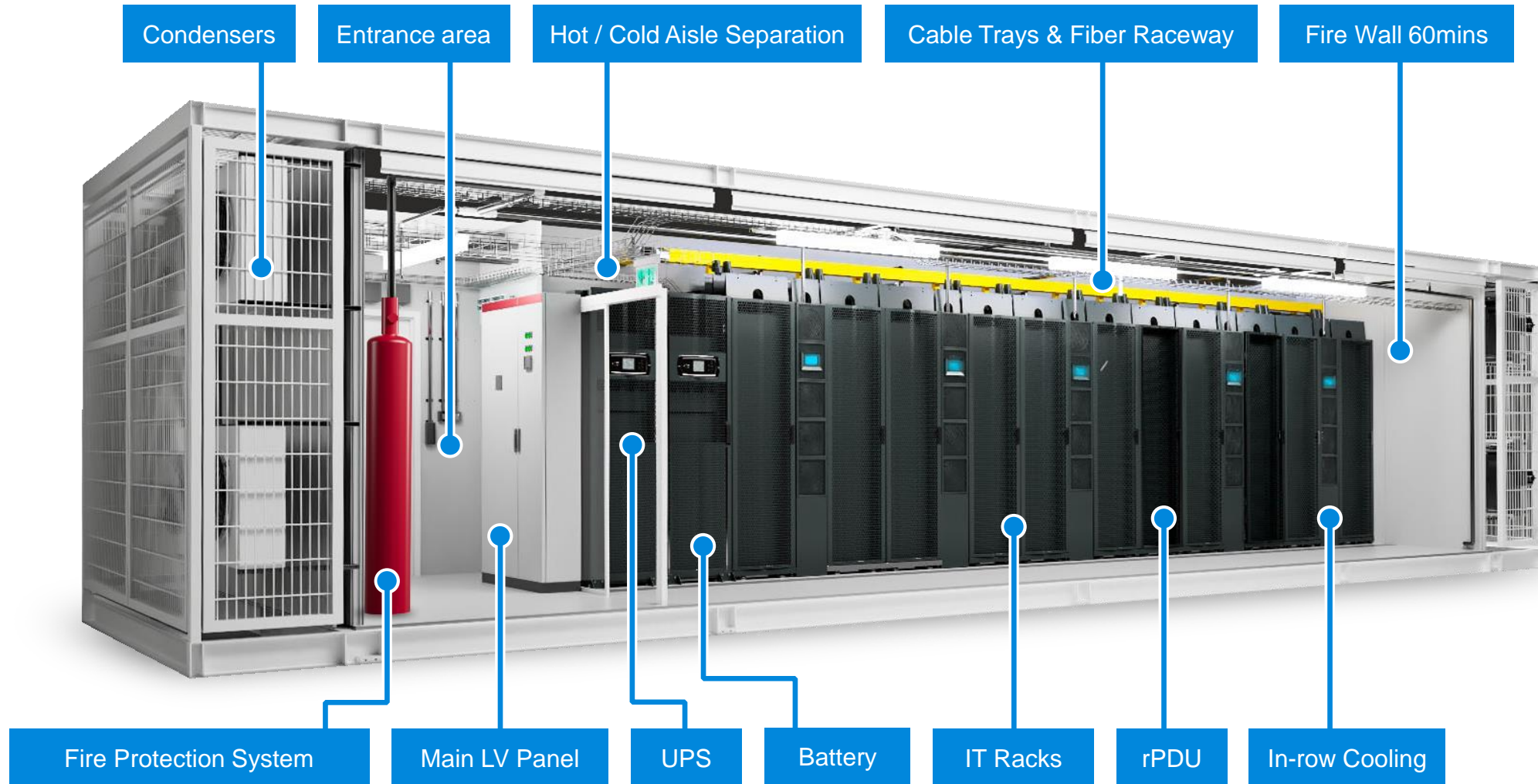
Project Management
Detailed Design
Construction
Installation
Commissioning
Training
Handover



Operation

Maintenance
Upgrades









1

Optimize

All-in-one solution equipped with standard configurations and options to customize.

2

Orchestrate

Pre-engineered architecture aimed to achieve the highest reliability.

3

Operate

Provides total data center life cycle services.





Prefabricated Ready to Go Data Centers

Rapid deployment of pre-engineered module with an all-integrated system enables IT revenue generation at an earlier phase for quicker investment payback.

Robust module structure allows customer to fill complete racks with IT equipment and utilize full rack loads (1420 kg per rack).





Easy to deploy

A traditional data center takes 18 to 24 months to build. With the fully modularized design concept, Delta's containerized data center is flexible and scalable with only a few months for deployment to meet the rapidly growing IT needs.

On site, Plug-and-Play cooling

Cooling system is comprised of DX cooling in-row units with hot swappable fans and distributed control. Standard operating ambient temperature range is -15°C up to $+48^{\circ}\text{C}$.

Remote air-cooled condensers are pre-installed on the module. There is no requirement for additional on-site installation. Mesh cage protect the condensers during and after transportation.



Xubus Node Cooling System

Standard System

Standard system

Hot / Cold
air separation.
No short circuiting

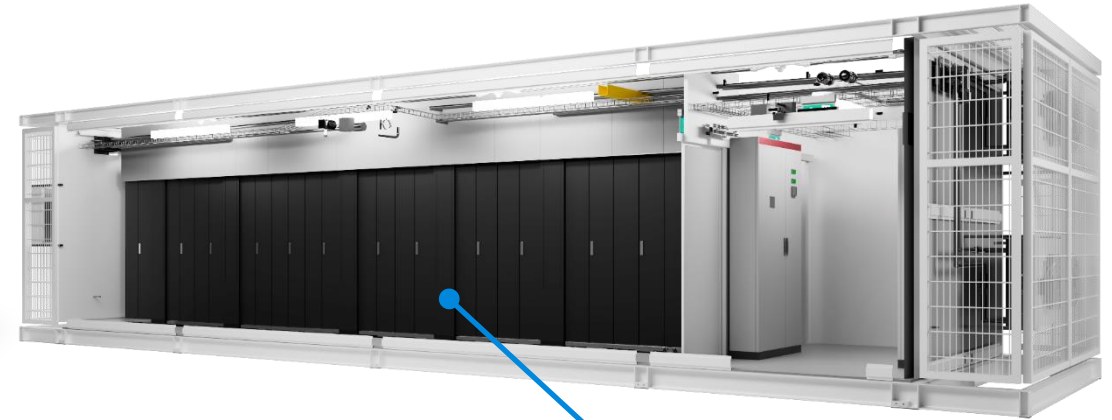
Sliding doors between
entry corridor and white
space enhance
environmental
conditions.

Cooling system
teamwork for energy
efficient design.

N+1 redundancy of
cooling units.



Cold aisle containment



Hot aisle containment

Standard system

- **Reliability levels available:**
 - Tier II (Redundant capacity components)
 - Tier III (Concurrently maintainable system)
- **UPS** - either 400Vac, 380Vdc or 48Vdc
- **Battery system** - 5min (BOL), VRLA type
- **Power Distribution** - Delta RPDC
- **Other Systems**
 - Rack | Delta InfraSuite Rack 42U x 600mm (w) x 1100mm (d)
 - Delta rPDU
 - Smoke Detection
 - Fire Suppression: NOVEC

+ Optional Systems

- ☐ **DCIM:** DELTA Infrasuite Manager



- ☐ **Access Control System**



- ☐ **CCTV** (Vivotek)



- ☐ **Aspirating Smoke Detection**



- ☐ **Fibre cable trays**



Xubus Node Construction

Main Features

Design based on Eurocode and International Building Code (IBC)

Fire rating

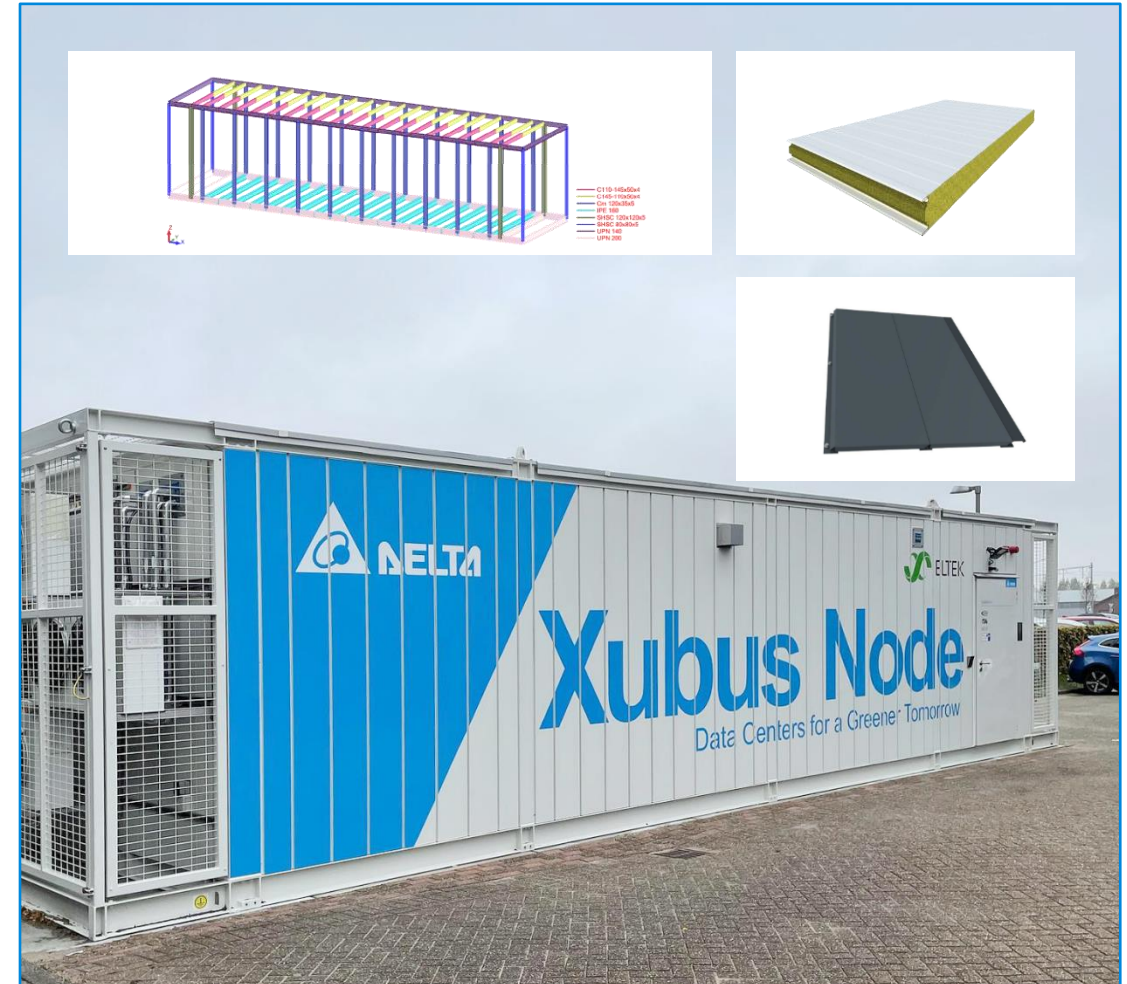
- EI 60min – both directions
- Fire rated cable entrance

Wall structure

- Mineral wool panels
- Exterior light gauge steel cassettes

Outside color

- RAL 9002 as standard color



Xubus Node Power System

Main Features

Main Distribution Board (MDB)

- ATS functionality
- Tier 3 solution with MDB A and MDB B

Power topology – based on Uptime Tier levels

- Tier 2 – Single power path
- Tier 3 – Dual power path (A + B)

UPS System – Modular system (25kW power modules)

- N+1 for Tier 2 topology
- 2N for Tier 3 topology

Battery system

- 5 min backup time (BOL)
- VRLA type

Rack PDUs

- Each IT rack equipped with metered PDU
- Tier 3 solution with 2 x rPDU per rack



Xubus Node Cooling System

Main Features

Cooling units – DX technology

- In-row type
- N+1 redundancy in units
- Tier 3 solution with ATS integrated in unit

Cold/Hot Aisle separation

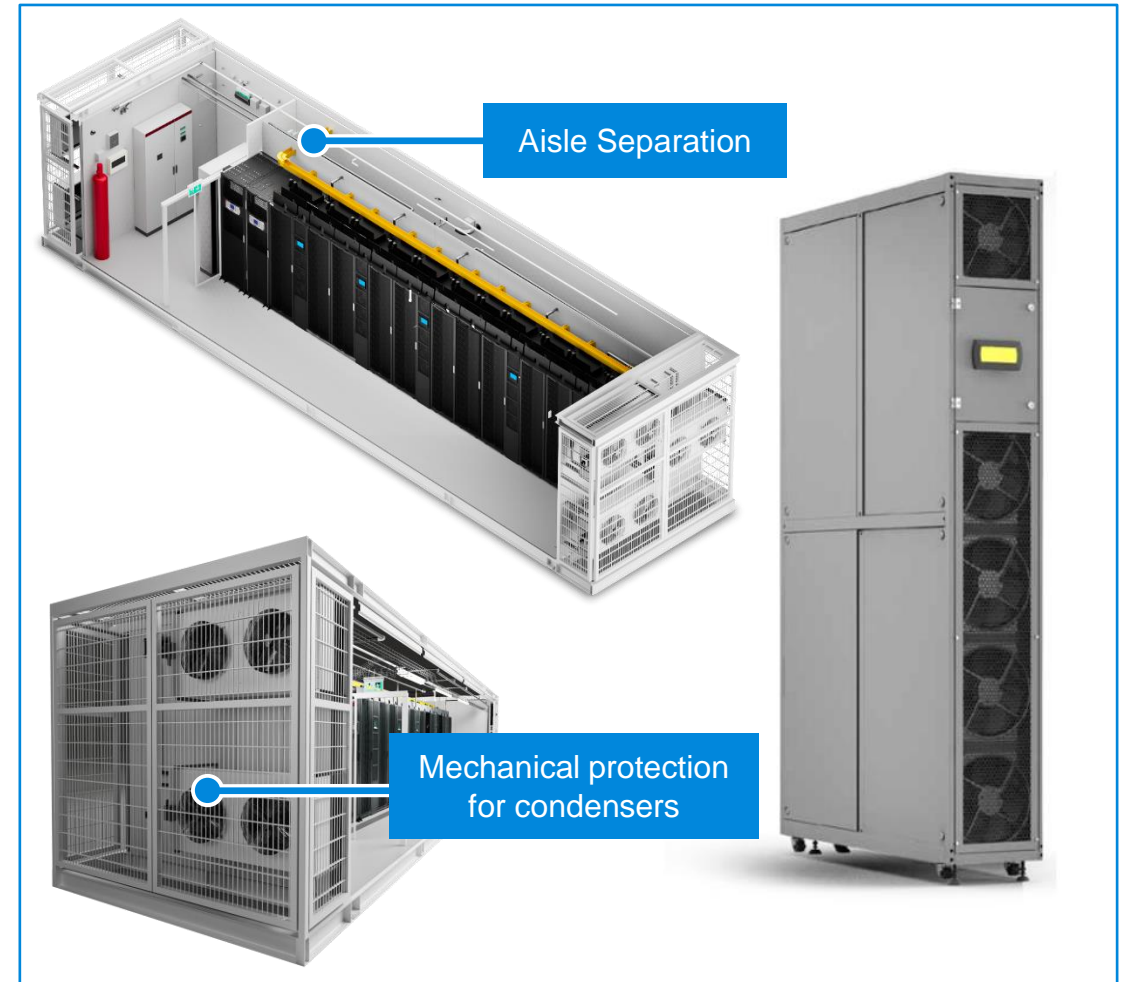
Operating external temperature

- -15°C to +48°C

Temperature and humidity control

- Humidity control - Humidification & dehumidification

Liquid detection / Clogged filter alarm

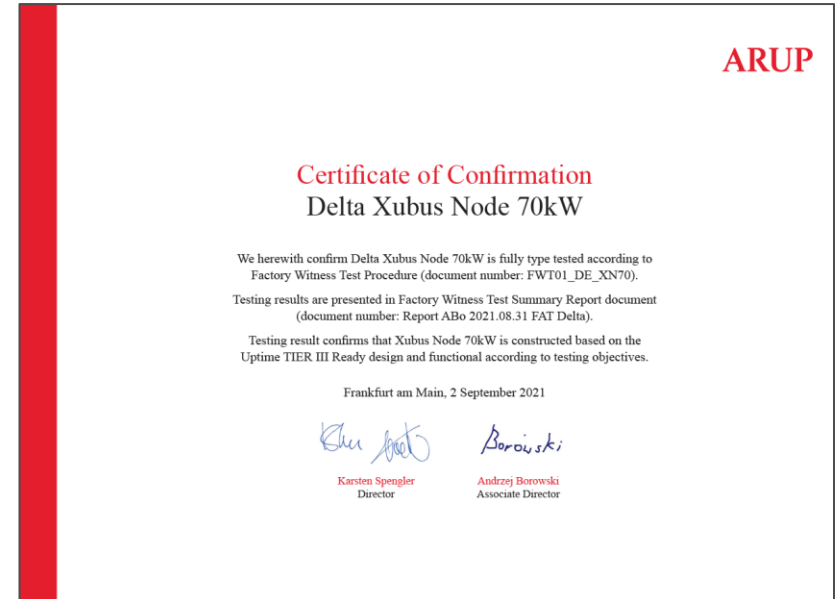




A Tier III certified data center is concurrently maintainable with redundant components as a key differentiator, with redundant distribution paths to serve the critical environment. Unlike Tier I and Tier II, these facilities require no shutdowns when equipment needs maintenance or replacement. The components of Tier III are added to Tier II components so that any part can be shut down without impacting IT operation.

"Prefabricated and Modular data centers have been on a growth trajectory for the past several years as organizations strive to bring business services closer to their constituents. The TIER-Ready program simplifies and speeds up the certification process, while reducing costs for both the manufacturer and the end-user."

Christopher Brown,
Chief Technical Officer
Uptime Institute



"Testing results confirms that Xubus Node 70 kW is constructed based on the Uptime TIER III Ready design and functional according to testing objectives."

Data Center Solution Team Certification

EN 50600

Data Center Design &
Auditing according to
EN 50600 &
ISO/IEC 22237-X



TIA

CTDC | Certified TIA 942
Design Consultant



Uptime

ATD | Accredited Tier
Designers



C-NET

Certified Data Center
Design Professional





*Die Recording-Funktion
ist ab jetzt deaktiviert.
Es erfolgt keine Aufnahme.*



Für Fragen bitte Chat nutzen.



*Bei speziellen Anliegen, bitte
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Garvin.Scheuermann@deltaww.com*

Fragen?

Bitte Chat nutzen!



Smarter. Greener. Together.

Thank you!

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