Efficient, high-performing
Carrier HVAC solutions

Lifecycle solutions for complete data center optimization

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Proven Expertise

Carrier is the leading global provider of healthy, safe, sustainable and intelligent building and cold chain solutions.

ENERGY MANAGEMENT

HEATING

AIR TREATMENT

COOLING

Expertise
Recognised in Europe and Beyond

LOCAL TEAMS that make working together easy

Present in over 60 COUNTRIES

Extensive SERVICE

24/7 solutions

TECHNOLOGICAL INNOVATION that has proven itself around the world

Design & Manufacturing in Europe

Nordics

E **Gothenburg (HQ)**
Sales & Service Support

F **Stockholm**
Regional Support Office

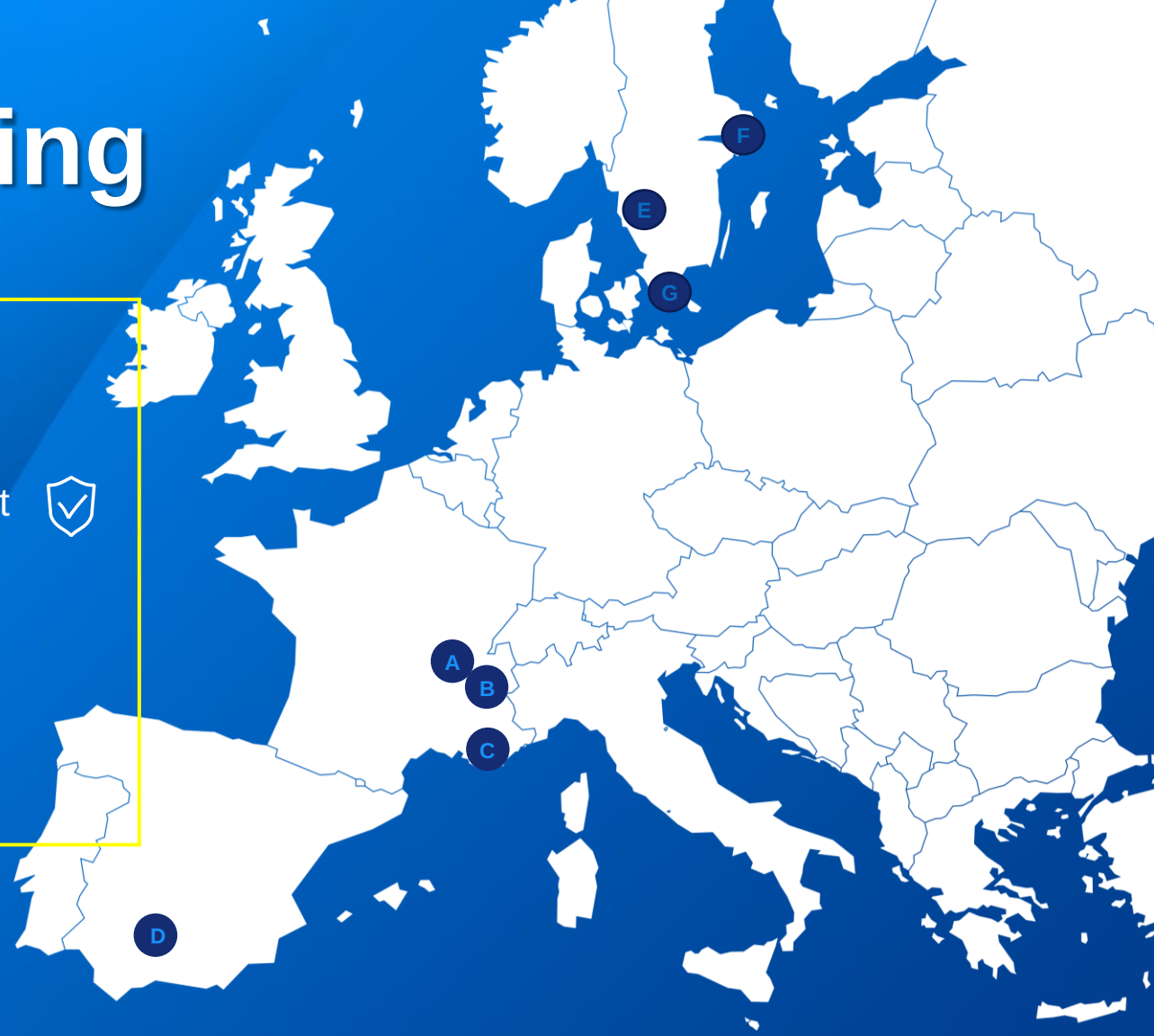
G **Malmo**
Regional Support Office

A **Montluel**
Commercial Chillers

B **Culoz**
Airside products

C **Vence**
Control systems & Connected services

D **Montilla**
Rooftop & Light commercial chillers



Nordics

3 Centres of Excellence

4 Centres of Excellence

3 Production Sites

Carrier

Carrier proprietary and confidential

Designed for the data center

YOUR CHALLENGES

Lifecycle solutions for complete data center optimization

- Efficiency
- Trusted Partner
- Availability
- Cooling System Solutions
- Flexibility

OUR FULLY-INTEGRATED DATA CENTER SOLUTIONS

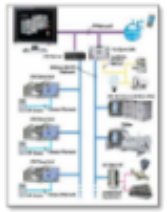
Designed for the data center

CARRIER'S BROAD & DEEP OFFERING

Climate Controls

Chillers

Air Handling Units



Integrated Controls

Services

Life Safety

Detection & Alarm

Integrated incident Management

Suppression

Security

Access Control & Credentialing

Video Management Systems

Authorized Rack Access

Building Automation

Critical Infrastructure Automation

Energy Reporting

Dashboards

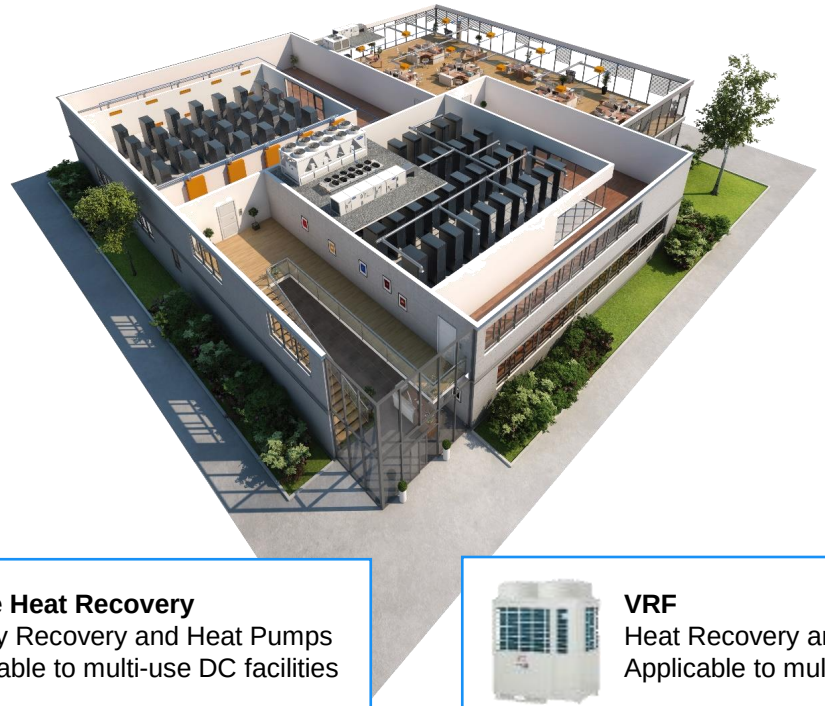
DATA CENTER LIFECYCLE SOLUTIONS

Carrier Automated Logic

Air Cooled Chiller
w/ Free Cooling

Computer room air handlers
w/ controls

Centrifugal chiller +
Chiller Plant Energy Optimization



Waste Heat Recovery
Energy Recovery and Heat Pumps
Applicable to multi-use DC facilities

VRF
Heat Recovery and Heat Pumps
Applicable to multi-use DC facilities

Kidde EDWARDS

D&A, Gas suppression

Aspirating Smoke Detection

MARIOFF

Water Mist Fire Suppression

LENEL·S2

IP camera, access control

Maximize Uptime

Meet Sustainability Goals

Support Increased Workloads

Reduce Costs

Improve Efficiency

Carrier

EFFICIENT, HIGH-PERFORMING HVAC SOLUTIONS

Designed for the data center

ONE-STOP SOLUTIONS FOR DATA CENTER

EQUIPMENT

1. Chillers
2. Air handling units
3. Close control units
4. Fan coil
5. Heat exchangers
6. Dry coolers
7. Rooftops

SERVICE

- Connected services
- Connected technicians
- Plant room management
- Rental

ONE-STOP SOLUTIONS FOR DATA CENTER

AquaForce 30XF-Z
Air-cooled
screw chiller

AquaSnap 30RBP
Air-cooled
scroll chiller

AquaEdge
Water-cooled screw
chiller

AquaForce 61XWH-ZE
Water-cooled
heat-pump

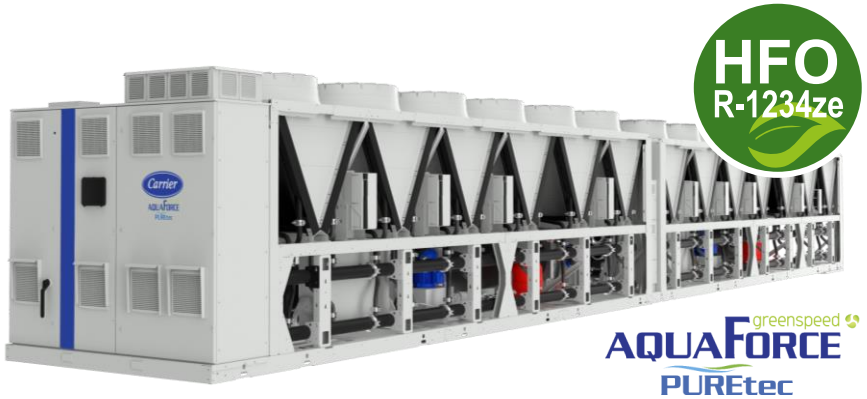
Fan wall AHU
Chilled water

50CJ/CO
Computer room air
handler

39 CZ/CP
Air handling unit

BLUEDGE
Carrier Services

AQUAFORCE® PURETEC™ 30XF-Z



30XF-Z

Variable-speed screw chiller with variable-speed fans

SEPR **6,10***

EER **3,80****

- Cooling capacity from **300 kW to 2000 kW****
- **Up to 30%** annual energy savings*
- Applications: **Operation 20°C up to 50°C** outdoor air temperature.
- Ultra low **GWP HFO R-1234ze** refrigerant
- High-chilled water temperature production 30°C / 20°C
- Smart Energy monitoring™ (Cooling & Power) / Power Factor 0.98

*in standard condition according to regulation (high temperature process 2016/2281)

**Data center application 30/20 external temperature 35°C

Designed for the Data Center

Hydronic Free-Cooling, optional glycol free

Smart Free-Cooling™

Ultra fast-capacity recovery in less than 90 seconds

Dual Power connection 400/230V

Harmonics Electronic Filter

AIRSIDE OVERVIEW

CRAC / CRAH RECIRCULATION

CRAH - (offer under request)

CW: Chilled water

CRAH - 50CJ W & 50CO W /

CW: Chilled water

CRAC - 50CJ X

DX: Direct Expansion

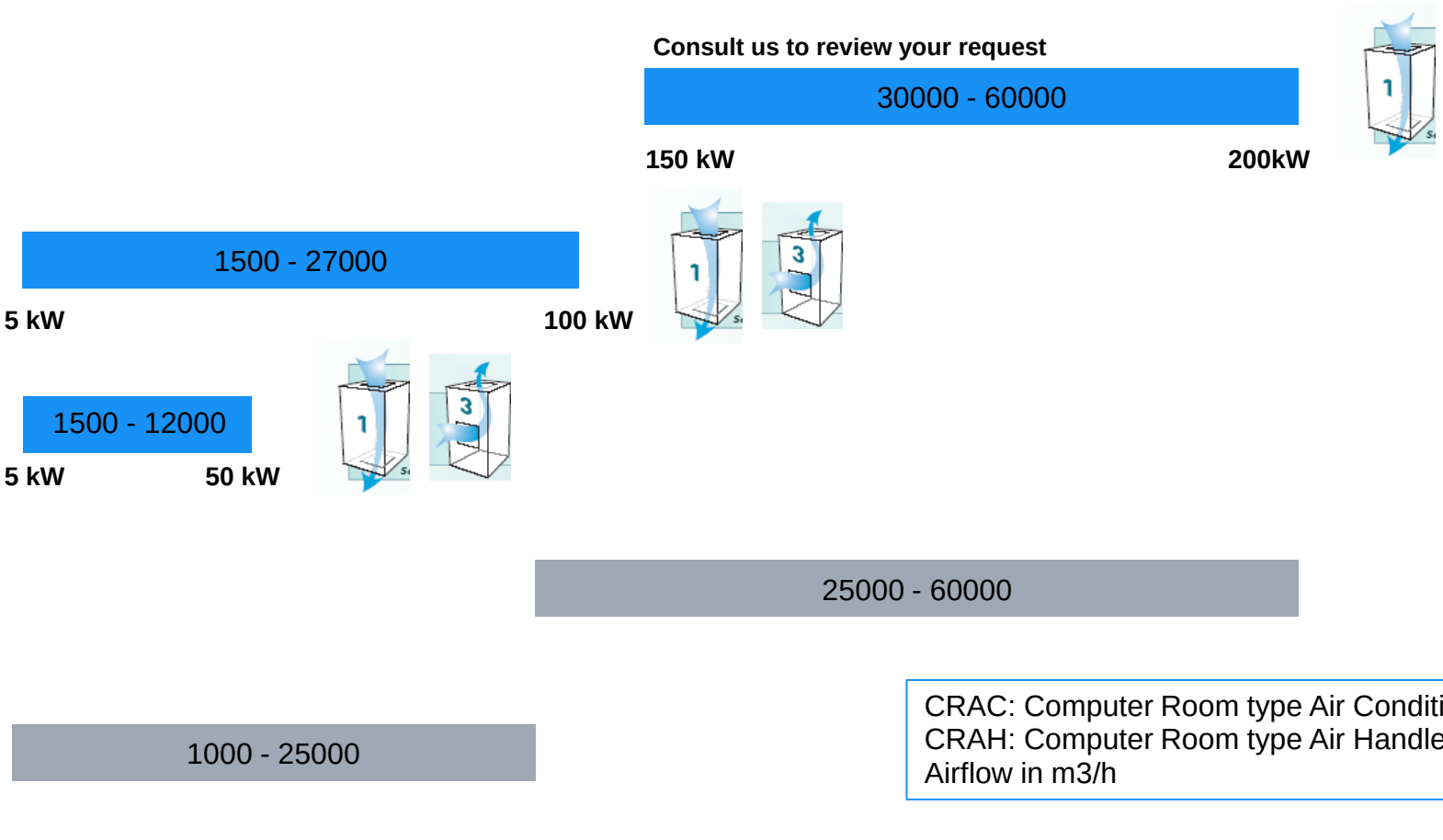
VENTILATION

39CZ

Chilled water or Direct Expansion

39CP

Chilled water or Direct Expansion



CRAC: Computer Room type Air Conditioning (DX)
CRAH: Computer Room type Air Handler (CW)
Airflow in m3/h

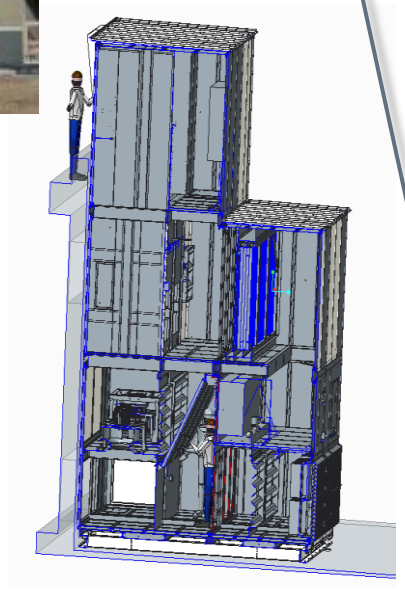
CUSTOMER PROJECT CAPABILITIES

Some example of ‘’customer engineered projects’’ designed by ETO and quoted by product support team:

DATA CENTER PARIS

Data Center in Paris: 74 AHU – 55 000 m3/h, 250 kW

Lab test in Culoz



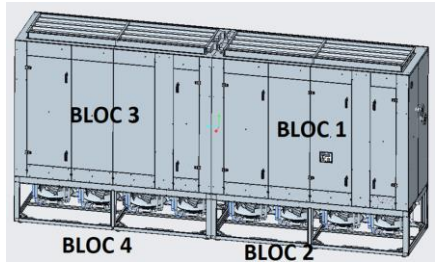
ETO Culoz Design

DATA CENTER MILAN

16 AHU - 55 000m3/h, 250kW

CUSTOMER REQUESTED DESIGN

Fan Wall Solutions



Example of CRAH 400kW delivered in 4 blocs:

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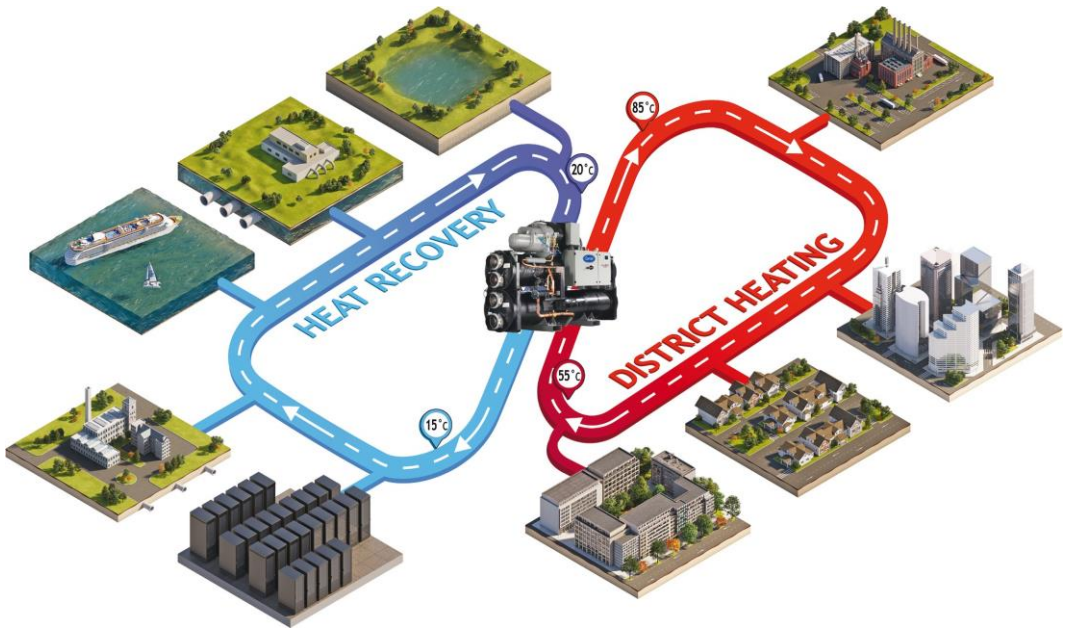
INTEGRATING DATA CENTRES IN SMART URBANISATION



District Heating Networks

- Data centers produce a **big amount of heat t**hat can be **recovered, recycled and repurposed**.
- Communities & neighborhoods **benefit from data centers.**
- Our **heat-pump solutions recover h**eat rejected by data centers delivering **<85°C** to local / district heating grid.

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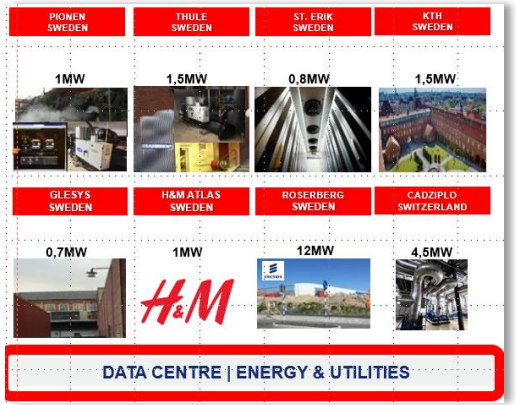
- Proven in projects delivered throughout Europe, many in the Nordics



NEXT LEVEL, INTEGRATED MANAGEMENT SOLUTIONS

Designed for the data center

CARRIER INTEGRATED MANAGEMENT SOLUTION

Benefits

- **Increased efficiency**
  of power, cooling and space by matching capacity with actual and forecasted demand
- **Minimized disruption**
  from planned maintenance or unforeseen failures of power, thermal or building systems
- **Improved reliability**
  through end-to-end, unified visibility of all critical systems

INTEGRATED DATA CENTER MANAGEMENT (IDCM)

Integrate the various systems within your data center to achieve next level insight and control for increasingly complex computing and supporting infrastructure.

- Single integrated solution
- Uses best-in-class technology from Automated Logic and Nlyte
- Enables new strategies for reducing energy usage, lowering costs and improving resiliency

Nlyte Software

AutomatedLogic

TWO NLYTE SOFTWARE BENEFITS

Asset Optimizer

Bring automation & efficiency to asset lifecycle management, capacity planning, workflow integration and audit and compliance tracking.

- Open and scalable solution
- Simplifies space and energy planning
- Connects with ITSM and BI applications*
- Allows you to easily manage and monitor all your assets

*IT system management" and "Business Intelligence

Energy Optimizer

Manage and track your data center power chain to improve energy consumption, reduce disruptions and track performance across all your locations.

- Highly scalable, hardware agnostic solution
- Monitors power and cooling
- Delivers threshold alarming

Displays real-time and historical analytics.

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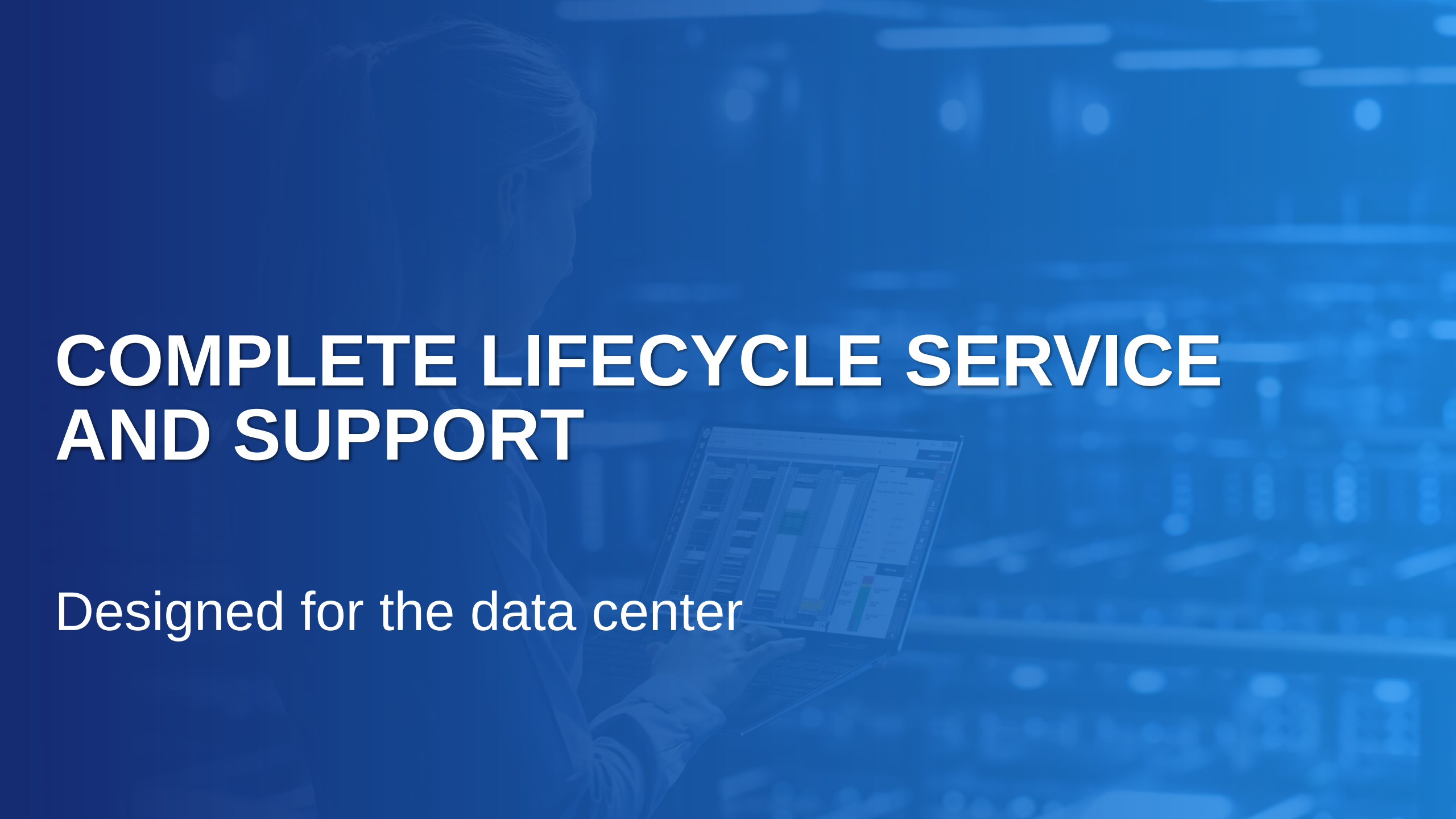
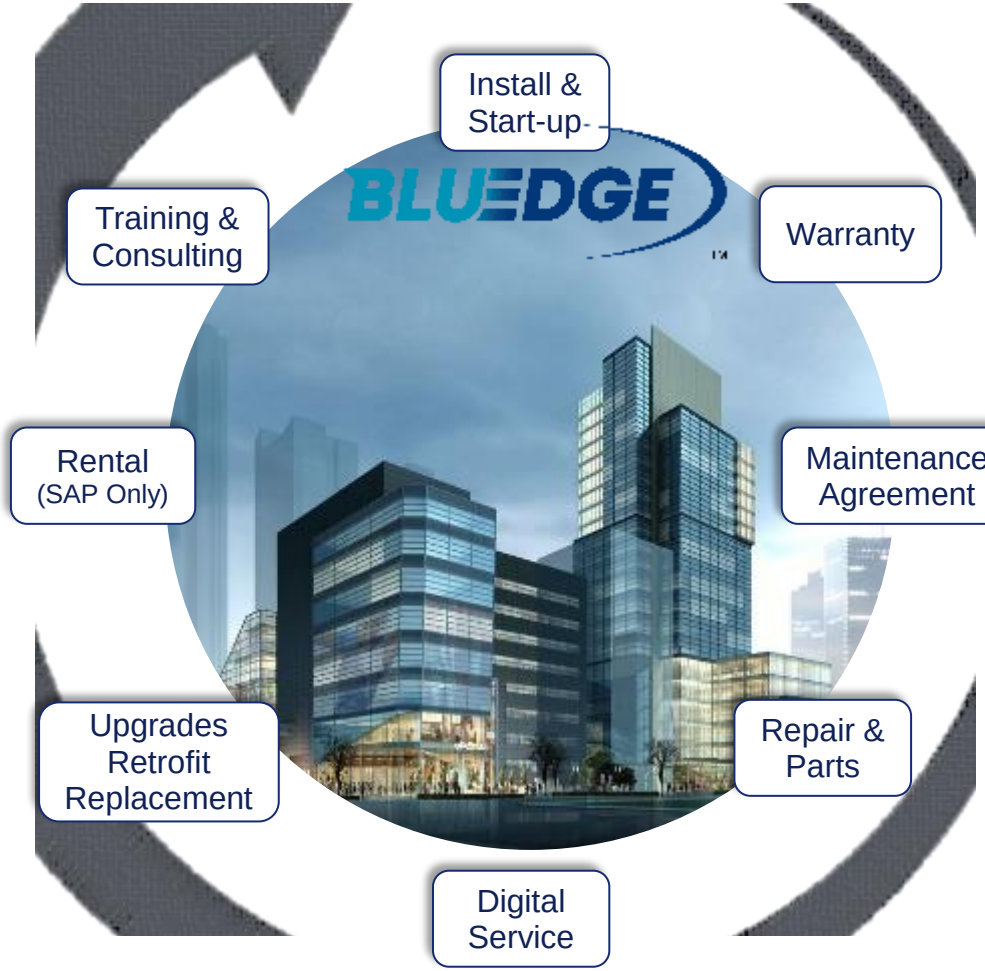


COMPLETE LIFECYCLE SERVICE AND SUPPORT

Designed for the data center

IMPROVE INFRASTRUCTURE MANAGEMENT

Carrier HVAC Service Offerings



Reliability & Resiliency

- Digital Service
- Preventative Maintenance Service
- Comprehensive Maintenance Service
- 24/7 Emergency Support
- Rental Equipment
- Remote Monitoring

Energy Efficiency

- Energy Audits
- Retro-commissioning Service
- Chiller Plant Upgrades & Retrofits
- Controls Upgrades
- High Efficiency Chiller Plant Design
- Guaranteed Performance Turnkey Chiller Plant
- Turnkey Chiller Plant Replacement
- LEED/WELL Certification
- Carbon Reduction Consulting
- Carbon Reduction Solutions
- Cooling-as-a-Service

Operational Excellence

- Extended Warranty
- Remote Inspections & Diagnostics
- Refrigerant Leakage Monitoring
- OEM Spare Parts
- Technical & Operations Training
- Onsite Operation Management

Healthy Buildings

- Healthy Building Audits
- Healthy Building Design Optimization
- Healthy Building Solutions
- Healthy Certified Air Systems

Your Service Partner

a Solution for Every Situation

MODERNISATION
Complete replacement and upgrade of units at the end of their life cycle

CONSULTANCY
Expertise on site assessment and regulatory topics

RENTAL
As an insurance program

BLUEDGE

COMMISSIONING
On-site start up

MAINTENANCE
Regular upkeep of installations

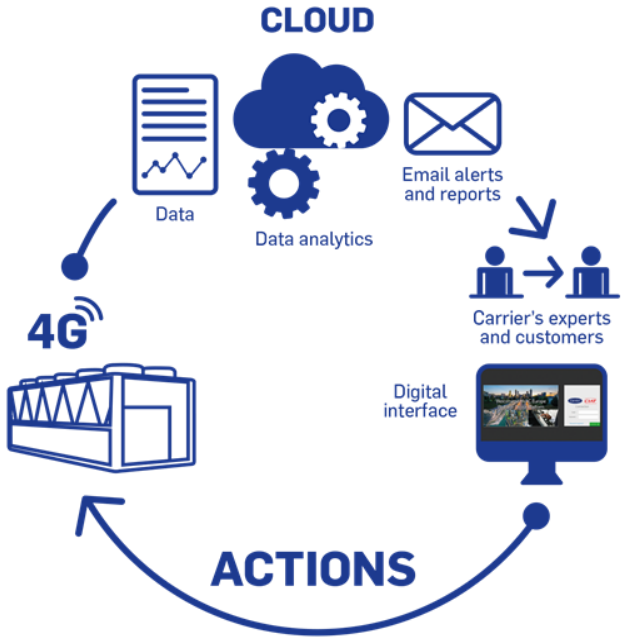
REMOTE CONNECTIVITY
Diagnosis, data analysis

REPAIRS
Punctual breakdown repair, parts direct from manufacturer

ABOUND HVAC PERFORMANCE

Solutions that empower your team to visualise, advise, and optimise the lifecycle and outcomes of your HVAC system.

- 24/7 remote monitoring
- Proactivity to anticipate breakdowns
- Precision monitoring
- Demonstrated maintenance impact
- Easy and secured access



- ✓ Rooftop performance monitored 24/7/365
- ✓ Real-time data
- ✓ Historical analysis to improve diagnosis and maintenance needs
- ✓ Digitally connected Carrier technicians for quick on-site intervention
- ✓ Carrier experts support to decide on the most relevant actions to take

*** BUEDGE DIGITAL** is the new name for Connected Service – Technology remains the same

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