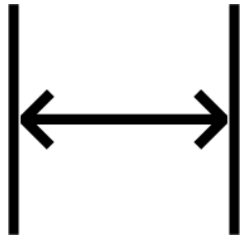
ABB DATA CENTER FORUM 2017, 11 JULY 2017, TUESDAY

Optimizing Data Center Performance by matching electrical infrastructure with business growth

Dave Sterlace, Global Head of Technology, ABB

Challenges for data storage

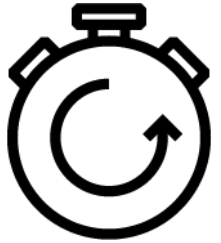
The unique demands of the healthcare sector



Physical space



Budget



Uptime

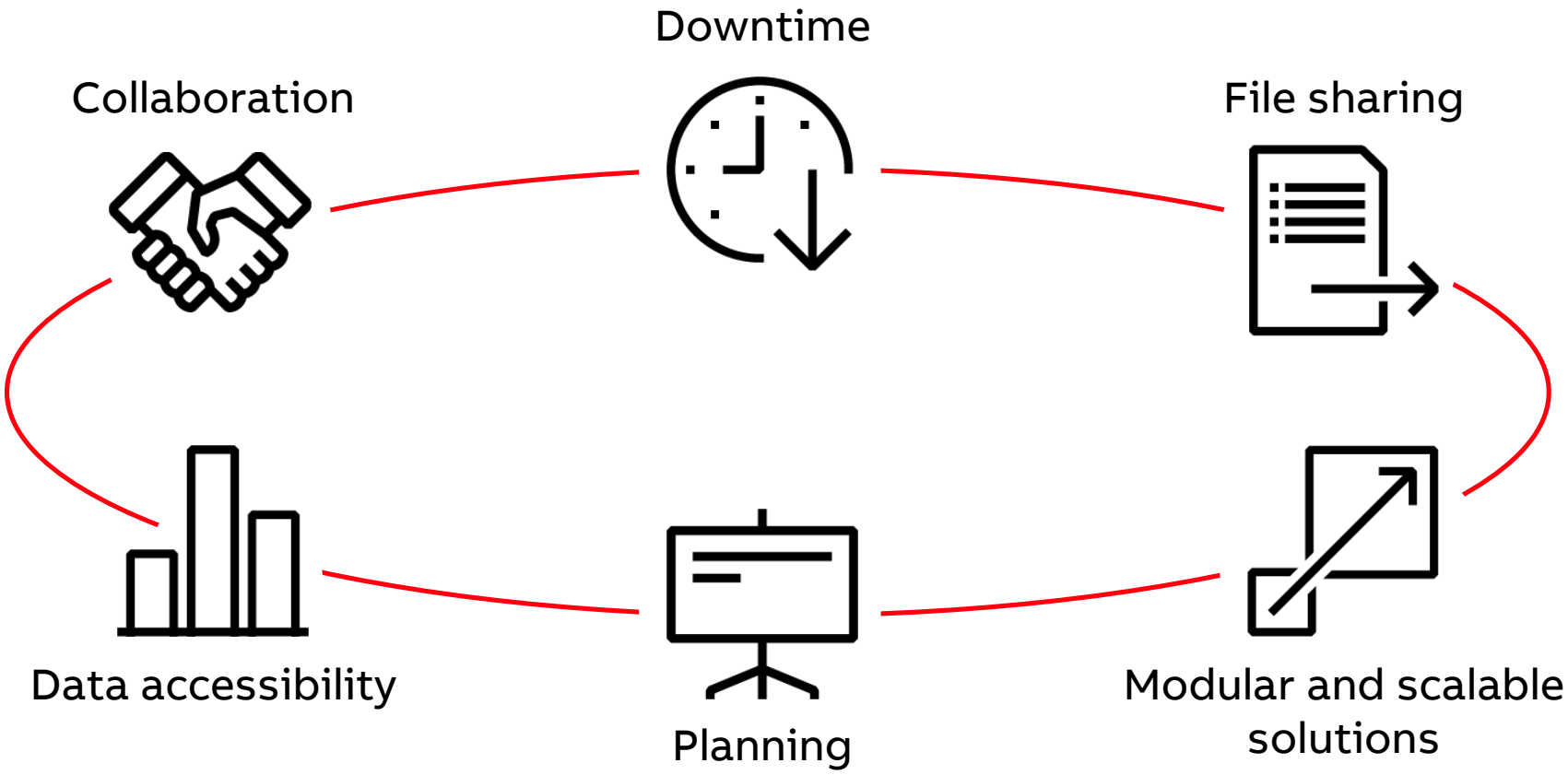
“Demand for IT services in the healthcare sector has grown exponentially in the past few years, but the simple fact is that **hospitals are not designed to house data centers**.”

Stephen Stewart, Assistant Director of Technology and Telecommunications,
South Eastern Health and Social Care Trust, Northern Ireland.

©ABB

Steps to optimize data center performance

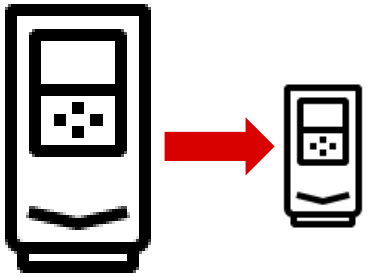
The unique demands of the healthcare sector



©ABB

Common requirements for all data centers

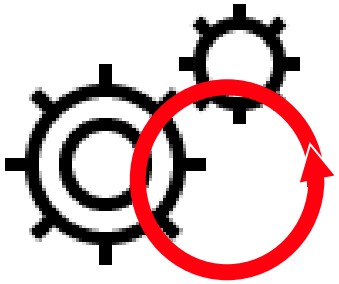
Space savings



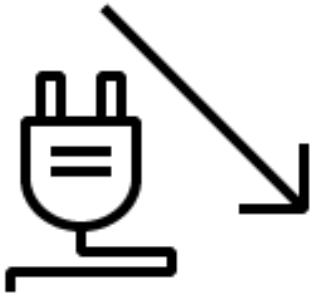
Modularity/Flexibility



Continuous operation



Efficiency



©ABB

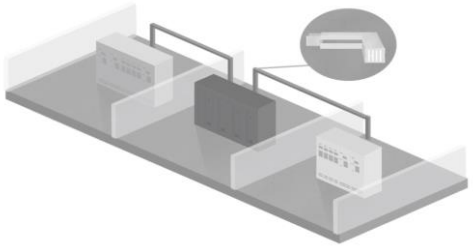
Example of industrializing power architecture: MNS-Up

Combining LV and UPS knowledge

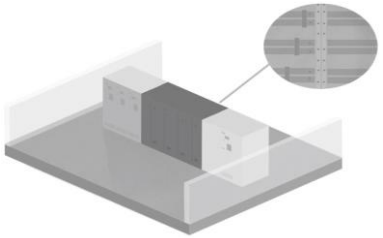
Conventional power supply architectures use standalone assemblies for input and output switchgear and UPS.

- Assemblies physically separated
- Well known and established architecture
- Expensive and space-consuming topology
- Extensive power cabling / bus duct/ bus way
- Separate incoming / outgoing breaker sections
- Complex to scale

MNS-Up combines switchgear and UPS into an integrated, fully scalable assembly



Conventional power distribution system layout, with external bus duct or cable connections

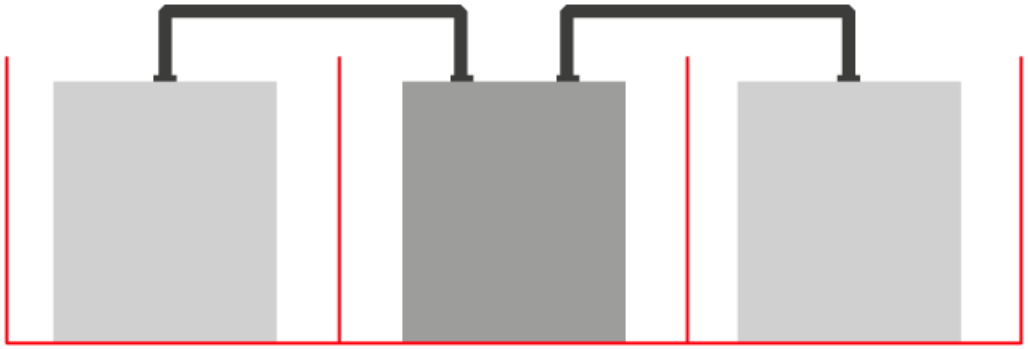


MNS-Up: highly integrated layout, with internal bus bar connections

©ABB

ABB MNS®-Up

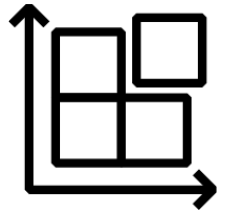
Power distribution and uninterruptible power supply (UPS) in a single, compact system



Conventional power distribution system layout, with external bus duct or cable connections



MNS-Up: highly integrated layout, with internal bus bar connections

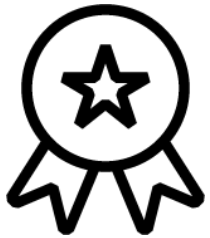


Flexible construction

ABB MNS-Up

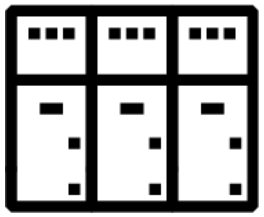
Proven ABB technologies

Inside the box



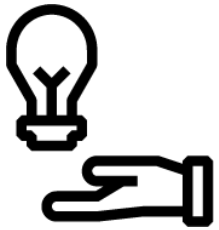
Trusted UPS

ABB Conceptpower DPA 500 UPS



Design-verified switchgear

ABB MNS switchgear with Emax2 circuit breakers



Energy saving software

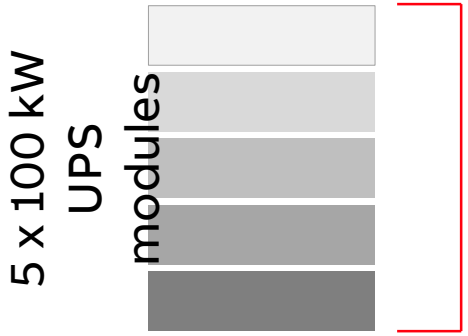
ABB Xtra VFI

ABB MNS-Up

Smart solution

Flexible power

Modular expansion in 100 kW steps



X 6 = 3MW of back-up power

Space saving

500kW system = space saving of up to **20%**

2MW system = space saving of more than **30%**

N+1

Built-in redundancy

©ABB

ABB MNS-Up

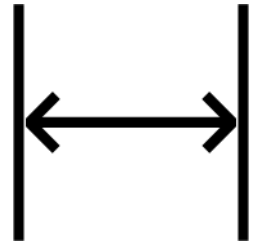
Customer values



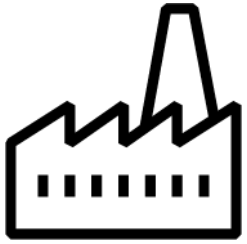
Cost effective: **10% cost savings** in electrical infrastructure



Easy to install: ready for operation **20% faster**



Space savings of more than **30%**



Factory tested



Local service centers

©ABB

Video

Improving data center performance at the University Hospital Basel with MNS-Up solution

https://www.youtube.com/watch?v=Sz-Cqrvwyjo

