

# Prefabricated Data Centers: Are They Right For You?

Emerson Network Power

Eric Wilcox

## Optimizing and Deploying Critical Infrastructure for Today's Mobile, Always-On World

### WHAT WE DELIVER

Hardware, software and services that are intelligent, resilient and rapidly deployable for:

Data Centers

Communication Networks

Healthcare Facilities

Industrial Facilities

### OUR BRANDS INCLUDE

ASCO® Avocent® Chloride® Liebert®

NetSure™ Trellis™



# Agenda

- Prefabricated Data Centres
- Value Propositions
- Design Concept
- T-Systems Case Study
- Summary

# Business Challenge

Colocation  
Services



Expansion /  
New Build



**Rapid  
IT  
Growth**

Cloud  
Services

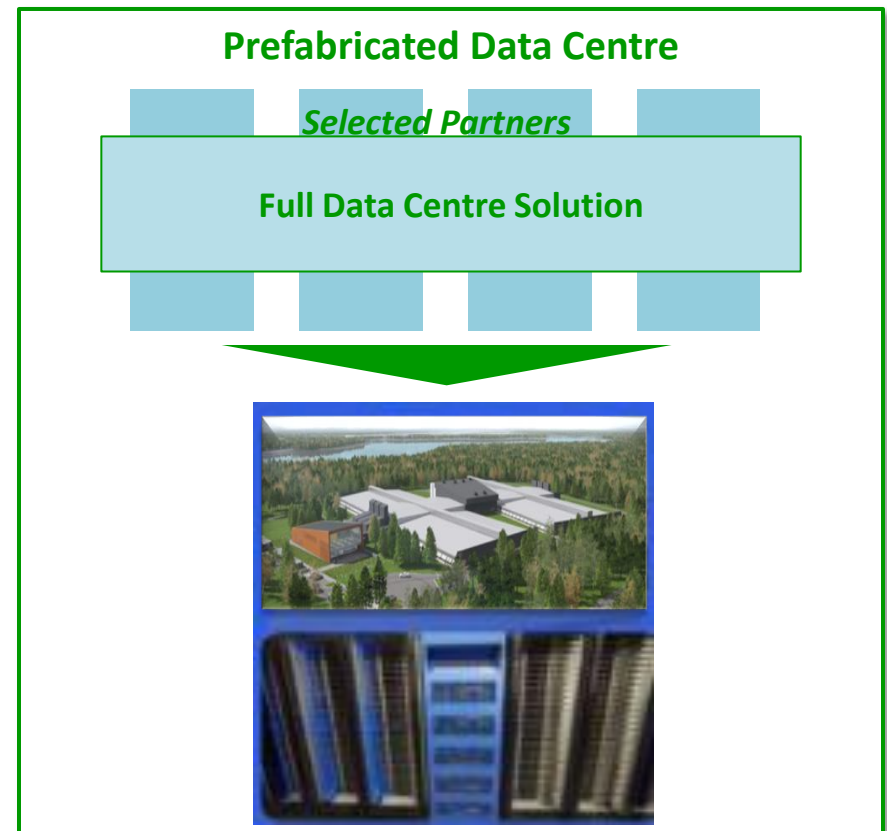
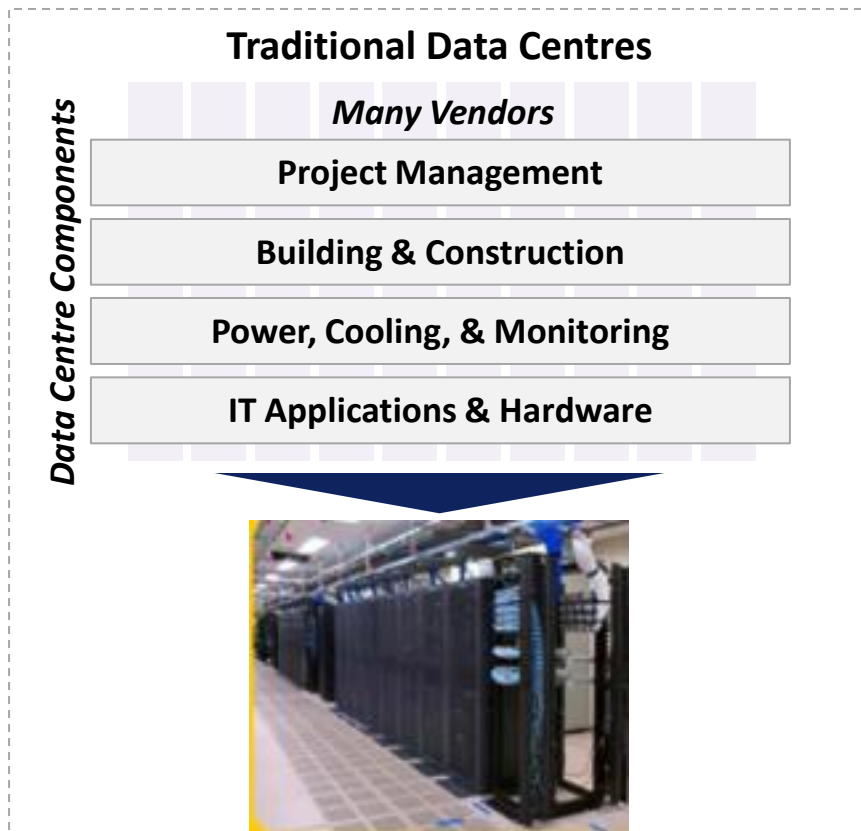


Hybrid



**Decision Factors: IT Application, Resiliency,  
Location, CapEx/OpEx, Staff, and Time to Market**

# New Paradigm: “Data Centre as a Solution”



# Value of Integrating Data Centre Infrastructure

**Rack Level  
Integration & Design**

**Room Level  
Integration & Design**

**Site Level  
Integration & Design**

Examples



**SmartCabinet™**  
Intelligent, integrated infrastructure  
in a rack



**SmartMod™**  
Intelligent, integrated infrastructure  
in a rapid-deployment enclosure



**T-Systems**

Level of  
Design

Pre-Engineered

Pre-Engineered and  
Custom Engineered  
Modules

Custom Engineered  
Building and Modules

Level of  
On- Site  
Services

Minimal  
(Pre-Configured)

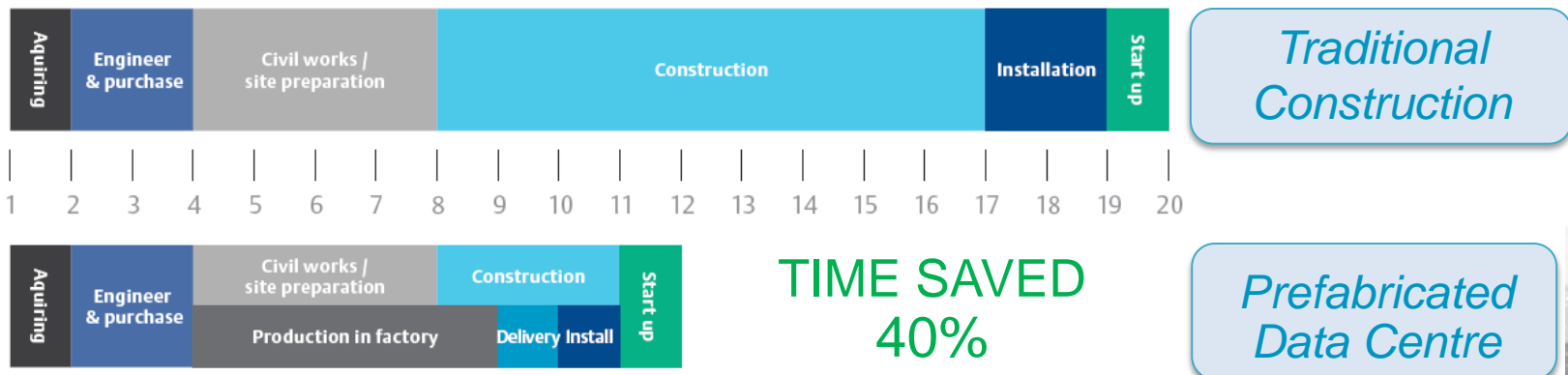
Moderate

Significant

**Prefabricated Data Centres**

# Value Proposition: Rapid Deployment

- **Customer Need:**
  - Quicker Response to their Customers' Unforecasted Demand
  - Faster Time to Revenue
- **Differentiation: Vertical Integration**
  - All subsystems pre-assembled, fully integrated, and tested in a factory with proven Quality Assurance processes (ISO-9001)
  - Fabrication and transportation occur in parallel with site selection, preparation, civil works, and construction



Source: Emerson Network Power Asia Pacific



# Value Proposition:

## Modularity / Scalability

- **Customer Need**
  - Incrementally Build Capacity to Match Demand...
  - ...Or Build BIG Now!
- **Differentiation: Innovative Designs**
  - “Data Centre as a Solution” with fully-integrated systems

Modules



Buildings



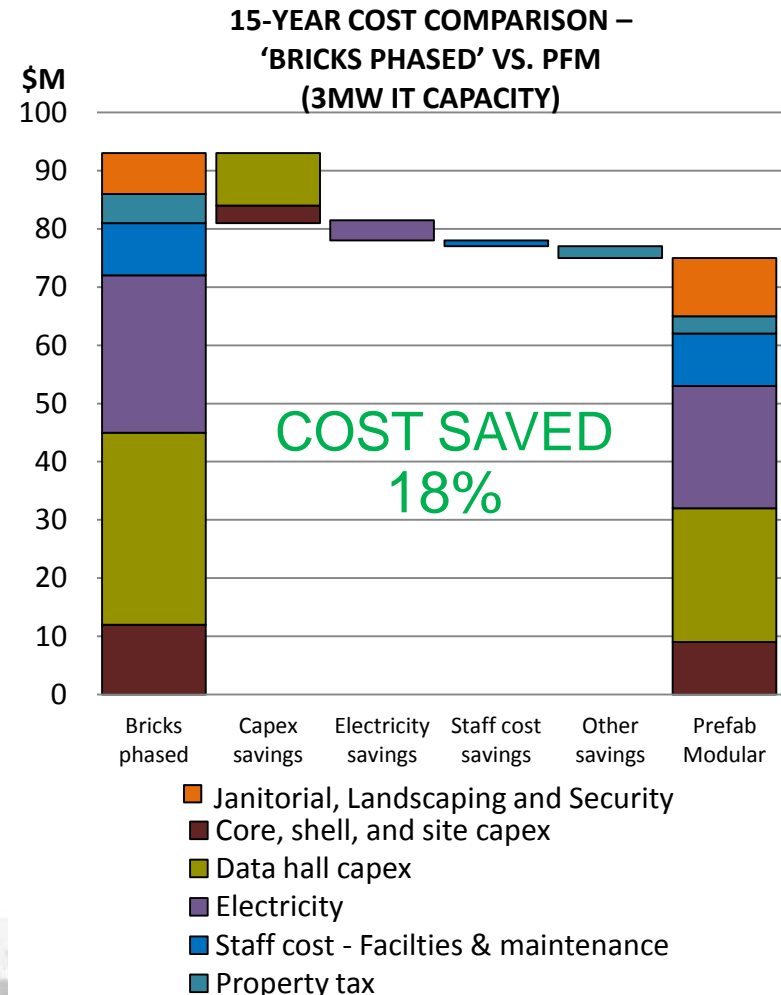
- Deep domain knowledge enables custom-engineered optimization at the building-block and data centre levels



# Value Proposition:

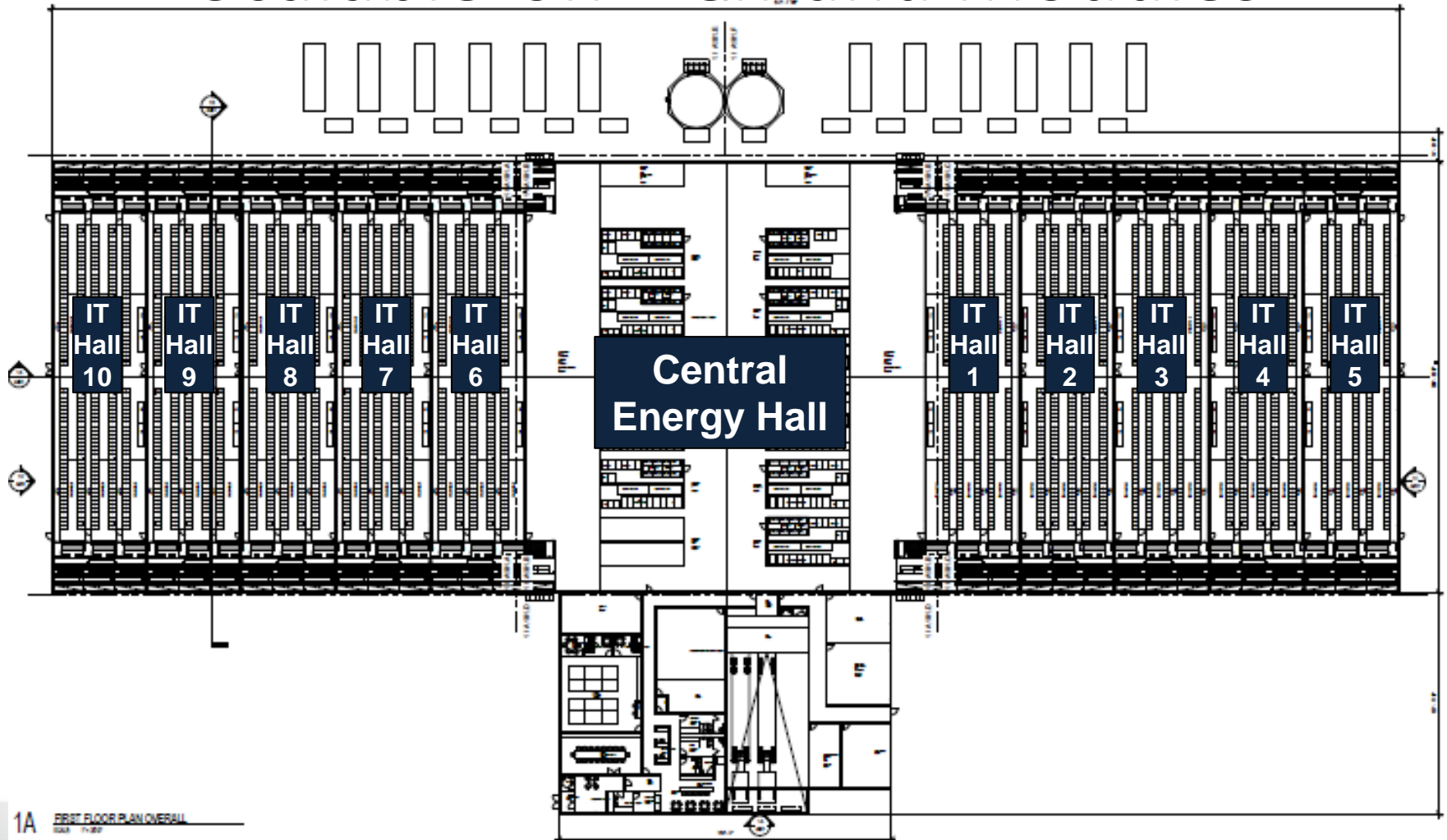
## Lower Total Cost of Ownership

- **Customer Need**
  - **Efficient Capital Deployment (Capex and Opex)**
- **Differentiation**
  - **Vertical Integration**  
Drives Design for Manufacture (↓ Capex)  
and Construction Efficiencies (↓ Capex)
  - **Innovative Designs**  
Drive Smaller Modular Builds (↓ Capex)  
and Higher Facility Utilization (lower PUE) (↓ OpEx)



Source: 451 Group

# Design Concept – Scalable-on-Demand Modules



# T-Systems Case Study

- **BUSINESS NEED:** Pan-European Cloud Services
  - Meet customer SLAs of availability, reliability, security, scalability, transparency, efficiency and sustainability
  - Quickly deploy a state-of-the-art, Tier III, twincore data center
- **SOLUTION:** Modular, Containerized Structure
  - In order to achieve rapid availability and high scalability, which easily allows for future phases of expansion and a staggered investment
- **BENEFITS**
  - Minimized operating costs
    - A PUE of 1.3
    - Reduced overall electrical consumption by 30 percent
  - Recognition by Uptime Institute for 99.98 percent availability
  - Data Center Market award in Spain for the most innovative project



# T-Systems Case Study



▶ T-Systems Time Lapse Video

*“The average lead time for a Tier III data center like the Cerdanyola one is 24-30 months and we managed to build this facility with the identical requirements in just 9 months,” said Raúl. “This translates directly to cost savings and also to a higher profit.”*

*“The modular design gives us increased flexibility and scalability for future investment, while immediately offering an array of benefits for our customers,” said Núria Berché, Program Manager at T-Systems Iberia. “Emerson Network Power worked with us to deliver true expertise and industry knowledge, positioning us to provide a strong cloud platform that serves both domestic and regional customers in Europe.”*

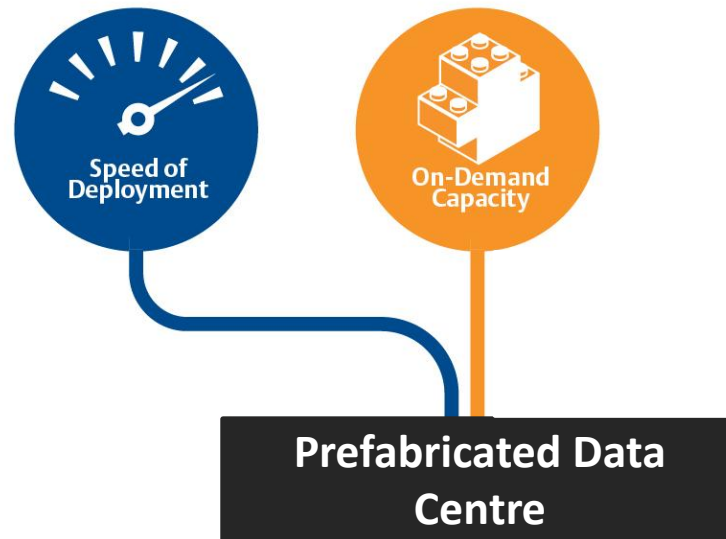
# Summary



**Prefabricated Data  
Centre**

- **Rapid Deployment**
  - High-Quality manufacture/integration/testing at factory, in parallel with site preparation and civil works

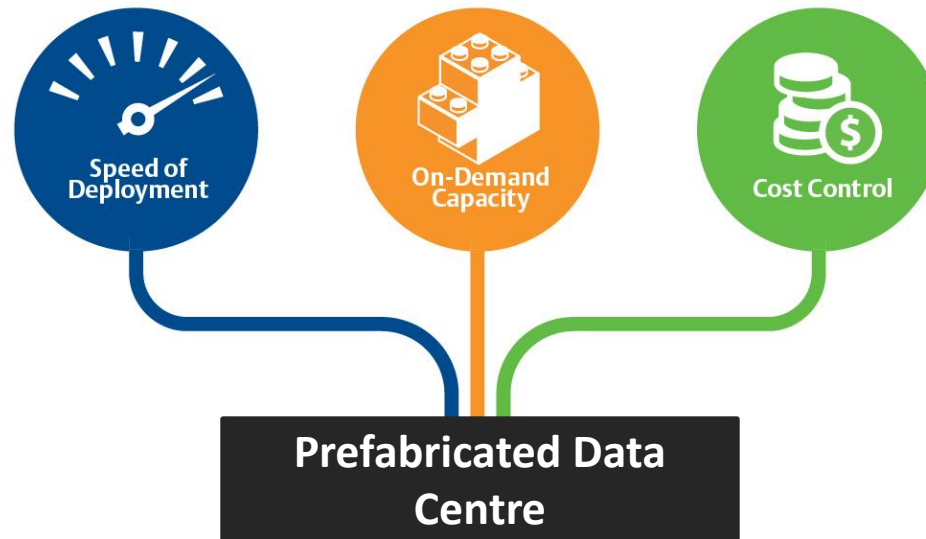
# Summary



- Modularity/Scalability
  - Superior designs that ideally match site requirements
  - “Pay as you Grow” when adding capacity on demand



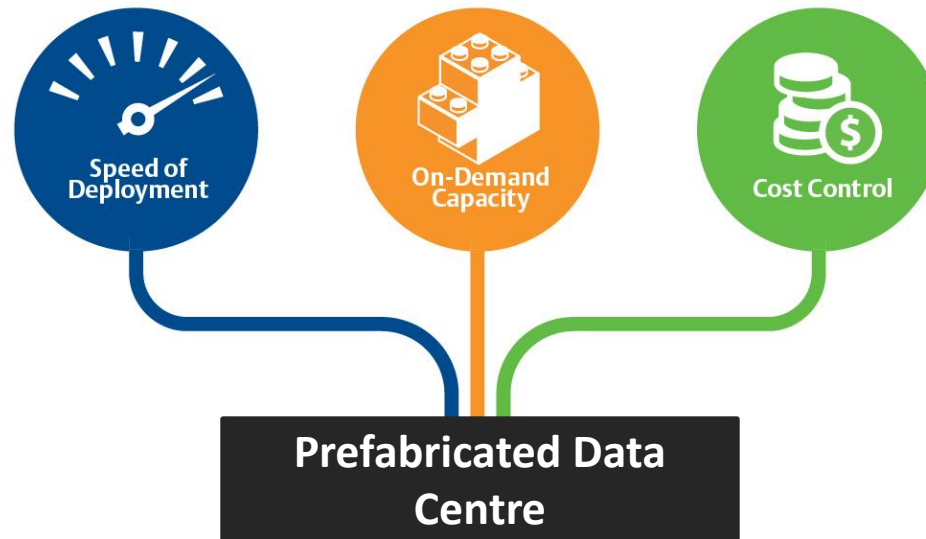
# Summary



- Lower Total Cost of Ownership
  - Real Estate optimization
  - Lower-cost factory labor vs. higher-cost on-site trade labor
  - No stranded capital when you “Pay as You Grow”



# Summary



Prefabricated Data Centers:  
Are They Right For You?

# Contactgegevens

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