

# What are the considerations?

- Build, retrofit or lease?
- How long does my capacity projections give me?
- Green-field makes sense, but getting CAPEX approval?
- Incorporating growth of power rating design
- Life-time operating costs

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• Flexibility for growth, known and unknown



## What is HP Flexible DC?

- An innovative concept which challenges conventional data center design
- An industrialized approach to the mechanical and electrical Infrastructure
- A means to move construction labor from the field to the factory
- Energy efficient through hot aisle containment, pre-fabricated air handlers with air to air heat exchangers and highly efficient UPS systems
- Consists of modular pods, built when needed, not now
- Emphasis shifting to supply chain management from the traditional custom design and construct



#### Elements of HP Flexible DC: Butterfly Design



# The core building

- Central core
- Security
- Shipping and receiving
- Network areas
- Network Operating Center
- Administration areas
- Staff and meeting rooms





#### Mechanical systems

#### Air flow design strategy

Air enters the sidewalls of the facility, through the racks, exists via a hot aisle containment assembly and is exhausted out through the roof.



- Exterior air handlers with DX backup
- Saving costly space
- 4 cooling methods available
- Scalable to meet IT loads
- Tuned to local environment



# Electrical systems

Availability strategy

FlexDC's electrical configuration accommodates various needs of reliability levels and size of the data center.



- Equipment, conversions and transformations in the power supply chain eliminated
- Designed to meet energy standards and best practices
- Higher availability due to less componentry between utility power and the server



### Economics that impress the CFO

Reduce capex and opex, increase flexibility

- FlexDC design economics
- Supply chain economics
- Energy economics
- Sustainability economics





## Why HP Flexible DC?

• Industrialized approach creates low cost solution, reducing capital investment requirements in half

• Modular architecture delivers **limitless scalability** and **flexibility** 

• Innovative cooling technology lowers energy costs, significantly **decreasing carbon footprint** 

• Efficient supply-chain management shortens concept to commissioned cycle to less than one year

• Standard design module makes it **suitable for all** climate zones

• HP CFS know-how backing it all up with **more than 40 million square feet** of commissioned data centers, and **more than 30 Fortune 100 companies** as current customers

