

Data Center Infrastructure Management Creating The Efficient Converged Data Center

- How to manage IT and facilities infrastructure
- Advantage of a holistic approach
- Architectural requirements
- Trellis – a new concept and solution for DCIM

February 2013



Infrastructure Imperatives

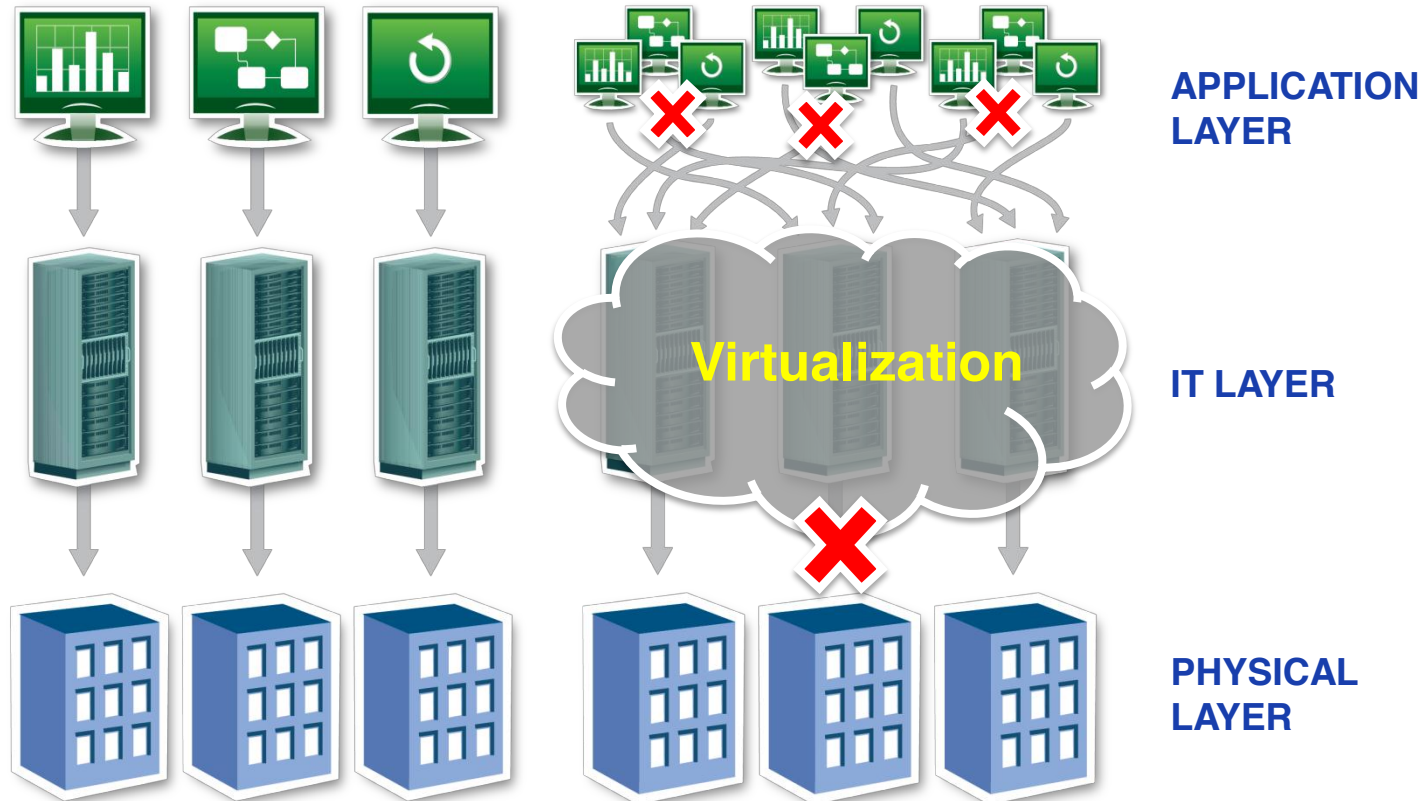
Compliance
& Security

Capacity
& Agility

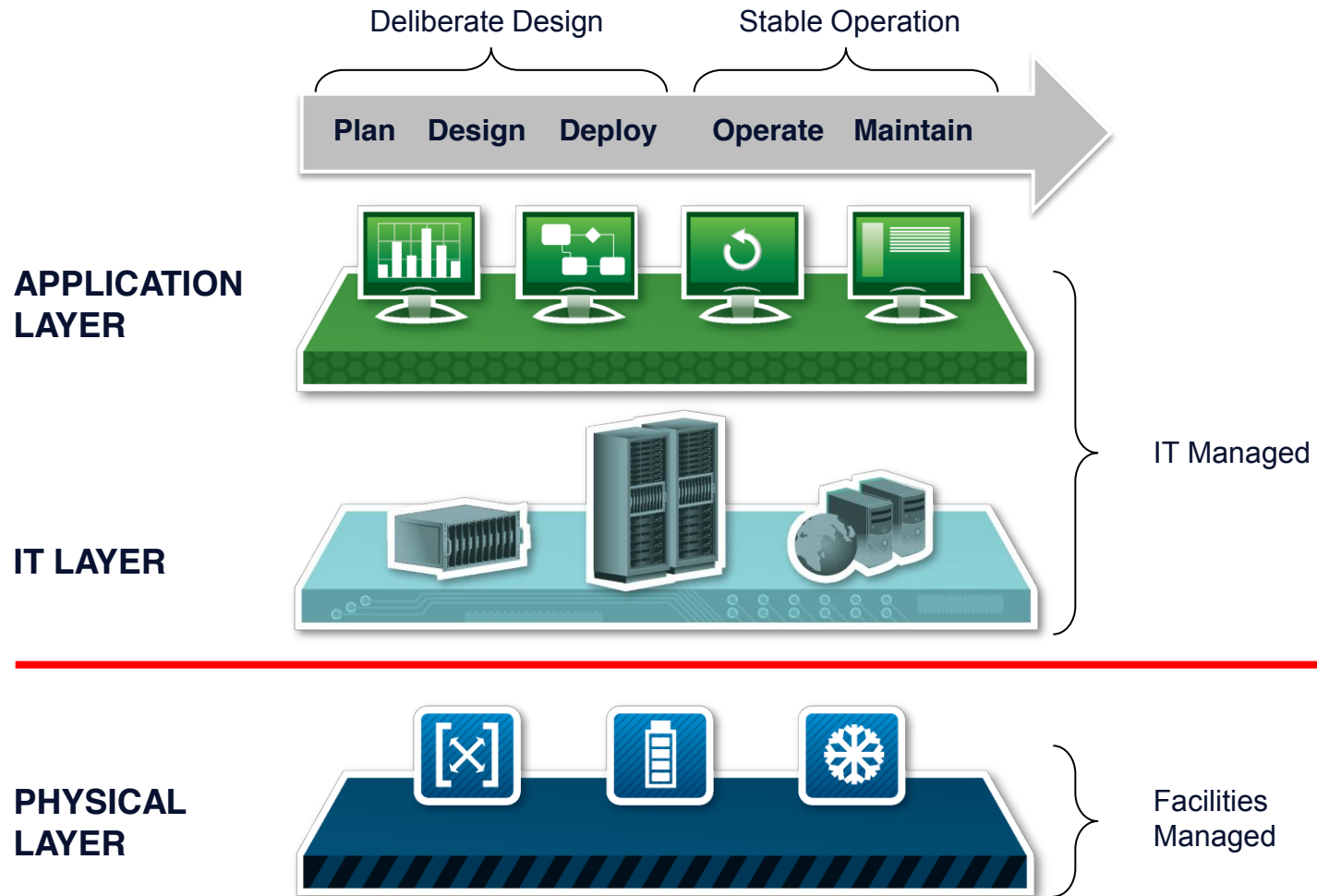
Availability
& Risk

Efficiency & Cost

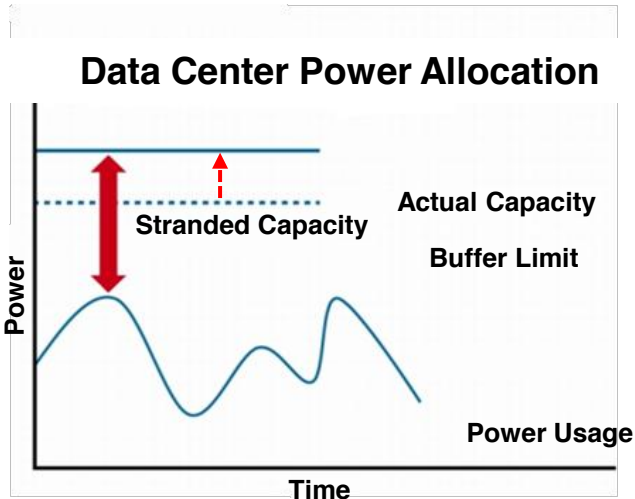
Gap Between IT and Physical Layers



Traditional Approaches



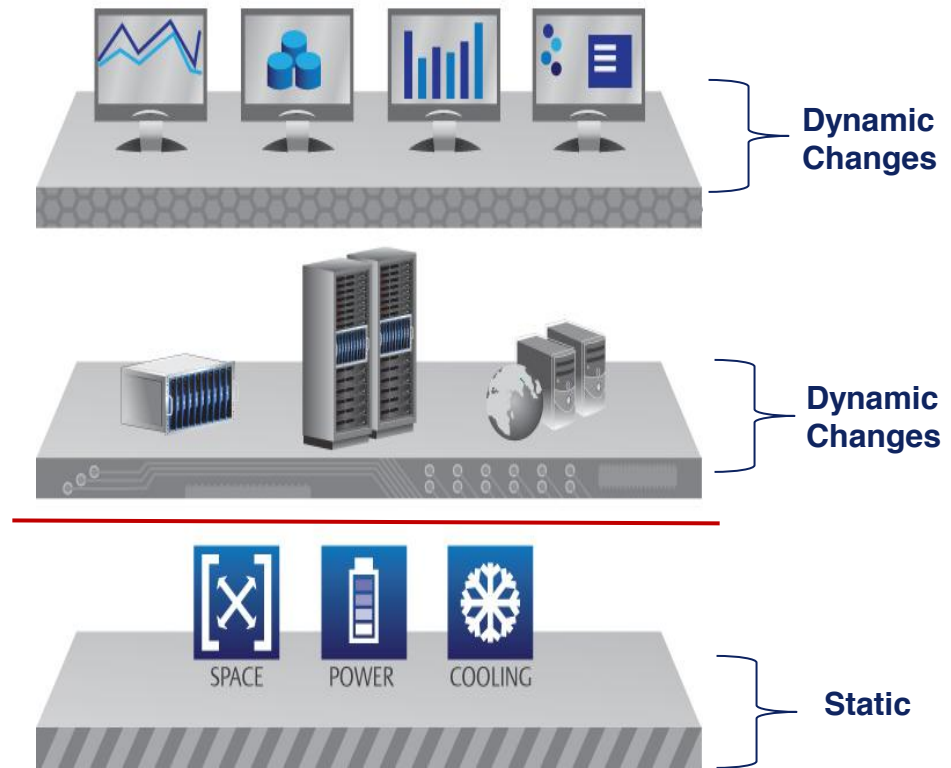
Preserving Availability: More Buffer



“Data center power capacity includes buffers intended to absorb spikes in power use caused by peaks in resource utilization.

These buffers are typically based on either nameplate or nominal server power consumption or power consumption measured at peak utilization with specific workloads.”

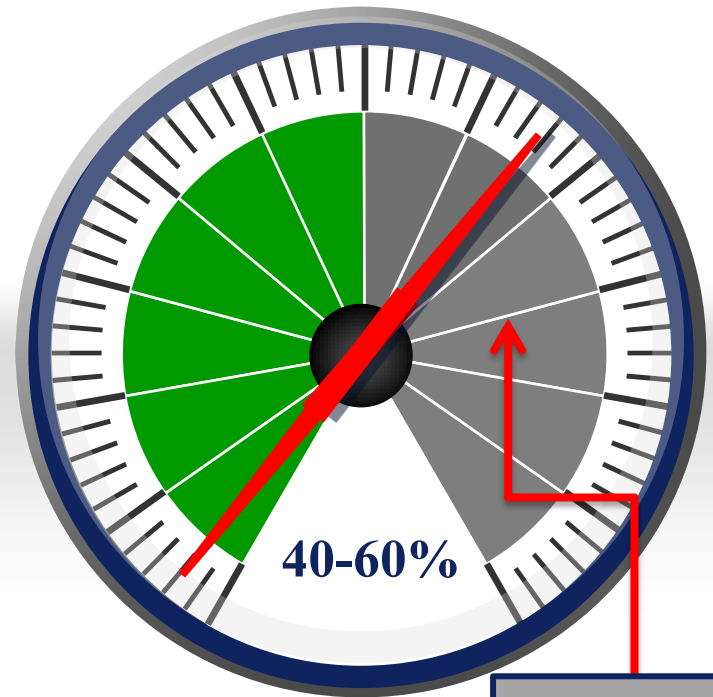
Source: Intel White Paper - Increasing Data Center Efficiency with Server Power Measurements



Barriers to Efficiency

Barriers to Higher Utilization

- Insufficient data to determine how to unlock stranded capacity
- Lack real-time visibility across the Application, IT and Physical layers
- Vendor solutions are focused on a traditional management framework
- Costs to create comprehensive visibility are labour intensive and hard to maintain



Stranded Capacity

The data center has evolved from a static homogeneous environment to a complex heterogeneous eco-system

Barriers to Efficiency

40% - 60%*

BUFFER CAPACITIES



(*Gartner)

Dynamic Infrastructure Optimization

MEETING DEMANDS OF THE BUSINESS REQUIRES RETHINKING DATA CENTERS FOR OPTIMIZED PERFORMANCE

FORRESTER®

“When asked how investment plans in 2009 have changed due to the recessionary climate, IT ops professionals rated **“reducing facilities costs”** as their top investment priority.”

Gartner

“Faced with the harsh realities of a difficult economic climate, data center managers need to focus on creating the **most efficient operating environments** in order to **extend the life of existing data centers.**”

 IDC
Analyze the Future

“In heterogeneous data centers, **optimization** is the key issue in the market. A **holistic approach** is required for sustainability.”

Results of Traditional Approaches

- **95% Experienced outages**
- **107 minutes average downtime**
- **505k cost per incident**

80% *believed the incidents were*
PREVENTABLE

Source: Ponemon Institute, Calculating the Costs of Data Center Downtime, February 2011

Today's DCIM Solutions

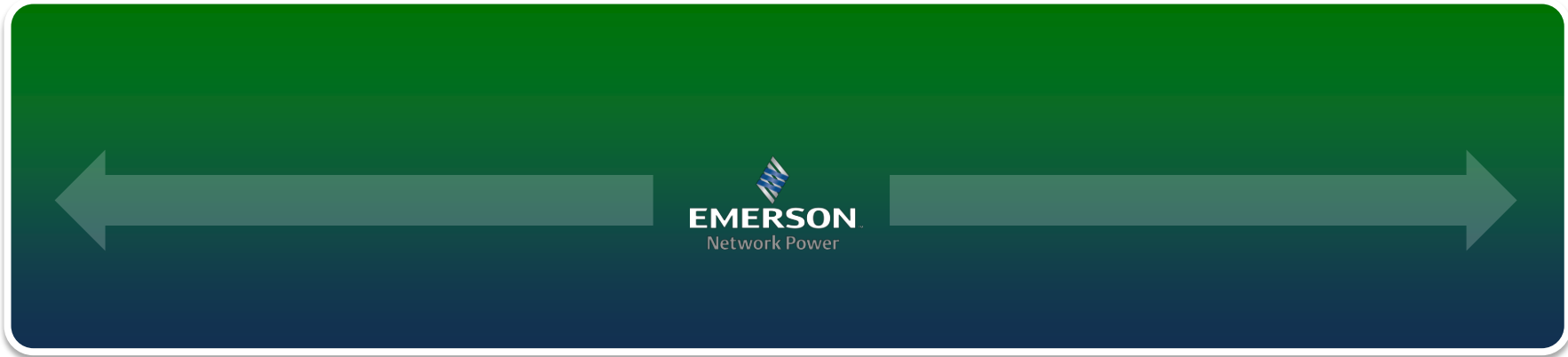
Building

Room

Rack

IT Device

Chip



Power



Cooling



Monitoring



Environmental



Rack



Cable



Energy



Room
Planning



Remote
Access

Today's DCIM Solutions

DSView 4

- Remote management of IT (access & control)
- Universal Management Gateway
 - Next generation KVM/Serial/SPM in one appliance
 - Access and control for the data center
- ACS advanced Console Servers
- MPU KVM-over-IP Switches
- Open framework: scalability and standards support

Data Center Planner 4

- Plan and manage data center inventory
- Real power values, Spanish language support

Aperture

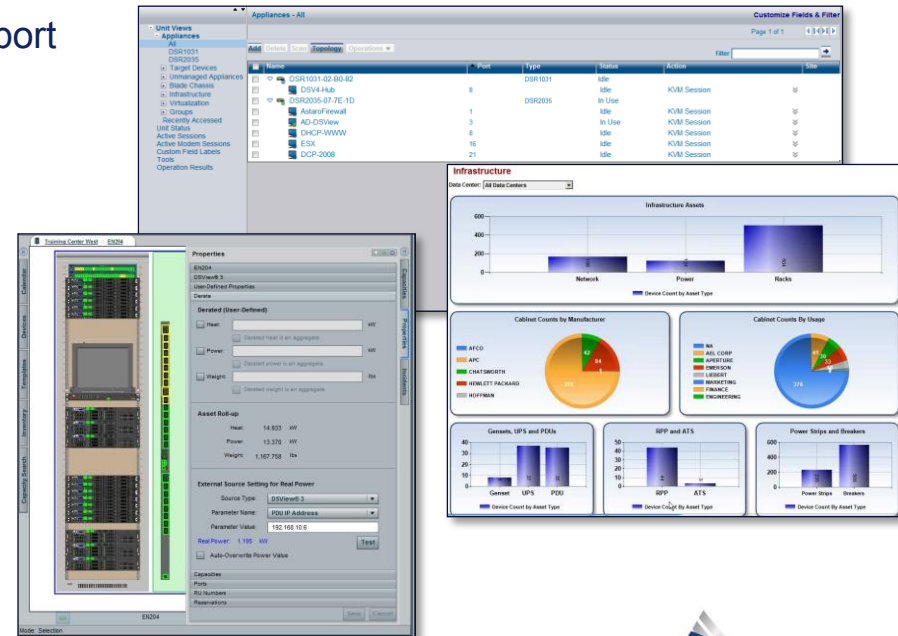
- Manage data center inventory and processes
- New functionality for capacity planning, dashboards and reporting

Rack Power Manager

- Monitor & manage real time data center power
- Dashboard, history, and trend views

Liebert SiteScan Web

- Quick equipment assessment and corrective action
- Trend reporting and capacity management
- Reduce risk of downtime and staffing requirements through centralized monitoring and control



THANK YOU !



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