Data Center Infrastructure Management (DCIM)

Product Offer

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Schneider-electric Snior DCIM Software Consultant

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President, LDP Associates, Inc.

APC Elite Data Center Consultant

Schneider Electric

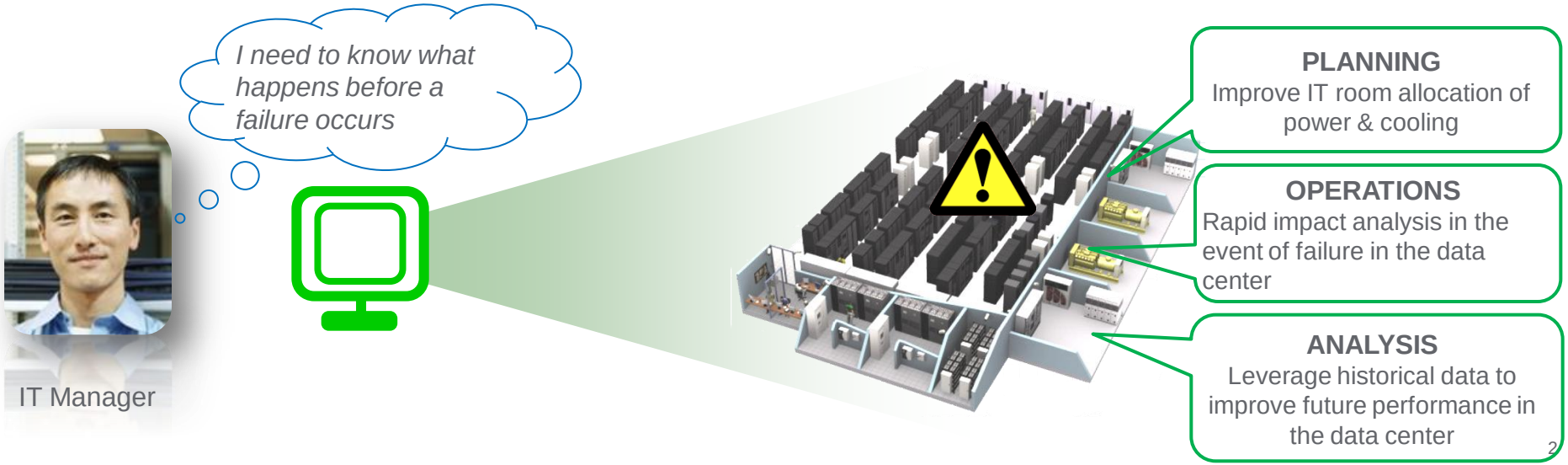
StruxureWare Data Center Operation

Part of **StruxureWare for Data Centers**

A new level of business intelligence for your Data Center Infrastructure Management (DCIM).

- **Ability <u>today</u>** to integrate management platforms
- **A vision for <u>tomorrow</u>** for simplified, integrated management

  Remove silos & create energy awareness across the entire data center



Capacity Management

What is the Actual Utilization or capacity of My Data Center(s)?

Schneider Electric

StruxureWare for Data Centers



DEMO



Capacity Management

We Want to Deploy Additional IT equipment , Where in My Data Center can this be Done?

Schneider Electric

StruxureWare for Data Centers



DEMO



Energy Efficiency Dashboard

I want to know My data Center(s)

PUE and cost of energy ?

Schneider Electric

StruxureWare for Data Centers



DEMO



StruxureWare for Data Centers

What are the Unique Features of Schneider-electric DCIM

Schneider Electric

Schneider Electric Global Foot Print

20
billion € sales in 2011

37
% of sales in new economies

110 000+
people in 100+ countries

4–5%
of sales devoted to R&D

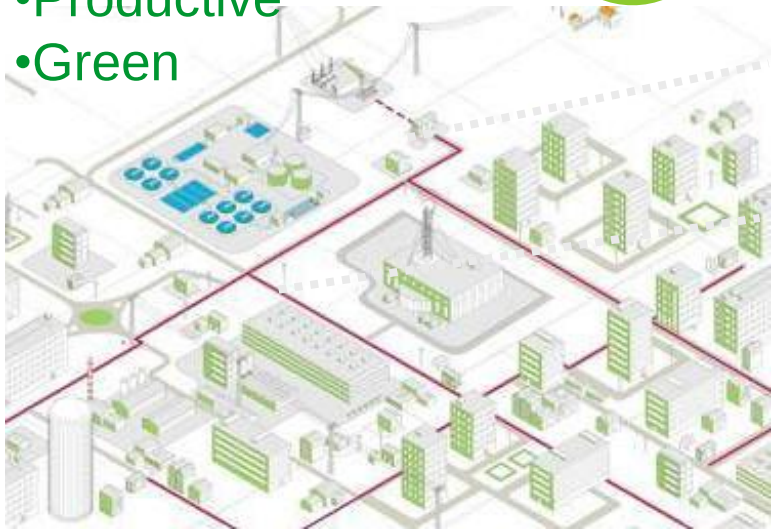
The global specialist in Energy management

Making energy:
- Safe
- Reliable
- Efficient
- Productive
- Green

Covering **72%** of world final energy consumption

up to **30%** energy saving

Energy production & transmission



Energy usage

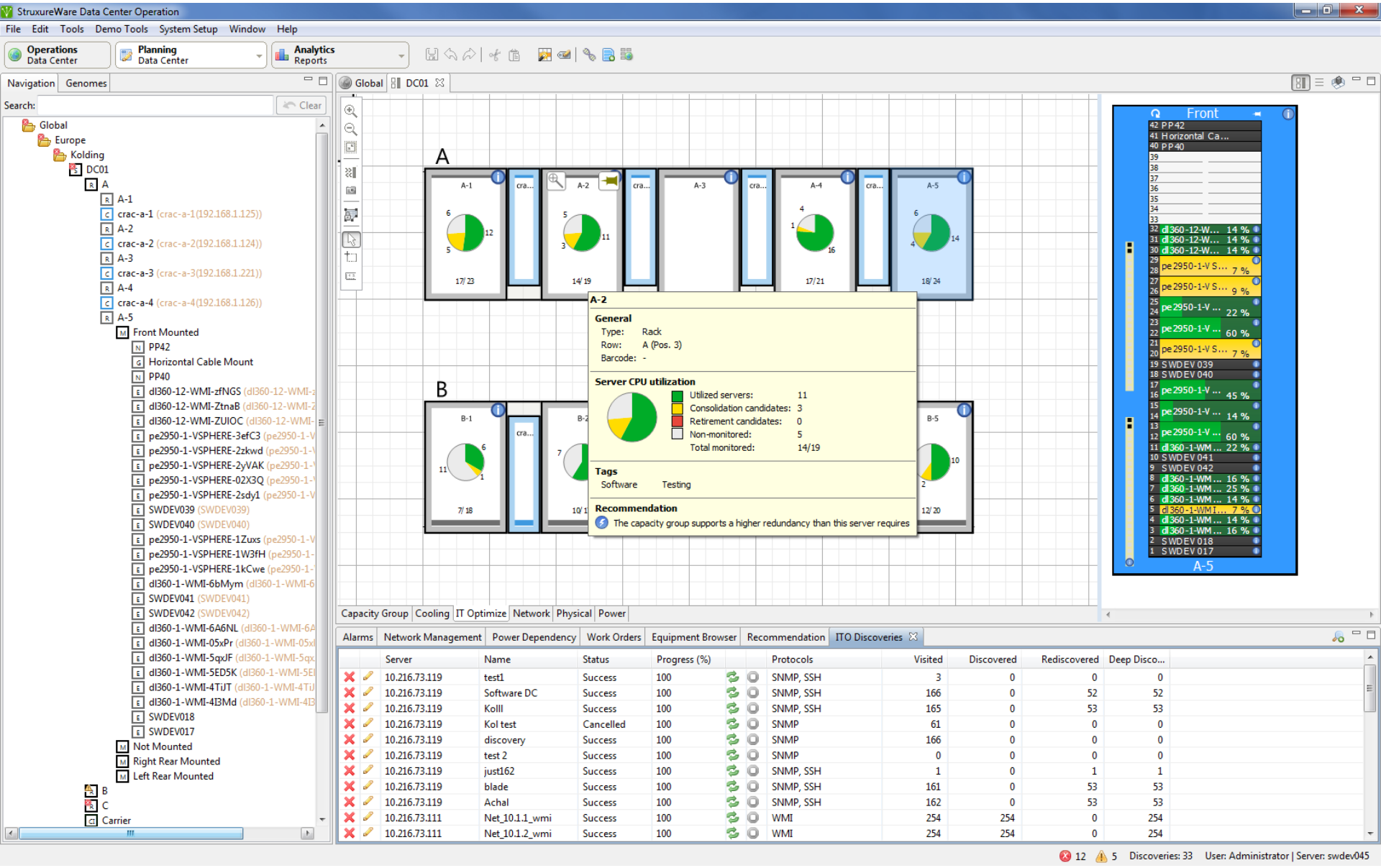
A Recognised Sustainable commitment

Dow Jones Sustainability Indexes

IT Optimization

"Do you have any underutilized, idle or unused servers in your data center?"

Schneider Electric


StruxureWare Data Center Operation
File Edit Tools Demo Tools System Setup Window Help
Operations Data Center
Planning Data Center
Analytics Reports
Navigation Genomes
Search: Clear
Global
Europe
Kolding
DC01
A
A-1
crac-a-1 (crac-a-1(192.168.1.125))
A-2
crac-a-2 (crac-a-2(192.168.1.124))
A-3
crac-a-3 (crac-a-3(192.168.1.221))
A-4
crac-a-4 (crac-a-4(192.168.1.126))
A-5
Front Mounted
PP42
Horizontal Cable Mount
PP40
dl360-12-WMI-zfNGS
dl360-12-WMI-ZtnaB
dl360-12-WMI-ZUIOC
pe2950-1-VSPHERE-3efC3
pe2950-1-VSPHERE-2zkwd
pe2950-1-VSPHERE-2yVAK
pe2950-1-VSPHERE-02X3Q
pe2950-1-VSPHERE-2sdy1
SWDEV039 (SWDEV039)
SWDEV040 (SWDEV040)
pe2950-1-VSPHERE-1Zuxs
pe2950-1-VSPHERE-1W3fH
pe2950-1-VSPHERE-1kCwe
dl360-1-WMI-6bMym
SWDEV041 (SWDEV041)
SWDEV042 (SWDEV042)
dl360-1-WMI-6A6NL
dl360-1-WMI-05xPr
dl360-1-WMI-5qxJF
dl360-1-WMI-5ED5K
dl360-1-WMI-4TiJT
dl360-1-WMI-4I3Md
SWDEV018
SWDEV017
Not Mounted
Right Rear Mounted
Left Rear Mounted
B
C
Carrier
Global DC01
A
B
A-2
General
Type: Rack
Row: A (Pos. 3)
Barcode: -
Server CPU utilization
Utilized servers: 11
Consolidation candidates: 3
Retirement candidates: 0
Non-monitored: 5
Total monitored: 14/19
Tags
Software Testing
Recommendation
The capacity group supports a higher redundancy than this server requires
Front
A-5
Capacity Group Cooling IT Optimize Network Physical Power
Alarms Network Management Power Dependency Work Orders Equipment Browser Recommendation ITO Discoveries
Server Name Status Progress (%) Protocols Visited Discovered Rediscovered Deep Disco...
10.216.73.119 test1 Success 100 SNMP, SSH 3 0 0 0
10.216.73.119 Software DC Success 100 SNMP, SSH 166 0 52 52
10.216.73.119 KolII Success 100 SNMP, SSH 165 0 53 53
10.216.73.119 Kol test Cancelled 100 SNMP 61 0 0 0
10.216.73.119 discovery Success 100 SNMP 166 0 0 0
10.216.73.119 test 2 Success 100 SNMP 0 0 0 0
10.216.73.119 just162 Success 100 SNMP, SSH 1 0 1 1
10.216.73.119 blade Success 100 SNMP, SSH 161 0 53 53
10.216.73.119 Achal Success 100 SNMP, SSH 162 0 53 53
10.216.73.111 Net_10.1.1_wmi Success 100 WMI 254 254 0 254
10.216.73.111 Net_10.1.2_wmi Success 100 WMI 254 254 0 254
12 5 Discoveries: 33 User: Administrator | Server: swdev045

IT Power Control

Powered by Intel® Data Center Manager (Intel DCM)

Schneider Electric


Rack Provisioning
and Capacity Planning
intel
DCM

TRADITIONAL METHOD:
Static provisioning

RACK PROVISION:
4,000 watt available power

CAPACITY PLAN:
Provision servers within 4,000 watts envelope

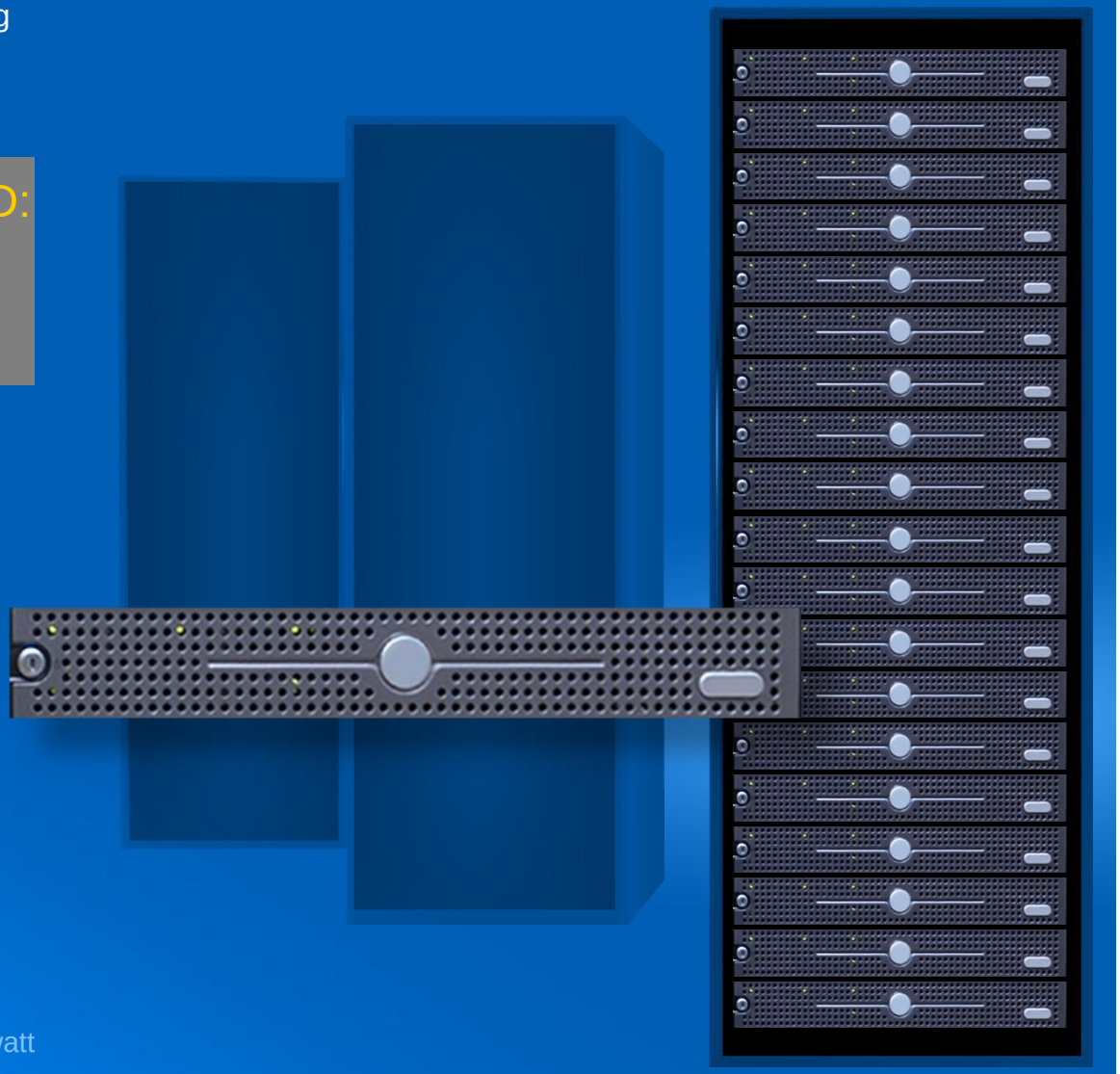


TRADITIONAL METHOD: Static provisioning

650 watt power supply rating

Safe bet (derated): 400 watts per server based on lab measurements for expected configuration





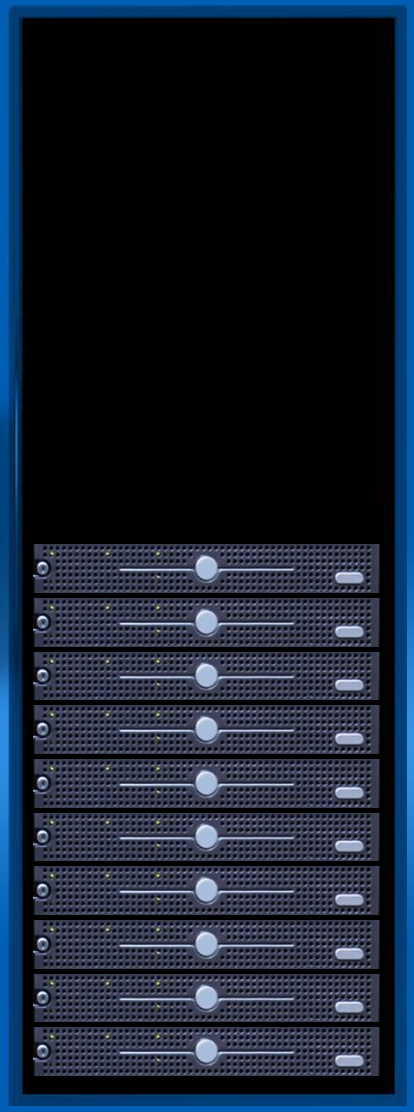
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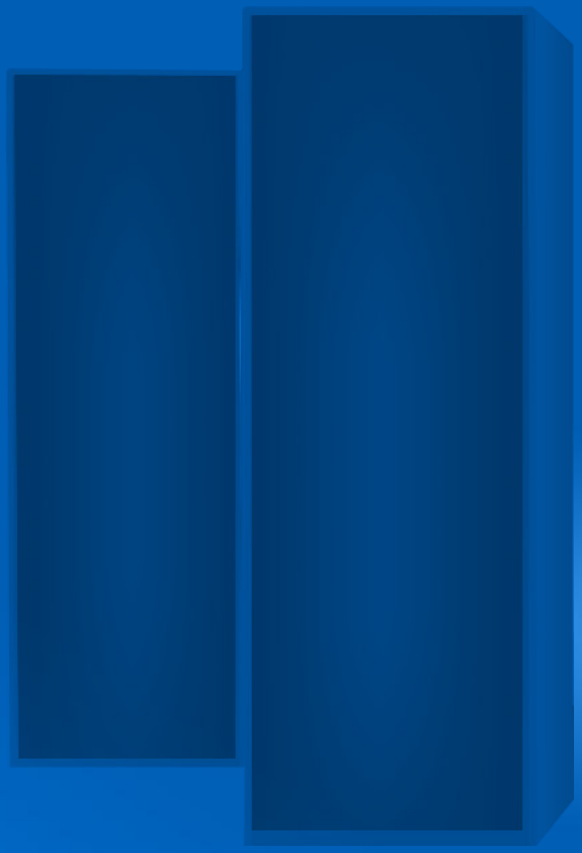
4,000 watts
÷ 400 watts/ server
10

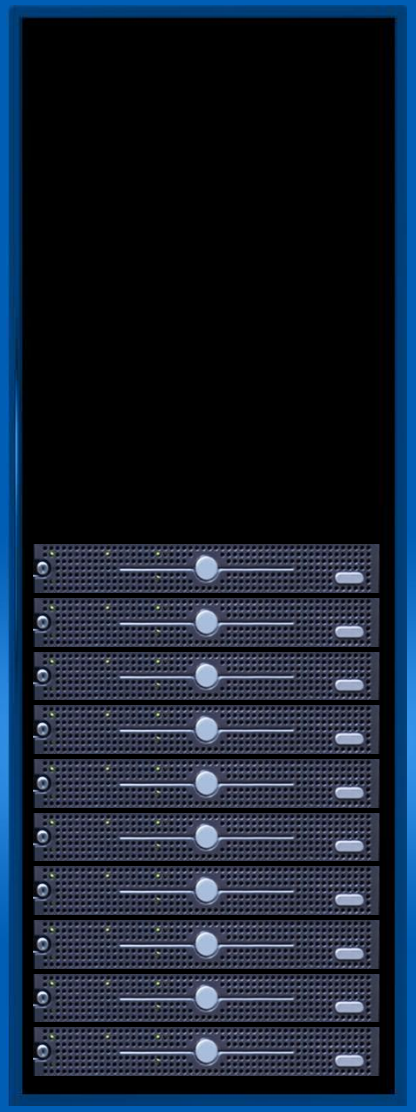


INTEL INNOVATION:

Real-time monitoring



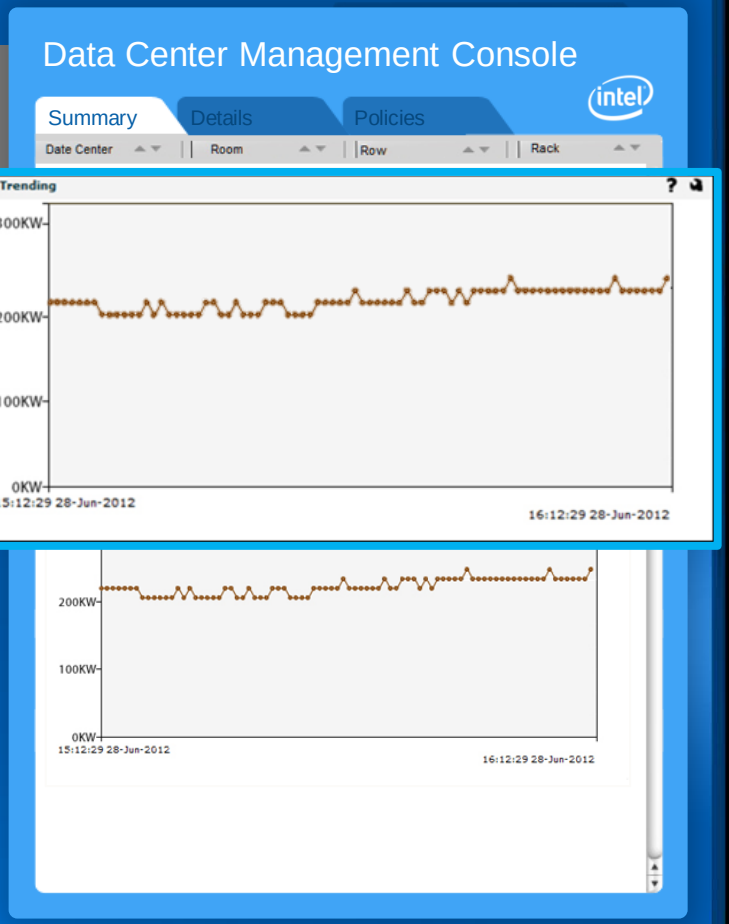




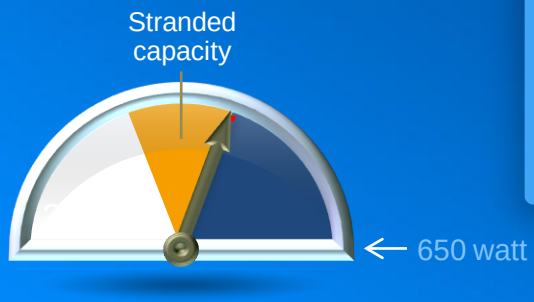
INTEL INNOVATION:

Real-time monitoring

Actual measurements show power/server never exceeds 250 watts







INTEL INNOVATION:

Real-time monitoring

Use 250 watts as aggressive power/server

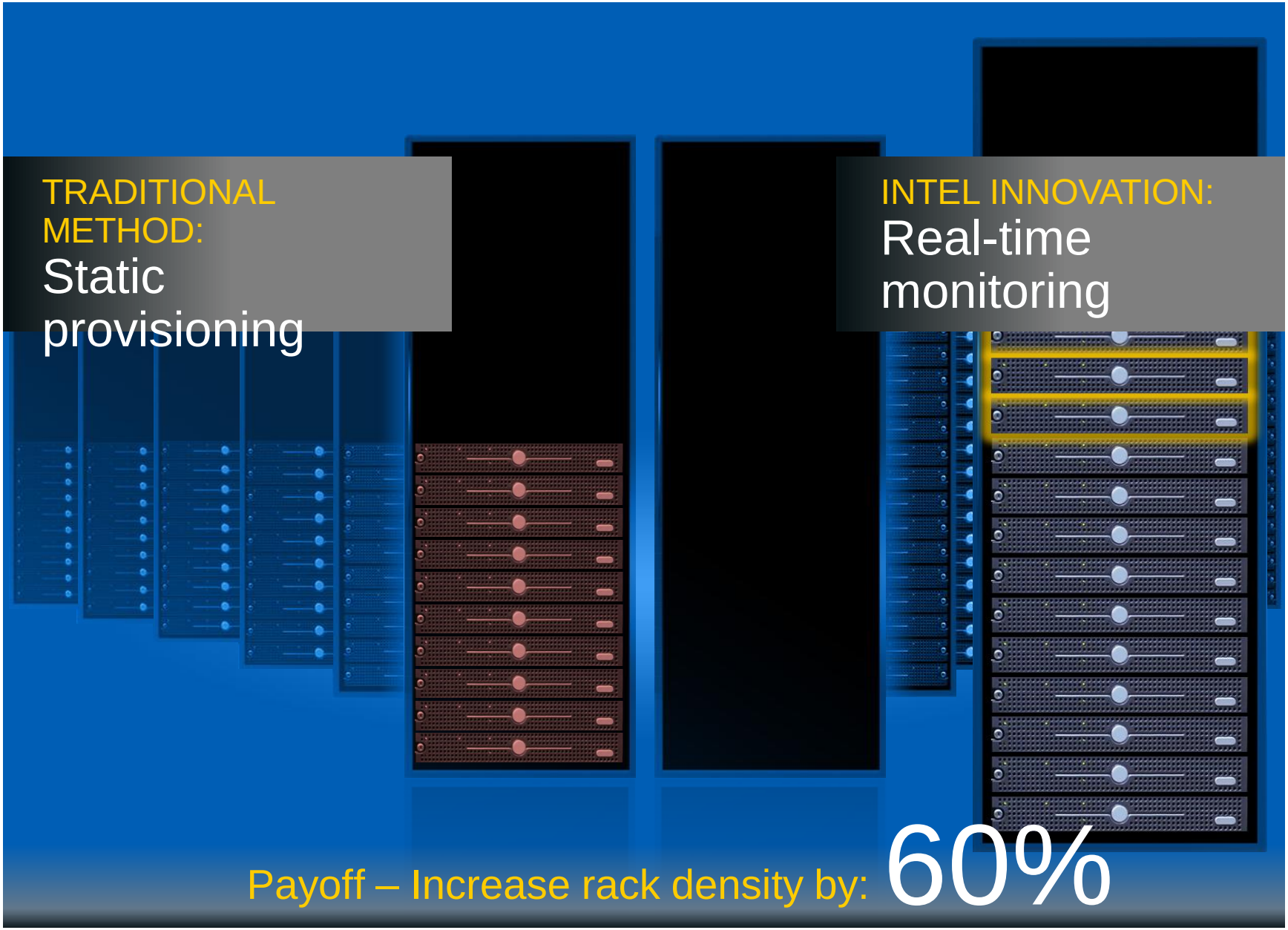
Optional: Enforce 4,000 watts cap per rack for rare cases where demand exceeds 4 watts



← 650 watt






TRADITIONAL METHOD:
Static provisioning
INTEL INNOVATION:
Real-time monitoring
Payoff – Increase rack density by: 60%

Thank you for your attention

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