

CommScope's Intelligent Platform



Niall McAndrew
Technical Consulting Manager

Bray, Ireland
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What are the issues today ..?

The word cloud contains the following terms:

- Device tracking
- Central
- Costly
- issues
- Planned
- Maintaining equipment
- changes
- Unplanned
- buying
- MTTR
- difficult sites
- documentation
- growing
- lead times
- slow
- team
- increasingly
- audits
- remote
- easy

How did we get here ..?

Networks Evolve

Responsibilities Change

Businesses Grow

Budgets Shrink

We have the answer ...

COMMScope®

SYSTEMAX® imVision™

imVision. Infrastructure Management. Made Easy.

imVision: pronunciation – \’em-vi-zhen\

Vision

+

Knowledge

=

Control

The imVision™ solution

COMMScope®

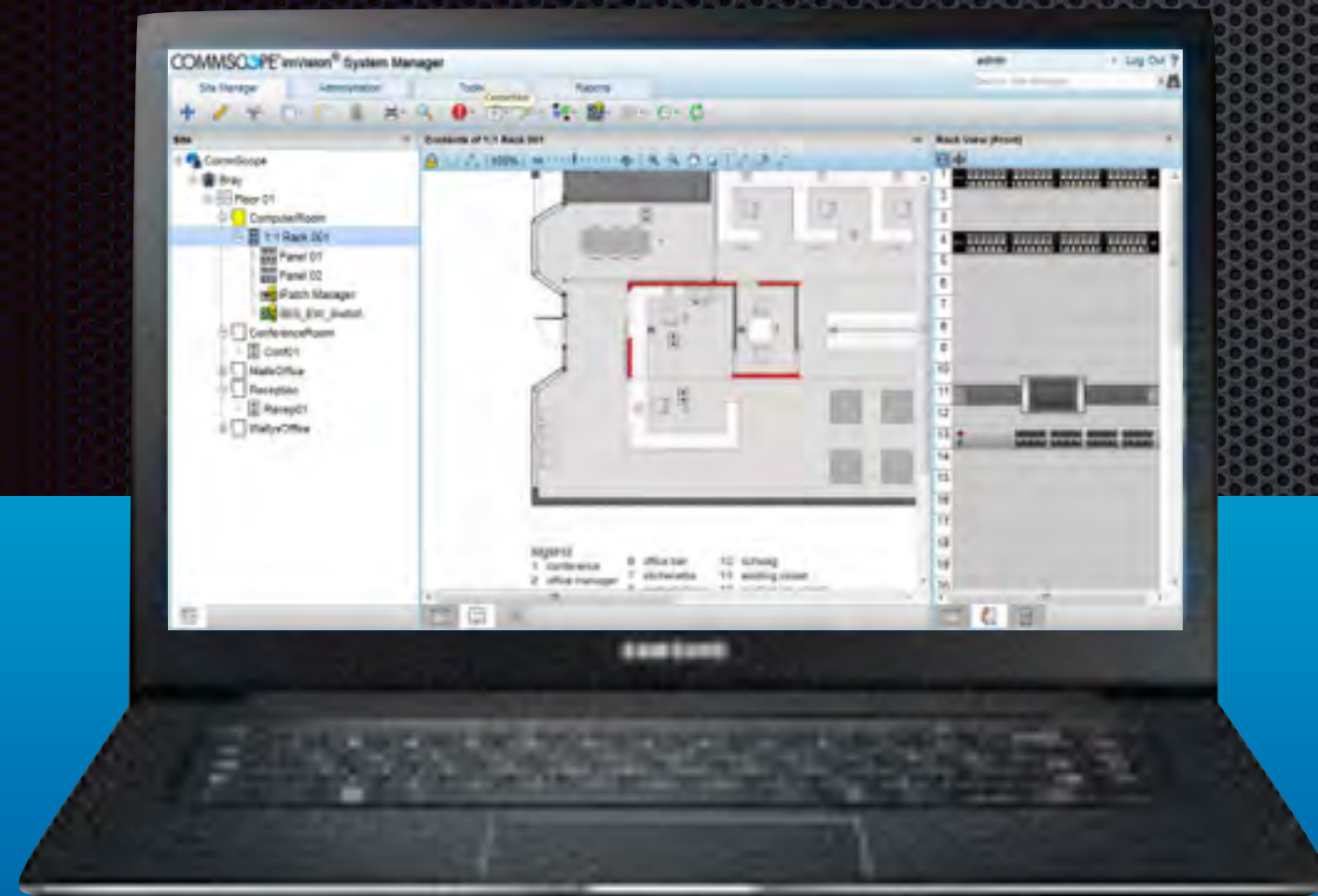
iPatch copper panels



imVision™ controller



imVision™ System Manager



iPatch fibre shelves



4.3" multi-touch colour screen



The imVision™ solution

Simple, scalable architecture

Rack 1

Rack 2

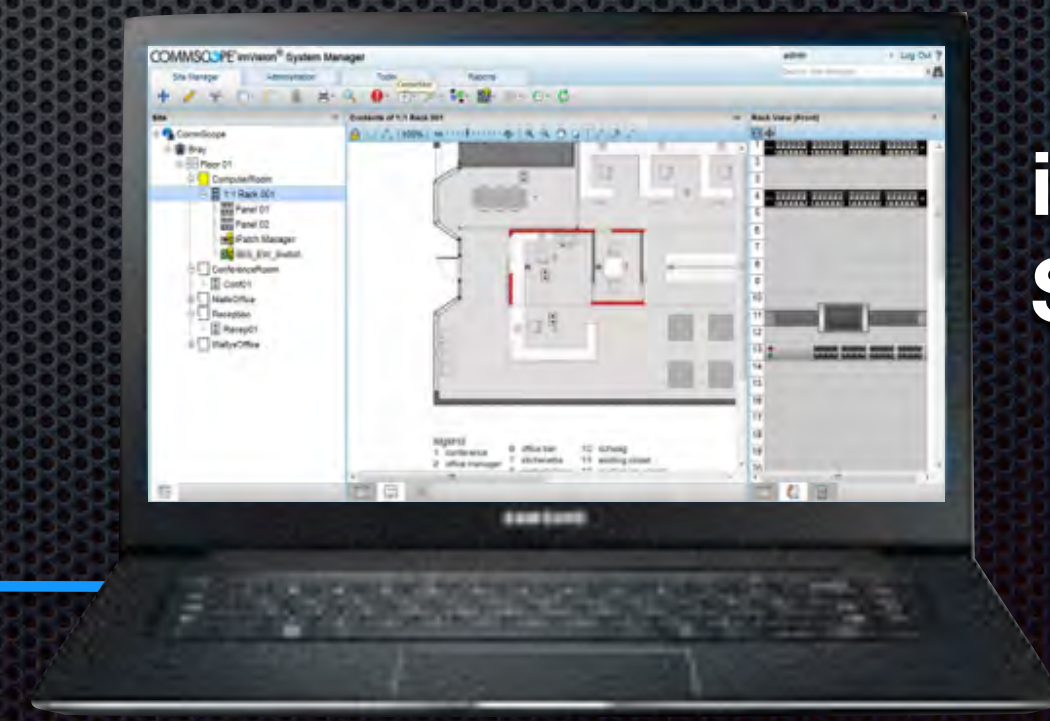
Rack 3



Rack 1 - Network Manager

Patch Panels/Shelves

tcp/ip



**imVision™
System Manager**

Locate the 1st port

Press the trace button

Both ends light-up



Circuit trace. Realtime.

COMMSCOPE®

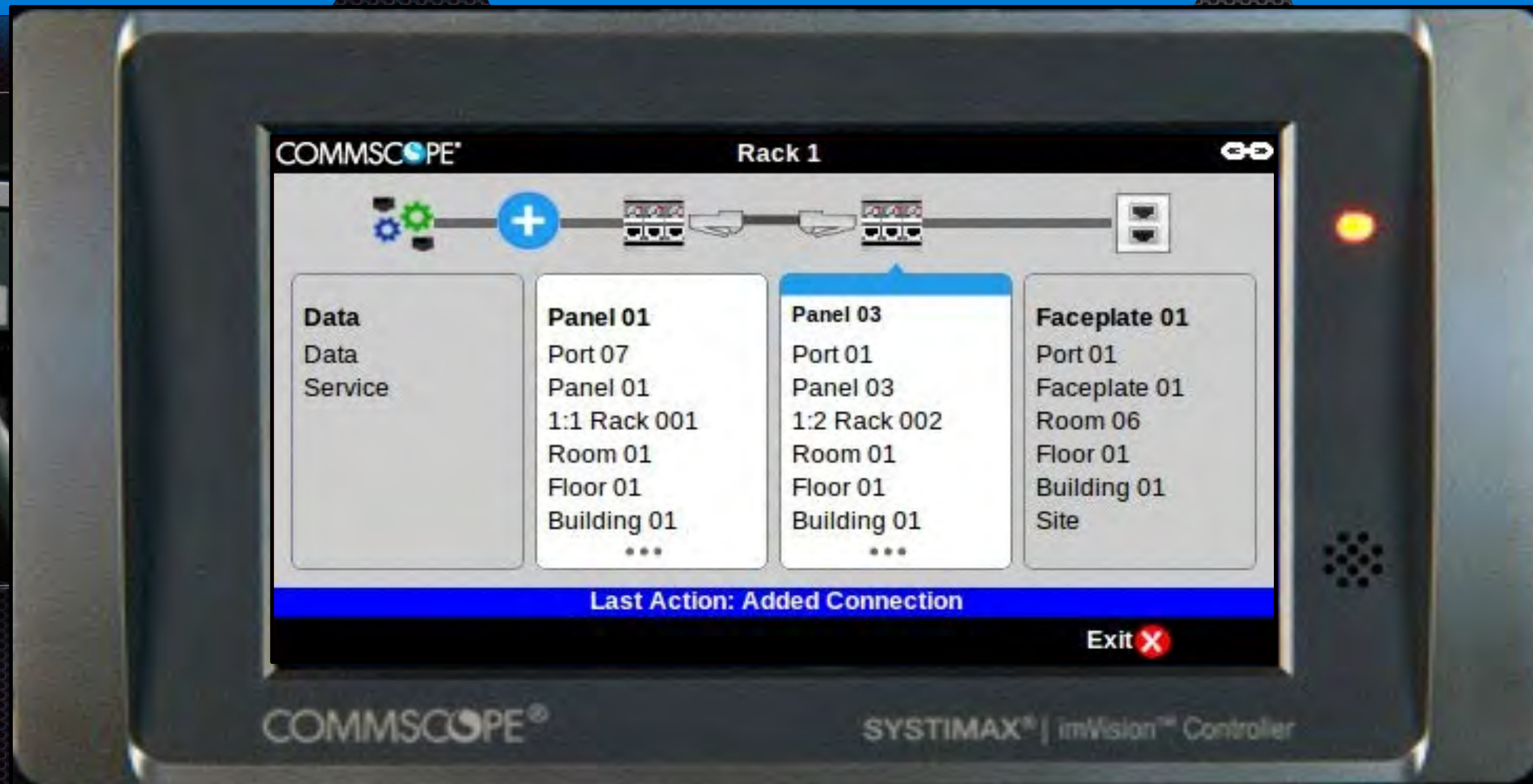
Locate the 1st port



Press the trace button



Both ends light-up



Colour display on controller shows end-to-end circuit

System Manager. Evolution.

SMv1

MS-Access
Single-User

SMv3

Web Server
Event-Notification

SMv5

Data Centre features
Web Reports

SMv6.6

Blade Servers
Mainframes

2001

2002

2004

2005

2006

2008

2009-2011

2012

SMv2

MS-SQL
CAD Floorplans

SMv4

Device Discovery
Managed Switches

SMv6

VLANs, SANs
XML Interface

SMv7

New web-based
architecture

Patching
with
lights

Real time
management

Network
integration

Process
automation

Infrastructure
Management

Browser-based application

The screenshot displays the COMMSCOPE imVision System Manager interface. The top navigation bar includes 'Site Manager', 'Administration', 'Tools', and 'Reports'. The main content area is divided into three panes: a left sidebar showing a site hierarchy, a central table of rack contents, and a right pane showing a rack view.

Contents of 1:1 Rack 001

Name	IP Address	Position	Total Ports	Available Ports
Panel 01		1	48	46
Cord Organizer 01		3		
Panel 02		4	48	48
Cord Organizer 02		6		
Panel 03		7	48	48
Cord Organizer 03		9		
iPatch Manager	192.168.000.001	11		
Cisco 2950	192.168.000.005	12	0	0

Rack View (Front)

The rack view shows a vertical stack of 30 slots. Slots 1-12 contain various network equipment, including panels and a Cisco 2950 switch. Slots 13-30 are currently empty.

Site Hierarchy (Left Sidebar):

- Site
 - Agrate Brianza, Italy
 - Bangalore India
 - Bogota, Colombia
 - Charlie Landia
 - Gurgaon India
 - Jeddah, Saudi Arabia
 - Middle East
 - Dubai HQ
 - JBC 5
 - Floor 32
 - Main Office
 - Telecoms Room
 - 1:1 Rack 001
 - Panel 01
 - Panel 02
 - Panel 03
 - iPatch Manager
 - Cisco 2950
 - JBC 5+
 - Paris, JL Esculpavit
 - San Juan, Puerto Rico
 - Shanghai
 - Singapore
 - Southern Cone
 - Stockholm, Sweden
 - Tokyo, Japan
 - Toronto, Canada

Browser-based. IE, Firefox, Safari

SSL, HTTPS, SNMPv3, IPv6



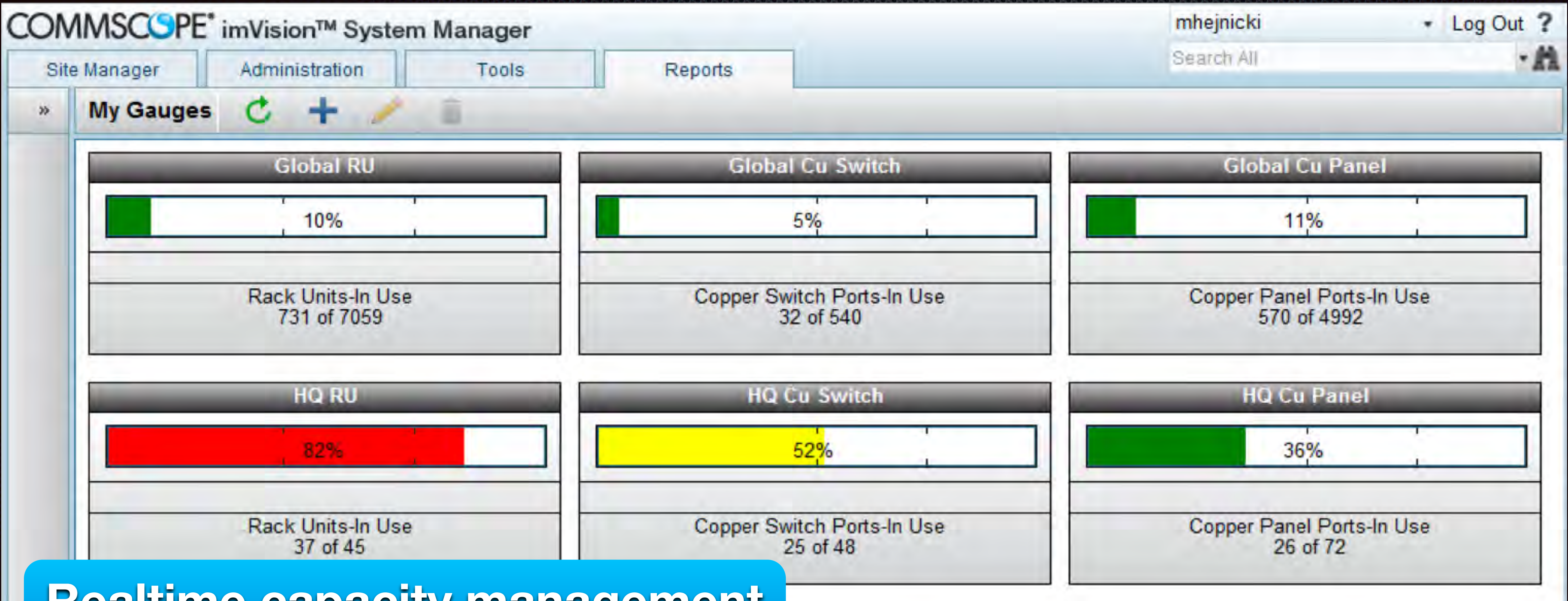
View the entire network

Per-user Access Control

Integrated Dashboard

Customisable Reports

Dashboard display.



Realtime capacity management
User-configurable thresholds

Vision

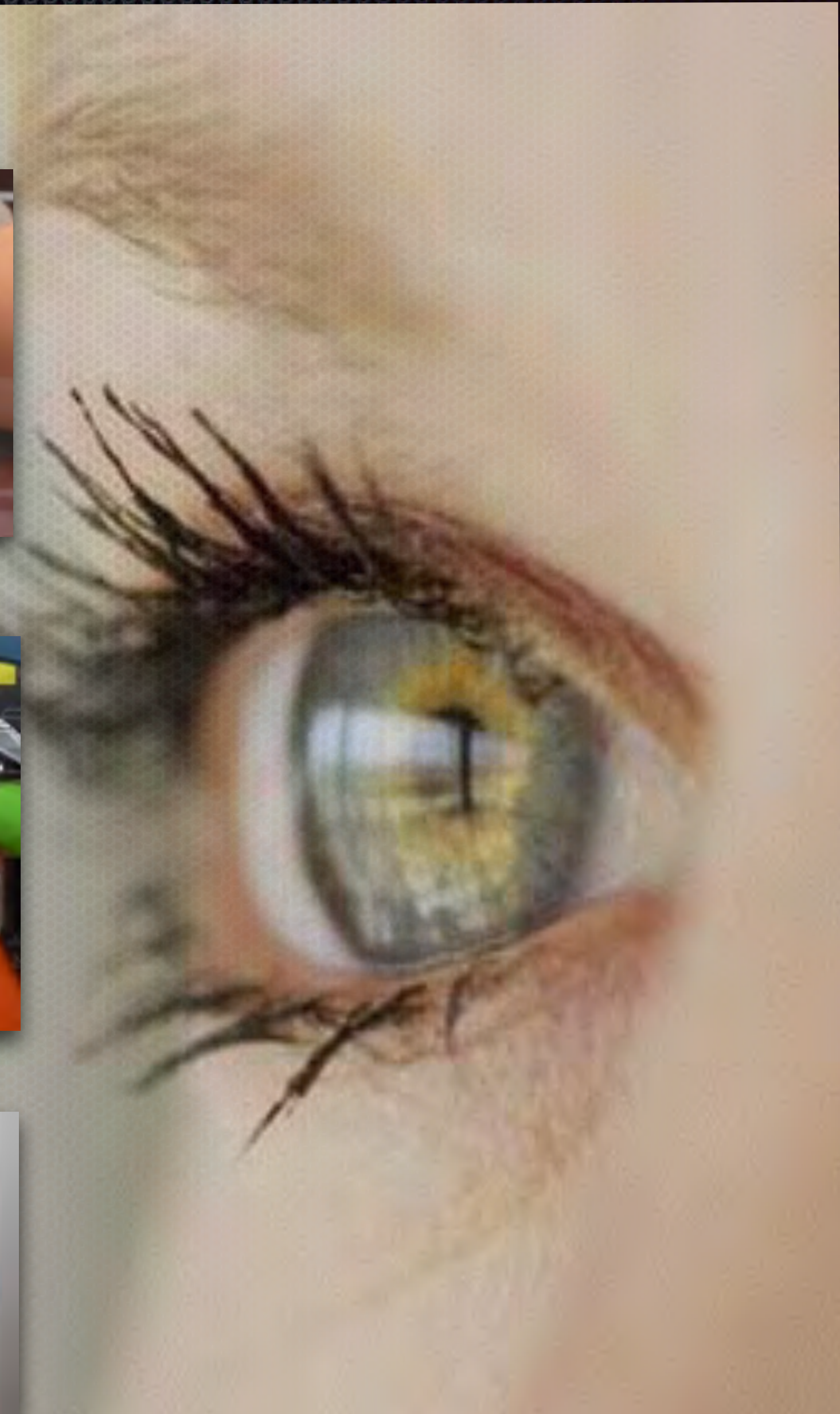
Sensing the insertion, removal of standard patch cords and plugs



Discovering LAN and SAN devices and their connectivity information.



Processing SNMP traps from external appliances and PDUs.



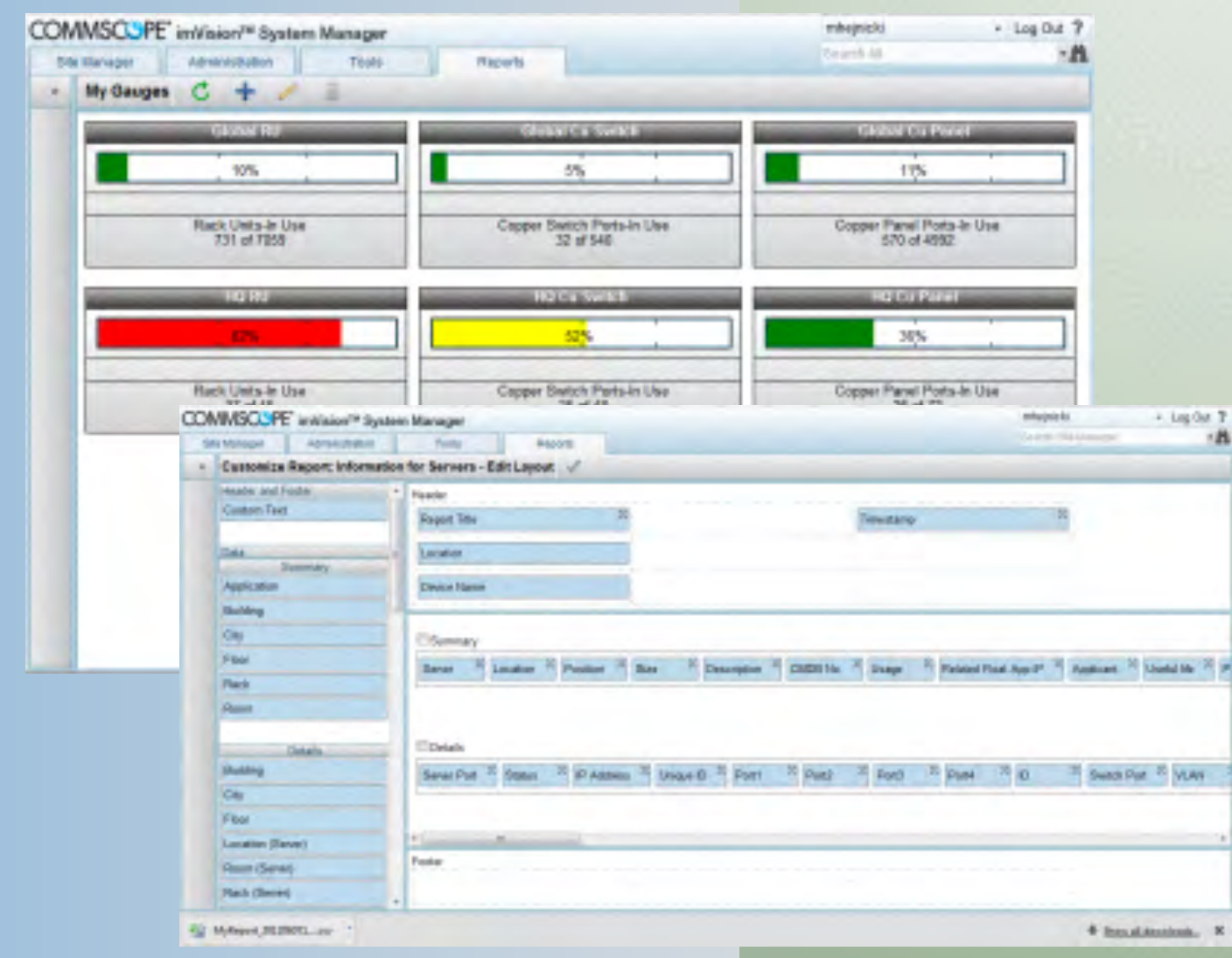
Life is better with intelligence.

Knowledge

Providing complete and accurate circuit information. At the rack, at the desk. Or on the go.

Tracking status and location of discovered networked devices.

Reporting for location, asset management.



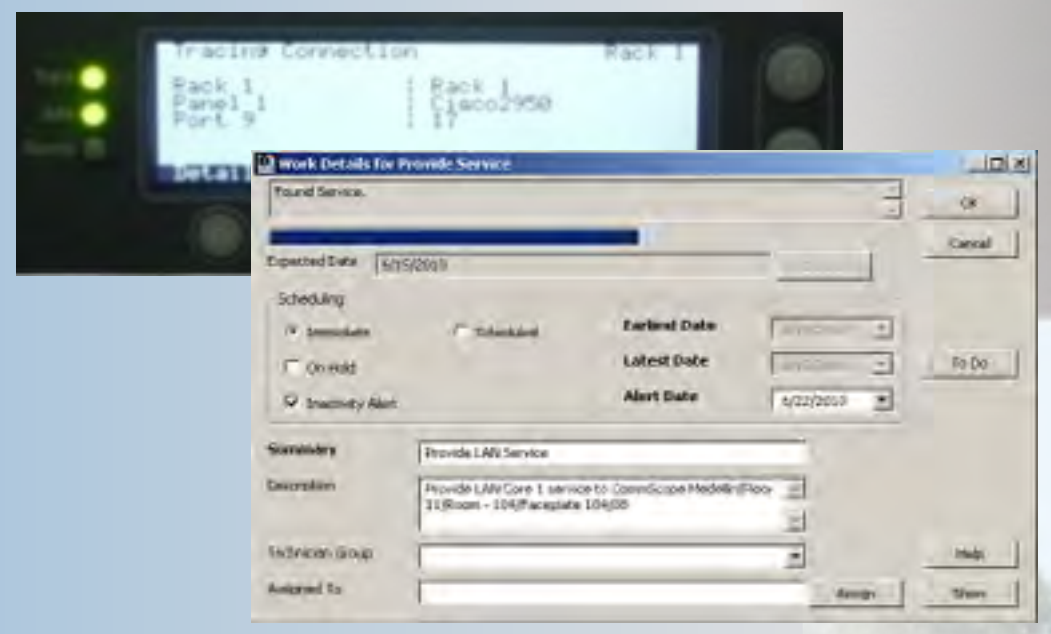
Life is better with intelligence.

Control

Intelligent management of Moves-Adds-and Changes using electronic work orders and technician guidance.

Processing infrastructure events to generate notifications, or trigger activity in external applications or devices.

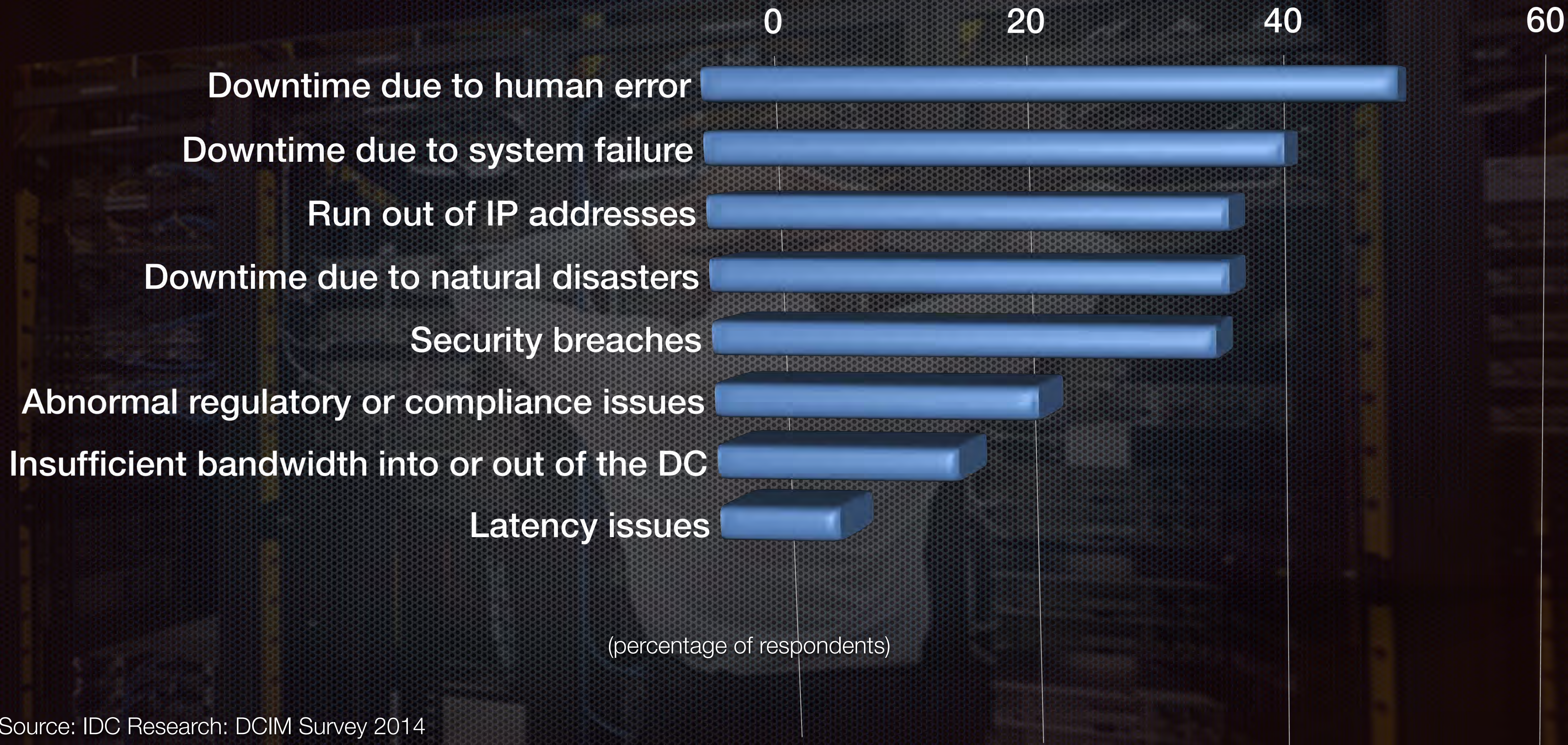
Integrating with external applications for enhanced network management and monitoring



What are the issues in the Data Centre

- ✘ Managing connectivity
- ✘ Utilisation of assets
- ✘ Rising energy usage and costs
- ✘ Disaster recovery
- ✘ Redundancy and resilience
- ✘ Maintaining 99.999 (5 nines) uptime

Datacenter Issues Experienced in the past 12 Months



*Source: IDC Research: DCIM Survey 2014

The Top Challenges in Datacenters



iTRACS CPIM. World-leading DCIM suite

Deployed in some of the world's most complex physical infrastructures.

33% of CPIM® customers are in Global/Fortune 500.

1.6 million ft sq. managed in one customer's facilities alone



iTRACS:
Best Visual Modeling
EMA Radar™ for DCIM: Q4-2012

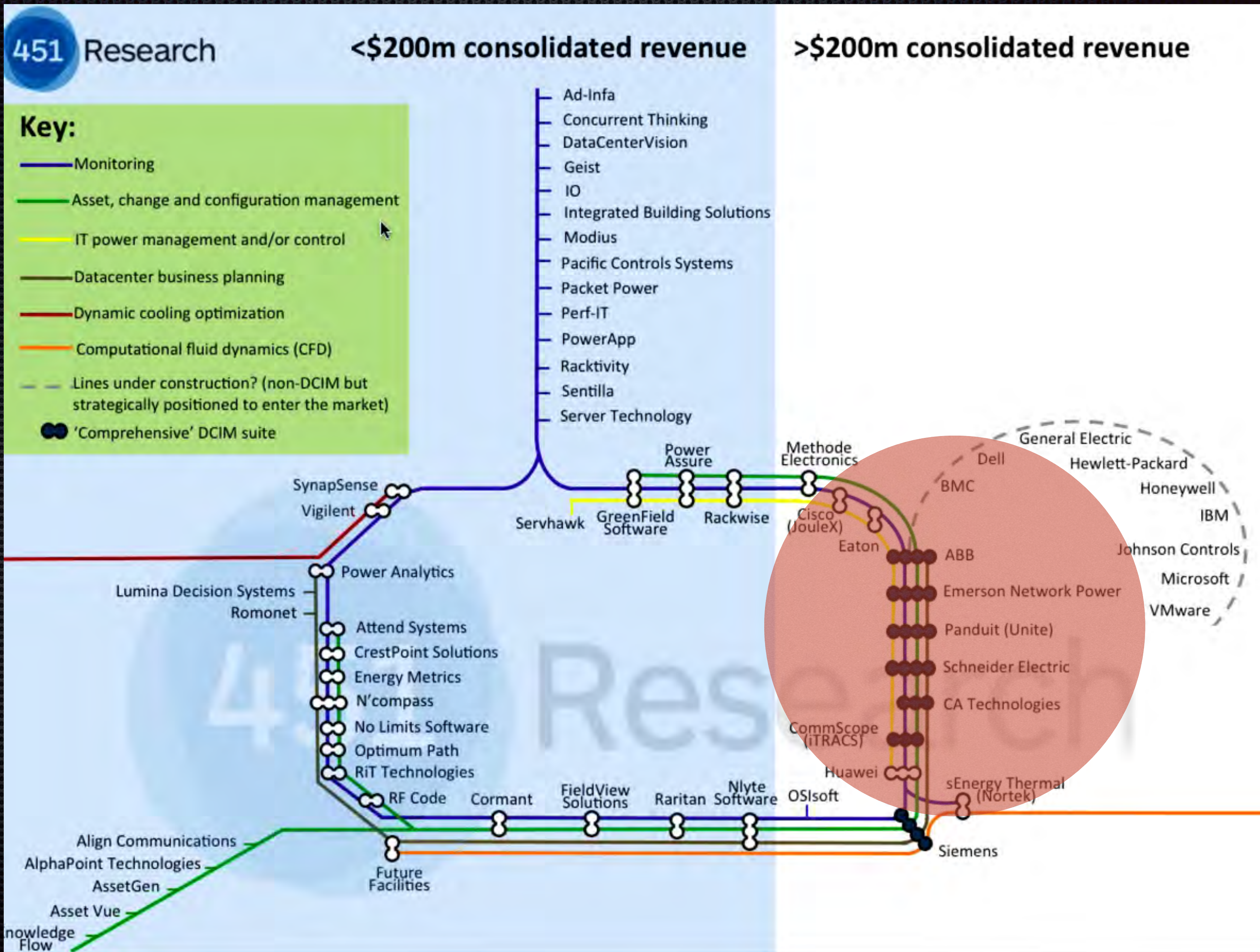


Gartner | 2011
COOL VENDOR

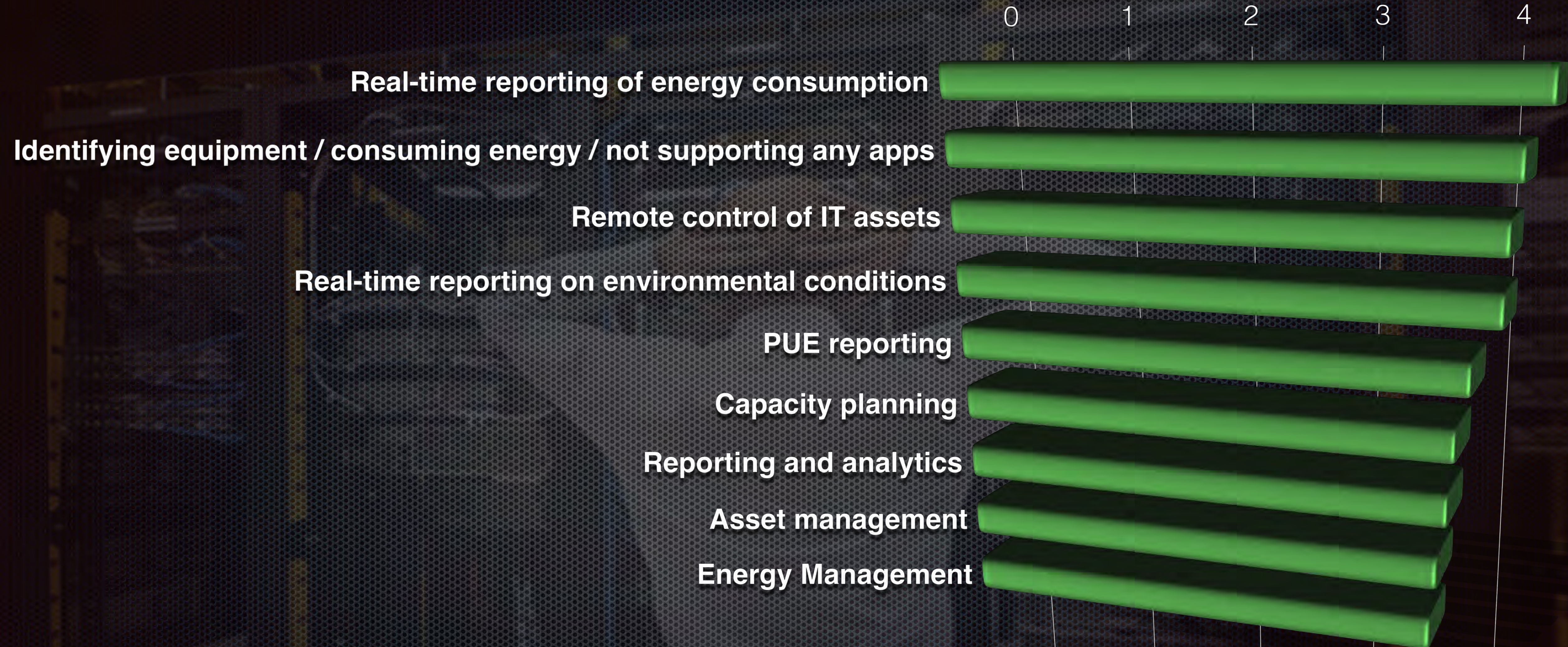
iTRACS CPIM. One of the few DCIM suites.

Most products on the market today are not DCIM.

Many products offering monitoring 'point' solutions.



Top-Ranked DCIM Features



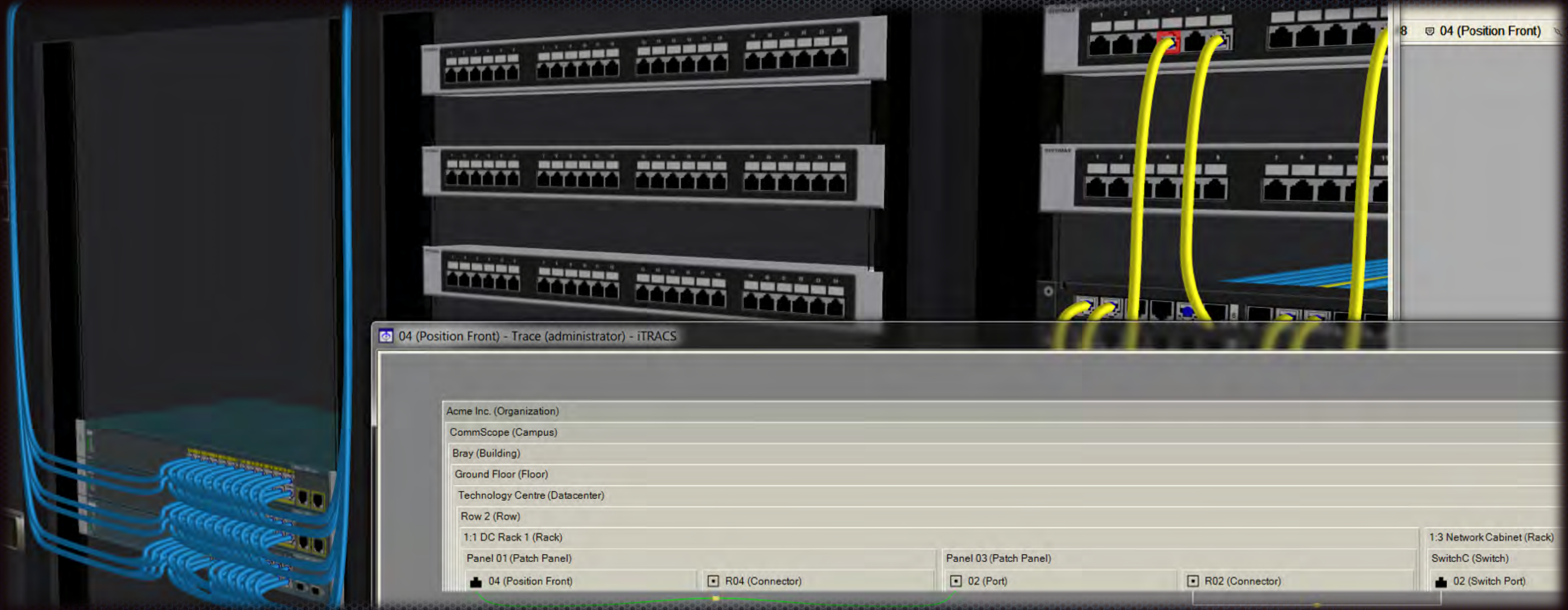
(Importance on a scale of 1-5)

Connectivity Management – at the rack



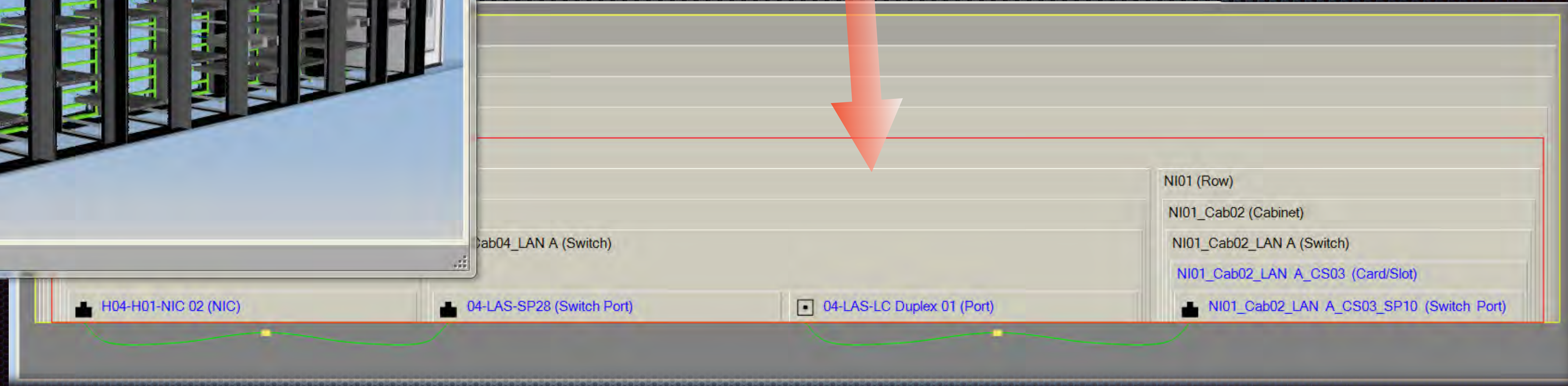
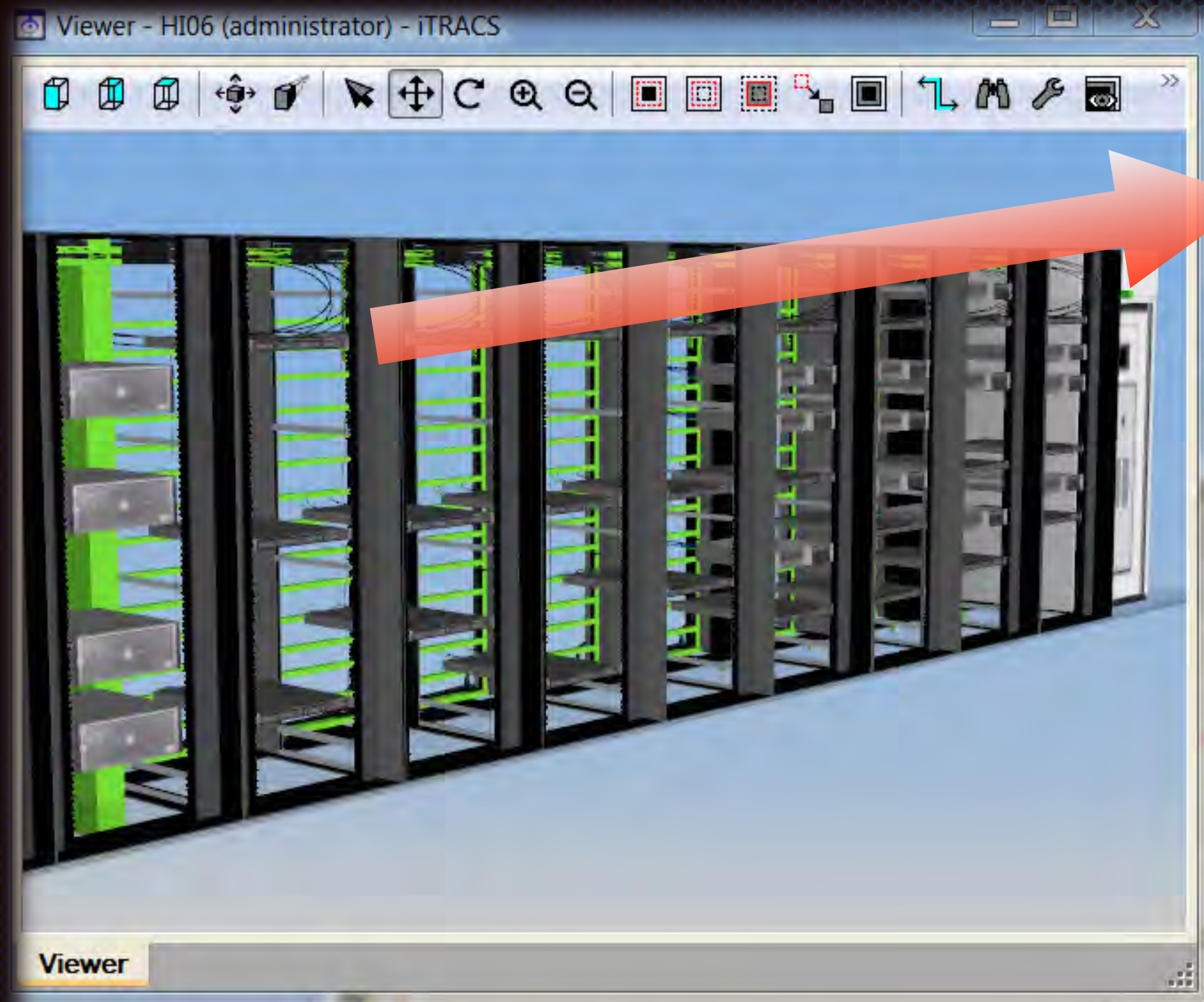
Uncover potential network problems and resolve these issues without putting other network services or business transactions at risk

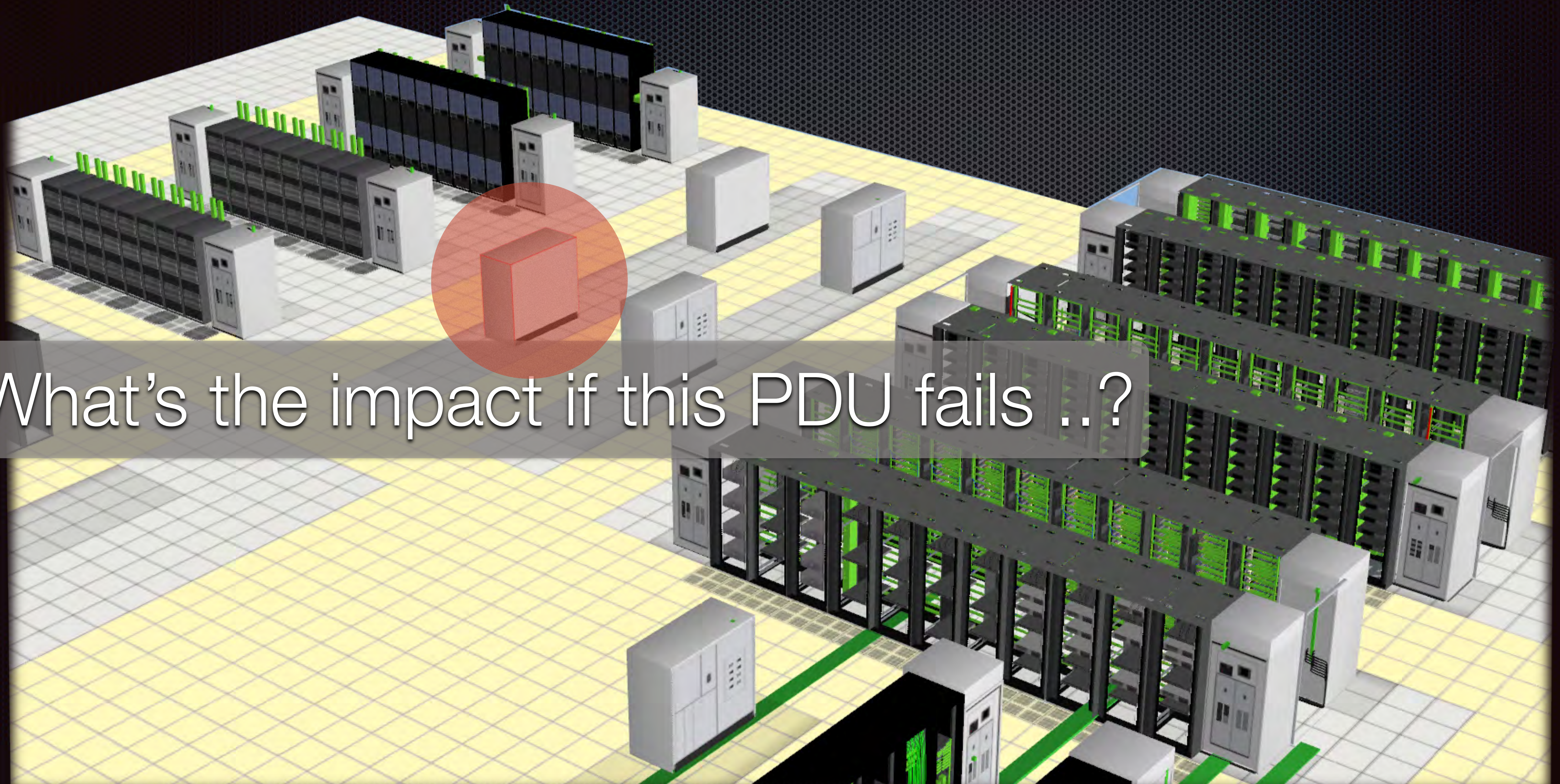
Connectivity Management – at the rack



Manage connectivity with Port-to-Port granularity. Fibre, copper, power.

Connectivity Management – at the server





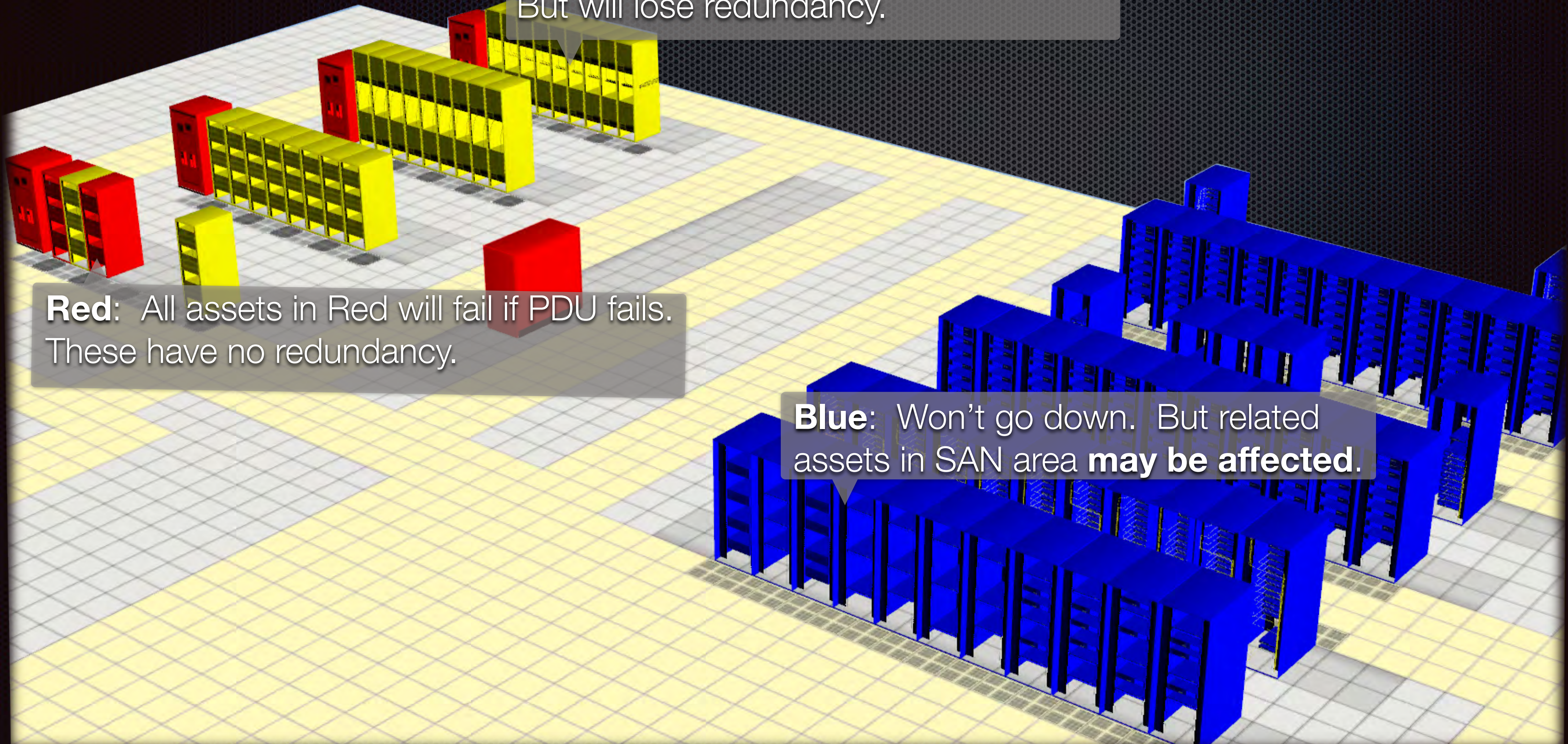
What's the impact if this PDU fails ..?

Analytics. What if ...?

Yellow: These assets won't go down. But will lose redundancy.

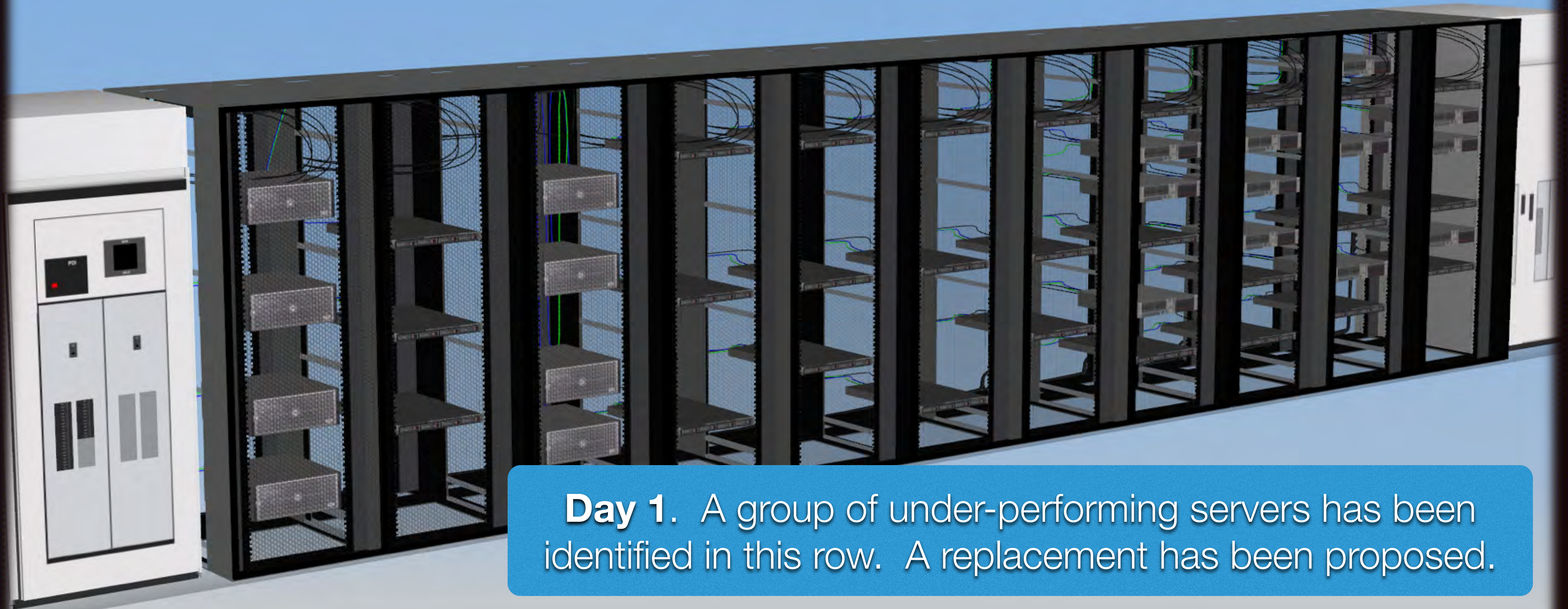
Red: All assets in Red will fail if PDU fails. These have no redundancy.

Blue: Won't go down. But related assets in SAN area **may be affected.**



Future View. Anticipate changes before they happen.

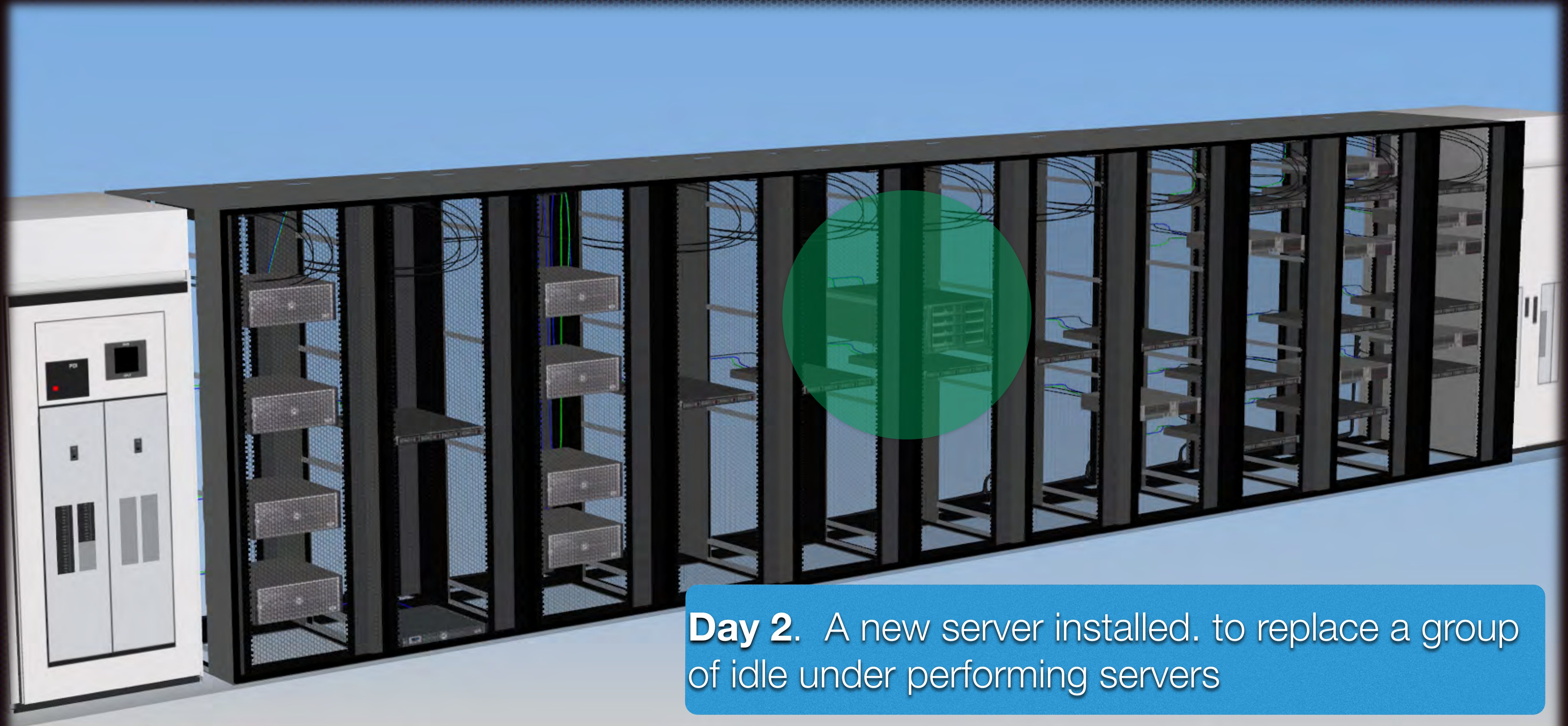
COMMScope®



Day 1. A group of under-performing servers has been identified in this row. A replacement has been proposed.

Future View. Anticipate changes before they happen.

COMMScope®



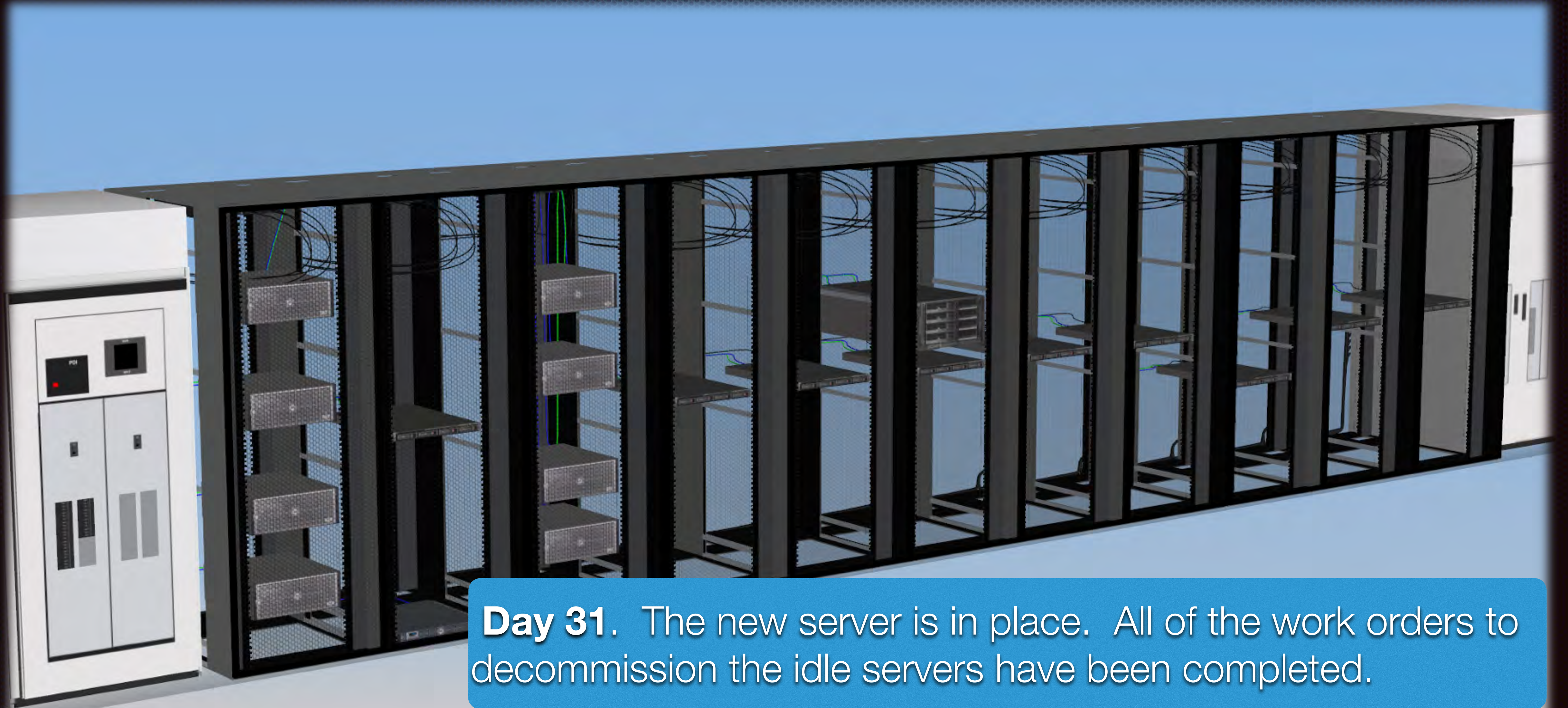
Day 2. A new server installed. to replace a group of idle under performing servers

Future View. Anticipate changes before they happen.



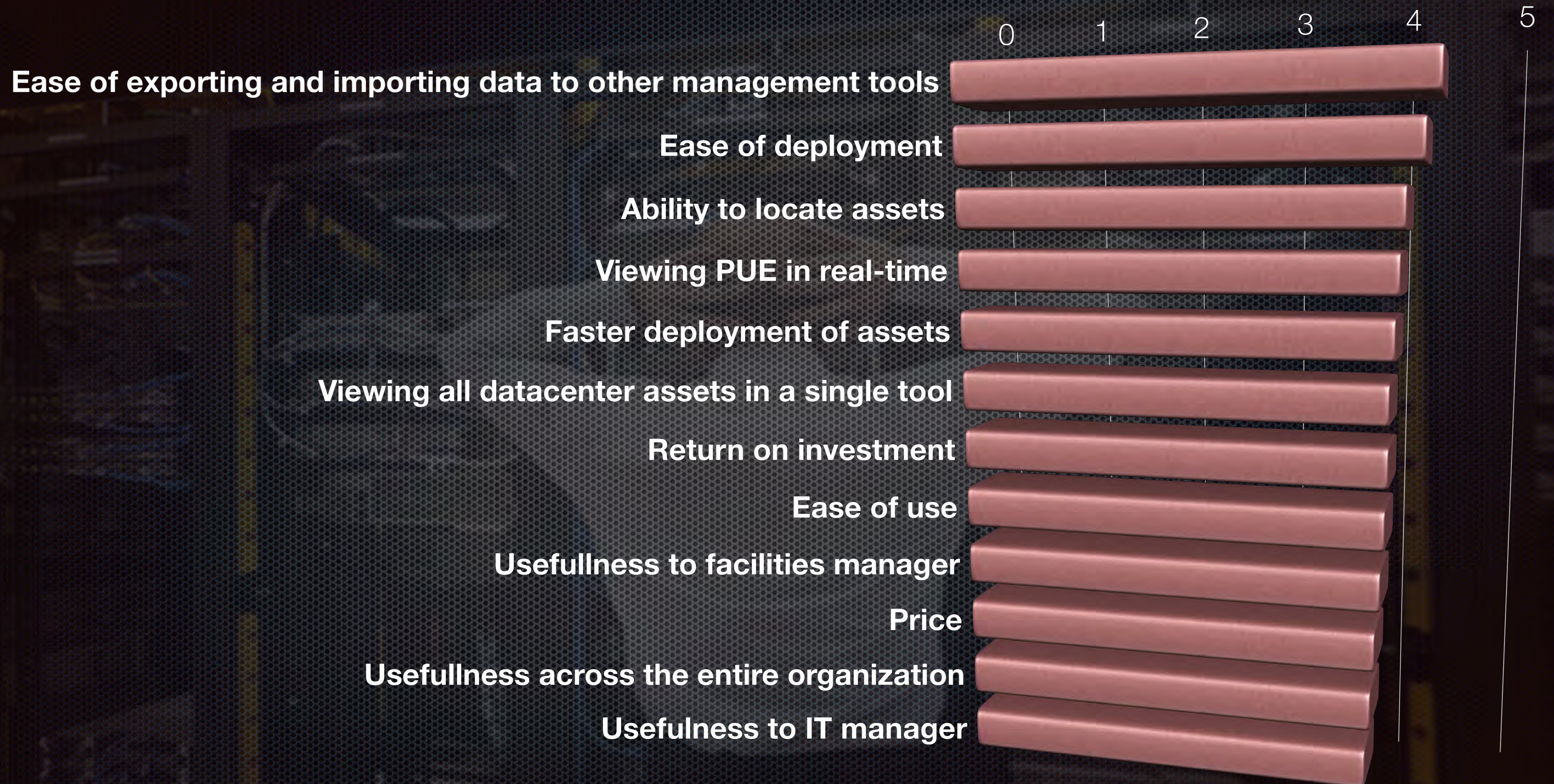
The idle servers are decommissioned. Work orders to remove connectivity are implemented.

Future View. Anticipate changes before they happen.



Day 31. The new server is in place. All of the work orders to decommission the idle servers have been completed.

Satisfaction with the Top Elements of DCIM Software Solutions*



(Importance on a scale of 1-5)

*Source: IDC Research: DCIM Survey 2014

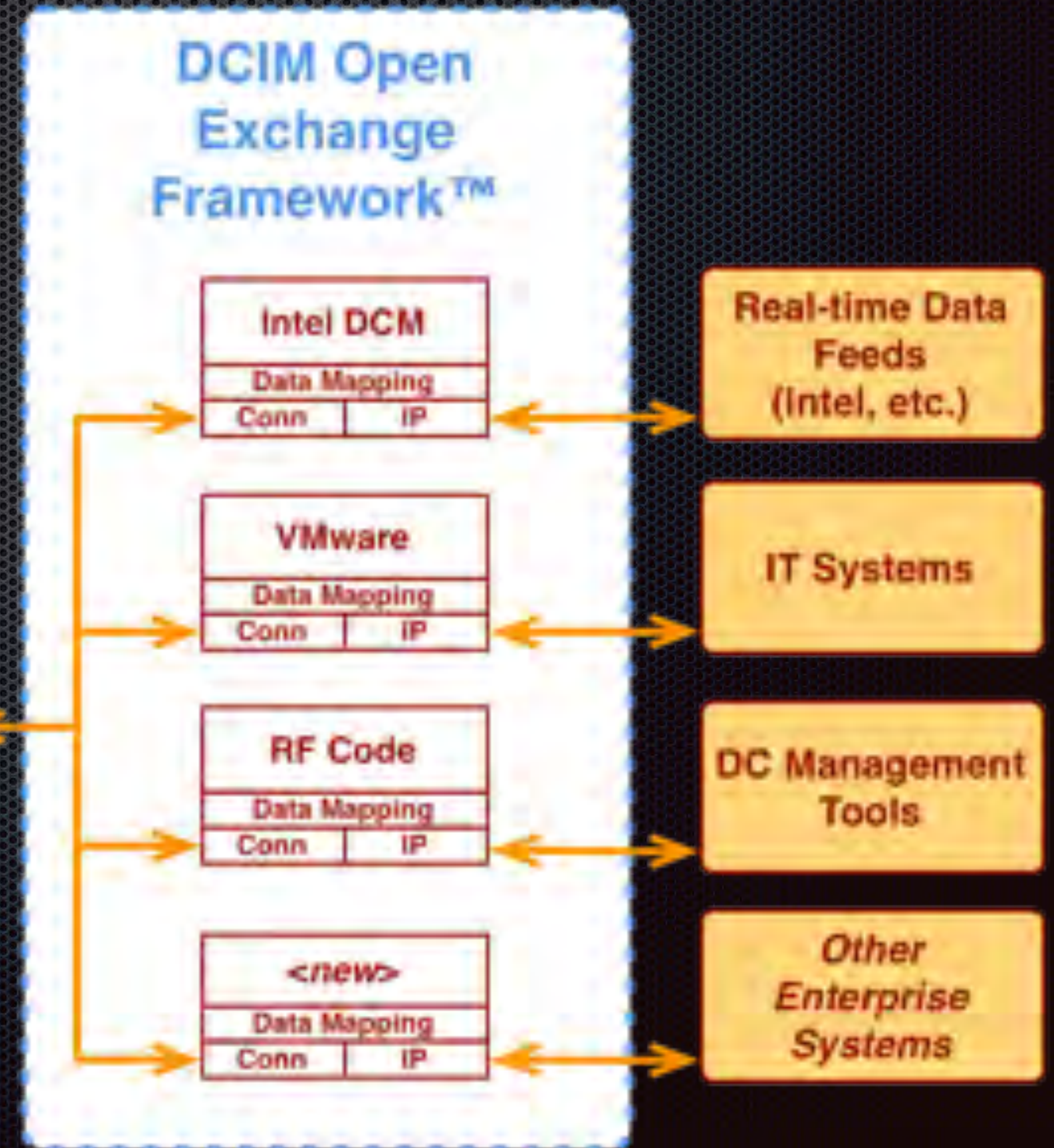
Open. The natural evolution of DCIM

Rapid integrations via DCIM Open Exchange Framework™



Intel Data Center Manager
RF Code
VMware vSphere and vCenter
HP Systems Insight Manager
APC Schneider
OSIsoft
BMC
Geist
Liebert
Power Assure
... and more

iTRACS DCIM
Software
Suite



More Information At Your Fingertips

CPIM Browser. The insight you need - *when you need it*



CPIM iPad app

Power Consumption: The Green Issue.

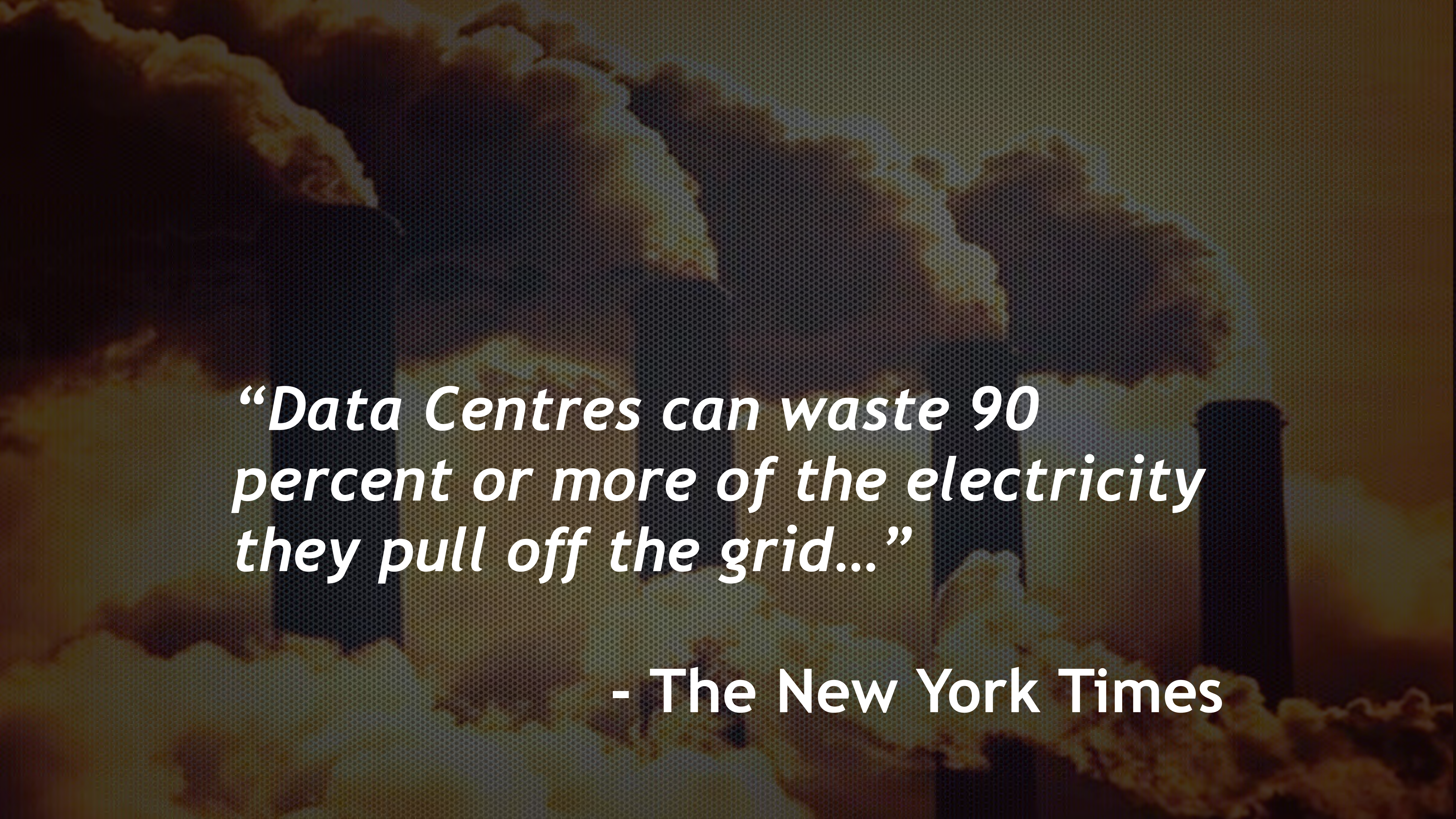
The world's ICT ecosystem uses about 1,500 TWh of electricity annually, equal to the total of Japan and Germany combined.

As much as was used for global illumination in 1985.

The ICT ecosystem now approaches 10% of world electricity generation.

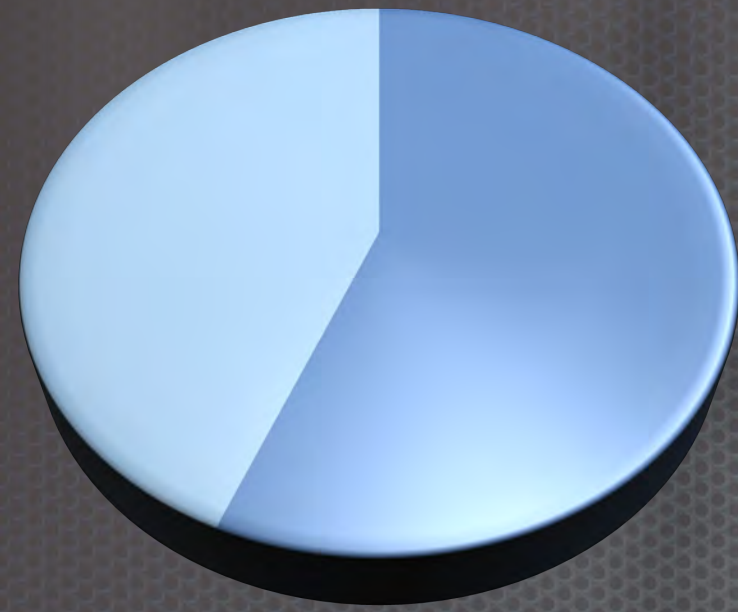
About 50% more than aviation.





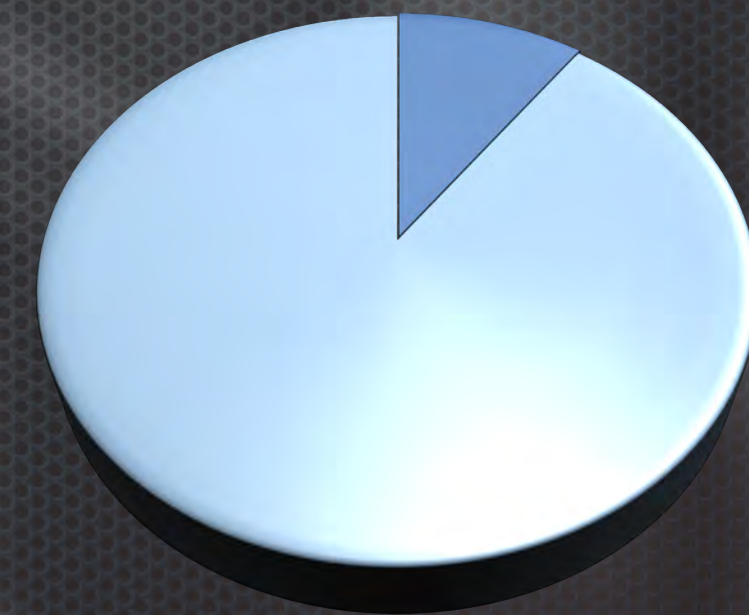
“Data Centres can waste 90 percent or more of the electricity they pull off the grid...”


- The New York Times



“In one sample of 333 servers monitored in 2010, more than half were found to be comatose”

“nearly three-quarters were using less than 10 percent of their computational brainpower, on average, to process data.”





“Decommissioning a 1U rack server can save a company \$500 a year in energy costs, \$500 in OS licenses and \$1,500 in hardware maintenance costs.”

Source: Uptime Institute



“AOL decommissioned 9,484 servers [2012], or about a quarter of its servers worldwide.”



Saved \$1.65 million in energy bills

Reduced carbon emissions by 20 tons



Gained \$1.2 million from scrap & resale



“We are seeing reductions in power, cooling, rack space, and network port utilisation - all of this while our usable compute footprint goes up, giving us the room to continue to grow the business,” said Paul Nally, Director at Barclays. ”

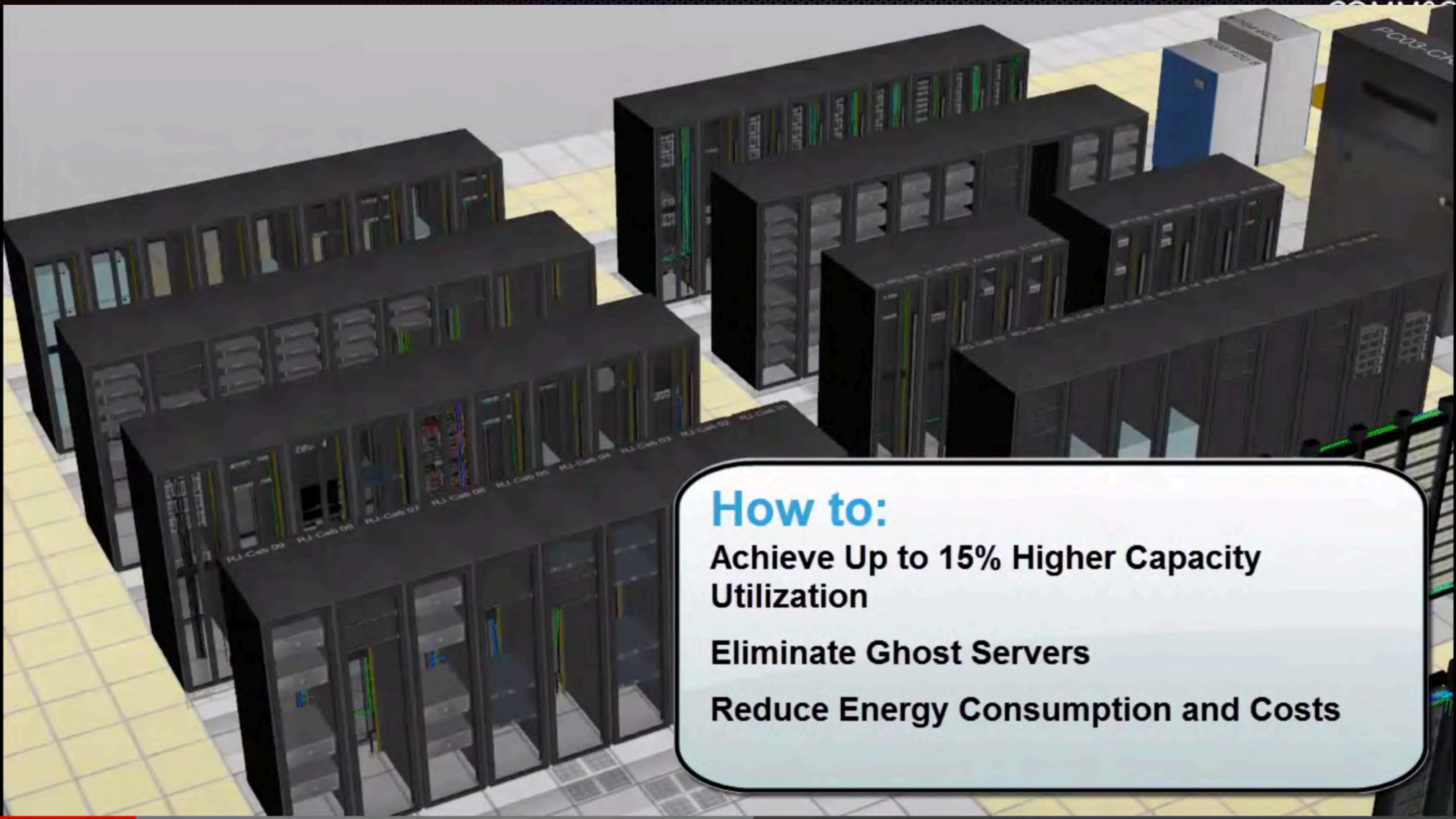


Saved \$4.5 million in energy bills and \$1.3m on legacy hardware maintenance costs.

Reduced Power consumption by 2.5 MW



Released 20,000 network ports and 3,000 storage area network ports.



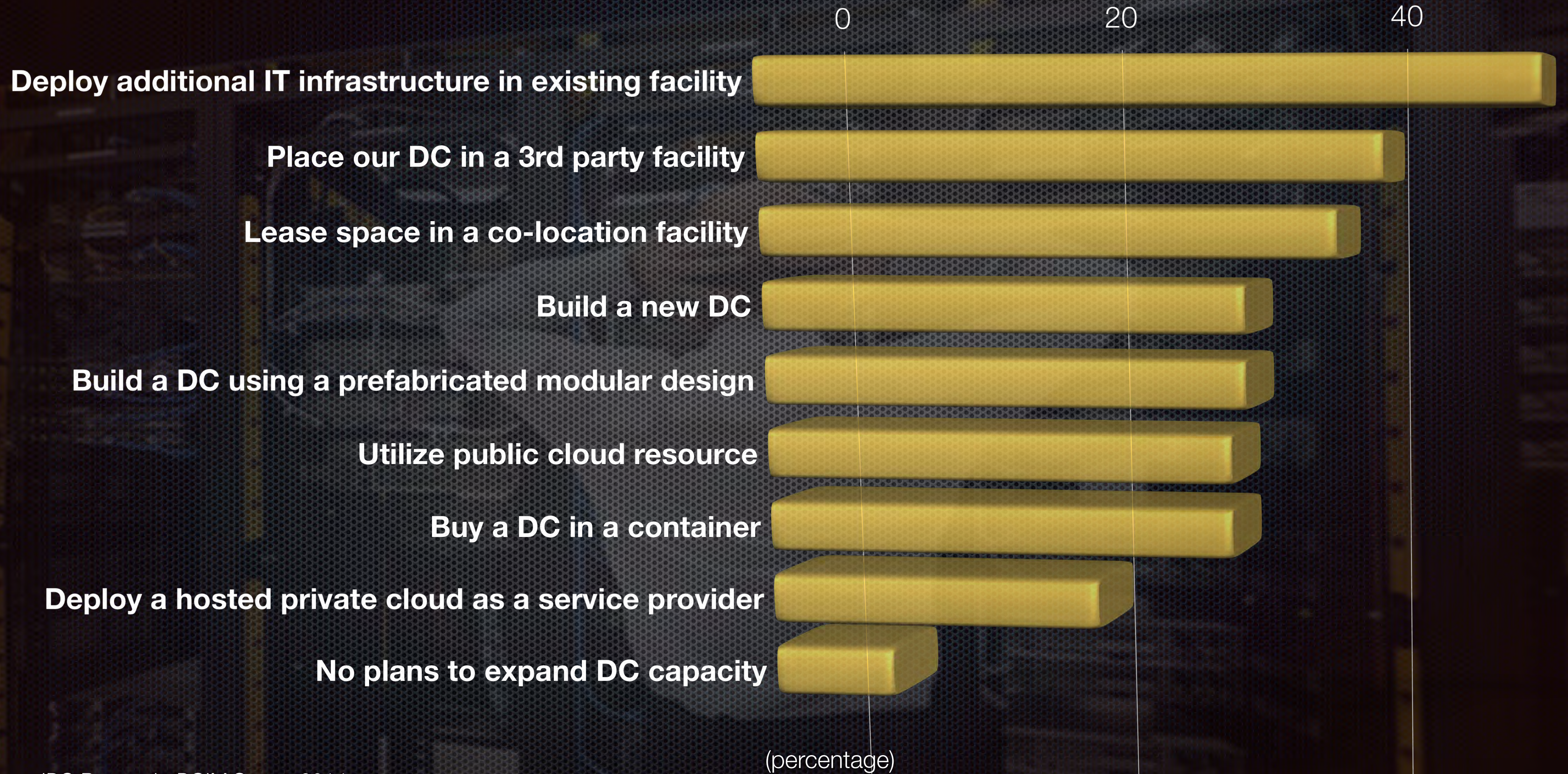
How to:

Achieve Up to 15% Higher Capacity Utilization

Eliminate Ghost Servers

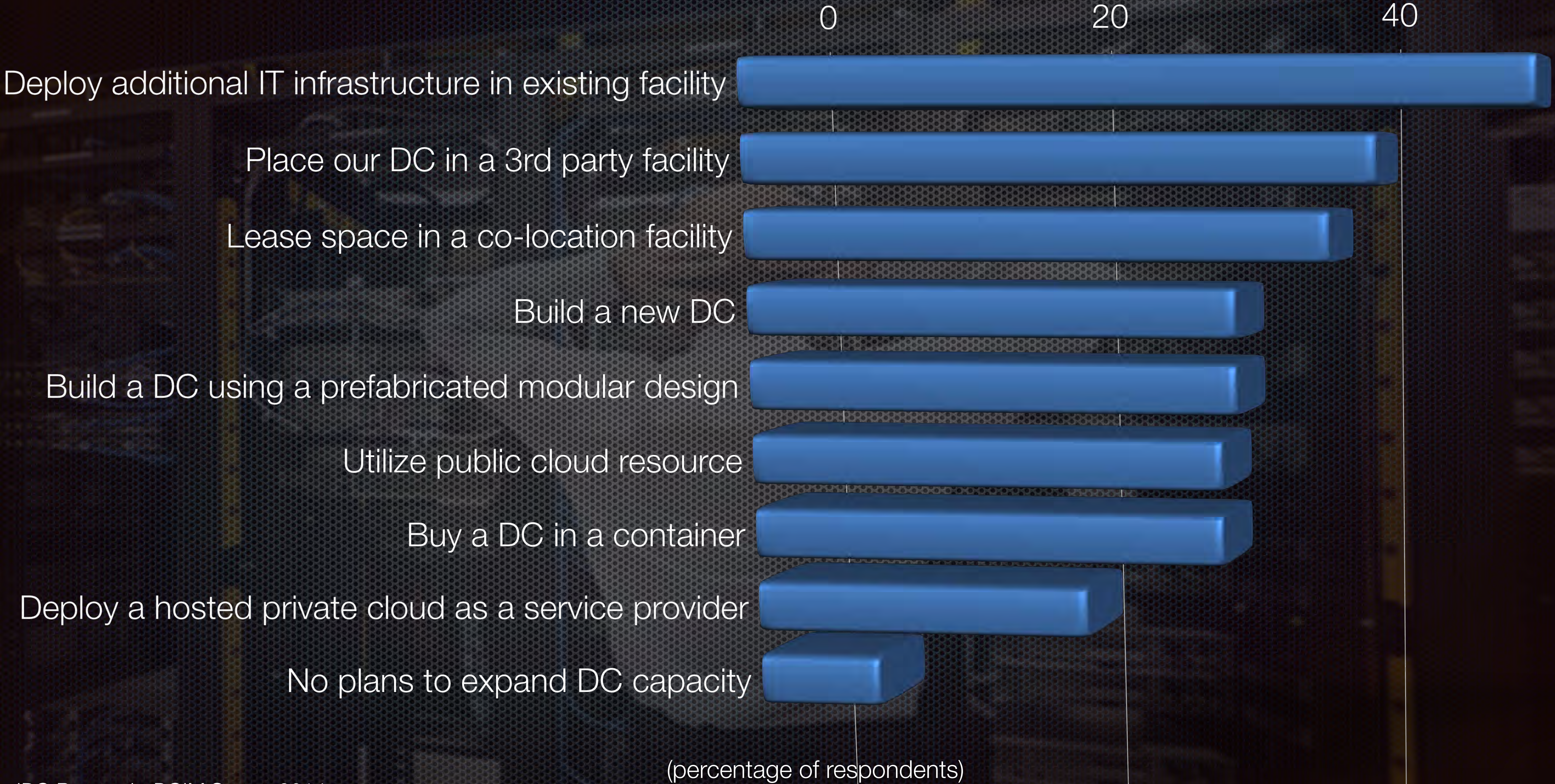
Reduce Energy Consumption and Costs

Deployment of Additional Datacentre Infrastructure Solutions in the past 18 months*



*Source: IDC Research: DCIM Survey 2014

Deployment of Additional Datacentre Infrastructure Solutions in the Next 18 months*



(percentage of respondents)

*Source: IDC Research: DCIM Survey 2014

Data Centre on Demand

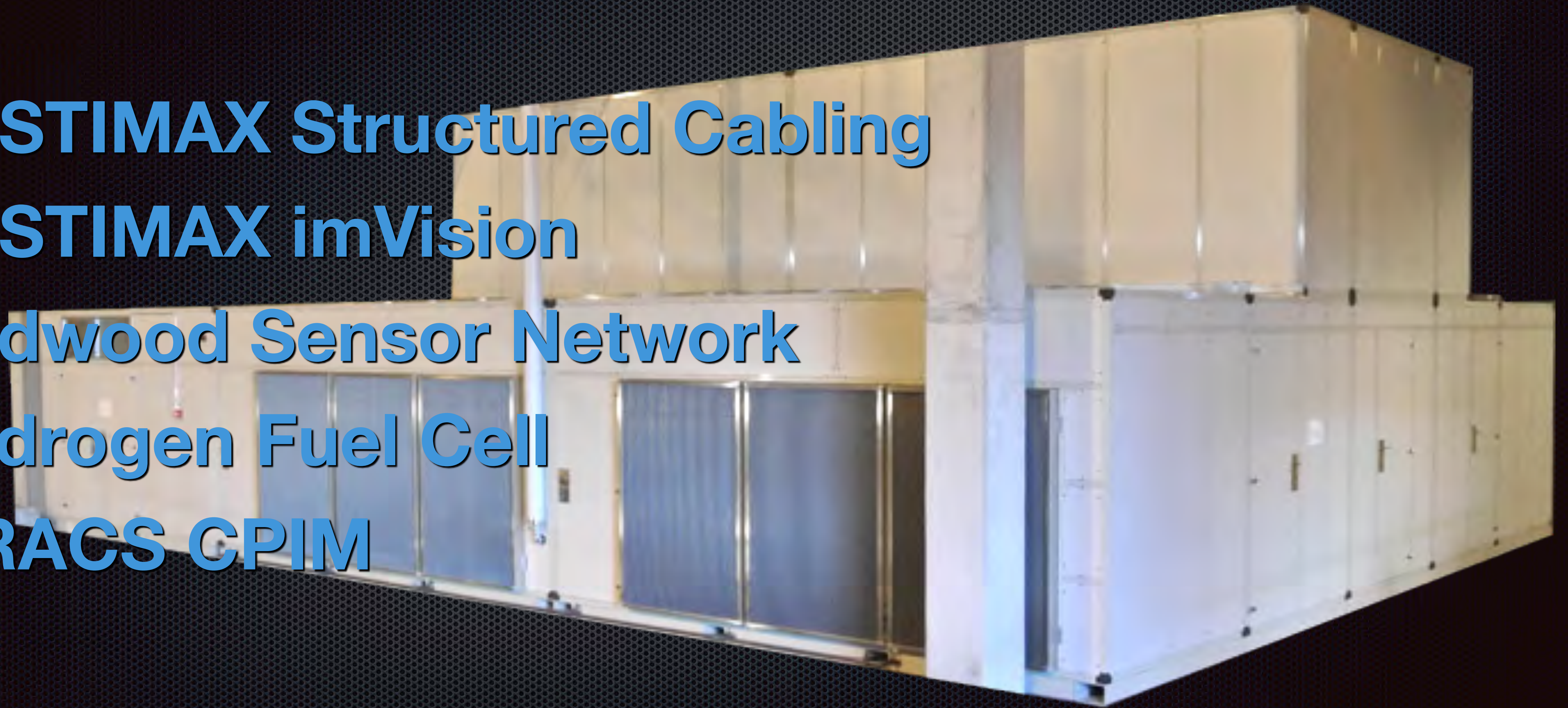
SYSTIMAX Structured Cabling

SYSTIMAX imVision

Redwood Sensor Network

Hydrogen Fuel Cell

iTRACS CPIM



Thank You