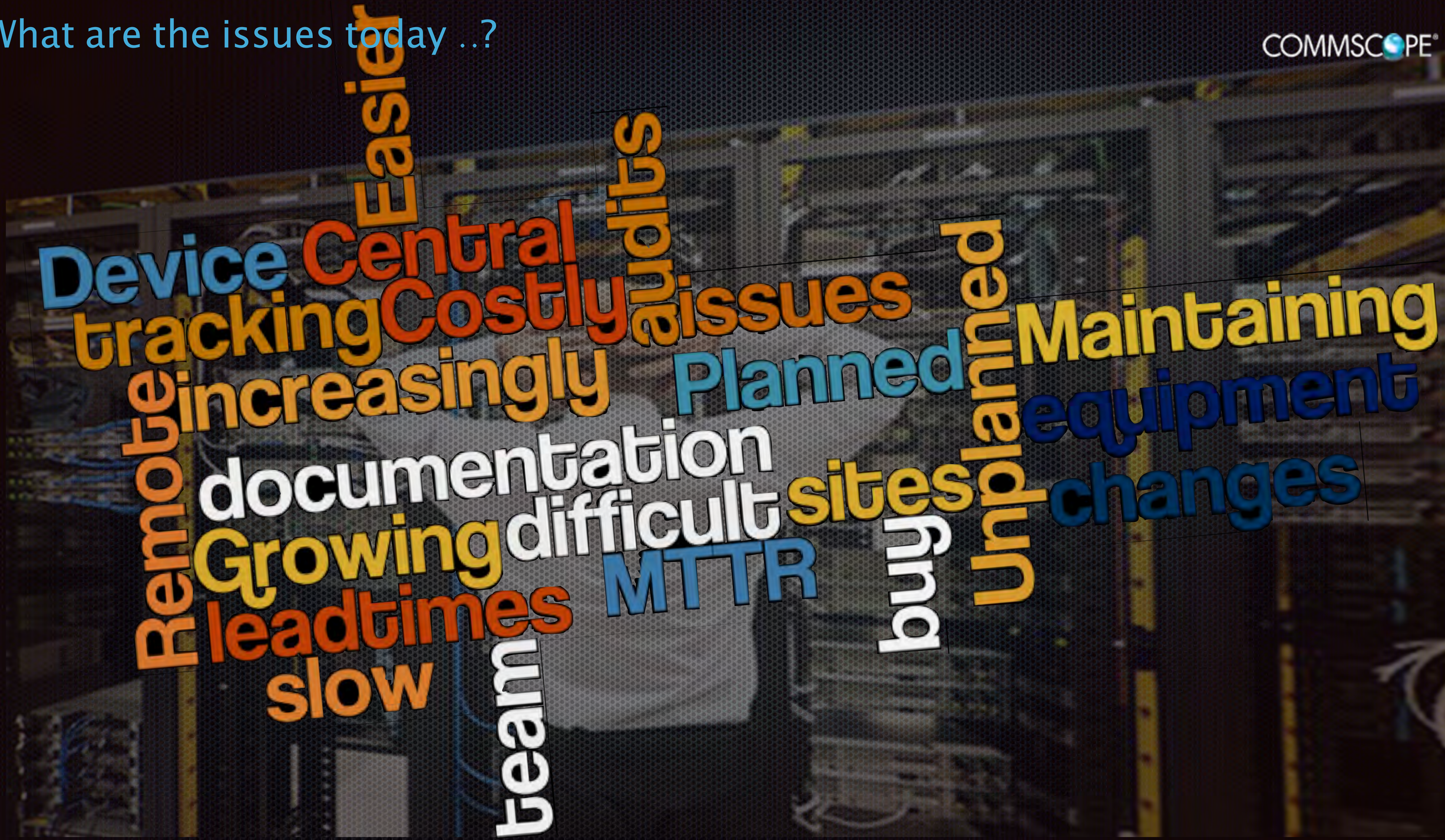
CommScope's Intelligent Platform

Niall McAndrew
Technical Consulting Manager

Bray, Ireland
March 2015

What are the issues today ..?



How did we get here ..?

COMMSCOPE®

Networks Evolve

Responsibilities Change

Businesses Grow

Budgets Shrink

We have the answer …

COMMSCOPE®

SYSTIMAX® imVision™

imVision. Infrastructure Management. Made Easy.

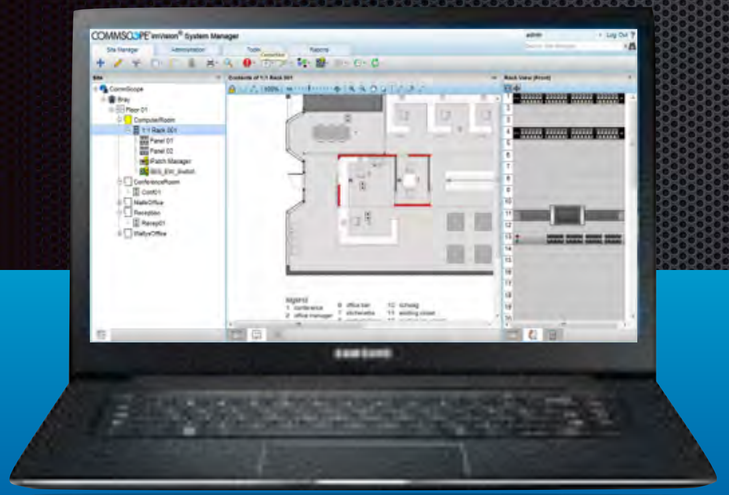
imVision: pronunciation – \'em-vi-zhen\

The imVision™ solution

iPatch copper panels

imVision™ controller

imVision™ System Manager



iPatch fibre shelves

The imVision™ solution

COMMSCOPE®

4.3” multi-touch colour screen

The imVision™ solution

Simple, scalable architecture

Rack 1

Rack 2

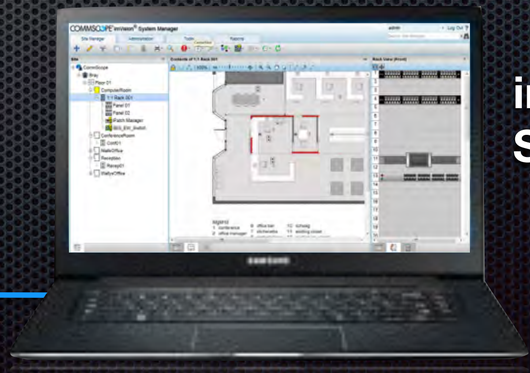
Rack 3

ack 1-
Network
anager

iPatch Panels/Shelves

tcp/ip

TCP/IP



imVision™
System Manager

Circuit trace. Realtime.

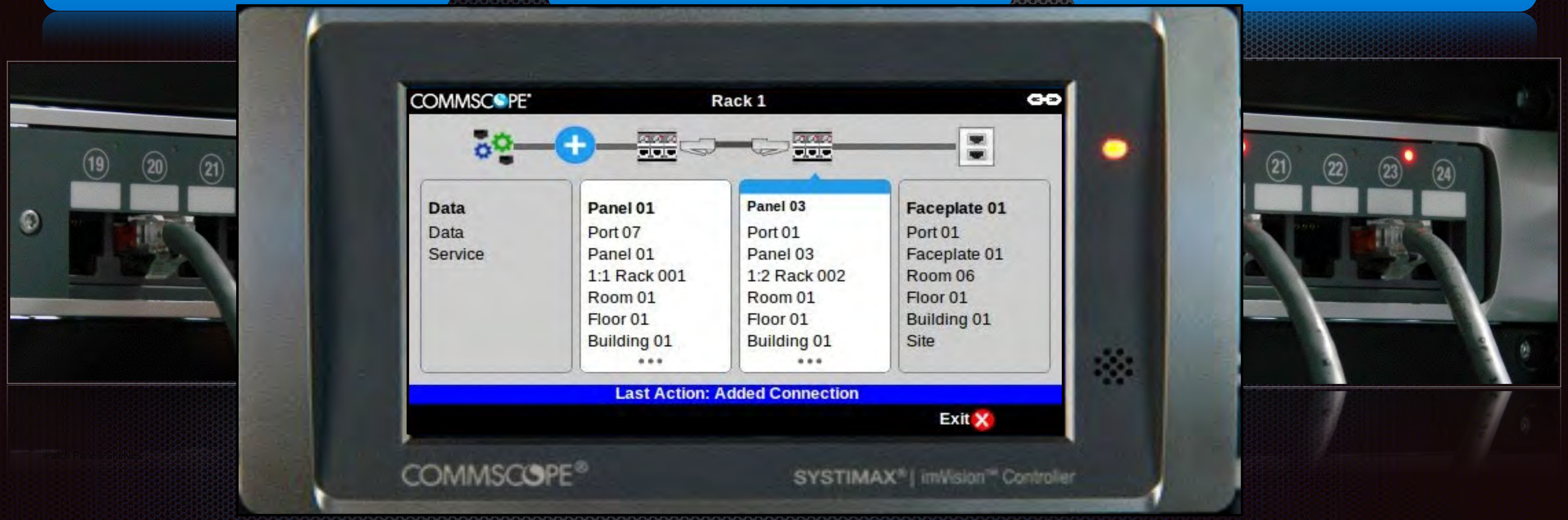
COMMSCOPE

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.

COMMSCOPE®

SMv1
MS-Access
Single-User

SMv3
Web Server
Event-Notification

SMv5
Data Centre features
Web Reports

SMv6.6
Blade Servers
Mainframes

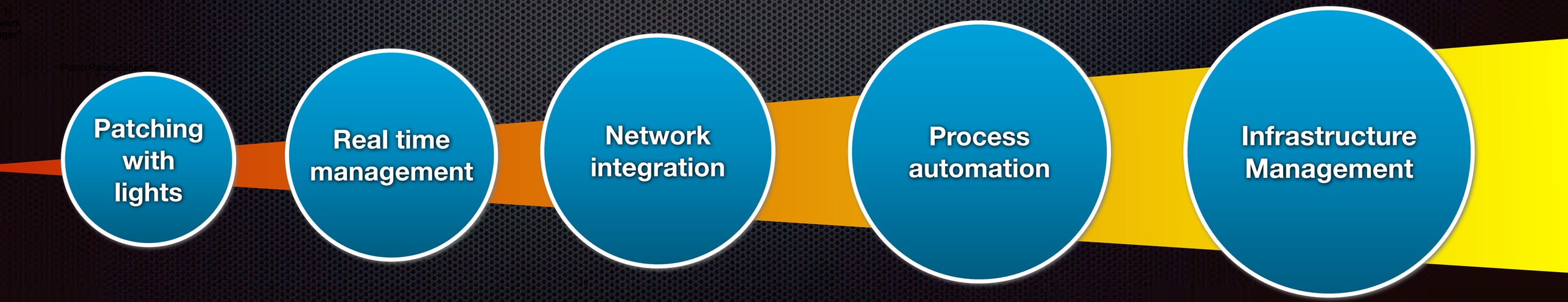
2001 **2002** **2004** **2005** **2006** **2008** **2009-2011** **2012**

SMv2
MS-SQL
CAD Floorplans

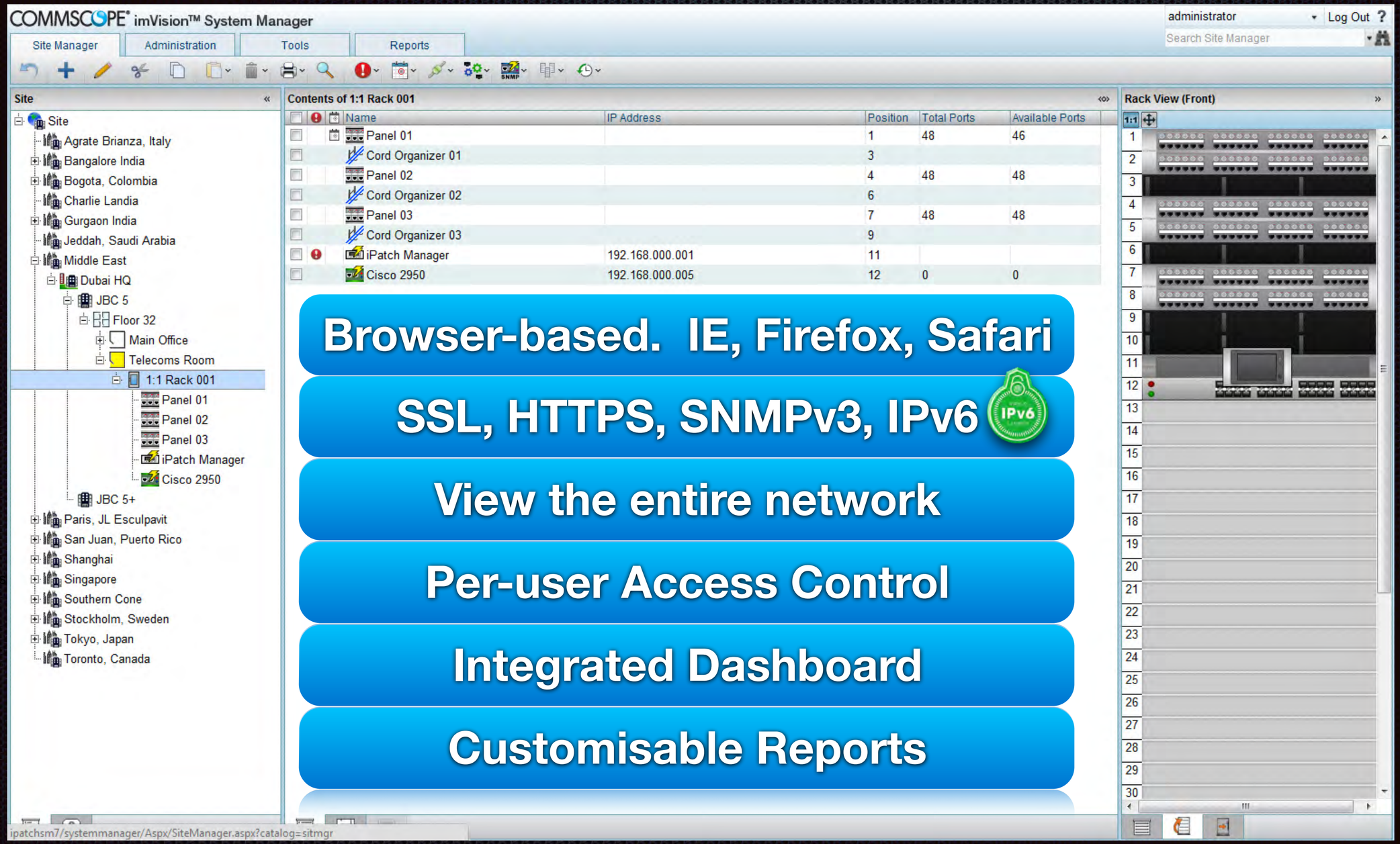
SMv4
Device Discovery
Managed Switches

SMv6
VLANs, SANs
XML Interface

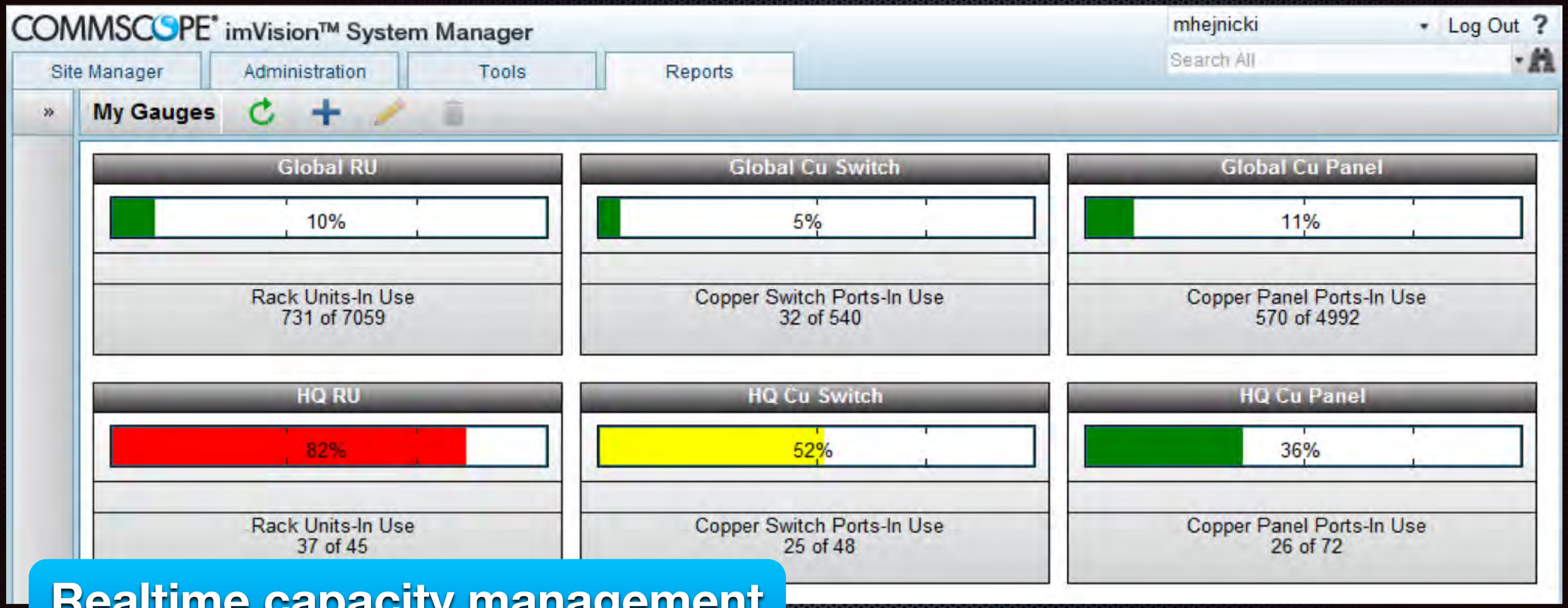
SMv7
New web-based
architecture



Browser-based application



Dashboard display.

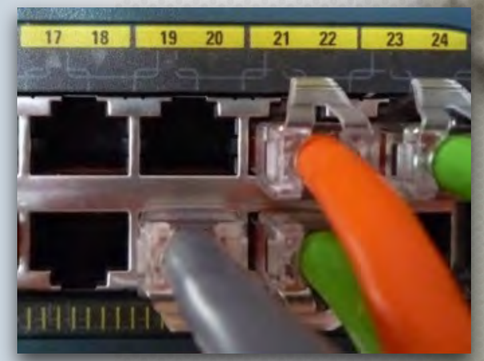


Realtime capacity management
User-configurable thresholds

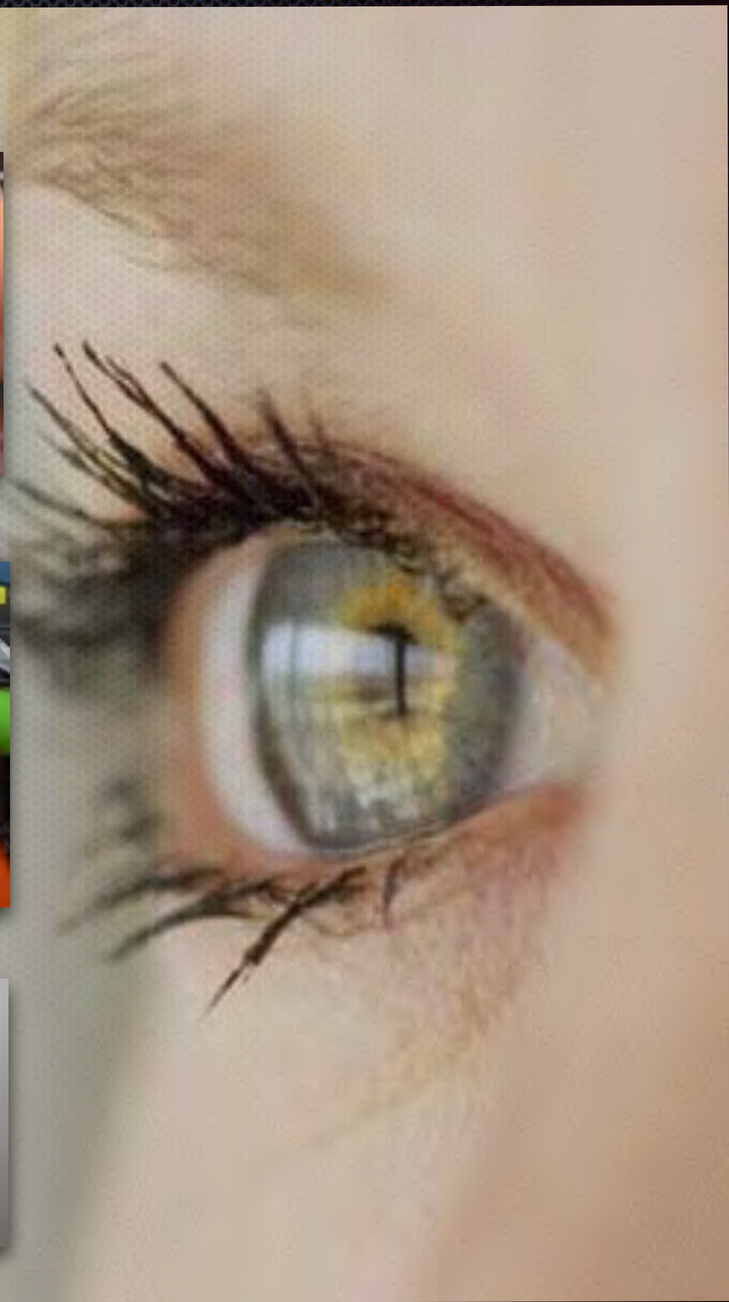
Vision

Sensing the insertion, removal of standard patch cords and plugs

Discovering LAN and SAN devices and their connectivity information.



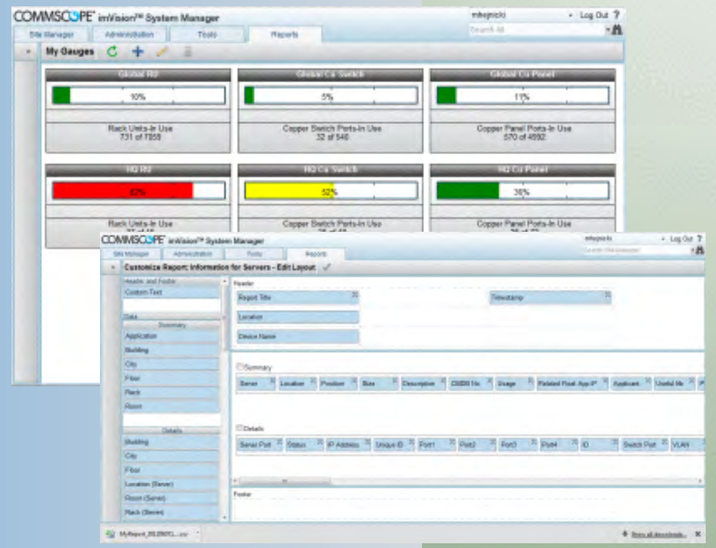
Processing SNMP traps from external appliances and PDUs.



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.



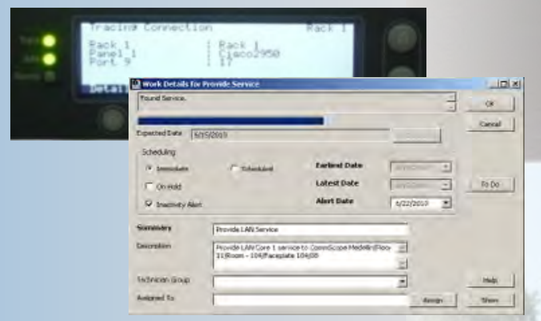
Reporting for location, asset management.

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.

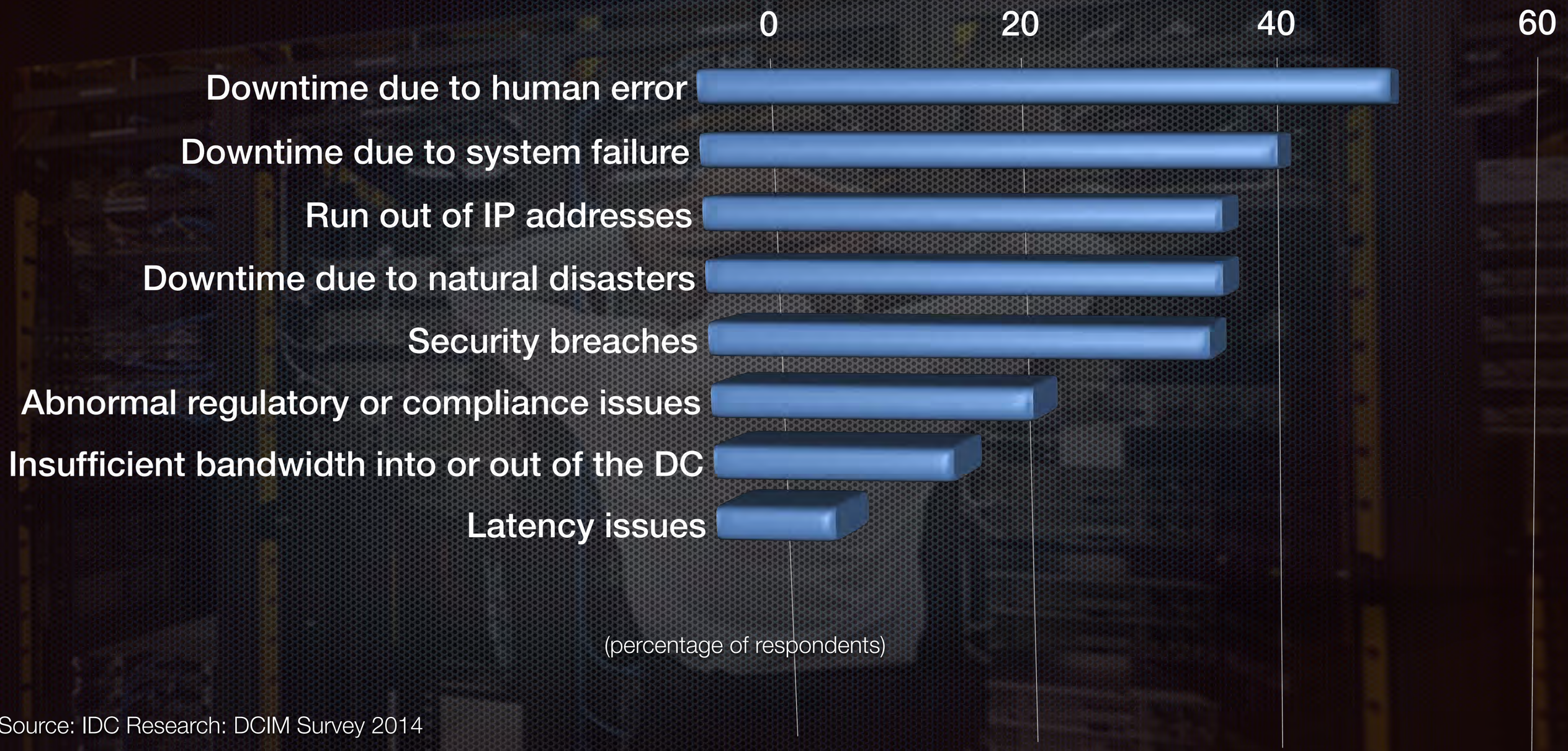
Integrating with external applications for enhanced network management and monitoring



What are the issues in the Data Centre

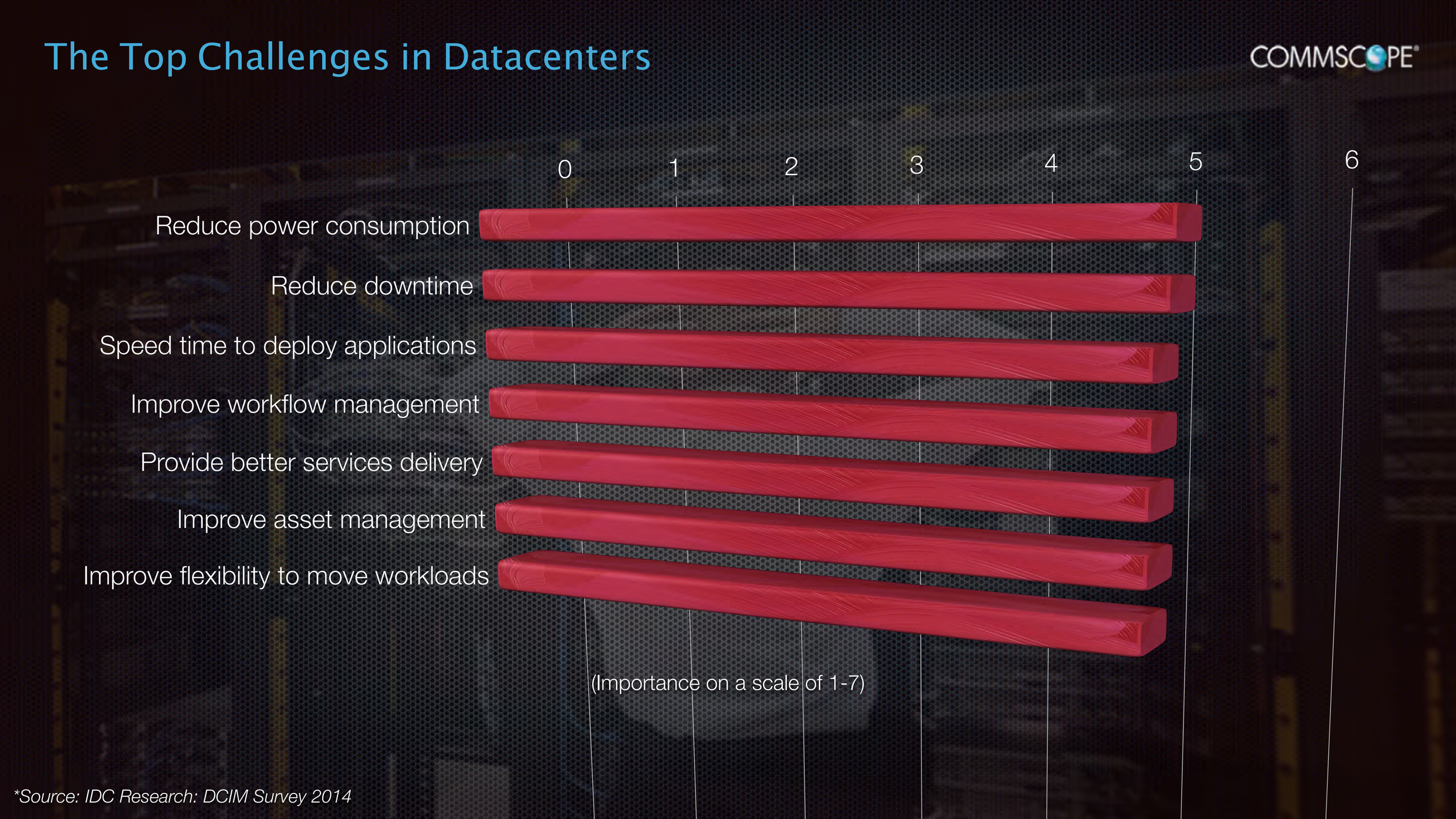
- Managing connectivity
- Utilisation of assets
- Rising energy usage and costs
- Disaster recovery
- Redundancy and resilience
- Maintaining 99.999 (5 nines) uptime

Datacenter Issues Experienced in the past 12 Months



*Source: IDC Research: DCIM Survey 2014

The Top Challenges in Datacenters



*Source: IDC Research: DCIM Survey 2014

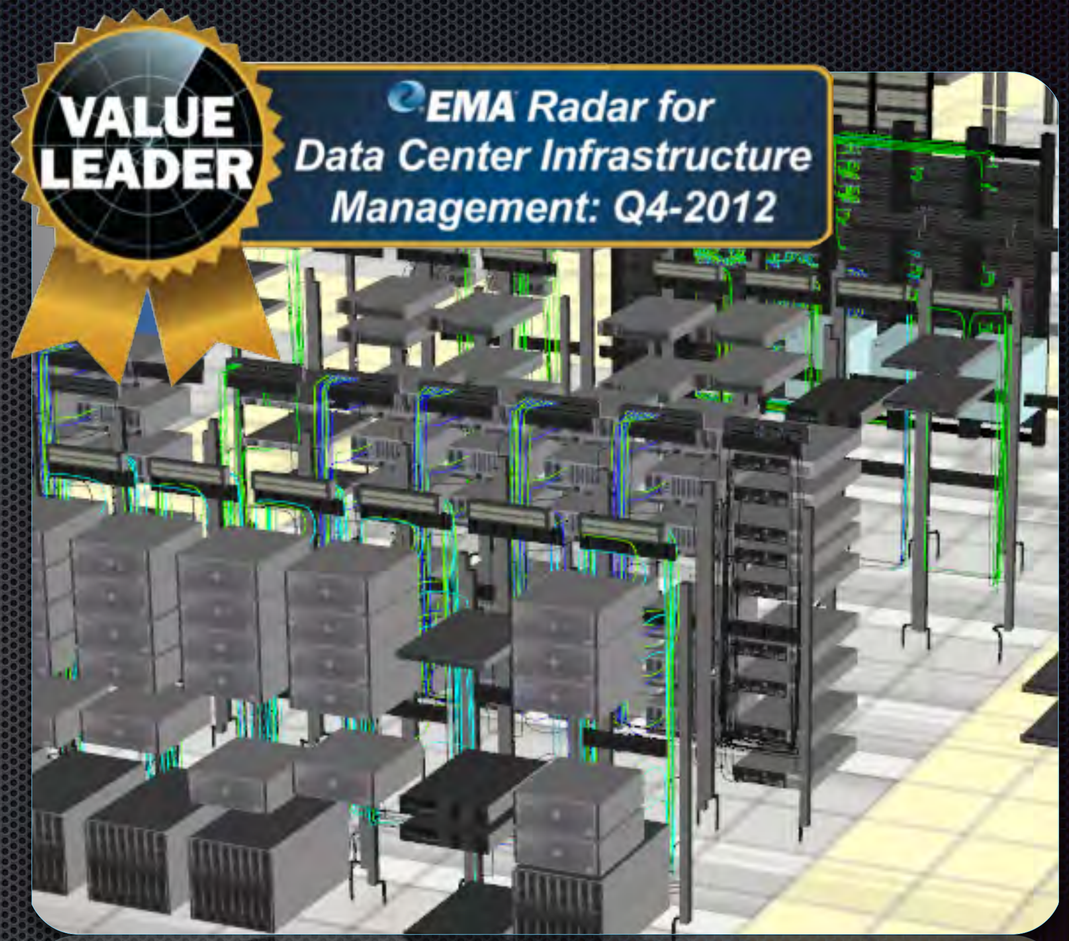
iTRACS CPIM. World-leading DCIM suite

COMMSCOPE®

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



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

IDC
Analyze the Future
IDC MAJOR PLAYER IN DCIM

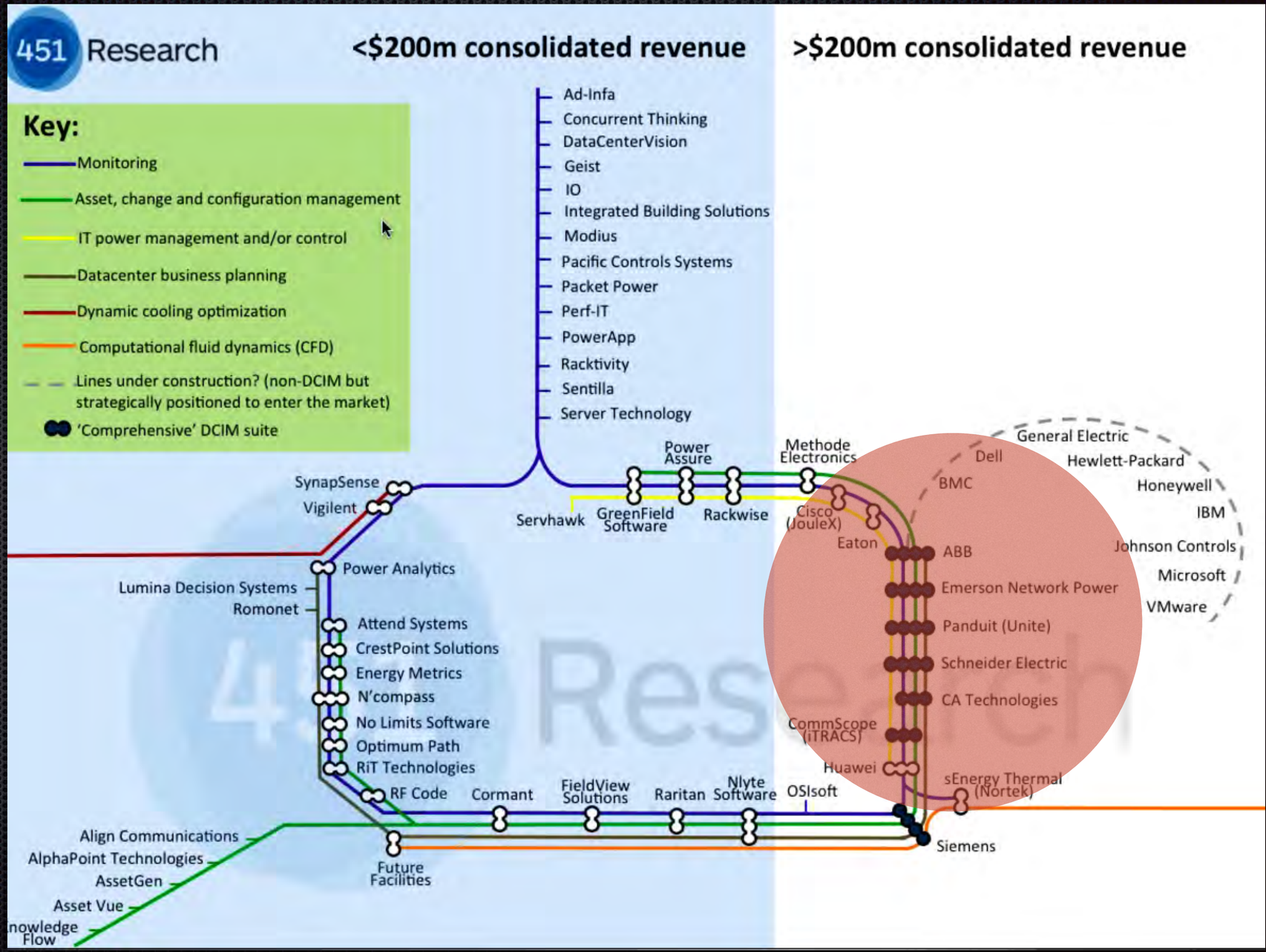
Gartner | 2011
COOL VENDOR

iTRACS CPIM. One of the few DCIM suites.

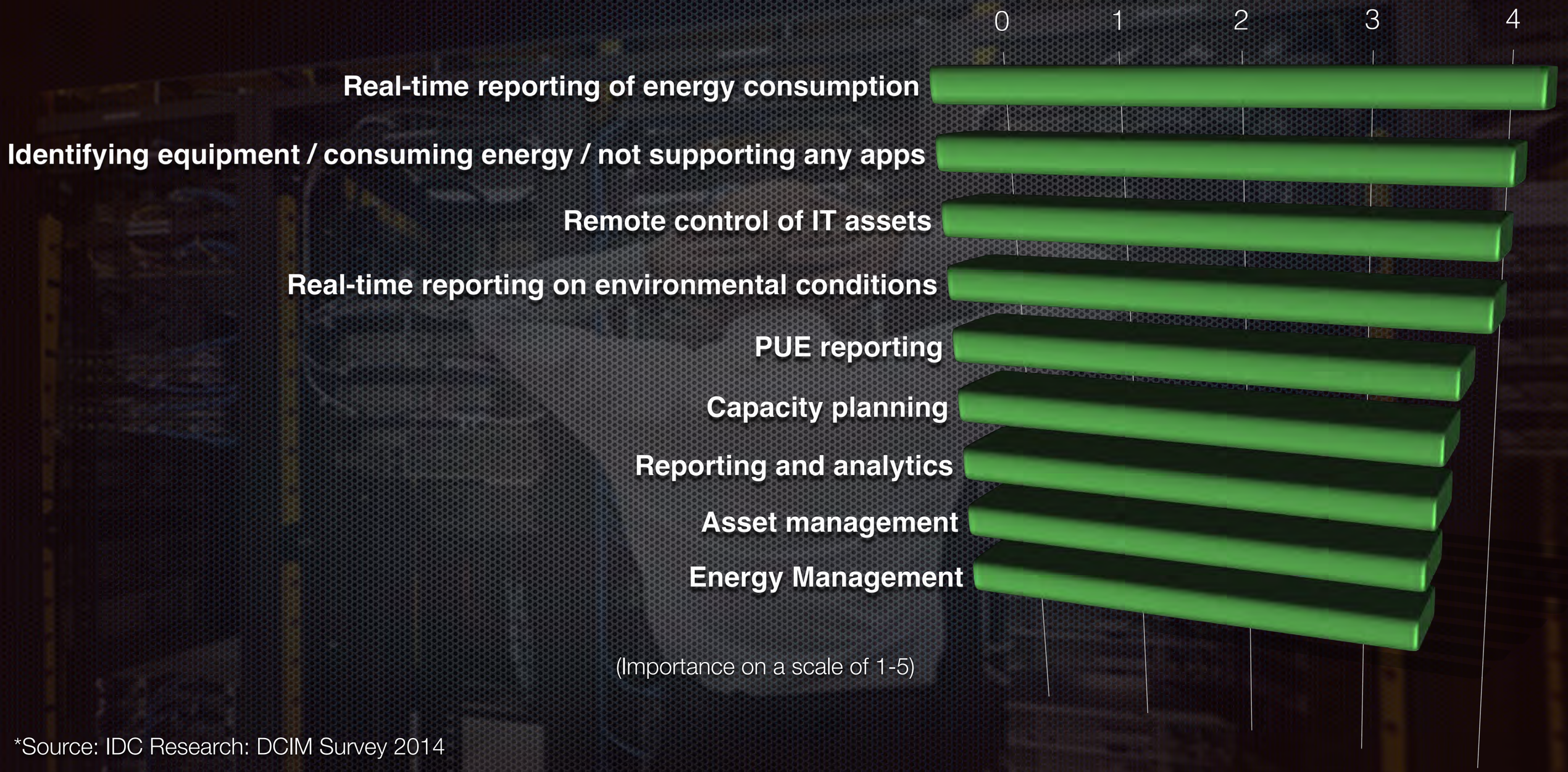
COMMSCOPE

Most products on the market today are not DCIM.

Many products offering monitoring 'point' solutions.



Top-Ranked DCIM Features

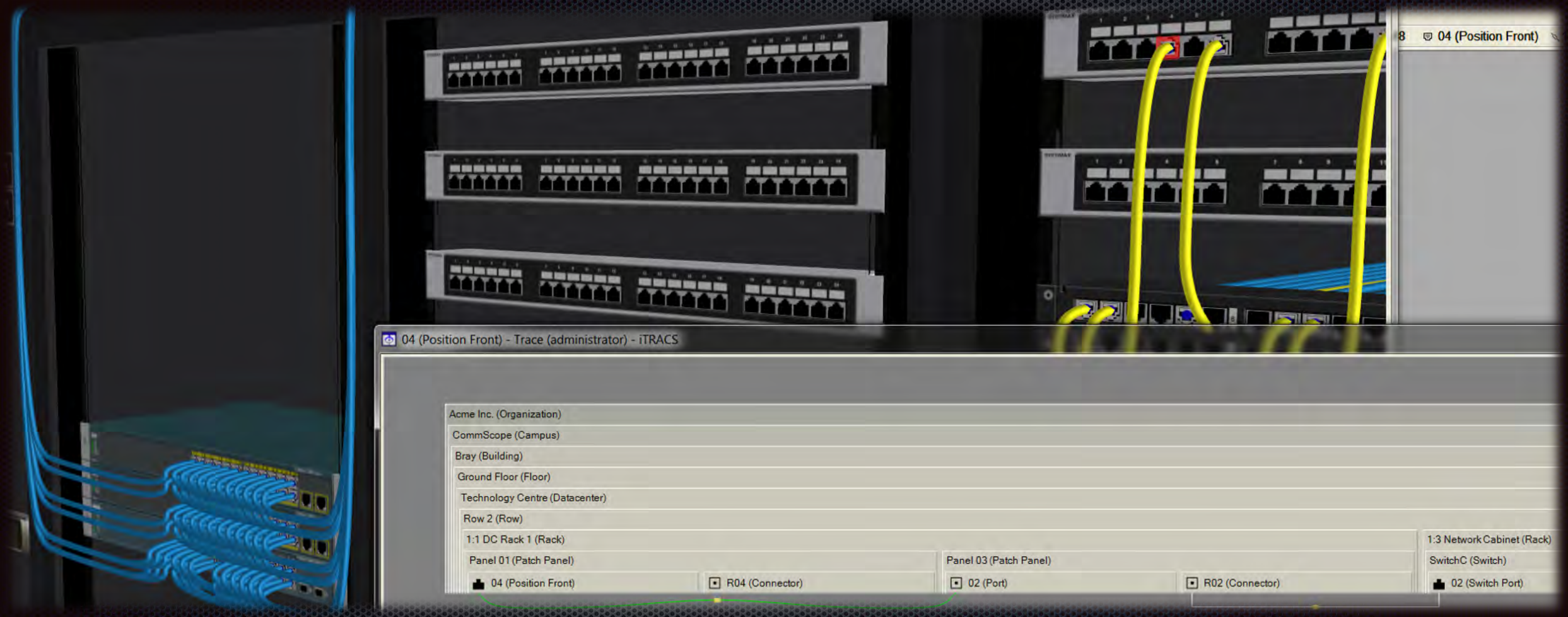


*Source: IDC Research: DCIM Survey 2014

Connectivity Management – at the rack

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

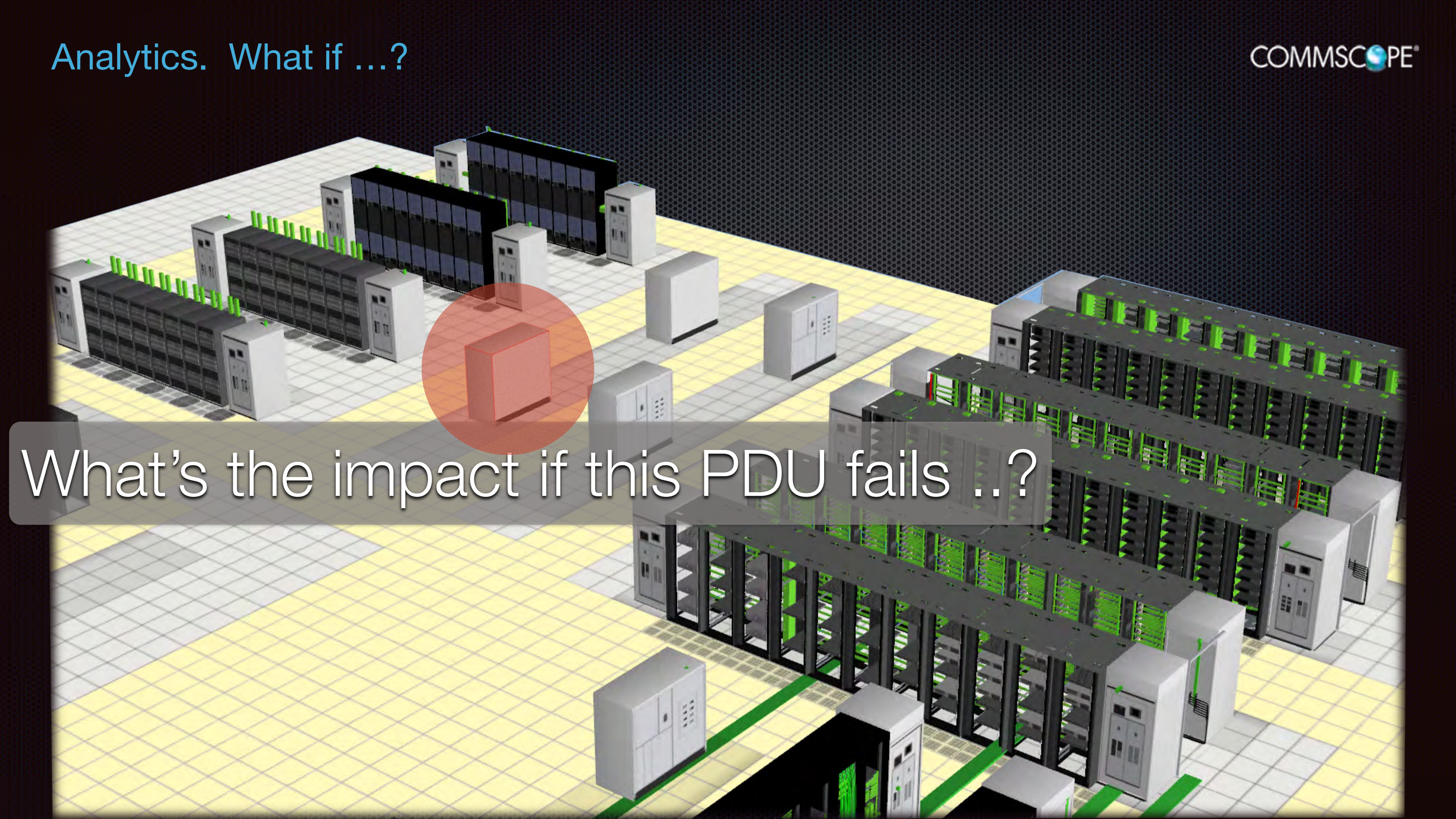
Connectivity Management – at the rack



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

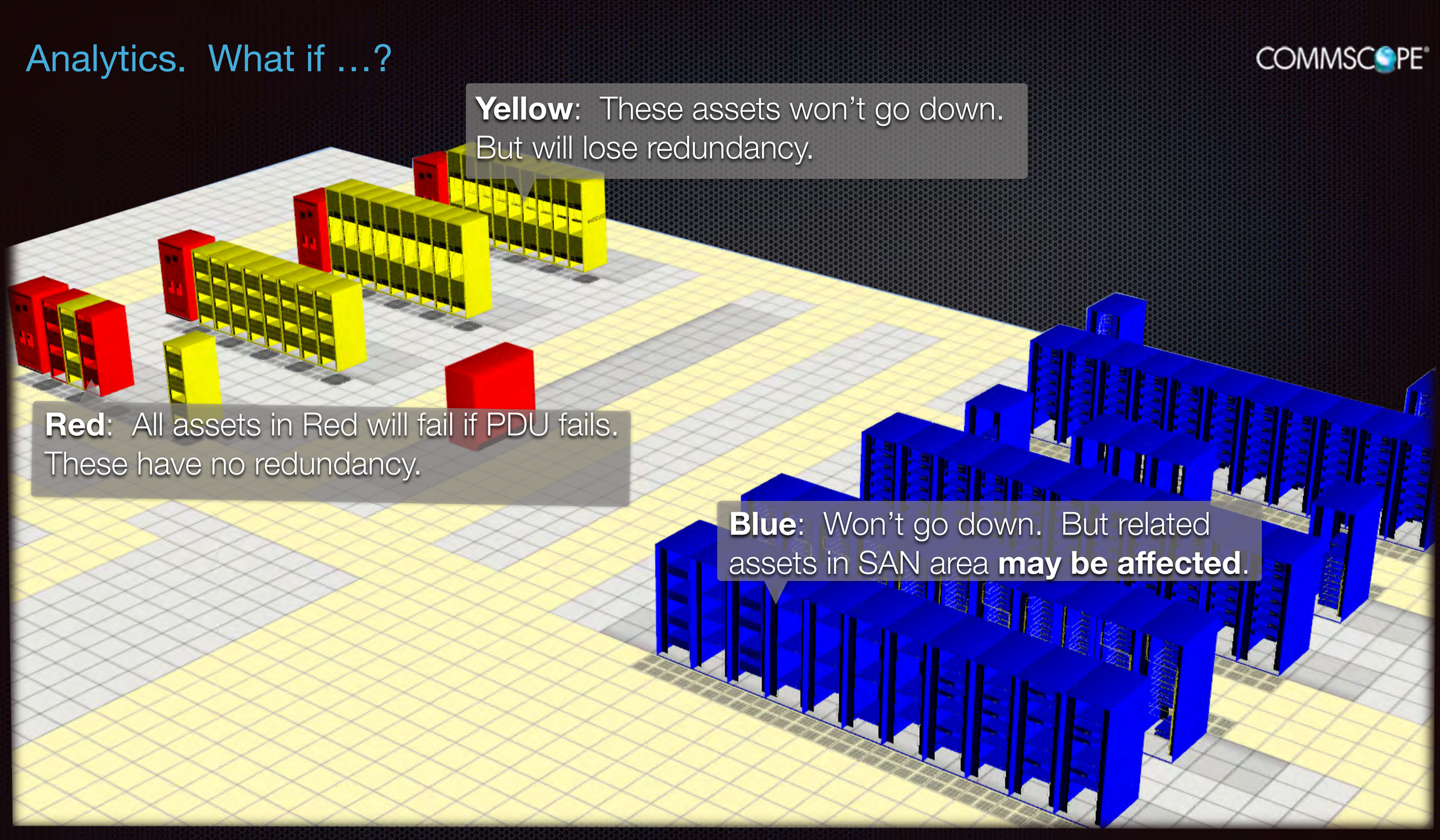
Connectivity Management – at the server

Analytics. What if …?

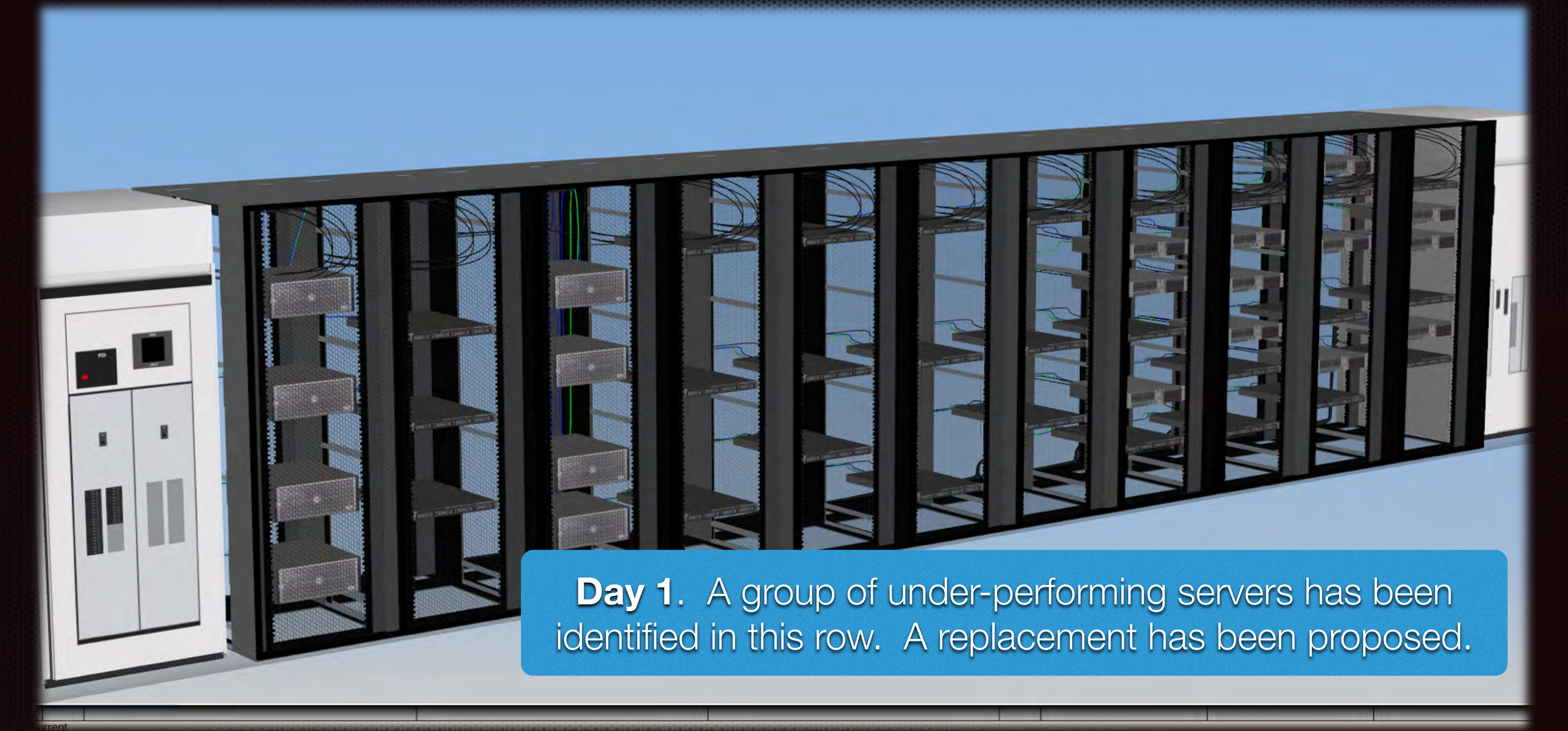


Analytics. What if …?

COMMSCOPE

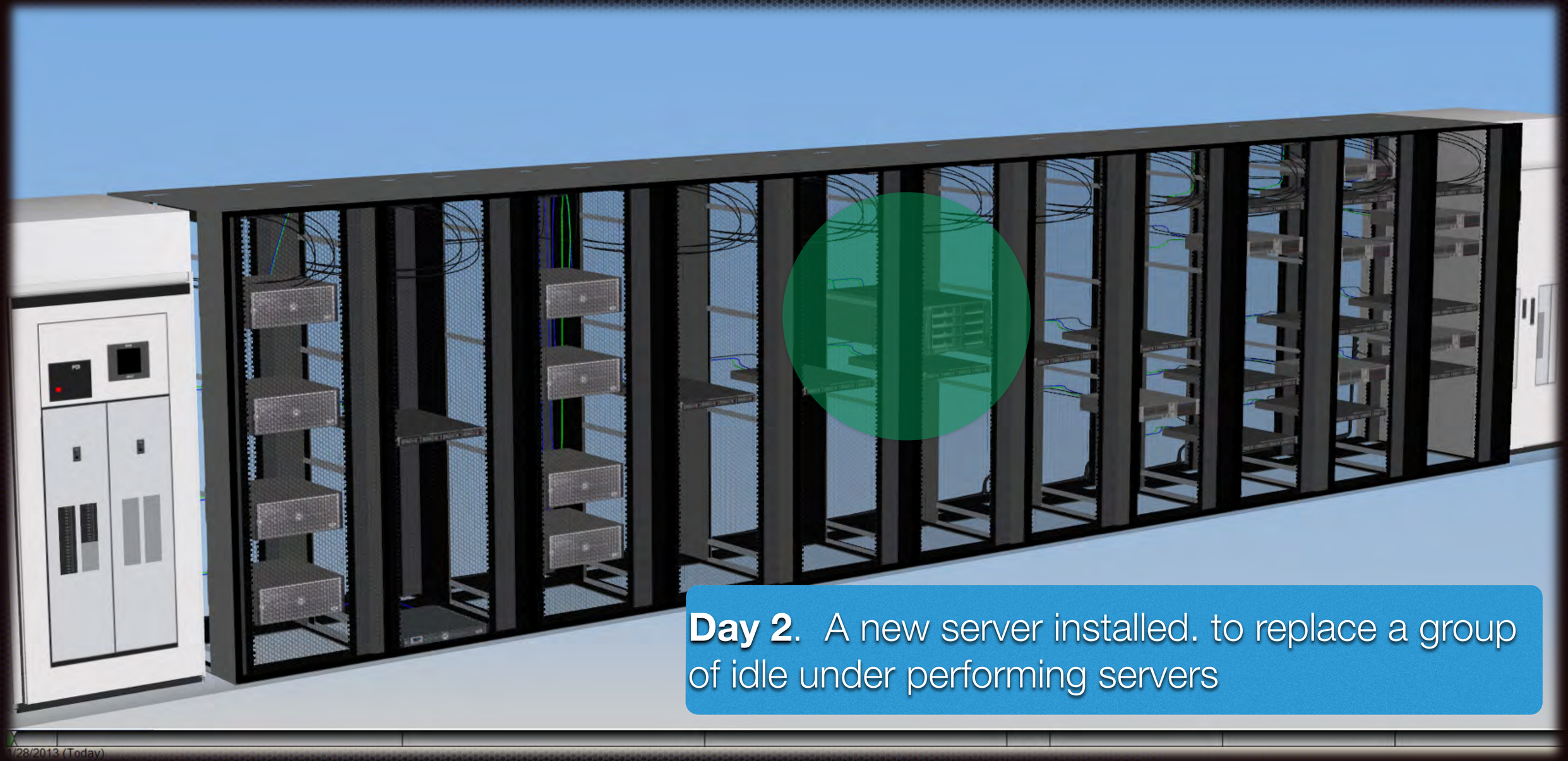


Future View. Anticipate changes before they happen.



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.



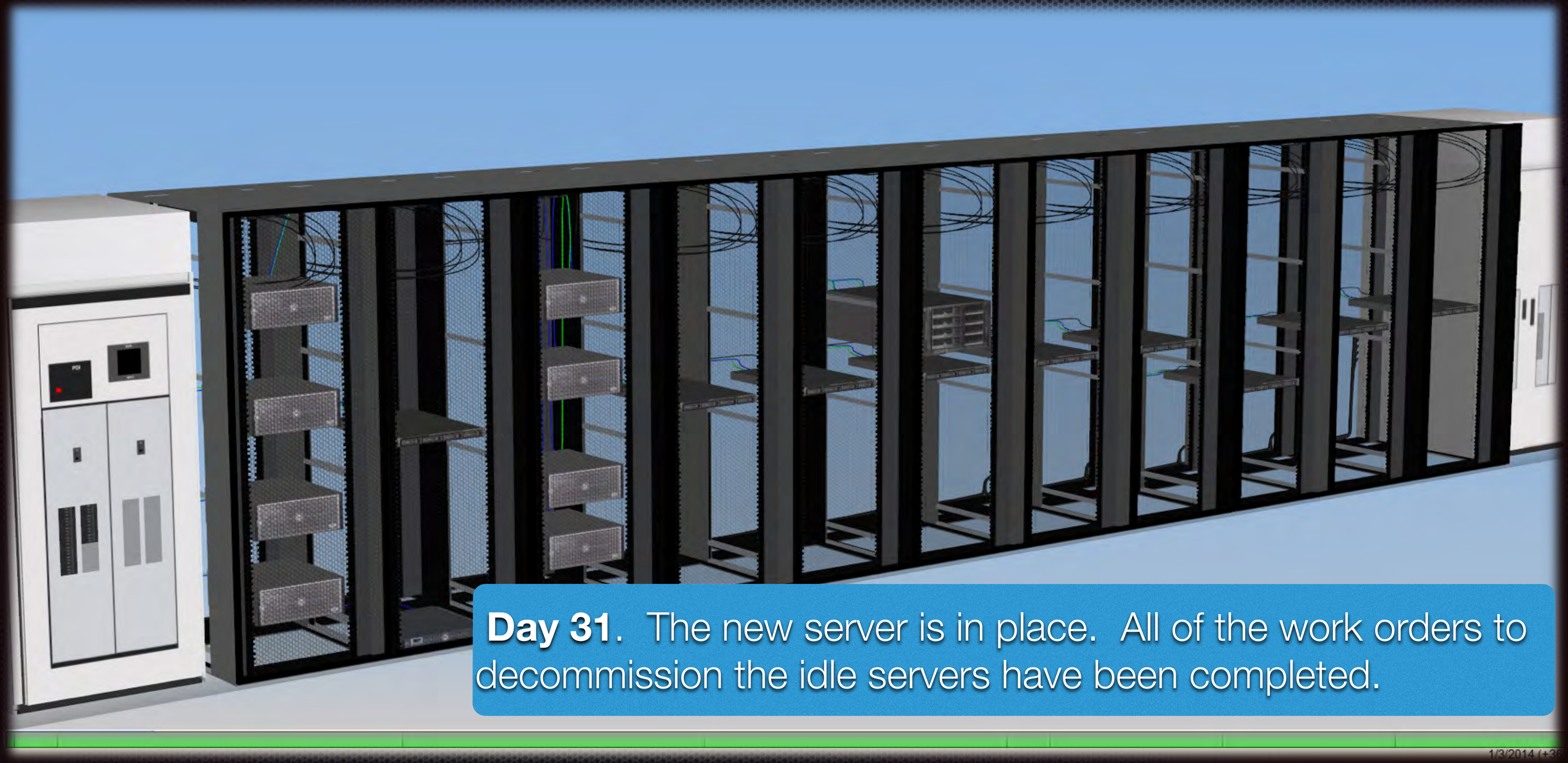
Day 2. A new server installed. to replace a group of idle under performing servers

1/28/2013 (Today)

Future View. Anticipate changes before they happen.

Future View. Anticipate changes before they happen.

COMMSCOPE®



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*

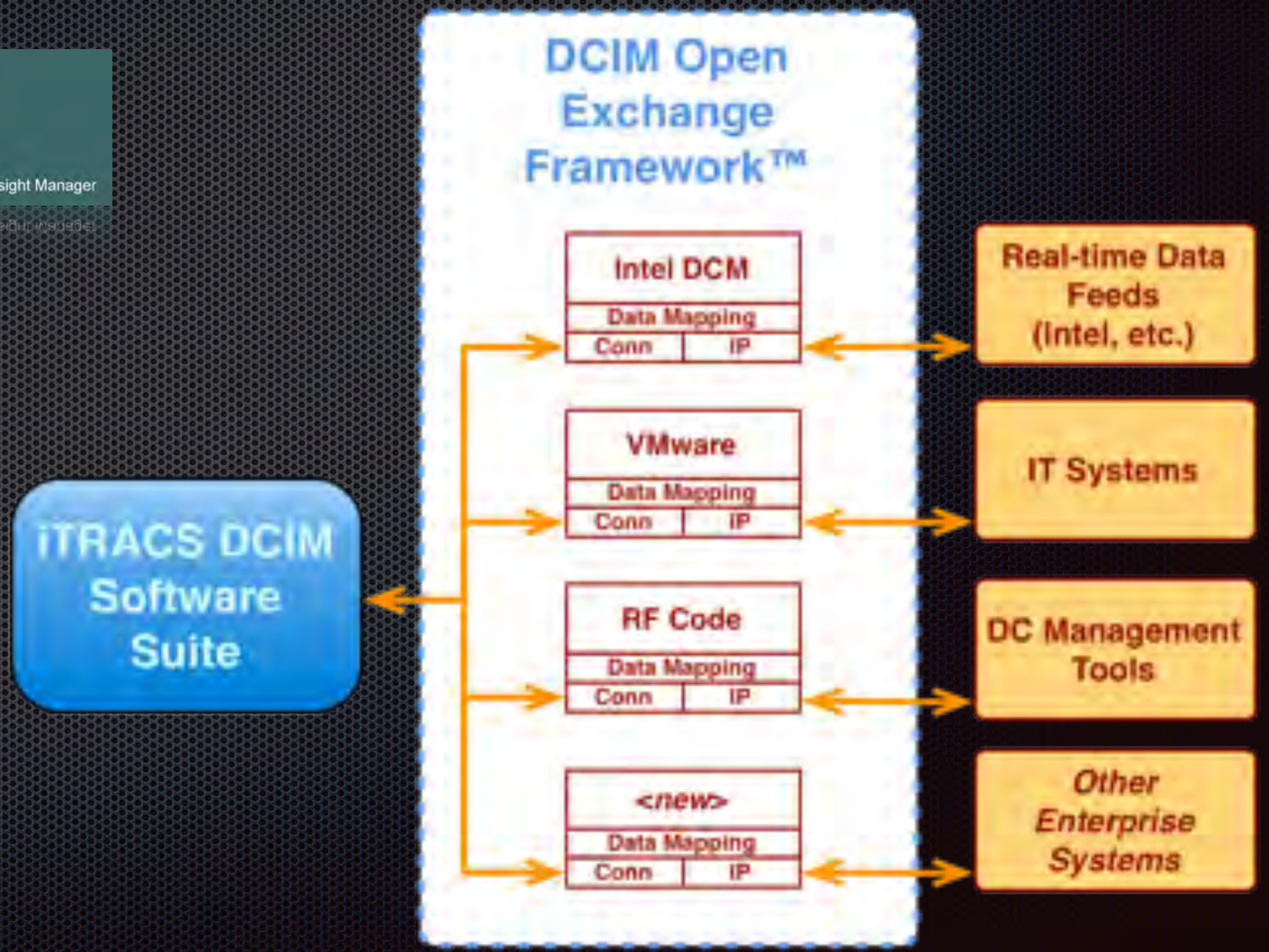
*Source: IDC Research: DCIM Survey 2014

Open. The natural evolution of DCIM

COMMSCOPE®

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



More Information At Your Fingertips

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

CPIM iPad app

Power Consumption: The Green Issue.

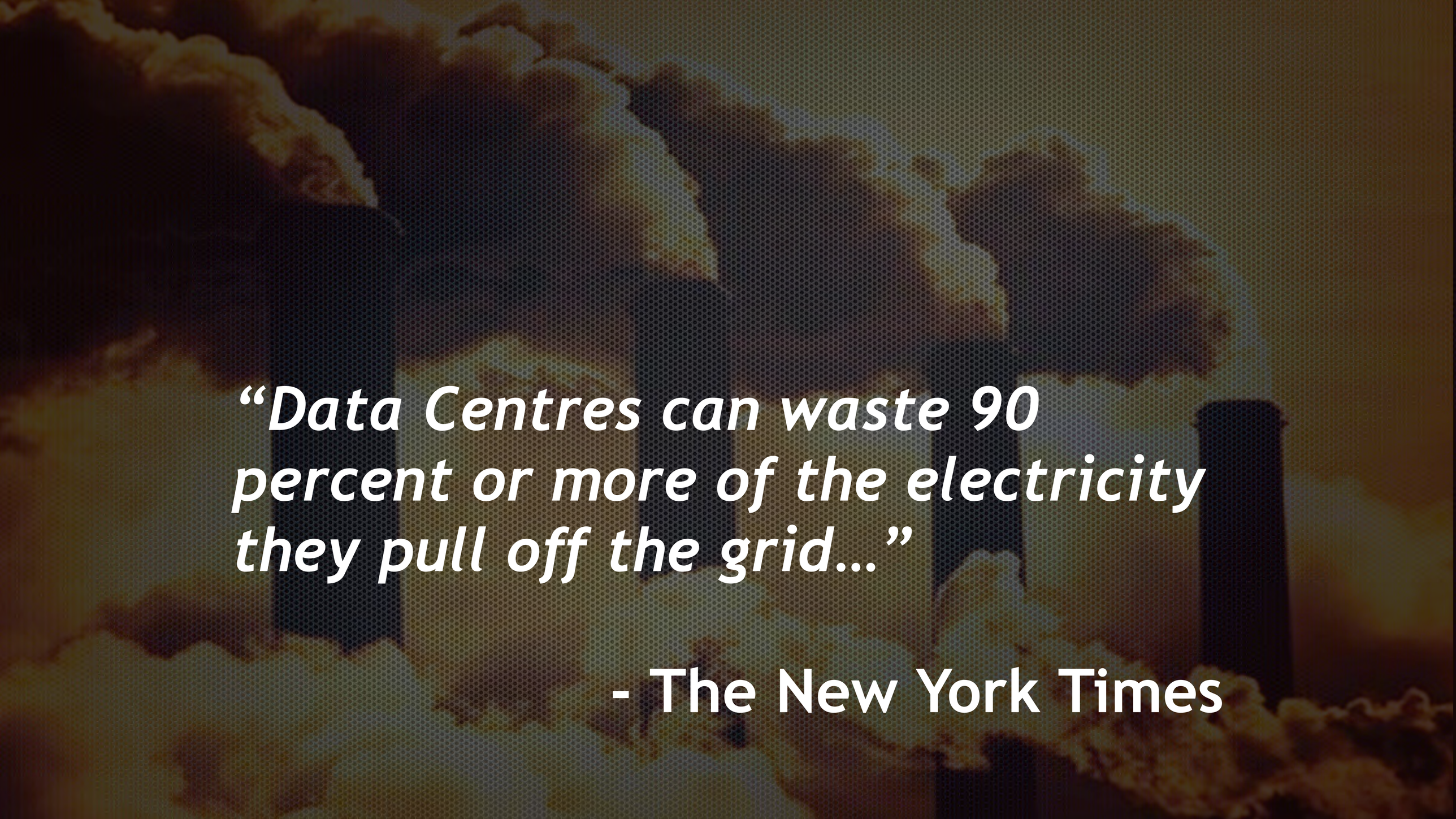
The world's ICT ecosystem uses about 1,500 TWh of electricity annually, equal to the total of Japan and Germany combined.

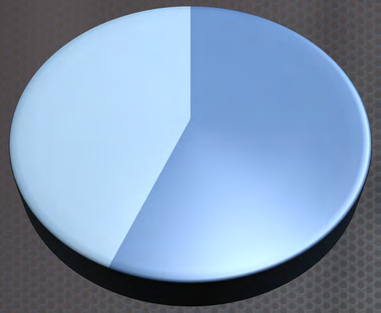
As much as was used for global illumination in 1985.

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

About 50% more than aviation.

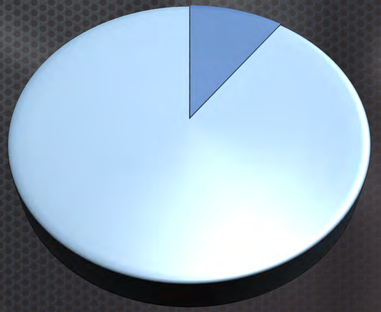
Source: The Cloud Begins with Coal, August 2013


“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.”



Source: The New York Times


“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

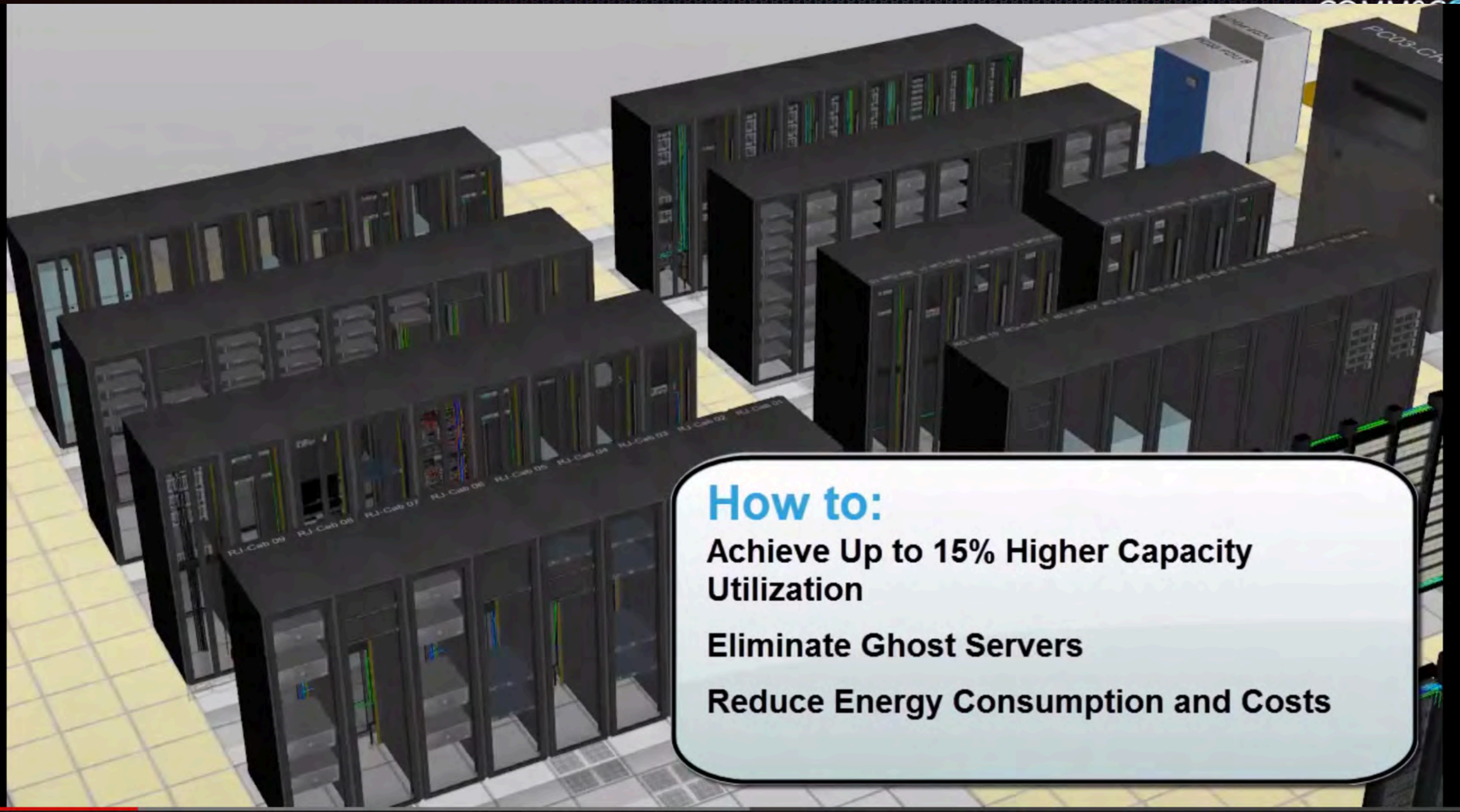
“We are seeing reductions in power, cooling, rack space, and network port utilisation - all of this while our usable compute footprint goes up, giving us the room to continue to grow the business," said Paul Nally, Director at Barclays.”

Saved $4.5 million in energy bills

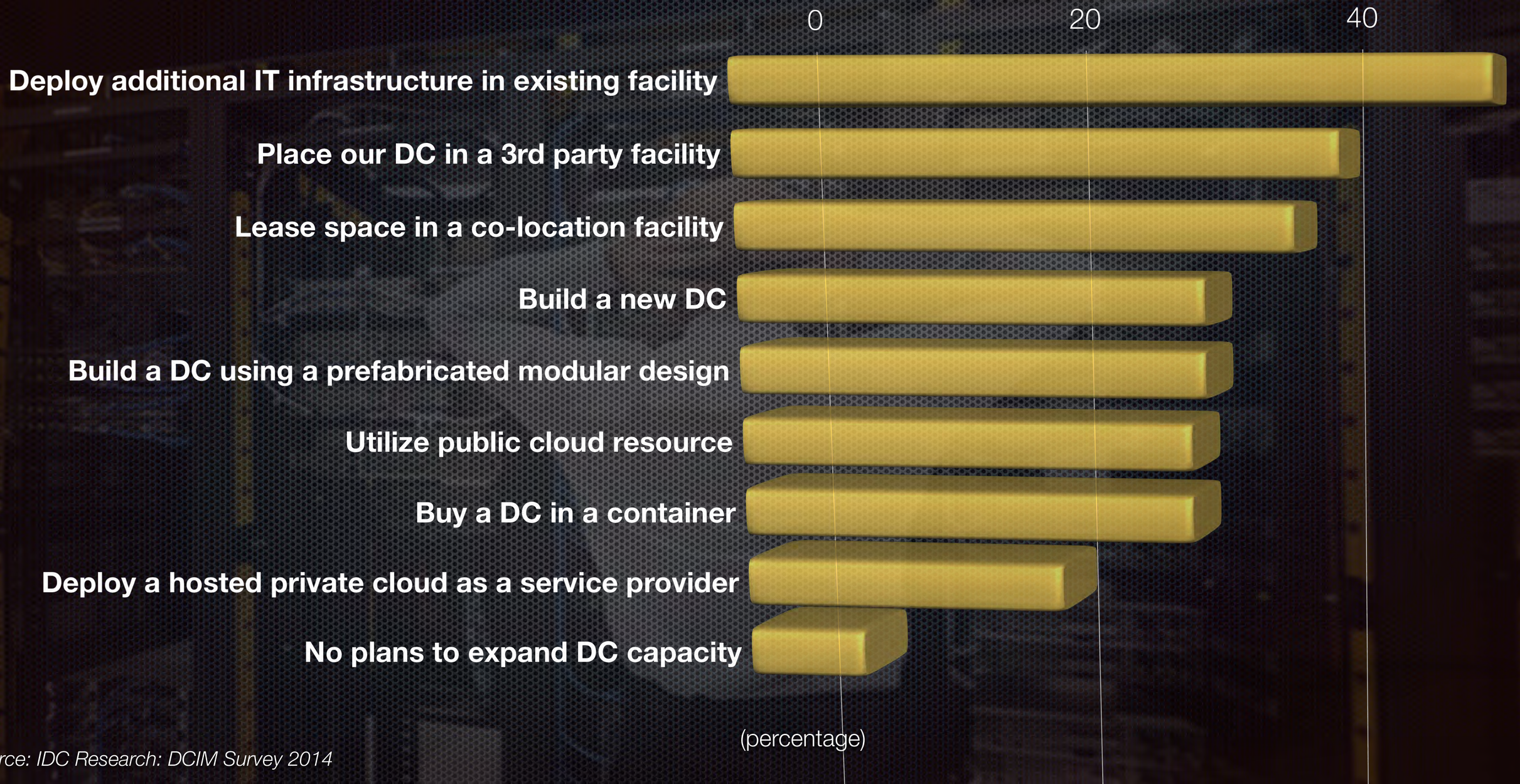
and $1.3m on legacy hardware maintenance costs.

Reduced Power consumption by 2.5 MW

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

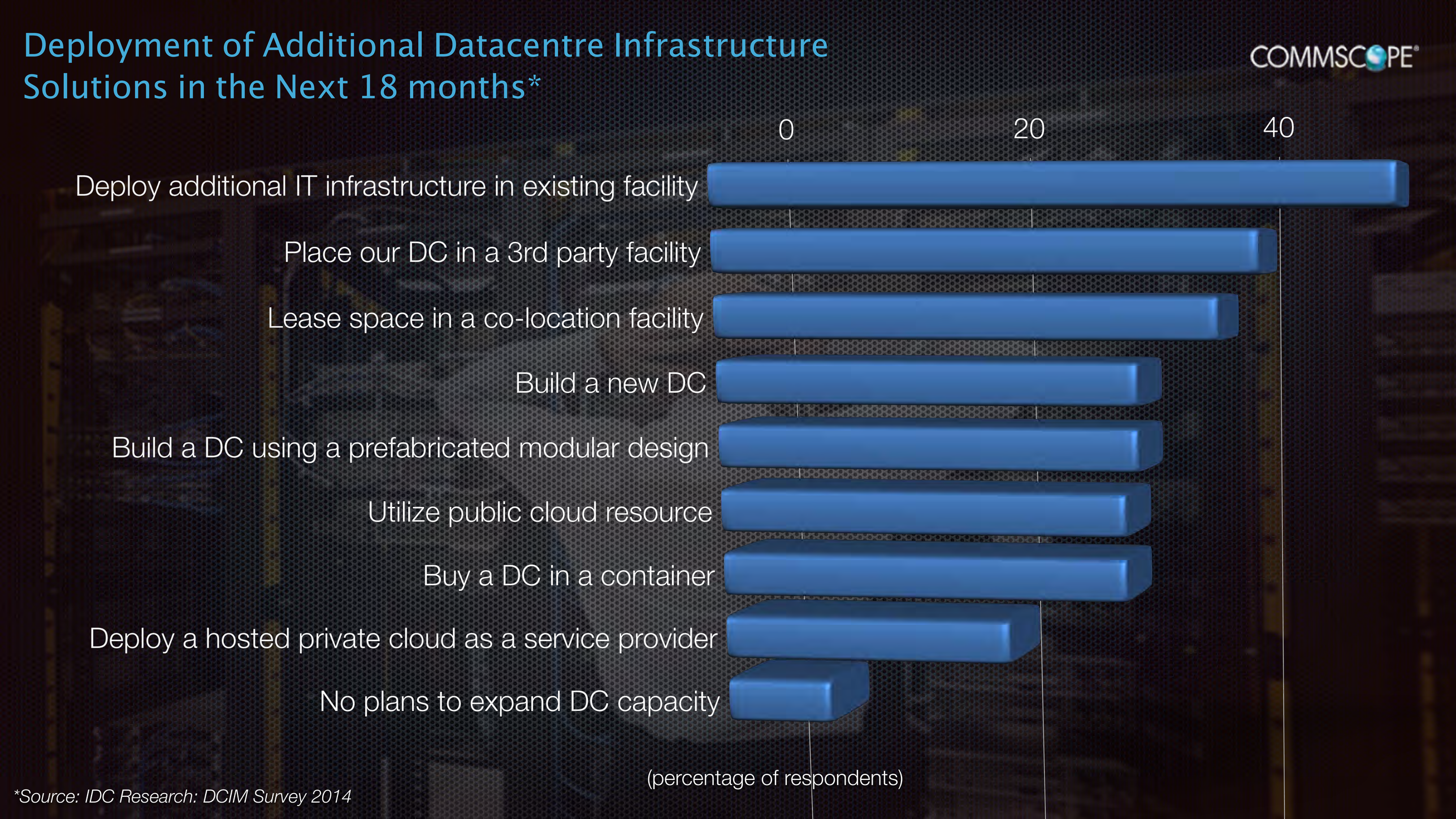

How to:
Achieve Up to 15% Higher Capacity Utilization
Eliminate Ghost Servers
Reduce Energy Consumption and Costs

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



*Source: IDC Research: DCIM Survey 2014

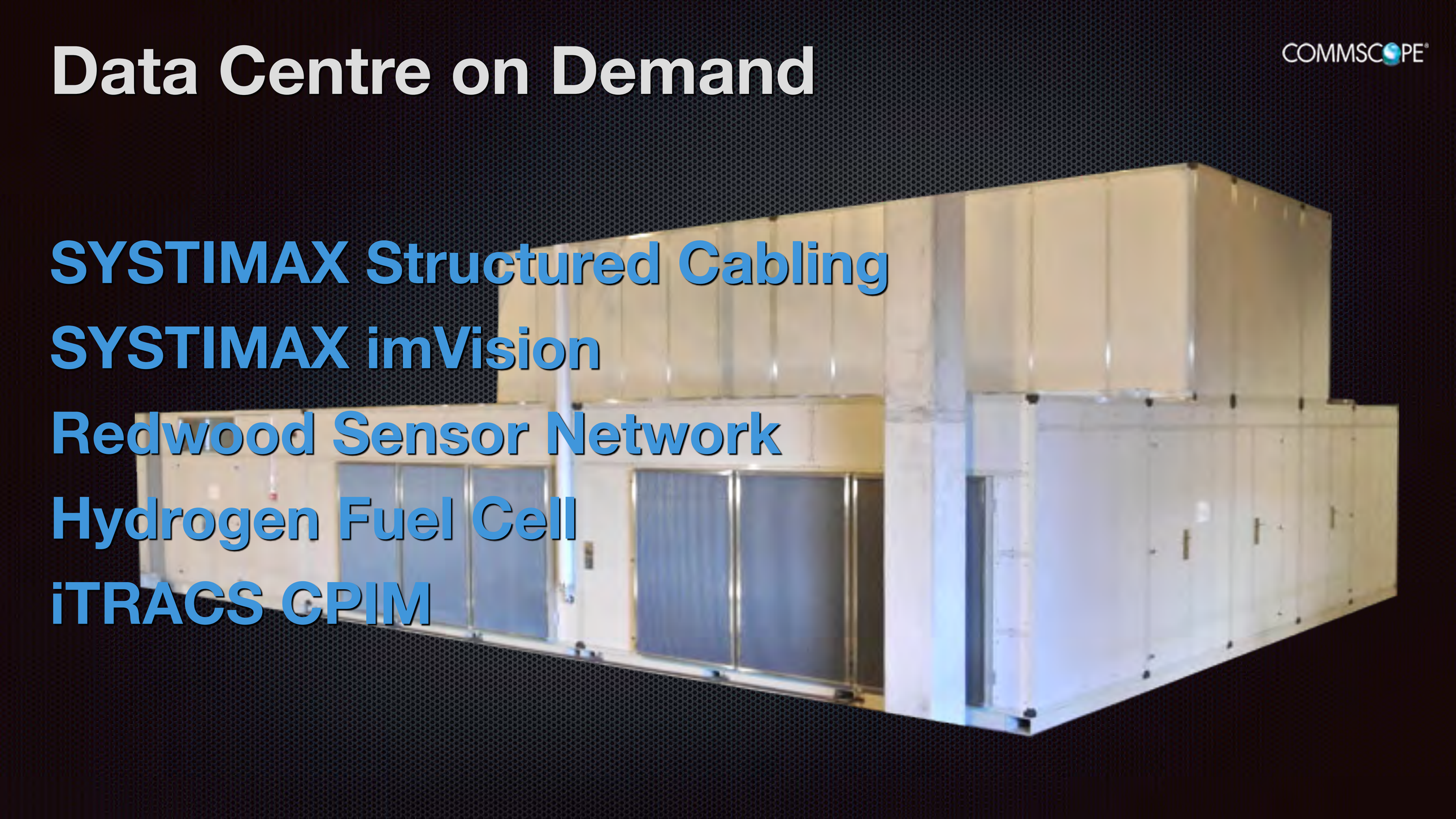
Deployment of Additional Datacentre Infrastructure Solutions in the Next 18 months*



*Source: IDC Research: DCIM Survey 2014

Data Centre on Demand

COMMSCOPE®



SYSTIMAX Structured Cabling

SYSTIMAX imVision

Redwood Sensor Network

Hydrogen Fuel Cell

iTRACS CPIM

Thank You