# InteropNet - Mobile Infrastructure Management Best Practices

## "Because IM needs to cover more than the DC"

**Wednesday October 3rd, 2012**

**Presented By Brad Beamish**

CORMANT

IT Infrastructure Management

- What is IT Infrastructure Management
  - What should be included?
  - What is DCIM?
  - Beyond DCIM… IDF? MDF? OSP? Work areas?
- Infrastructure Management best practice evolution at InteropNet
  - History of InteropNet documentation strategies
  - InteropNet Topology
  - Evolution to a completely online, mobile and paperless infrastructure deployment
  - Interop feedback and Video
- Live tour of Cormant's CableSolve the InteropNet documentation solution.
  - Live demonstration of the Cormant CS Desktop, Web and Mobile Client
  - BYOD? Follow along by logging into the Cormant CS Web Client and view the InteropNet live
  - http://cormant.com/interopnet-video/



# What is IT Infrastructure Management?

IT Infrastructure Management is the practice of documenting the assets, connections and spaces used to deliver the IT services within an organization.

"Infrastructure Management" is a subjective term. Each organization needs to define the scope and deliverables of an IM solution to meet their needs. Considerations such as reporting requirements, available budget, technical savvy of the IT staff, and TCO of the solution need to be diligently considered in each organization.

Infrastructure Management documentation best practices are vital to delivering cost effective, efficient and dependable IT operations. Infrastructure Management documentation best practices assist organizations adherence to standards such as ITILv3 and TIA/EIA606B. Managing IT assets is the only chance an organization has to maximize the value of the asset.



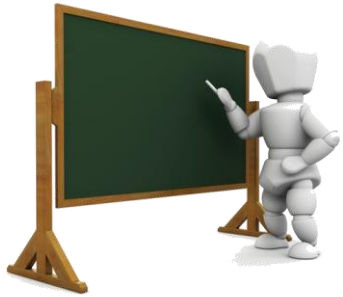
<u>You can't manage what you can't measure</u>

# What assets should be documented?

Each organization must diligently understand the deliverables that they wish the IM solution to provide. Document only the assets you need. As a best practice the documentation should manage;

- Cabinets
- Servers
- Switches
- Patch panels
- KVM
- PDU, UPS
- Patch Cables (Copper and Fiber)
- Power Cables
- Horizontal / Vertical cables (Copper and Fiber)
- Conduit, Cable tray
- PBX
- PC's, Printers and other peripheral devices

*"Information is a source of learning. But unless it is organized, processed, and available to the right people in a format for decision making, it is a burden, not a benefit"*
*– William Pollard*



# What data should be documented?

Document only the information you need, the data generated must be meaningful and actionable while not placing an undo administrative burden on the IT operation. As a best practice the documentation should manage

- Asset location (DC and campus, Row/Rack/RU? Rack View? floor plan view?)
- Asset financials (purchase price, date, PO#, support contract#)
- Asset connectivity (copper, fiber, KVM and power)
- Asset capacity (used and available)
- Asset history (service history, MAC records)



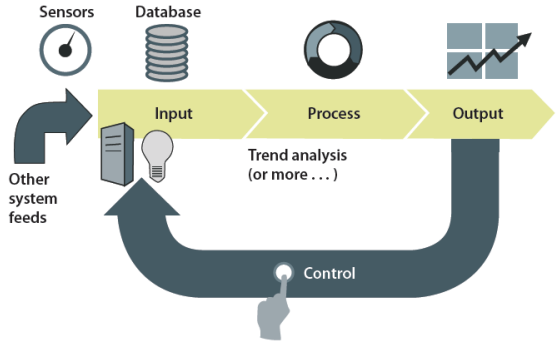
These records must be managed and related in an efficient way that reduces the administrative burden on the organization, change management functionality is a must. Spreadsheets just can't provide the flexibility and reporting that enterprise class infrastructure requires.

Savvy Infrastructure Management solutions allow the data to be accessed when and where it is required IN THE FIELD, as changes occur, therefore mobility is a must

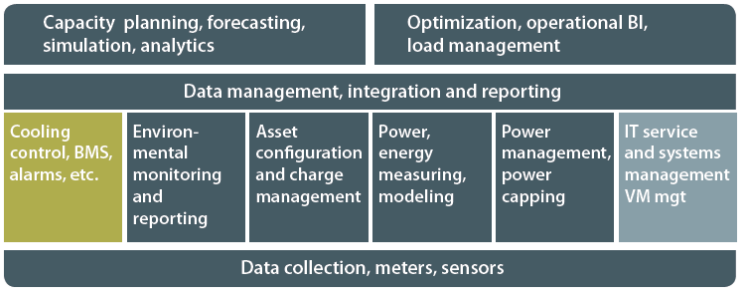
# What is DCIM

The experts agree…. kind of…

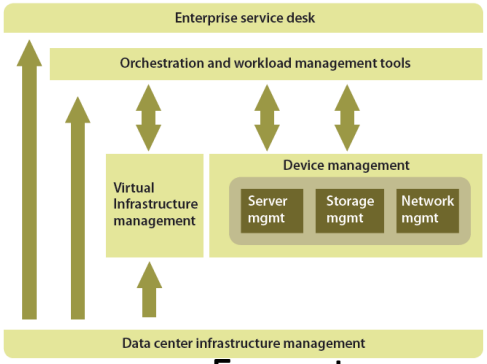
While many any of the top analysts firms agree that Data Centre Infrastructure Management is crucial to the efficient operation of a complex environment, there is no consensus on the model such a DCIM tool should employ




Gartner




451 Group




Forrester

Again here we see DCIM is a subjective term. While all the models above are good, choosing the right model for your organization relies on a thorough understanding of the organizations goals and resources

# DCIM Hype

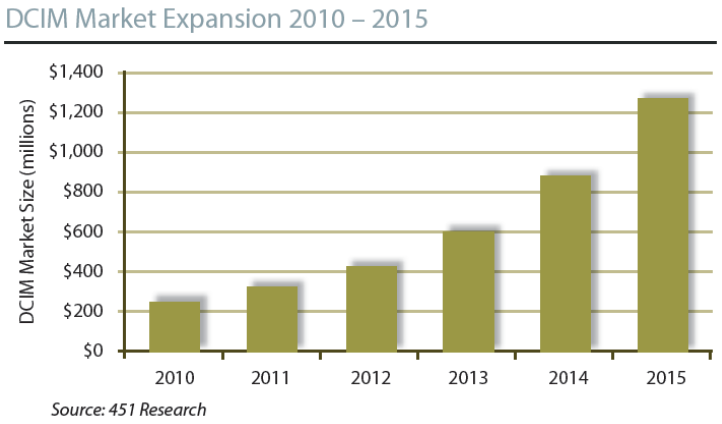
Over the last few years the term DCIM has become prominent in IT discussions.
Many organizations are coming to the realization that the Data Centre infrastructure and assets can not be reliably and efficiently managed with a spreadsheet.

The increased demand to DCIM solutions is driven by 2 major considerations

1. Data Centre space is very dynamic, there is constant change and an ever increasing amount of complexity, managing change in a spreadsheet is inefficient and inaccurate
2. Data Centre expenses in terms of assets and energy represent an ever increasing amount of the available budget. DCIM deployment will identify underutilized assets and wasted capacity.

***" The DCIM market was worth US$245m in annual revenue in 2010, and it will grow to $1,247m in 2015 — a growth rate of 39% a year."***

***Andy Lawrence*** Research Director Data Center Technologies, 451 Research



# More on Cormant's CableSolve from a DCIM Perspective

Here Tomorrow
Thursday October 4th, 2012
InteropNET Classroom 1-1:45 pm

## Delivering the InteropNet With DCIM; the Benefits To Enterprise IT



With Paul Goodison, Cormant Inc CEO

# Beyond DCIM

Adoption rates for DCIM solutions are skyrocketing….

*"More than 60% of the data center managers that Gartner polled will have implemented data center infrastructure management (DCIM) tools at some point in 2013 — with penetration climbing to 90%* by 2015." Jay E. Pultz Gartner VP Distinguished Analyst

**It is very encouraging to see the market adopt this paradigm within the walls of the DC, but what about the rest of your infrastructure?**

What about the IT assets located in

- MDF
- IDF
- POP's
- Work areas
- Storage rooms



What about the capacity of

- Cable plant
- Dark fiber
- Switch capacity
- Patch Panel Capacity
- Power capacity (KW and ports)

**Why should the discipline of Infrastructure Management apply only to the DataCentre….. A more hollistic approach is required**

# About InteropNET

The InteropNet is a temporary network that powers the Interop New York and Interop Las Vegas events, providing a reliable, high-speed network that serves the exhibitors, conference rooms and attendees at the event. Each vendor involved in the InteropNet is hand-selected based on innovation and expertise. These vendors, along with volunteer engineers, come together to create a completely interoperable network using the industry's leading, cutting-edge technology

**InteropNet Specs:**

- Up to 260,000 sq ft of show floor
- Up to 350,000 sq ft of off-show floor
- Three Co-Location Facilities: San Jose, Denver, Newark
- Approximately: 2000 IT Assets, 18,000 Connections, 90 Wi-Fi AP's
- Over 120,000 Infrastructure Attributes
- Two weeks to stage infrastructure
- Six days to deploy Las Vegas (Three days for NY)

**INTEROP NET**
**2012 New York Network Providers**

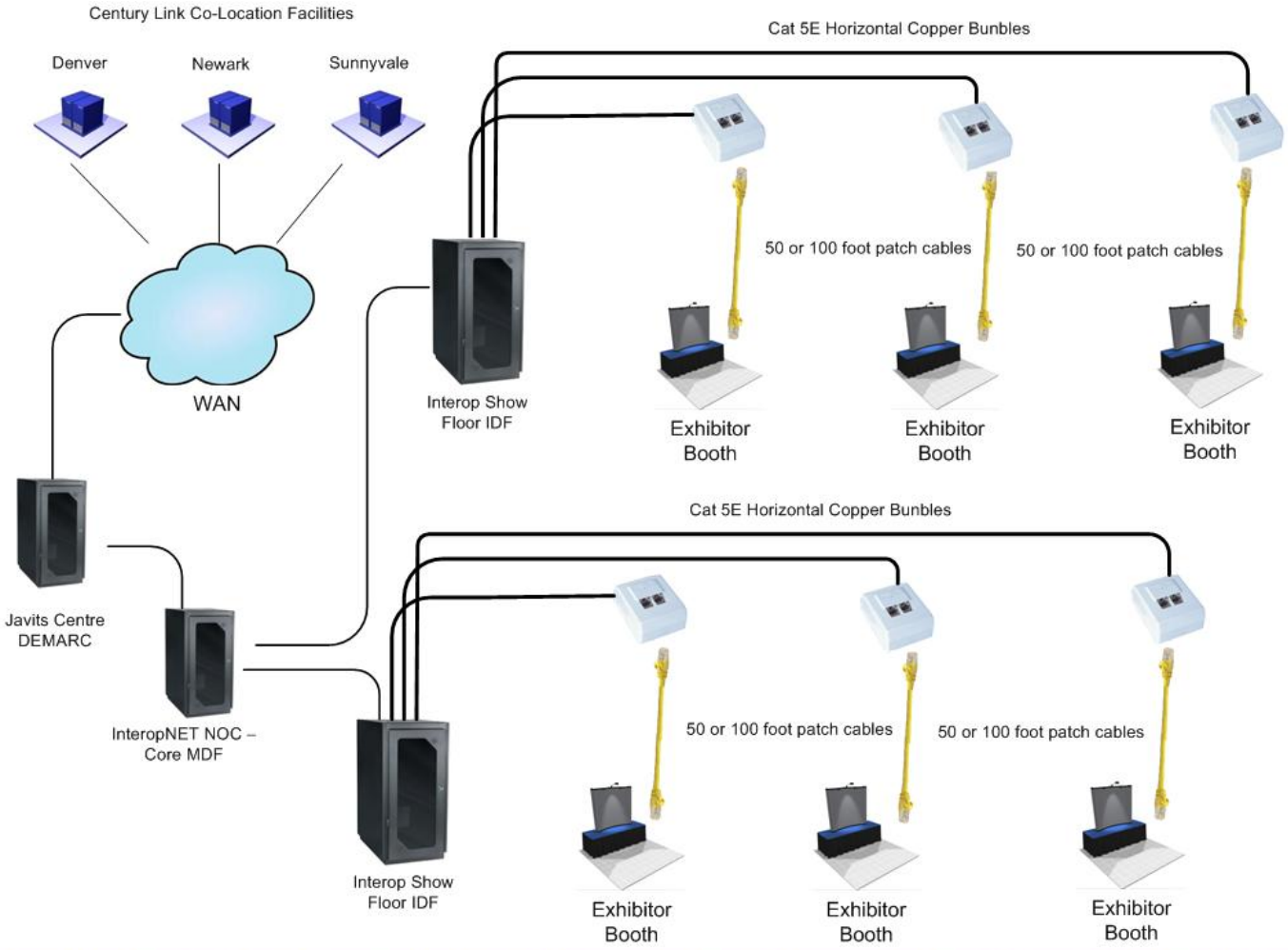
**Premier Providers**

CenturyLink Business
HUAWEI

**Providers**

6connect
NETGEAR Connect with Innovation
AXIS COMMUNICATIONS
NETSCOUT.
CableSolve DCIM AND BEYOND
NETWORK HARDWARE RESALE
Cloudpath
opengear
Dyn Uptime is the Bottom Line.
QUEST SOFTWARE Simplicity At Work
f5
Server Technology Quality Rack Power Solutions
hp
splunk>
JDSU
VYATTA.
NetOptics
XIRRUS High Performance Wireless Networks

# InteropNET Topology



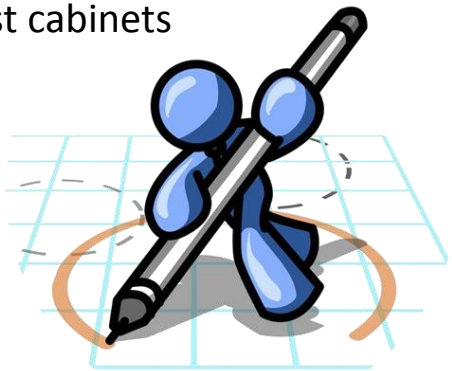
# InteropNET Pre 2011

Documenting the deployment of the InteropNet was previously a paper based, spreadsheet-driven process. Given the tight timelines inherent with a project like InteropNET documentation was often overlooked or forgotten. The paper and spreadsheet driven solution proved insufficient for a project the scope of InteropNET

Knowing these challenges, the InteropNet organizers set five key deployment goals to help the process run more smoothly:

1. Deliver certified working Internet to every vendor that requested the service
2. The entire deployment process and reporting should be paperless
3. Document physical data connectivity from booth back to switch
4. Track all core network equipment, including power connections in host cabinets
5. Track asset location for easy retrieval at the end of the show

Cormant Inc. responded to the requirement with a proposal to deploy the CableSolve solution for InteropNet starting in Las Vegas in 2011



# Enter CableSolve by Cormant Inc.

CableSolve provides a holistic approach to the documentation and management of the entire IT infrastructure, including assets, power, connectivity, space and work-flow.

CableSolve is the most trusted, configurable, flexible and portable IM solution available, providing complete visibility into the physical layer, including all assets and connectivity, along with data gathered directly from devices.

CableSolve does not stop at just DCIM; it supports management of the IT infrastructure within the enterprise environment, including work-areas and campus environments.



# InteropNET Deployment Vision

In addition to adding the documentation requirements to the deployment process, InteropNET engineers also started testing and certifying every cable deployed to further reduce the number of trouble tickets generated by vendors.



InteropNet engineers working with JDSU and CableSolve consultants developed a deployment process that included a certified and tested cable that was digitally documented.

**The deployment process could be completed by a single volunteer, with only 1 visit to each cable.**

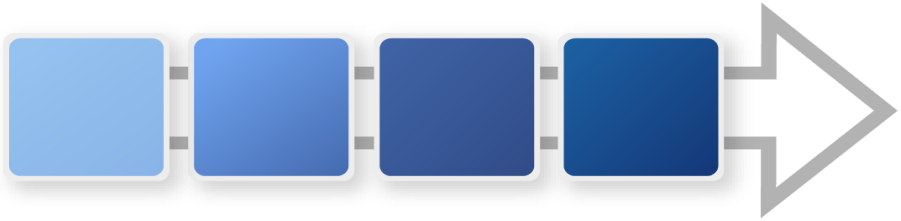
JDSU

CableSolve Infrastructure Management™

# Process Overview

1. Connect JDSU remote ID at several booths
2. Trace cables at patch panel
3. Activate Patch Panel port to Switch
4. Record cable, booth, patch panel and switch connections in CableSolve
5. Remove remote ID and test connectivity
6. Document as delivered





# Feedback

*"Documentation cuts down the time it takes us to put the system together when we get to the show venue, and the time it takes to troubleshoot problems during operations. The CableSolve workflow identified which pieces were deployed and which ones were still pending. The bottom line is the time that was saved and the steps not missed that all add up to dramatically less trouble tickets and happier exhibitors."*

**Brian Chee, show floor team lead**

*"CableSolve has been used to turn a paper-heavy, spreadsheet-driven deployment process into a paperless process with real time visibility of the deployment status."*

**Glenn Evans, lead network engineer**



# InteropNET Video






# CableSolve Demo

## CableSolve demo will include

- Desktop Client
- Mobile Client
- Web Client

BYOD? Follow along, log into the web client at
http://interop.cablesolve.com/

User Name: interop
Password : interop

Download the CableSolve Mobile application by scanning the QR Code. Follow the instructions onscreen to login

BlackBerry App World

Download for Android

Available on the iPhone App Store