Preparing for Your First **DCIM** System Deployment: **Auto-Discovery and Data Collection**

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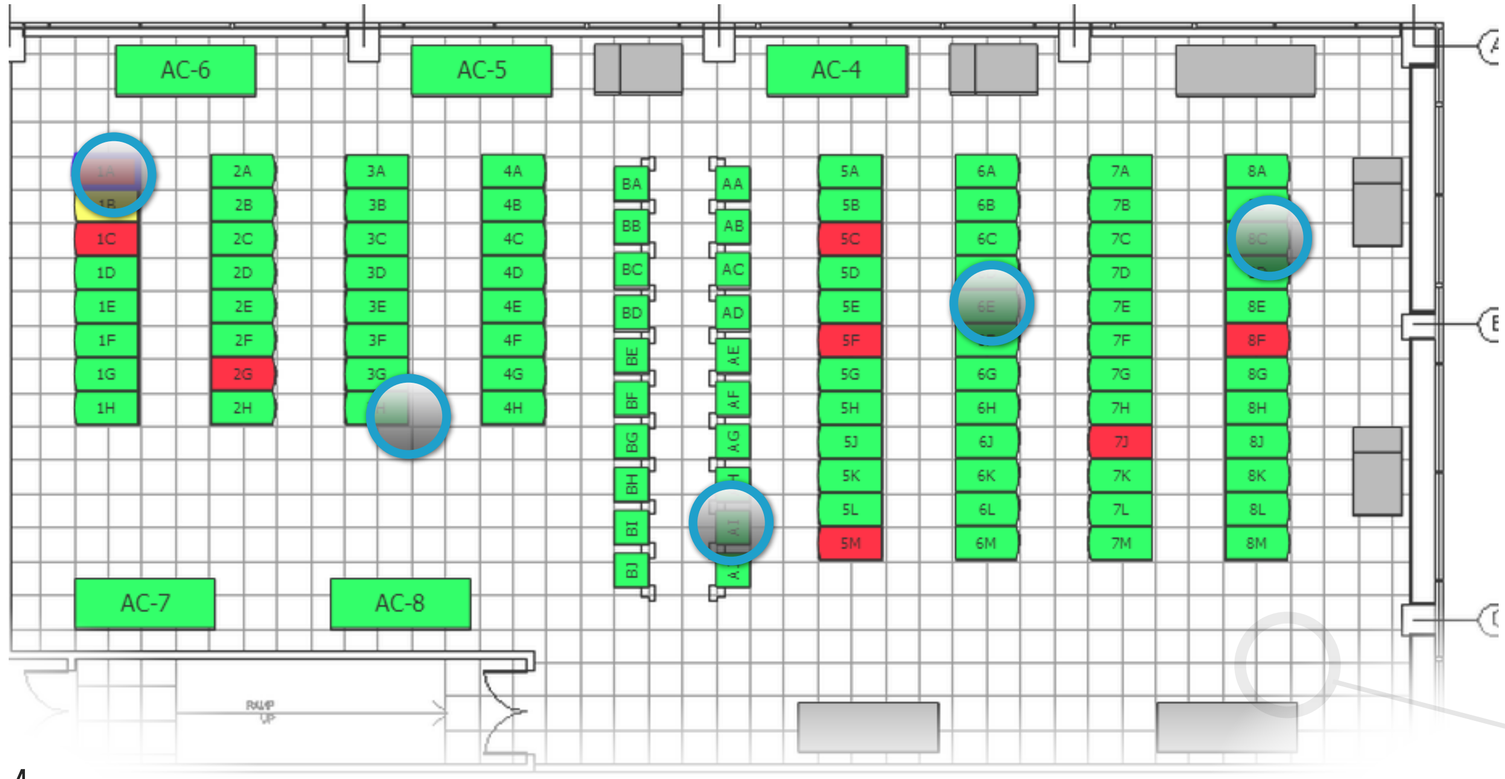
What is Auto-Discovery?

- The process of automatically searching and identifying data center assets, IT and facility infrastructure, and their associated asset information, via standards-based protocols over a network.
- While having a system and process that automatically populates a comprehensive set of data into a DCIM system is desirable, there are many reasons why auto-discovery fails to fully meet this need.
- **In this eBook we describe how DCIM uses Auto-Discovery to initially populate the DCIM database, the gaps that exist and the steps needed to ensure data accuracy for a reliable DCIM database.**



Where is My Data and How Can I Get It?

Create a team that includes all that have access to the needed data. Team members may include:

- Facilities Managers
- Data Center Managers
- IT Managers
- Internal Project Managers (Assign responsibilities)

Determine:

- What information you desire to be collected?
- If the physical hardware and features are in place to enable all devices to be “discovered”?
- If the access rights and permissions are available to scan the network? If not, is the IT team open to giving it? What about changing passwords – how can that be handled?
- If all protocols are in place and available for the discovery of all assets?
- If the hardware and associated integration is available to ensure all detailed asset information can be realized?
- What percentage of information can indeed be discovered? If not all that you desire, then manual audits and work will be needed.

Review and audit spreadsheets for accuracy to ensure they accurately represent the as-built conditions of your data center and that they are consistent in format and naming conventions, etc.

Let the experts help - A Professional Services team can help you collect, set up discovery, and import data.

Why Auto-Discovery is Not Enough

Contrary to belief, Auto-discovery is not the end-all to populating your database.

- Some important data is simply not discoverable.
- Human error, inaccuracies, and the inability to poll for specific information often mean that manual updates and management is needed.
- Many clients face strong opposition from their internal networking team to run a blind poll across these protocols on their network to collect data.
- Is the goal to speed up a manual audit by knowing what may be installed? Even if you are able to run this scan on all protocols available, how confident are you that you've achieved high success in the discovery of all assets in each cabinet. Is **40%, 60%, 75%, 90%** discovery acceptable?
- Anything less than **100%** will require manual effort to close the gap and achieve full knowledge about all assets.

And … without continuous management, use and update a DCIM solution becomes out of date

- Time and effort to make changes within the data center become compromised - garbage in leads to garbage out.
- Service delivery can become impossible due to downtime and resolution time.
- Decisions and recommendations on space and capacity forecasting are inaccurate due to bad data.

Where to Go to Start Collecting Your Data?

DCIM systems need to seamlessly integrate with IT and facilities management systems to collect, maintain, and ensure the most accurate information.

The scope of your project depends on the amount of data that needs to be collected, and how easily that data can be gathered based on where it is currently stored.

Data is often available as:

- Existing AutoCAD or Microsoft Visio drawings of data center floor plans – cabinets, floor PDUs, UPS units and CRAC units are objects, structured cabling, raised floor tiles.
- Imported or manually entered spreadsheet data - data center infrastructure data
- Extracted or exported data from existing databases or systems – infrastructure data
- Drawings – power chain single line drawings, etc. – represent how the power and data infrastructure are installed and configured
- SNMP data from SNMP-enabled (MIBs and OIDs) facility equipment
- Captured information through multiple protocols

What Does an Operational DCIM System Provide?

Visualization tools are useful to view, manage, and monitor your data.

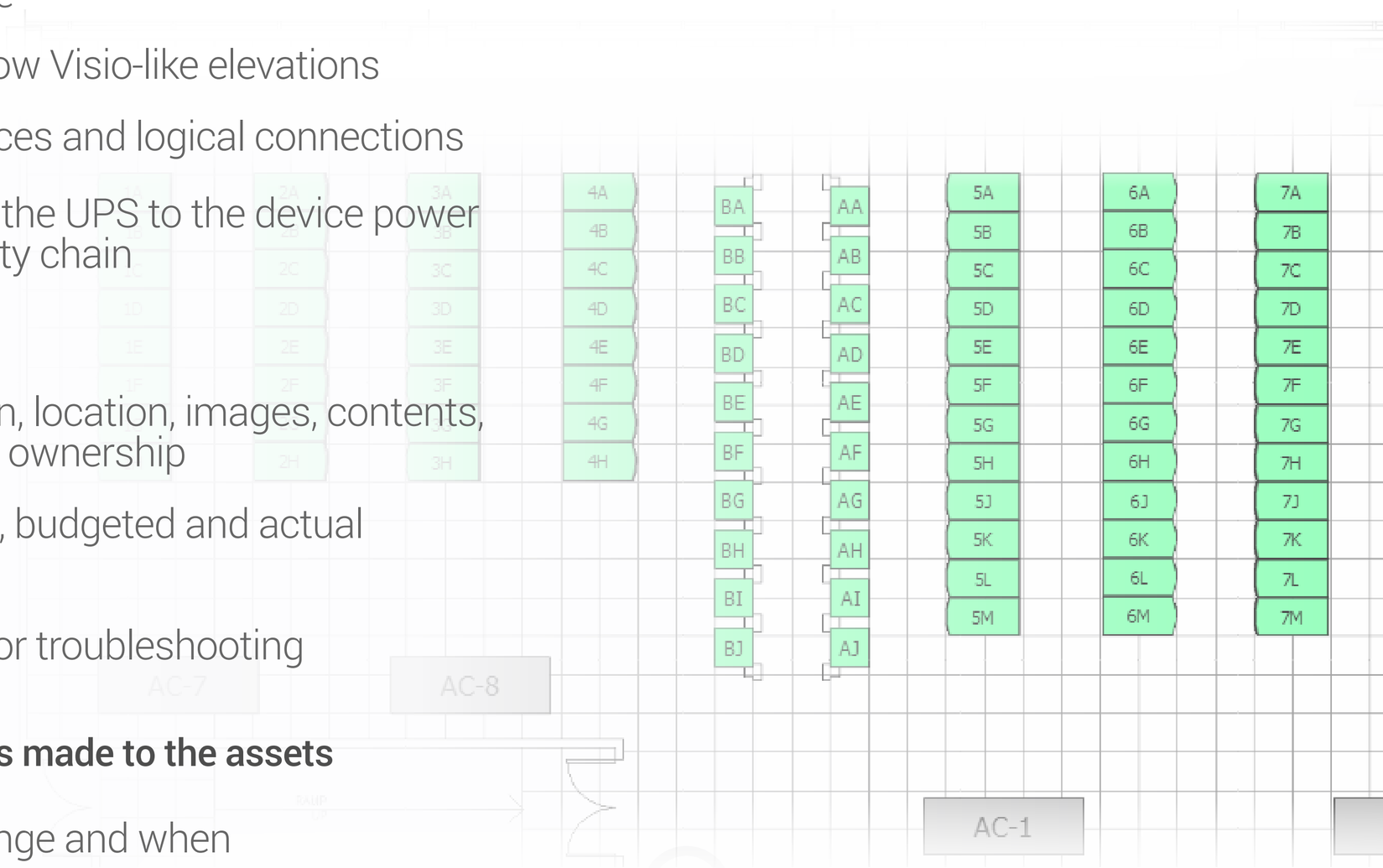
- Floor plan drawings in real time
- Floor space, front/rear–rack/row Visio-like elevations
- All data center physical resources and logical connections
- Complete power chain – from the UPS to the device power supply and network connectivity chain

Detailed data including:

- Item information- type, function, location, images, contents, capacity, interconnections and ownership
- Power information – locations, budgeted and actual capacity, connections
- Data and power connections for troubleshooting

Provides the capability to log changes made to the assets

- Identifies who made what change and when
- Enables faster troubleshooting and recovery time

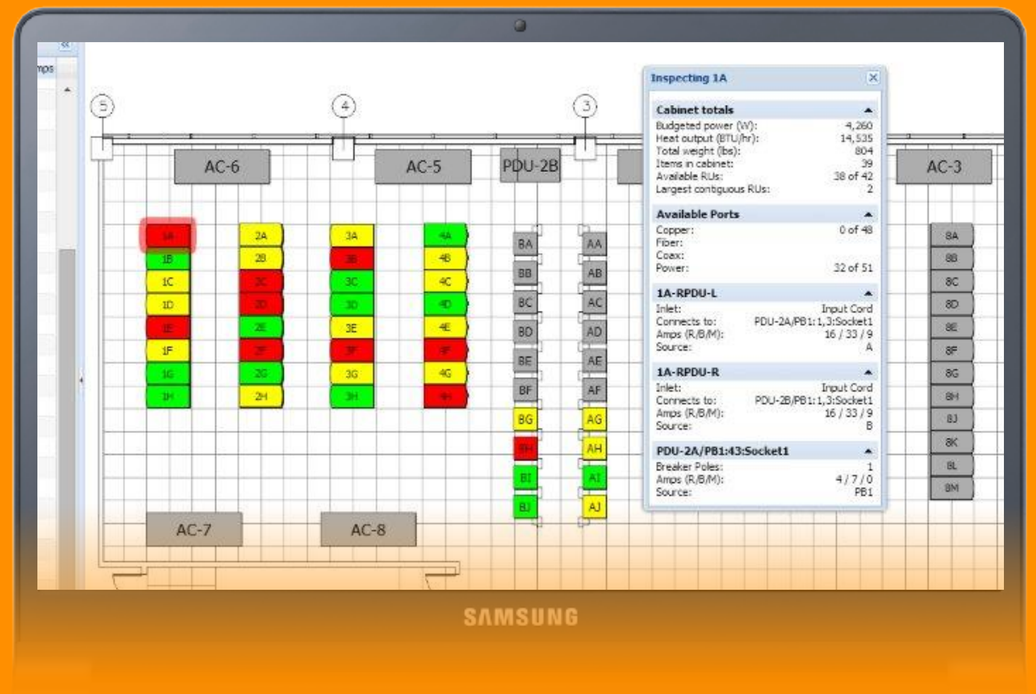


What is the Value of Accurate Data Center Asset Information?

Data Center Managers need to manage and monitor all the IT and facility equipment within the data center. The asset database is the centralized information warehouse for information about this equipment.

A DCIM solution provides centralized access and visualization tools for this data, including the ability to:

- Quickly identify what assets are in place, where they are located, and their interdependencies
- Assess physical space availability
- Assess space and capacity requirements
- Visualize the full power and network chain and it's capacity
- Identify where to add, move, or make a change within the data center infrastructure
- Ensure power and cooling availability
- Identify trouble spots for fast restoration



Accurate, up-to-date information regarding infrastructure assets and their interdependencies is critical to the initial population and on-going management of your data center. Auto-discovery of asset information is often looked to as the first step in populating the asset database.

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Data Discovery Summary

- Auto-discovery can be a great tool for the initial population of your asset information into a DCIM solution.

- But remember, not all necessary data is discoverable. The more organized and “clean” your data is the easier your transition will be.

- Use the tools available to start your database efforts and team with our DCIM Professional Service team to reach your DCIM potential!

Take Action Now

Schedule a Demo

Take a look at Raritan's DCIM now to get the insight you need to better manage your data center

Schedule Demo

Take a Test Drive

Test Drive Raritan's DCIM now to get the insight you need to better manage your data center

Test Drive Now

On site Assessment

Request an on site assessment and comprehensive summary report with a Raritan DCIM expert

Schedule Now

MORE!

See below for your own DCIM Data Checklist

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Data Checklist to Seed Your **DCIM** System

Information to be collected through discovery, spreadsheet or system imports.

Asset Management

- ☐ Device type
- ☐ Device name
- ☐ Device serial number and asset tag
- ☐ Cabinet rail or slot position
- ☐ Make (manufacturer)
- ☐ Model
- ☐ Rack units
- ☐ Row position
- ☐ Device access credentials
- ☐ IP subnets- IP subnet management and assignment of IP addresses to network interfaces

Environmental and Mechanical Plant (MEP)

- ☐ Environmental items, including CRACs - capacity in tons (converted to kW), Input voltage values, CRAC group
- ☐ Probes - temperature, humidity, etc.

Data and Network Connectivity

- ☐ Structured cabling
- ☐ Network connectivity - network and SAN

Power Plant and Connectivity

- ☐ UPS - capacity, voltage, UPS bank
- ☐ Floor PDU - UPS bank, capacity, input breaker amperage & voltage
- ☐ Power supply to a rack PDU socket
- ☐ Rack PDU to an electrical outlet
- ☐ Outlet to a breaker
- ☐ Number of panels or busways- floor PDU/RPP; PDU to UPS

Applications

- ☐ System name, description, services, uptime
- ☐ System network interfaces (ports) including MAC and IP addresses
- ☐ Installation software/date
- ☐ Administrator, user, department