40 CRITICAL PROBLEMS

Your DCIM Should Solve



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How DCIM Helps Resolve data center management issues

From 451 Research:

"A data center infrastructure management (DCIM) system collects and manages information about a data center's assets, resource use, and operational status."

DCIM tools that provide this information in a meaningful manner increase Data Center, IT and Facilities Management situational awareness, allows the Data Center Operator to make informed strategic operational decisions, and provides useful information for future investments and planning.

In this eBook, we review the most critical problems facing data center managers today and how DCIM solutions provide real-time views of the data center environment, infrastructure assets, and the associated power, space, and energy capacity indicators to resolve these issues.



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Critical Problems

Assets

- Easily locate assets in your data center from anywhere
- Know all there is to know about your assets
- Identify assets of a specific model type
- Easily identify physical network connectivity between devices
- Dramatically simplify data center audits
- Customize, save, and email reports

Capacity

- Monitor all breaker loads along the power path to maximize uptime
- Easily visualize real-time space, power, and data port capacity for all racks in your data center
- Improve power capacity planning and uptime
- Instantly know how much cabinet space you really have
- Quickly find available data center capacity to provision new equipment
- Automatically forecast when you are going to run out of power

Critical Problems Continued

Change

- Know the real-time status of your tickets
- Know the impact change will have on your data center applications
- Understand the downstream impact of a potential change
- Ensure work quality

Power

- Know power usage by rack/circuit
- Quickly identify power trends and spikes of individual servers
- Get real-time power analytics for your power chain
- Eliminate Ghost Servers and reduce Power Hogs
- Quickly restore service interruptions due to power outages
- Forecast power capacity needs
- Determine new data center power needs
- Identify and prevent potential power problems
- Maximize uptime with failover simulation analysis



Critical Problems Continued

Energy

- Monitor the amount of energy used for cooling
- Manage energy costs
- Promote sustainable energy reduction programs
- Drive corporate energy efficiency and sustainability initiatives
- Understand energy usage by customer, application, and other parameters
- Bill organizations based on actual energy usage

Environment

- Easily monitor the health of your data center infrastructure with a floormap bird's-eye view
- Ensure data center infrastructure equipment health
- Proactively identify hot spots and areas of risk for data center uptime
- Ensure real-time alerts and alarms are being addressed
- Improve cooling utilization strategies
- Ensure your servers are operating within the ASHRAE zone
- Monitor and set rack inlet temperatures to save money
- Automate carbon footprint reporting and trending

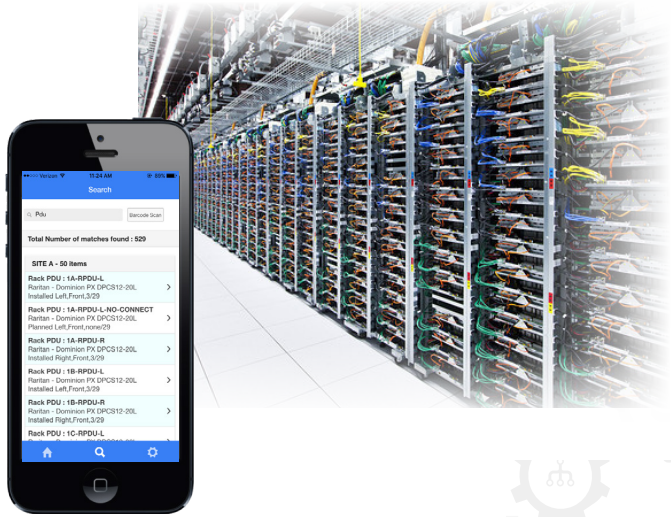
Easily Locate Assets in your data center from anywhere

Problem:

Lack of understanding of where and which assets might be deployed in a data center.

Benefit:

Gain an accurate, real-time view of all facilities and IT components in your data center from virtually anywhere.



Know All There is to Know about your asset

Problem:

Lack of detailed information about assets.

Benefit:

Easily visualize an asset and its specific details, including its location within the data center and elevation.



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Identify Assets of a specific model type

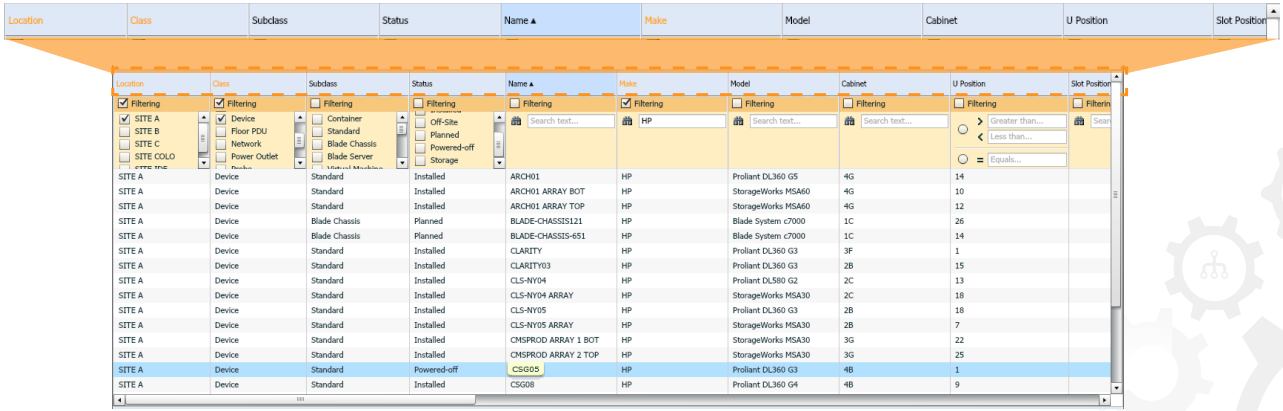
Problem:

Inability to identify which servers belong to which departments or which servers are of a specific brand/model.

Benefit:

Use data attributes to create a list of items around a specific attribute.

(e.g., identify all HP servers that might be at risk due to a manufacturer's recall).



Location	Class	Subclass	Status	Name	Make	Model	Cabinet	U Position
SITE A	Device	Standard	Installed	ARCH01	HP	Proliant DL360 G5	4G	14
SITE A	Device	Standard	Installed	ARCH01 ARRAY BOT	HP	StorageWorks MSA60	4G	10
SITE A	Device	Standard	Installed	ARCH01 ARRAY TOP	HP	StorageWorks MSA60	4G	12
SITE A	Device	Blade Chassis	Planned	BLADE-CHASSIS121	HP	Blade System c7000	1C	26
SITE A	Device	Blade Chassis	Planned	BLADE-CHASSIS-651	HP	Blade System c7000	1C	14
SITE A	Device	Standard	Installed	CLARITY	HP	Proliant DL360 G3	3F	1
SITE A	Device	Standard	Installed	CLARITY03	HP	Proliant DL360 G3	2B	15
SITE A	Device	Standard	Installed	CLS-NY04	HP	Proliant DL580 G2	2C	13
SITE A	Device	Standard	Installed	CLS-NY04 ARRAY	HP	StorageWorks MSA30	2C	18
SITE A	Device	Standard	Installed	CLS-NY05	HP	Proliant DL360 G3	2B	18
SITE A	Device	Standard	Installed	CLS-NY05 ARRAY	HP	StorageWorks MSA30	2B	7
SITE A	Device	Standard	Installed	CMSPROD ARRAY 1 BOT	HP	StorageWorks MSA30	3G	22
SITE A	Device	Standard	Installed	CMSPROD ARRAY 2 TOP	HP	StorageWorks MSA30	3G	25
SITE A	Device	Standard	Powered-off	CSG05	HP	Proliant DL360 G3	4B	1
SITE A	Device	Standard	Installed	CSG08	HP	Proliant DL360 G4	4B	9

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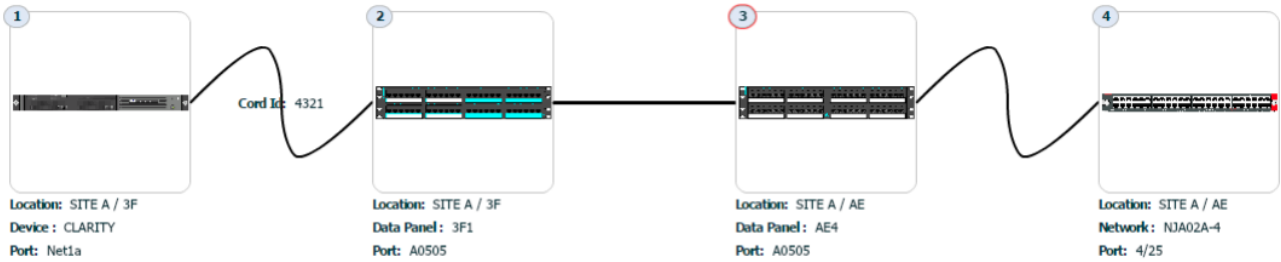
Easily Identify physical network connectivity between devices

Problem:

Network path is not easily accessible at your fingertips.

Benefit:

Restore service quickly by immediately knowing the physical connectivity of the network path.



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Dramatically Simplify data center audits

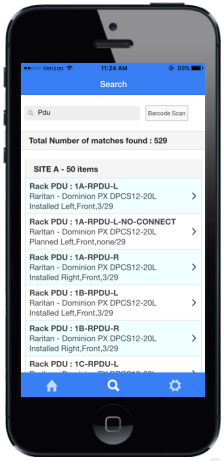
Problem:

Audits are time-consuming, complex, inaccurate, and a waste of paper.

Benefit:

Perform a fast, accurate, real-time assessment of your data center asset inventory through a centralized database accessible through a mobile app.







40 CRITICAL PROBLEMS Your DCIM Should Solve

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Customize, Save, and Email reports

Problem:

Inordinate amount of time spent creating reports due to lack of utilities and exposure to information.

Benefit:

Provide users with the ability to get data for a specified time period in the format required. Save, export, and email reports for further analysis. Include external data from other data management resources via web services.



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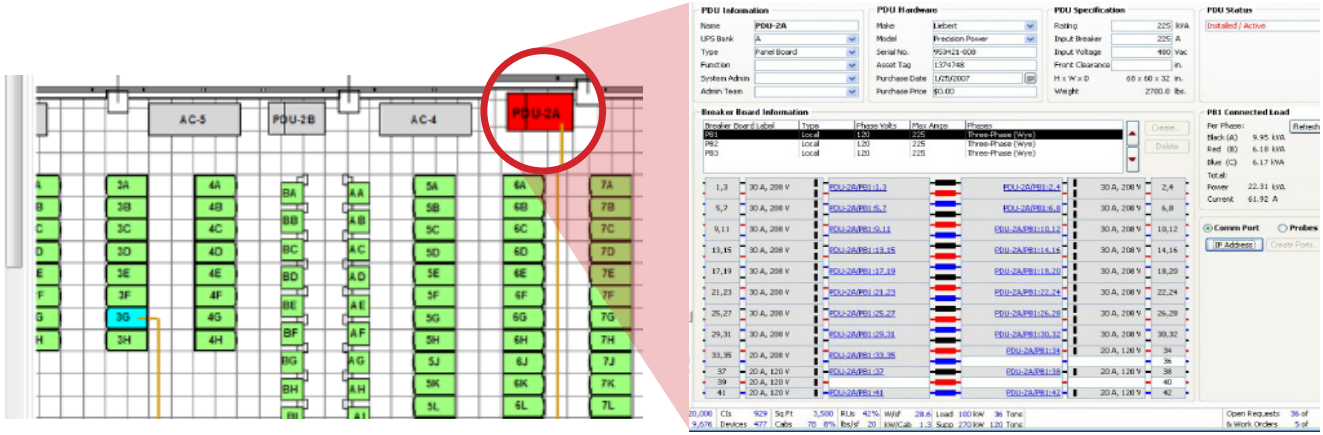
Monitor All Breaker Loads along the power path to maximize uptime

Problem:

Inability to monitor, set thresholds, and get alerts for all breakers in rack PDUs, floor PDUs, and panels, and to correlate the power chain power capacity.

Benefit:

Reduce downtime and save money as a result.



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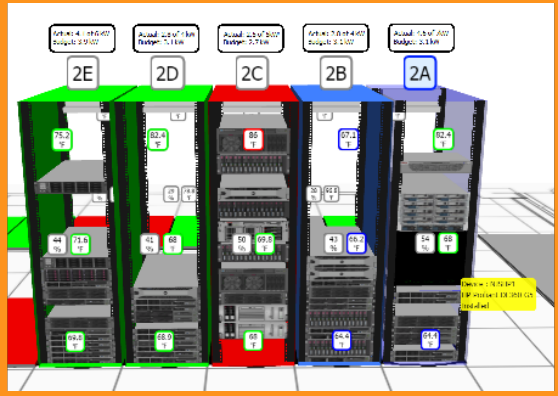
Easily Visualize real-time space, power, and data port capacity for all racks in your data center

Problem:

Difficulty understanding rack capacity without being on site or using outdated Visio or Excel files, which can sometimes be inaccurate.

Benefit:

Save capacity planning time by easily visualizing real time capacity of all racks from wherever you are through a centralized database with a mobile app.



Legend

High
Low
Medium
No Data

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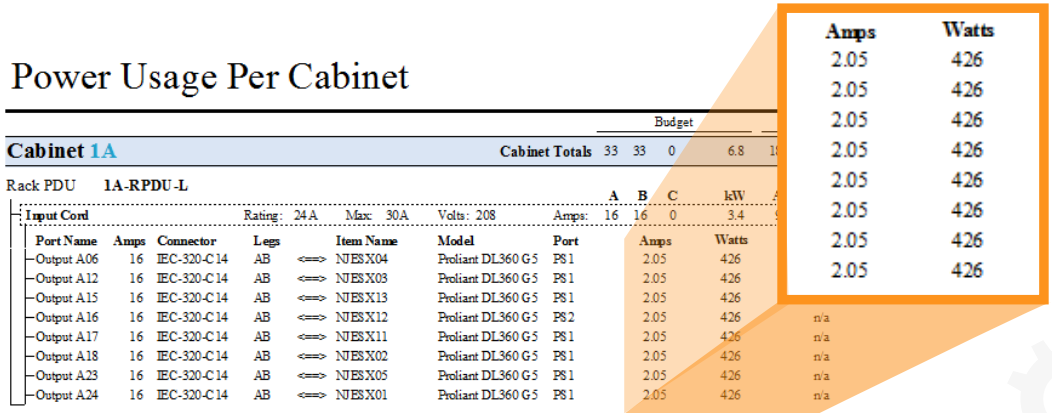
Improve power capacity planning and uptime

Problem:

Inability to easily and quickly determine what cabinets have available capacity.

Benefit:

Measure and plan usage based on cabinet level power consumption reports.



Power Usage Per Cabinet

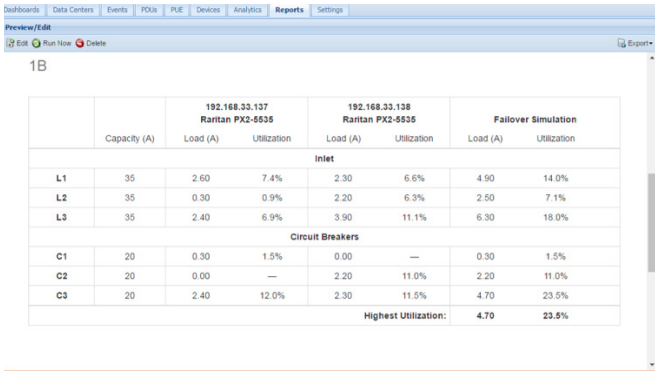
										Budget				
Cabinet 1A							**Cabinet Totals**			33	33	0	6.8	1
Rack PDU	1A-RPDU-L									A	B	C	kW	
Input Cord				Rating: 24 A		Max: 30A	Volts: 208		Amps:	16	16	0	3.4	
Port Name	**Amps**	**Connector**	**Legs**		**Item Name**	**Model**	**Port**			**Amps**	**Watts**			
Output A06	16	IEC-320-C14	AB	<==>	NJESX04	Proliant DL360 G5	PS1			2.05	426			
Output A12	16	IEC-320-C14	AB	<==>	NJESX03	Proliant DL360 G5	PS1			2.05	426			
Output A15	16	IEC-320-C14	AB	<==>	NJESX13	Proliant DL360 G5	PS1			2.05	426			
Output A16	16	IEC-320-C14	AB	<==>	NJESX12	Proliant DL360 G5	PS2			2.05	426		n/a	
Output A17	16	IEC-320-C14	AB	<==>	NJESX11	Proliant DL360 G5	PS1			2.05	426		n/a	
Output A18	16	IEC-320-C14	AB	<==>	NJESX02	Proliant DL360 G5	PS1			2.05	426		n/a	
Output A23	16	IEC-320-C14	AB	<==>	NJESX05	Proliant DL360 G5	PS1			2.05	426		n/a	
Output A24	16	IEC-320-C14	AB	<==>	NJESX01	Proliant DL360 G5	PS1			2.05	426		n/a	

Amps	Watts
2.05	426
2.05	426
2.05	426
2.05	426
2.05	426
2.05	426
2.05	426
2.05	426

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Instantly Know How Much cabinet space you really have



	Capacity (A)	192.168.33.137 Raritan PX2-5535 Load (A)	192.168.33.137 Raritan PX2-5535 Utilization	192.168.33.138 Raritan PX2-5535 Load (A)	192.168.33.138 Raritan PX2-5535 Utilization	Failover Simulation Load (A)	Failover Simulation Utilization
Inlet							
L1	35	2.60	7.4%	2.30	6.6%	4.90	14.0%
L2	35	0.30	0.9%	2.20	6.3%	2.50	7.1%
L3	35	2.40	6.9%	3.90	11.1%	6.30	18.0%
Circuit Breakers							
C1	20	0.30	1.5%	0.00	—	0.30	1.5%
C2	20	0.00	—	2.20	11.0%	2.20	11.0%
C3	20	2.40	12.0%	2.30	11.5%	4.70	23.5%
					Highest Utilization:	**4.70**	**23.5%**

Problem:

Inability to identify space availability without physically being there (due to lack of or inaccurate spreadsheets and information).

Benefit:

Instantly and accurately see available contiguous capacity resources at the cabinet level. Determine if more services can be added to a given cabinet based on whether the cabinet resources are available.

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40 CRITICAL PROBLEMS Your DCIM Should Solve

Quickly Find Available Data Center Capacity

to provision new equipment



Problem:

Inability to determine where to place new equipment when it arrives on the dock and if you have enough capacity without manual effort **(hunt/peck, traversing data center, inaccurate database files)**.

Benefit:

Simple intelligent search to find available capacity (space, power and network connectivity) to quickly and accurately plan and reserve capacity.

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40 CRITICAL PROBLEMS Your DCIM Should Solve

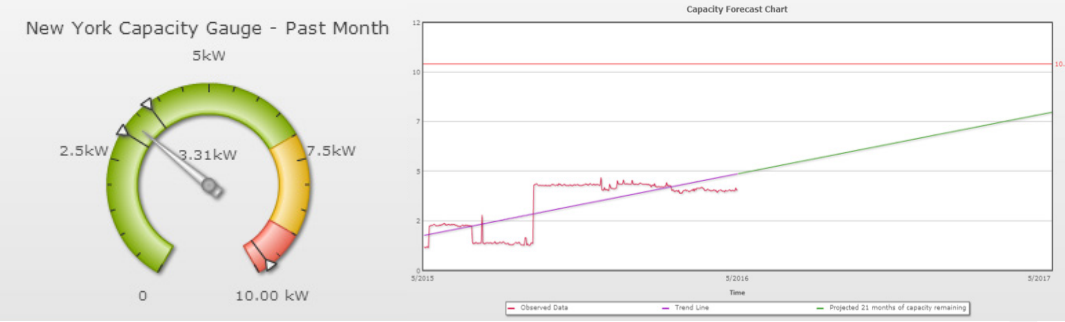
Automatically Forecast when you are going to run out of power capacity

Problem:

Inability to know when power capacity will run out and forecast expansion based on my historical equipment usage and power consumption rate.

Benefit:

Dramatically improve your planning and know when you need to expand or purchase more.



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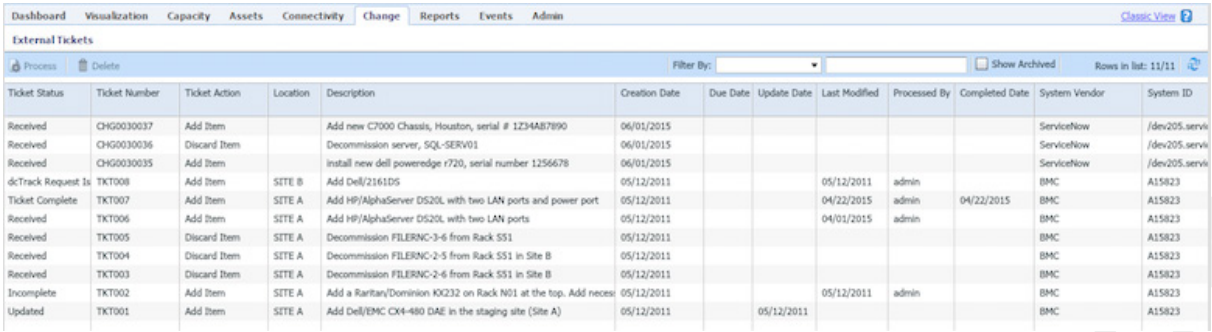
Know the Status of your tickets in real time

Problem:

Inability to easily find out the status of work being done in the data center.

Benefit:

Instant transparency with a listing of all planned, work in progress, and completed changes being made in the data center with audit trails.



Dashboard | Visualization | Capacity | Assets | Connectivity | Change | Reports | Events | Admin — Classic View

External Tickets

Process | Delete — Filter By: — Show Archived — Rows in list: 11/11

Ticket Status	Ticket Number	Ticket Action	Location	Description	Creation Date	Due Date	Update Date	Last Modified	Processed By	Completed Date	System Vendor	System ID
Received	CHG0030037	Add Item		Add new C7000 Chassis, Houston, serial # 1Z34A87890	06/01/2015						ServiceNow	/dev205.servi
Received	CHG0030036	Discard Item		Decommission server, SQL-SERV01	06/01/2015						ServiceNow	/dev205.servi
Received	CHG0030035	Add Item		install new dell powereedge r720, serial number 1256678	06/01/2015						ServiceNow	/dev205.servi
dcTrack Request Is	TKT008	Add Item	SITE B	Add Dell/2161DS	05/12/2011			05/12/2011	admin		BMC	A15823
Ticket Complete	TKT007	Add Item	SITE A	Add HP/AlphaServer DS20L with two LAN ports and power port	05/12/2011			04/22/2015	admin	04/22/2015	BMC	A15823
Received	TKT006	Add Item	SITE A	Add HP/AlphaServer DS20L with two LAN ports	05/12/2011			04/01/2015	admin		BMC	A15823
Received	TKT005	Discard Item	SITE A	Decommission FILERNC-3-6 from Rack S51	05/12/2011						BMC	A15823
Received	TKT004	Discard Item	SITE A	Decommission FILERNC-2-5 from Rack S51 in Site B	05/12/2011						BMC	A15823
Received	TKT003	Discard Item	SITE A	Decommission FILERNC-2-6 from Rack S51 in Site B	05/12/2011						BMC	A15823
Incomplete	TKT002	Add Item	SITE A	Add a Raritan/Dominion KX232 on Rack N01 at the top. Add neces	05/12/2011			05/12/2011	admin		BMC	A15823
Updated	TKT001	Add Item	SITE A	Add Dell/EMC CX4-480 DAE in the staging site (Site A)	05/12/2011		05/12/2011				BMC	A15823

Know the Impact changes will have on your data center applications

Problem:

Inability to easily ascertain which servers host which applications and who the owners are.

Benefit:

Enables troubleshooting and impact analysis for changes within the data center.

Applications

Application	Server name	App. Criticality	App. Admin	Customers	App. Sites
Advanced Port Scanner v1.2					
	CLARITY	Business Grade	,	Engineering,Marketing	
dcTrack					
	ARCH01 ARRAY TOP		,	Accounting	
	CLARITY	Critical	,	Accounting,Marketing	JC,NYC
	NJDT2TEST01	Critical	,	Engineering,IS,Marketing	JC
Email					
	ARCH01 ARRAY TOP		,	Accounting,HR	
	CLS-NY04		,	Accounting,Engineering,Marketing	JC
LiveUpdate 3.3 (Symantec Corporation)					
	NTA-SERVER-1	Critical	,	Biosoftware	
Web					
	CLARITY	Essential	,	HR,IS	NYC
	CLS-NY05	Critical	,	Marketing,Sales	JC
Windows Small Business Server Fax Cfg					
	NTA-SERVER-1	Business Grade	,		

Understand the Downstream Impact

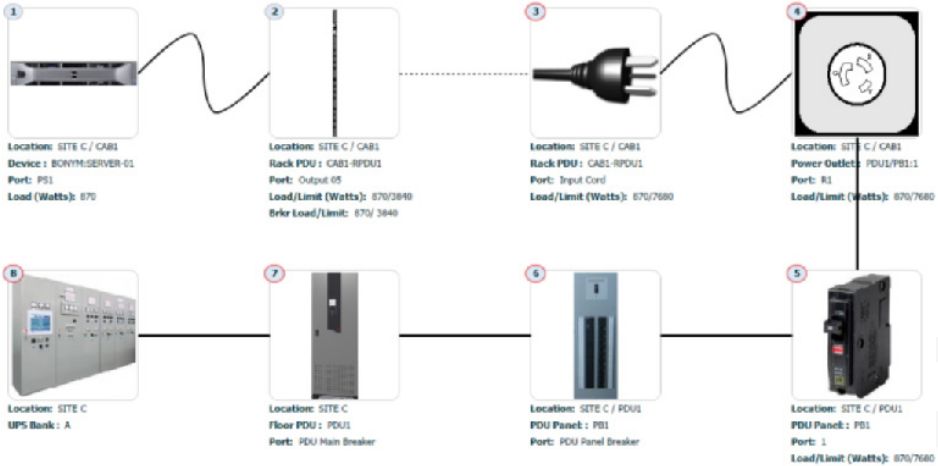
of a potential change

Problem:

Inability to quickly identify asset dependencies and know which (critical) assets would be in jeopardy if there was a failure or a change.

Benefit:

Provides advanced warning and enables alternate or remedial planning scenarios.



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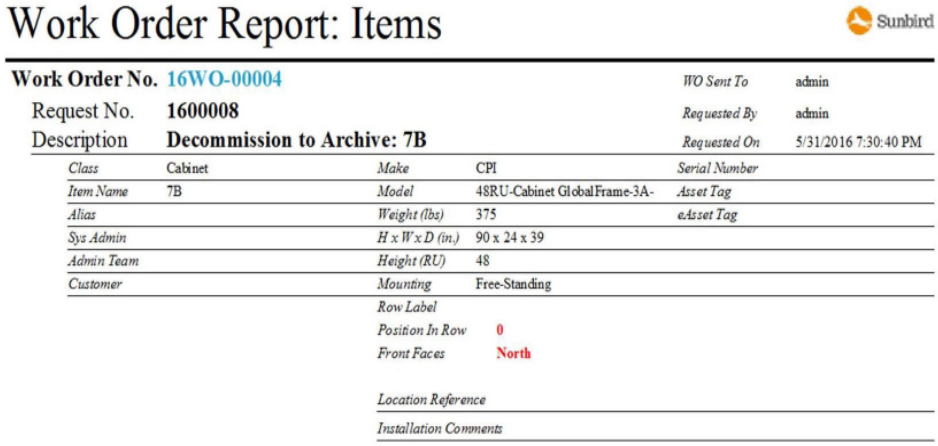
Ensure Work Quality

Problem:

Missing or inaccurate information in work orders or manual steps delays job completion with quality.

Benefit:

Verification and validation of all information prior to approval reduces workflow delays and bottlenecks.



Work Order Report: Items

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Work Order No. 16WO-00004

Request No. **1600008**

Description **Decommission to Archive: 7B**

WO Sent To	admin				
Requested By	admin				
Requested On	5/31/2016 7:30:40 PM				
Class	Cabinet	*Make*	CPI	*Serial Number*	
Item Name	7B	*Model*	48RU-Cabinet GlobalFrame-3A-	*Asset Tag*	
Alias		*Weight (lbs)*	375	*eAsset Tag*	
Sys Admin		*H x W x D (in.)*	90 x 24 x 39		
Admin Team		*Height (RU)*	48		
Customer		*Mounting*	Free-Standing		
		Row Label			
		Position In Row	0		
		Front Faces	North		
		Location Reference			
		Installation Comments			

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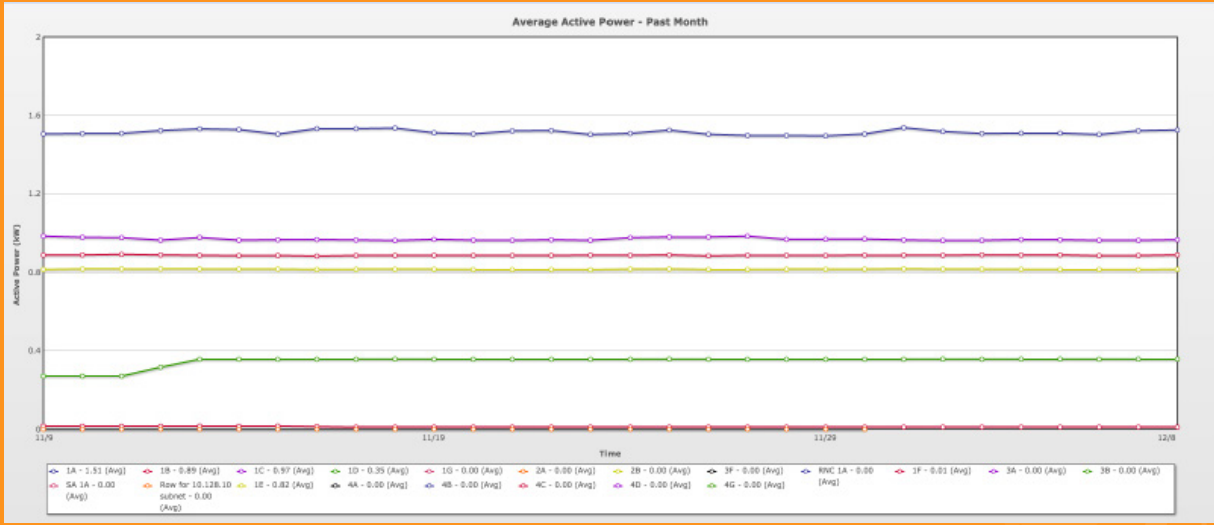
Know Power Usage by rack/circuit

Problem:

Understand power usage to avoid paying over-usage/premium charge.

Benefit:

Rebalance power usage to avoid additional cost.



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Quickly Identify power trends and spikes of individual servers*

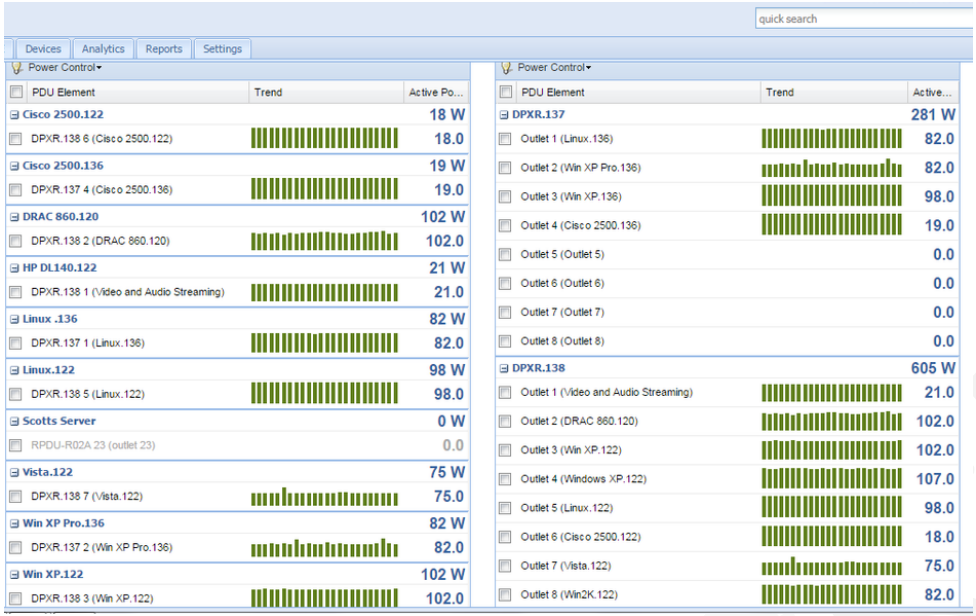
Problem:

Difficulty in adding up all the power being consumed by multiple power supplies within a server.

Benefit:

Reduce risks to tripping circuit breakers due to over-provisioning.

* Requires intelligent outlet level PDUs, metering PDUs, or third-party devices



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Get Real-Time Power Analytics

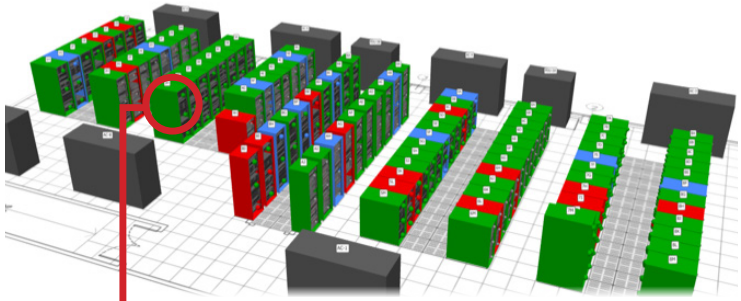
for your power chain

Problem:

Inability to troubleshoot issues in your power chain and understand what drives your UPS.

Benefit:

Dramatically reduce the troubleshooting time when you have incidents in your power chain.



pecifications
ebert
ecision Power 50-225
A, 4PB
Wire + Ground
ating 225 kVA
Rating 480 V
Rating 240 A
Max 300 A
letrics
lameplate Ratio 50%

Downstream Power Sum

Line	Volts	Nameplate Sum Power (kW)	Nameplate Sum Current (Amps)	Budget Sum Power (kVA)	Budget Sum Power (kW)	Budget Sum Current (Amps)	Measu Curr (Am
L1	480		240.65			120.89	7(
L2	480		231.68			115.60	6!
L3	480		226.94			113.09	7(
Power/High Amps		195.75	240.65	97.82	97.82	120.89	

* From 41 of 47 downstream measurements.

Load Power Factor 1.00

ocation

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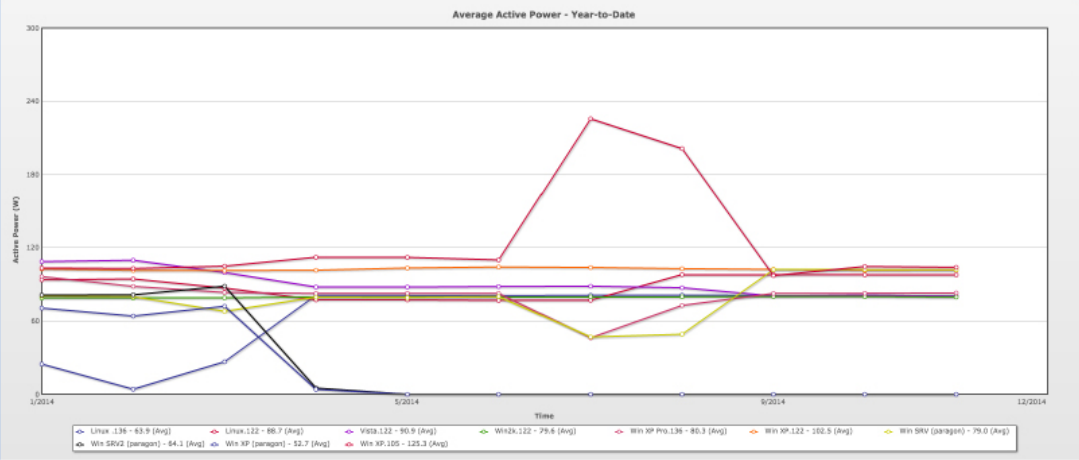
Eliminate Ghost Servers and reduce Power Hogs

Problem:

Inability to identify power consumption by server.

Benefit:

For servers that are not in use, gain significant energy savings by switching off or transitioning to low power modes. Identify Power Hogs and switch to more efficient servers or virtualization.



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Quickly Restore Service Interruptions

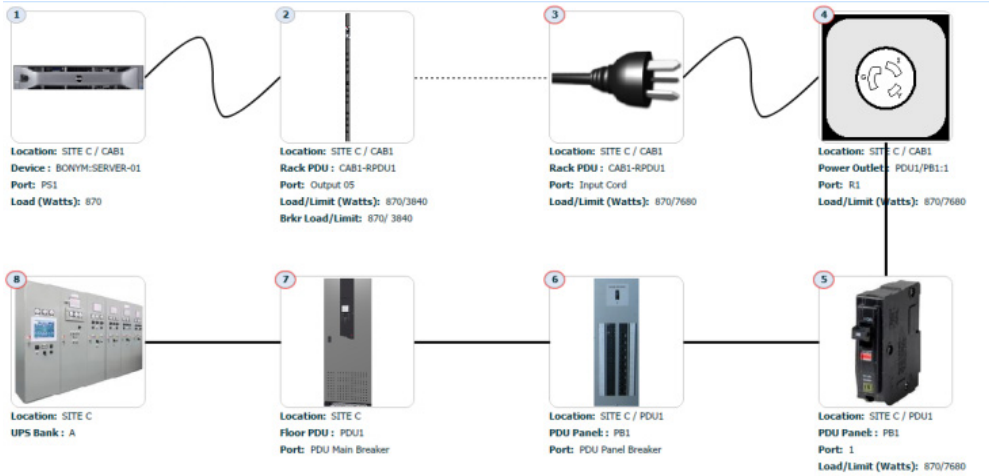
due to power outages

Problem:

Inability to quickly identify asset dependencies and potential failure points.

Benefit:

Ability to locate root cause and mitigate power issues quickly (e.g. if the power to the UPS failed, the server at Site C will be inoperable).



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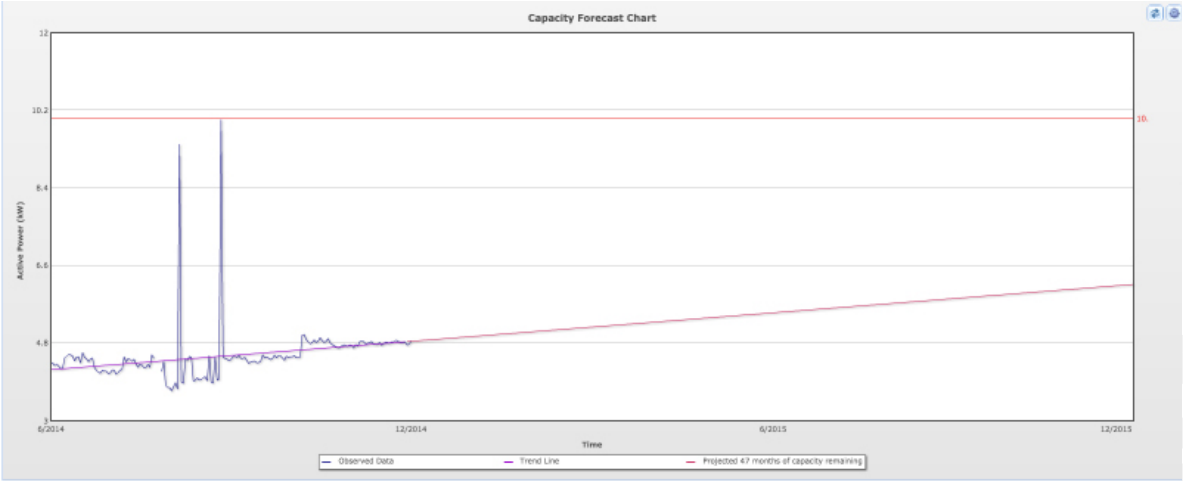
Forecast power capacity needs

Problem:

Difficulty gaining visibility as to when new space, power, cooling or connections may be needed.

Benefit:

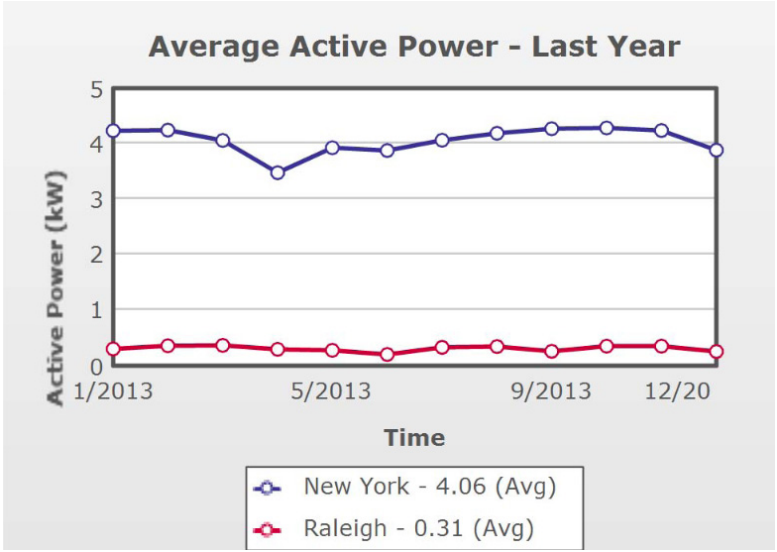
Monitor trends over time to forecast when you need to order more capacity.



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Load balance data center power needs



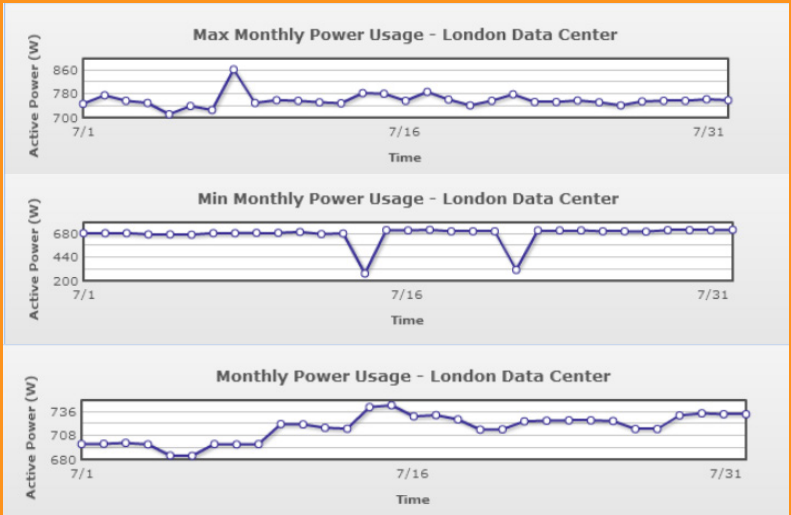
Problem:

Lack of understanding power capacity across multiple data centers.

Benefit:

Maximize uptime and service delivery, while minimizing potential costs.

Identify and Prevent potential power problems



Problem:

Lack of visibility causes unnecessary downtime.

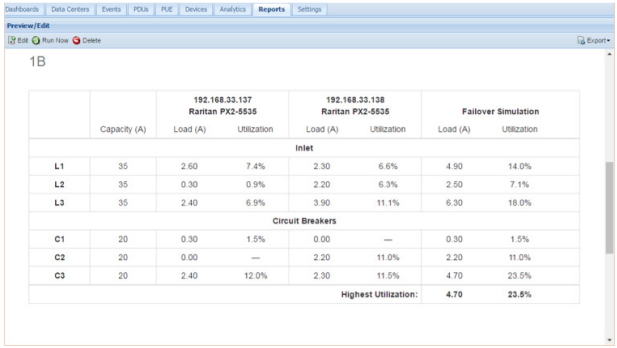
Benefit:

Use trends to quickly identify spikes (time/day, day/week) and to maximize uptime.

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40 CRITICAL PROBLEMS Your DCIM Should Solve

Maximize Uptime with failover simulation analysis



	Capacity (A)	192.168.33.137 Raritan PX2-5535 Load (A)	Utilization	192.168.33.138 Raritan PX2-5535 Load (A)	Utilization	Failover Simulation Load (A)	Utilization
Inlet							
L1	35	2.60	7.4%	2.30	6.6%	4.90	14.0%
L2	35	0.30	0.9%	2.20	6.3%	2.50	7.1%
L3	35	2.40	6.9%	3.90	11.1%	6.30	18.0%
Circuit Breakers							
C1	20	0.30	1.5%	0.00	—	0.30	1.5%
C2	20	0.00	—	2.20	11.0%	2.20	11.0%
C3	20	2.40	12.0%	2.30	11.5%	4.70	23.5%
					Highest Utilization:	**4.70**	**23.5%**

Problem:

Lack of knowledge regarding whether a specific redundancy strategy will be successful.

Benefit:

At-a-glance view that shows whether there are enough resources to handle a potential failover, thereby eliminating outage concerns.

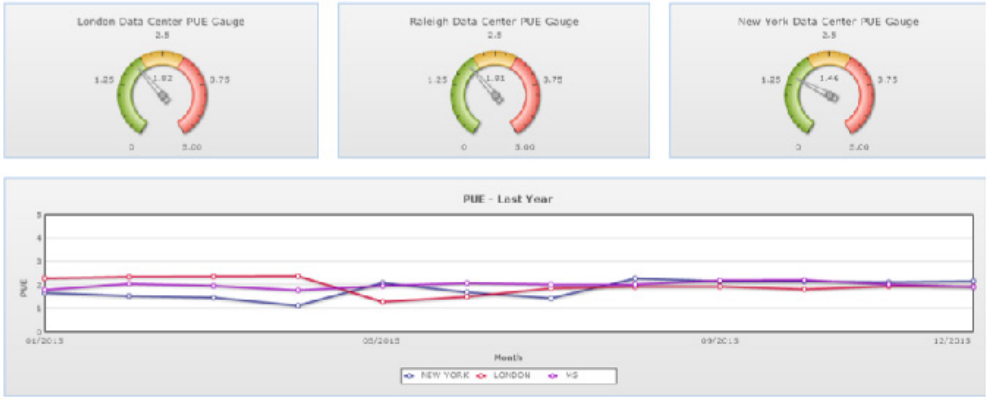
Monitor Real-Time PUE across all data centers

Problem:

Difficulty in tracking PUE of a data center over time or comparing the efficiency trends of multiple data centers with manual methodologies.

Benefit:

Automates the tracking and accuracy of PUE readings.



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40 CRITICAL PROBLEMS Your DCIM Should Solve

Manage Energy Costs

Problem:

Challenging to quickly identify and compare energy costs by data center, site, room, customer, application, or other parameter.

Benefit:

Drive energy reduction programs across data centers.



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40 CRITICAL PROBLEMS Your DCIM Should Solve

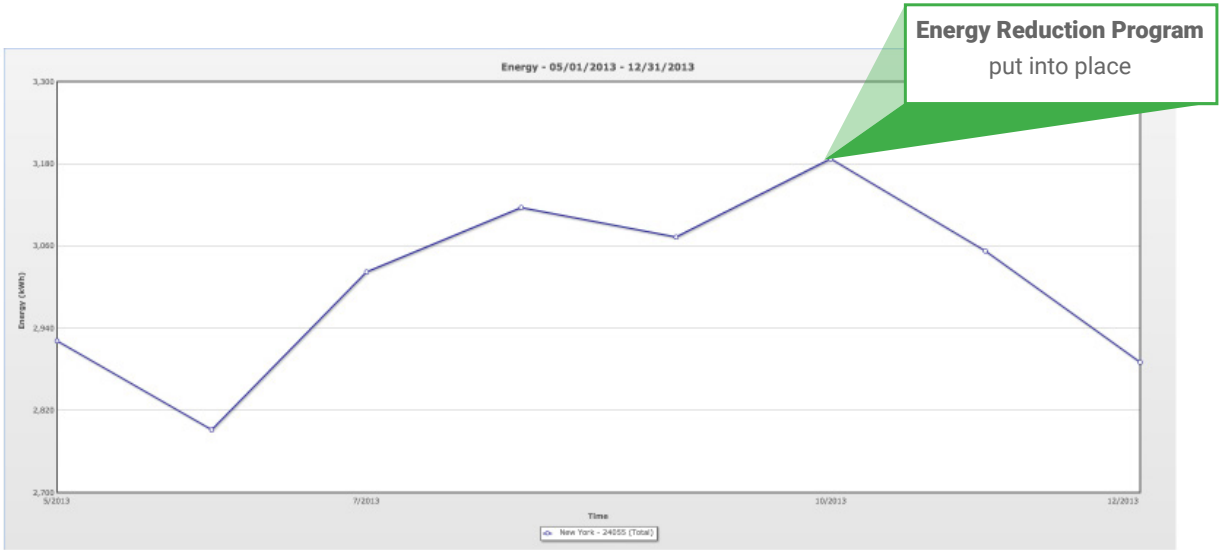
Promote sustainable energy reduction programs

Problem:

Tracking and seeing the results of energy-efficient programs.

Benefit:

Drive energy efficient behavior and ensure objectives are being met.



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40 CRITICAL PROBLEMS Your DCIM Should Solve

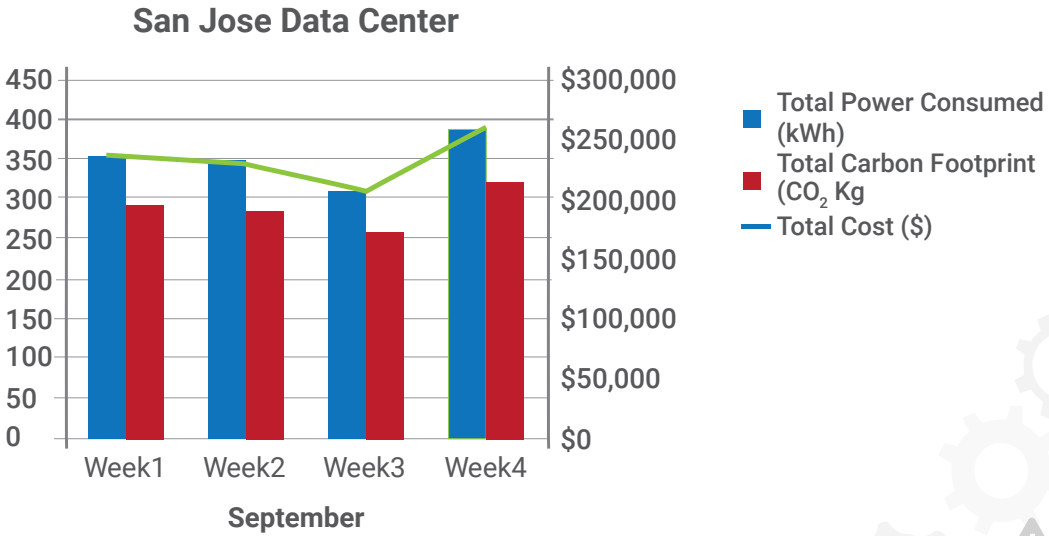
Drive corporate energy efficiency and sustainability initiatives

Problem:

Inability to enforce initiatives due to lack of information on actual energy consumption.

Benefit:

Drive energy reduction programs and/or shift loads accordingly.



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40 CRITICAL PROBLEMS Your DCIM Should Solve

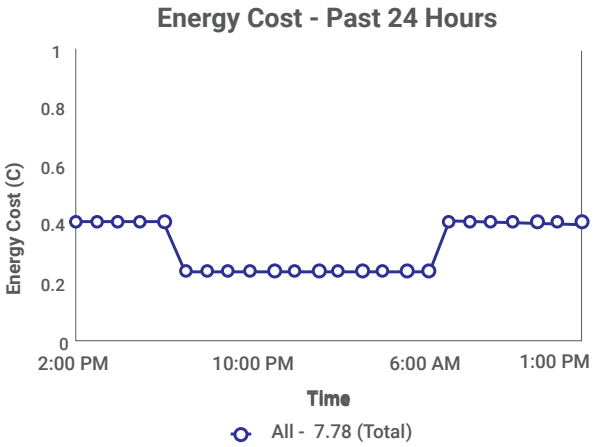
Understand Energy Usage by customer, application, or other parameters

Problem:

Difficult to drive customers to be more energy efficient.

Benefit:

More effective billing to drive energy efficiency and sustainability initiatives.



Reported: 2014/12/08 09:38 PM

Energy by Customer (PDU)

Date Range: 2014/11/01 – 2014/11/30

Customer (PDU)	kWh	Avg kW
Bank of Petoria	865.871	0.618
Commercial Banking	595.223	0.413
Goldman's Pharmacy	233.598	0.324
Goldman's Pharmacy Inc.	127.963	0.183
Investment Banking	197.570	0.282
Online Banking	100.432	0.143
Pewterschmitt Industries	595.223	0.413

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40 CRITICAL PROBLEMS Your DCIM Should Solve

Bill Organizations based on actual energy usage

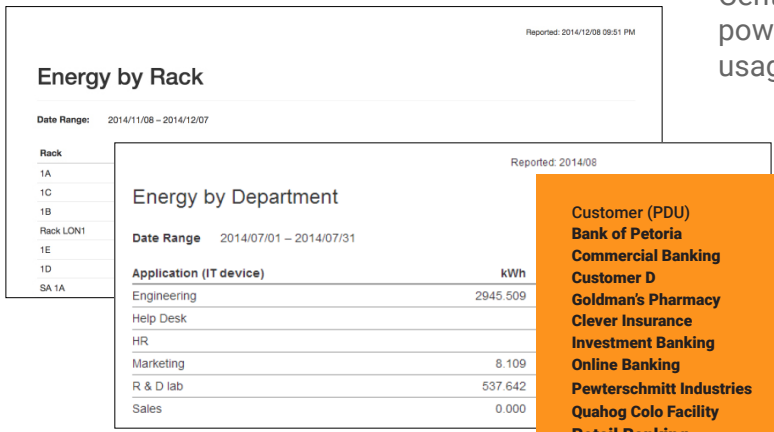
Problem:

Unfair customer billing (via allocation vs. usage) due to lack of understanding of actual energy usage.

Benefit:

Enables the equitable distribution of power and energy charges.

Eliminates the need for the Data Center to carry the full burden for all power costs. Costs are divided by usage vs. allocations.



Reported: 2014/12/08 09:51 PM

Energy by Rack

Date Range: 2014/11/08 – 2014/12/07

Rack
1A
1C
1B
Rack LON1
1E
1D
SA 1A

Reported: 2014/08

Energy by Department

Date Range 2014/07/01 – 2014/07/31

Application (IT device)	kWh
Engineering	2945.509
Help Desk	
HR	
Marketing	8.109
R & D lab	537.642
Sales	0.000

Customer (PDU)	kWh	Avg kW	Rate (.06/kWh)	Energy Cost
Bank of Petoria	854.582	1.149	$0.06	$51.27
Commercial Banking	257.655	0.346	$0.06	$15.46
Customer D	8.109	0.011	$0.06	$0.49
Goldman's Pharmacy	264.991	0.356	$0.06	$15.90
Clever Insurance	103.335	0.139	$0.06	$6.20
Investment Banking	182.924	0.246	$0.06	$10.98
Online Banking	106.44	0.143	$0.06	$6.39
Pewterschmitt Industries	537.642	0.723	$0.06	$32.26
Quahog Colo Facility	689.834	0.927	$0.06	$41.39
Retail Banking	485.748	0.653	$0.06	$29.14

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40 CRITICAL PROBLEMS Your DCIM Should Solve

Monitor the Amount of Energy used for cooling

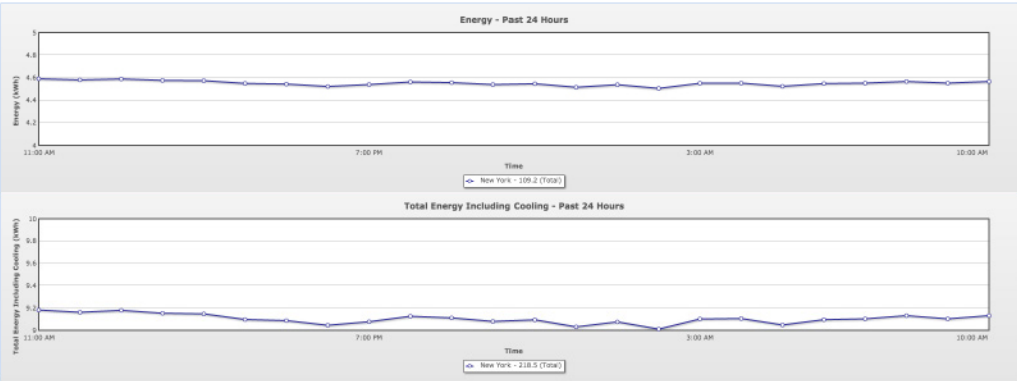
Problem:

Lack of knowledge on how much kWh the cooling system is consuming and the associated costs.

Benefit:

Make decisions on tactics to take to reduce cooling consumption, energy and costs, including:

- Increased chilled water temperature
- Modularization
- High efficiency chillers
- Water-side economizer
- Controlled optimization (staging, resets, etc.)



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40 CRITICAL PROBLEMS Your DCIM Should Solve

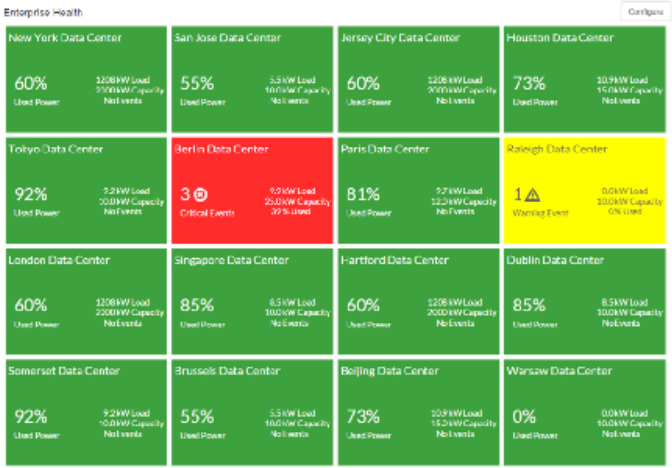
Easily Monitor the Health of your data center

Problem:

Difficulty in understanding the health of your data center infrastructure.

Benefit:

Use one solution to see power and temperature threshold violations and identify appropriate action.



Legend

- Critical
- Warning
- Normal
- No Data

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40 CRITICAL PROBLEMS Your DCIM Should Solve

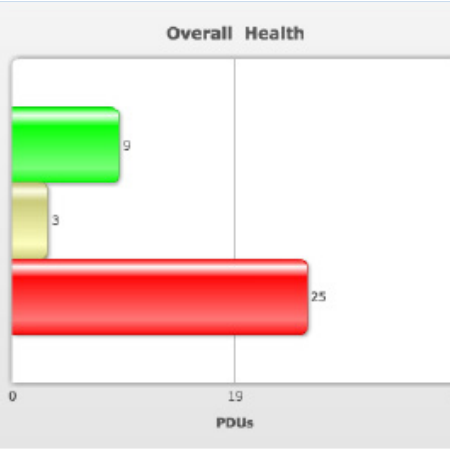
Ensure data center infrastructure equipment health

Problem:

Inability to easily identify trends/ patterns in alerting over a period of time for analysis.

Benefit:

Single view of alarm history through active polling enables the identification of data center items that might have underlying problems.



Occurred at	Severity	Event	Summary	Target
12/09/14 12:15:0...	Critical	Active power over critical t...	Active power value of 0.97...	1C
11/11/14 02:56:2...	Critical	Connectivity lost	Loss of connectivity detect...	10.128.10.150 - 3
11/06/14 02:15:0...	Warning	Inlet over voltage	Inlet I1: voltage is over wa...	192.168.33.163
10/10/14 02:43:3...	Warning	Admin credentials invalid	Admin credentials failed to...	192.168.33.162
09/26/14 10:15:0...	Critical	Active power over critical t...	Active power value of 1.30...	1A
09/09/14 03:12:0...	Warning	Inlet over current	Inlet I1: current is over wa...	192.168.33.163
08/21/14 05:34:1...	Critical	Connectivity lost	Loss of connectivity detect...	192.168.33.130
08/04/14 02:30:0...	Critical	Active power over critical t...	Active power value of 0.75...	1B
08/04/14 01:37:4...	Warning	Inlet under current	Inlet I1: current is under w...	192.168.33.162
07/07/14 09:50:2...	Warning	Admin credentials invalid	Admin credentials failed to...	192.168.33.138

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40 CRITICAL PROBLEMS Your DCIM Should Solve

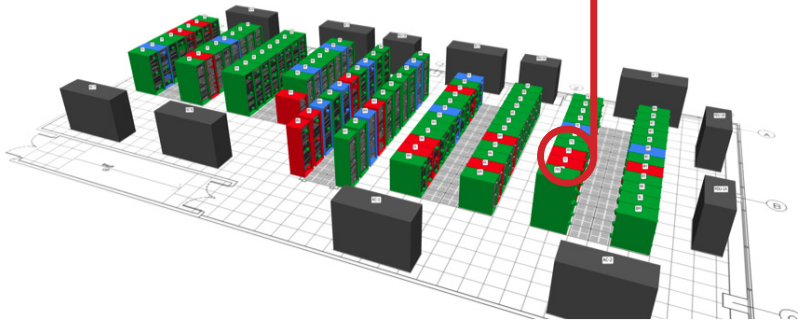
Proactively Identify hot spots and areas of risk for data center uptime

Problem:

Inability to easily identify “hot spots” in the data center — areas in which thresholds have been exceeded.

Benefit:

Visualization and information guide (actions/improvements) for rack/cabinets that are “hot.”



Legend

- High
- Medium
- Low
- No Data

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40 CRITICAL PROBLEMS Your DCIM Should Solve

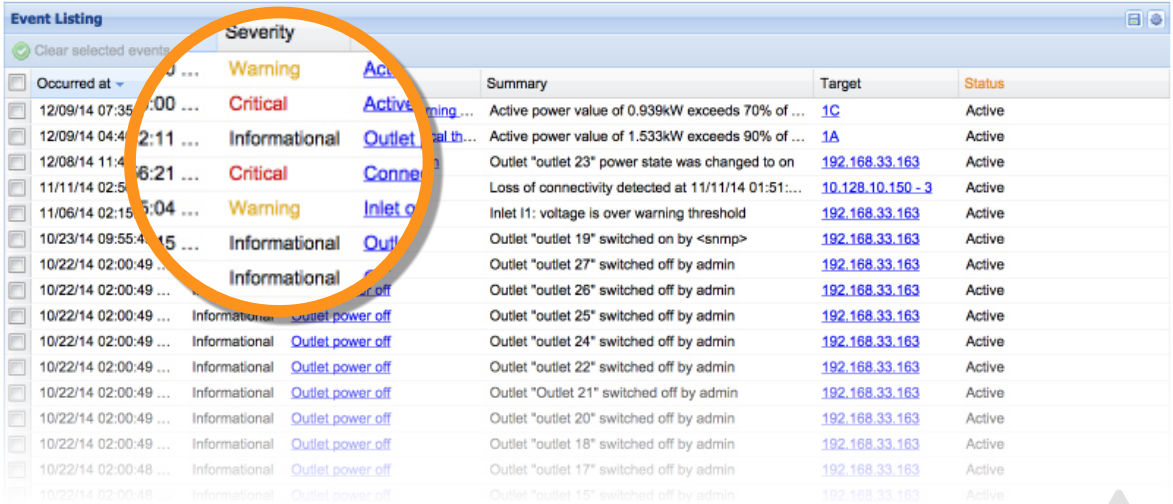
Ensure real-time alerts and alarms are being addressed

Problem:

Lack of insight into problems and their potential resolution before they become critical.

Benefit:

Ensure that real-time monitoring and consolidation of alarms from various data center infrastructure equipment are addressed.



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40 CRITICAL PROBLEMS Your DCIM Should Solve

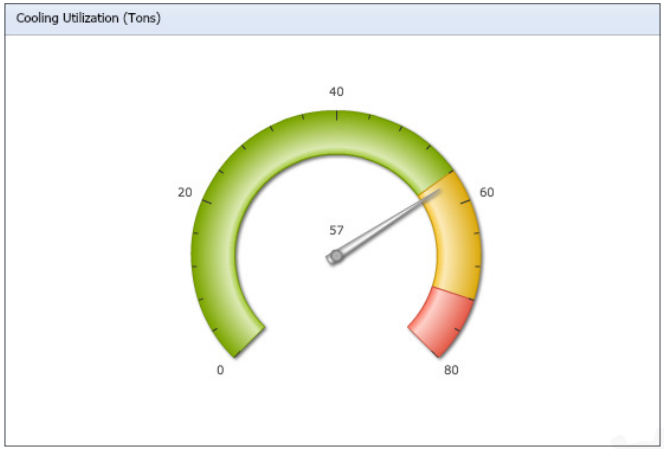
Improve cooling utilization strategies

Problem:

Inability to compare installed cooling capacity to heat load drives additional capacity purchases and masks cooling utilization problems.

Benefit:

Ability to determine cooling infrastructure utilization and potential gains to be realized by airflow management improvements, such as environment improvements, reduced operating costs, and increased server utilization.



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40 CRITICAL PROBLEMS Your DCIM Should Solve

Ensure Your Servers are Operating

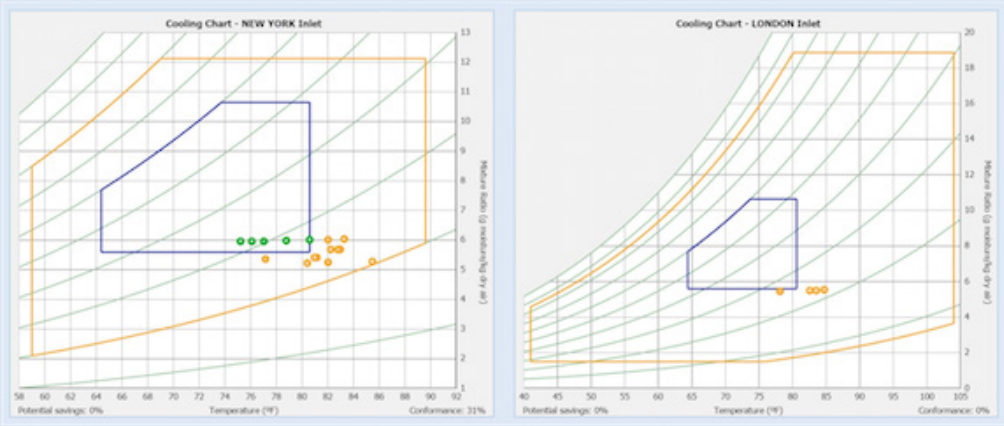
within the ASHRAE zone

Problem:

Easily identify which racks are in or out of the thermal envelope – ASHRAE safe zone.

Benefit:

Easily see 1000s of temperature/humidity points from 100s of racks, know whether you have an environment that is safe to operate computer devices, and adjust accordingly.



Monitor and Set Rack Inlet Temperatures

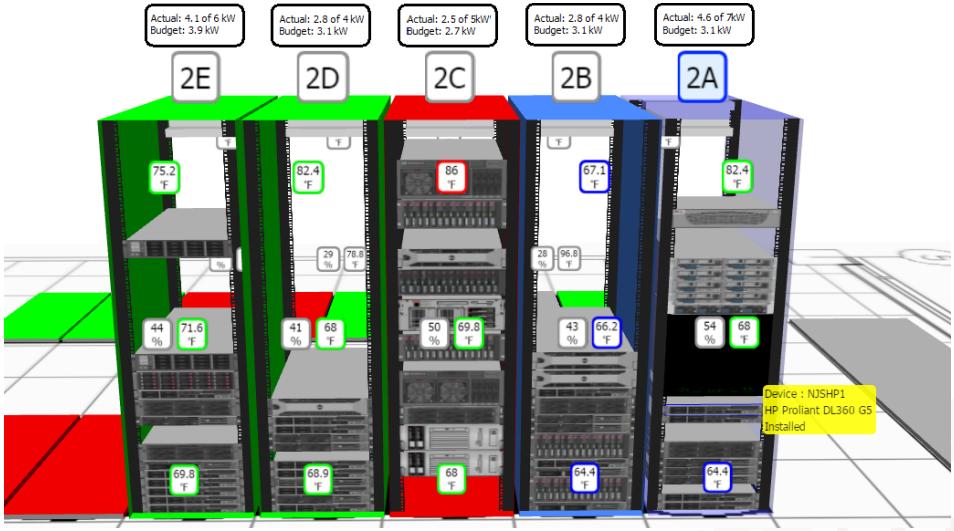
to save money

Problem:

Lack of knowledge on rack temperatures leads to overcooling.

Benefit:

Visualization of max inlet temperature trends in multiple racks, rows, or data centers enables better forecasting of cooling.



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40 CRITICAL PROBLEMS Your DCIM Should Solve

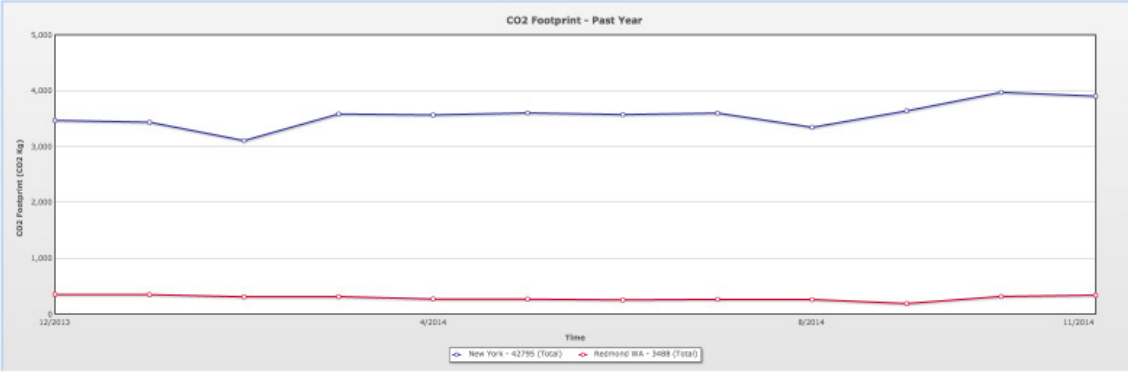
Automate carbon footprint reporting and trending

Problem:

Difficult, manual effort to calculate carbon footprint. Need to know carbon factors and kWh and to frequently calculate and update.

Benefit:

Automaticaly compare CO2 usage (Carbon Footprint) over time and develop strategies to reduce it to protect Earth's climate.



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40 CRITICAL PROBLEMS Your DCIM Should Solve

Summary

- DCIM is broad and can solve many problems — even more than the ones identified here.
- Each customer situation is going to be different. Pick and choose which problems you are trying to solve first and why you want to solve them.
- Reports, analysis and situational awareness allow Executives, Data Center Operators, IT, and Facilities Managers to work together to make effective and actionable decisions today and to forecast and budget for the future.

On the next page are some additional resources to help you start the DCIM purchasing process.



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Take Action Now

Talk to your colleagues and schedule a demo together to see how Sunbird's DCIM meets each of your needs.



ROI Calculator

Use our ROI Calculator to calculate your savings TODAY.

ROI CALCULATOR



Take a Test Drive

Test drive Sunbird'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 Sunbird DCIM expert.

SCHEDULE NOW

Sunbird