

## Customer Testimonials

// We change configurations in our data centre on a weekly basis. The InfraStruXure® system, with its ability to balance loads as we swap servers, battery modules and power modules, helps to make these changes worry-free. //

—Chuck McCann,  
technical director,  
Microsoft Technology Centre,  
Boston, Massachusetts, U.S.A.



// APC is continually adding new capabilities to its technology, such as its new Capacity and Change Management solution and 3D Data Centre Modelling tools. This really adds another layer of professionalism and added value. No other vendor can compete with that level of innovation. //

—Greg Boorer,  
managing director,  
Canberra Data Centres,  
Canberra, Australia



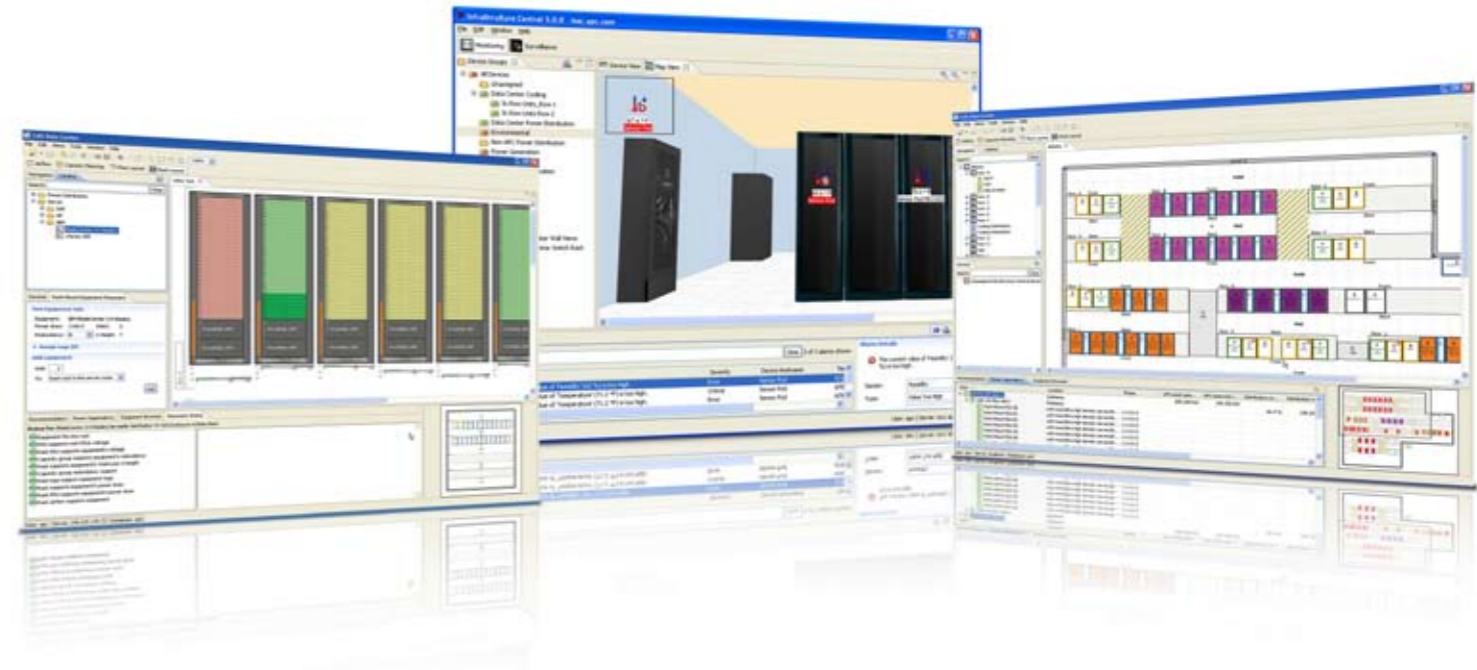
// Monitoring power and environment at the rack-level helps us avoid downtime. The proactive event notification functionality is a big benefit to us. If a problem exists, we are immediately notified and can work to solve it easily with hot swappable power and battery modules, without having to take down the system. //

—Anthony Sica,  
director of operations,  
Shiseido Co. Ltd.,  
Oakland, New Jersey, U.S.A.



# Data Centre Management Software

Data Centre Physical Infrastructure Management™ (DCPIM) software from APC® by Schneider Electric enables you to optimise your energy efficiency, without compromising availability.



Get more information on APC® by Schneider Electric solutions at [www.apc.com](http://www.apc.com)

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998-1676

APC's manufacturing system is certified to ISO9001 & ISO14001 standards.



**APC**  
by Schneider Electric



Monitoring



Inventory  
& Workflow



Simulation  
& Modelling

**APC**  
by Schneider Electric

# Confidently Make Critical Decisions with APC Data Centre Management Software

Data Centre Physical Infrastructure Management™ (DCPIM) software enables confident decision making and optimal efficiency. No more wasted man hours spent diagnosing problems. No more unplanned downtime. No more delayed server deployment due to the uncertainty of knowing which rack can cool a new, high-density server.

Finally you can virtualise, save energy, and save time.

Using software to control high power densities, you'll be able to maintain a state of heightened availability and make the best use of your data centre resources, eliminating stranded capacity and improving both your operational efficiency and energy efficiency at once.

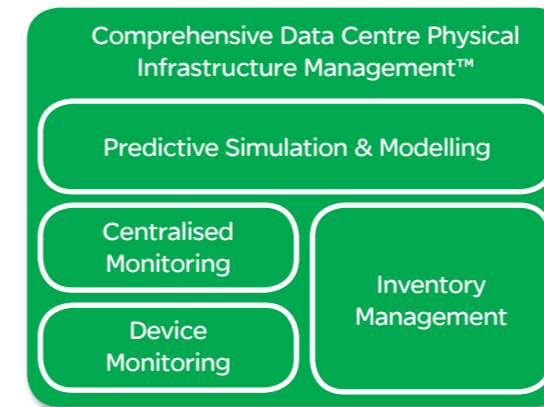
Additionally, when you implement an APC® by Schneider Electric management software solution in your data centre, you'll facilitate:

- > Faster, more intelligent decision making.
- > Easy deployment of new hardware.
- > The ability to monitor any vendor's physical layer equipment.
- > Improved planning and forecasting capabilities.
- > Streamlined inventory management.

With an APC management software solution, you'll unlock your data centre's capabilities, enabling it to function like the well-oiled machine it was designed to be.



# Modelling for Greater Efficiency: From Basic Monitoring to Predictive Simulation



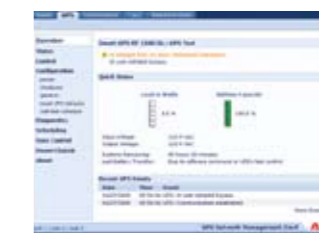
+ APC's Model for Data Centre Management

Traditional device-level monitoring systems will only get you so far. When the overall health of your data centre depends on your ability to accurately plan and manage change, you need more than educated guesses.

You need a comprehensive system for data centre management.

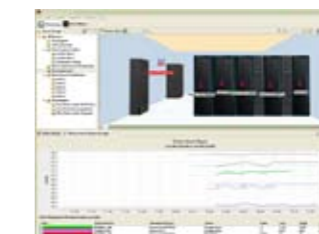
Centralised, real-time monitoring gives you a customisable, single view of all the IT assets in your multi-vendor data centre. Then, by integrating the add-on modules, data centre managers gain the ability to right-size their environment, proactively solving problems and efficiently managing their inventory.

APC brings you practical management capabilities, no matter where you are in the DCPIM maturity model:



## Device monitoring.

An essential part of any data centre, this basic form of monitoring is—on its own—ideal for small applications, but becomes less effective the more your data centre grows. *see page 4*



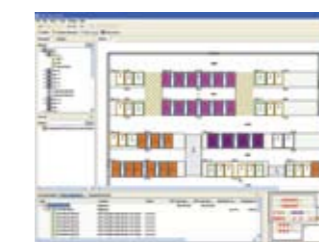
## Centralised monitoring.

InfraStruXure® Central provides real-time visibility into the health of your physical infrastructure, regardless of vendor. With a unified view of all the IT assets, you'll know the current status of your data centre at all times. *see page 5*



## Inventory management.

Change Manager works with InfraStruXure Central to keep track of device properties and physical equipment locations, automatically generating work orders and keeping human error at a minimum. *see page 7*



## Predictive simulation and modelling.

With its sophisticated modelling engine based on real-time data, Capacity Manager proactively analyses the impact of changes before they occur, enabling informed decision making and enhanced planning. *see page 6*

## Device Monitoring: On the Network, Under Control

APC device monitoring products perform a critical function: they put your data centre devices on an IT network using standard IT communication protocols. With a window into the health and status of each IT asset, data centre managers can then firmly ensure availability, no matter where on the network they happen to be.

For smaller environments, device monitoring is a solution in itself that's easily maintained. For larger organisations, however, it's a key element that will enable such comprehensive management solutions as InfraStruXure® Central.

There are several forms of device management, many of which come pre-installed on APC products, and all of which perform crucial functions for an efficient data centre environment:

- > Network Management is embedded in many UPSs, as well as power distribution and cooling units, enabling such features as SNMP monitoring, remote shutdown, alerting and alarming, data logging, and environmental monitoring.
- > NetBotz® sensors and cameras monitor your devices at both the rack- and room-level, instantly alerting you of any potentially hazardous temperatures, humidity, leaks, and dust, along with a host of other conditions.



## InfraStruXure® Central: Enable Visibility Through Centralized Monitoring

Centralised monitoring is the key foundation element for comprehensive data centre management, enabling an efficient way for organisations to monitor their company-wide, multi-vendor physical infrastructure.

Using InfraStruXure Central, customers are able to manage all of their data centre devices in real-time, from anywhere on the network. And since the information is based on actual data—not the static information used by isolated inventory management tools—you can be certain that your decisions won't adversely affect system availability.

With a system for centrally monitoring your IT assets, you can enhance your operational efficiency in practical ways:

- > Save time by immediately generating reports from any monitored device.
- > Give facilities and IT personnel a common language with which to optimise the physical infrastructure.
- > Minimise server downtime and increase productivity by enabling personnel to perform key tasks remotely.

Not only does InfraStruXure Central provide data centre managers with user-defined reports and graphs, instant fault notification, and temperature monitoring, but the application's vendor-neutrality means you can apply these benefits to any of your data centre equipment through networked SNMP devices.

Check the growing list of equipment validated to work with the latest version of InfraStruXure Central on the APC Web site under "User Manual and Installation Guides – InfraStruXure Central Device Support."

And if you have a component that's not currently supported through our formal validation programme? No problem—a quick call to our service team will integrate your device in a matter of days.

The greatest benefit, however, is that InfraStruXure Central sets the stage for a unified system of predictive power and cooling management—one that takes the risk out of right-sizing your data centre.



+ InfraStruXure Central won the 2007 Best of FOSE for Data Management Software by Government Computing News.

# Capacity Manager:

## Predictive Planning for Higher Availability

Understanding the constraints and capabilities of your data centre is a necessity. Capacity Manager puts that knowledge at your fingertips, predicting the optimal location for your physical infrastructure and rack-based IT equipment.

With its sophisticated modelling engine based on InfraStruXure® Central's real-time data, Capacity Manager proactively analyses the impact of changes before they occur, enabling informed decision making and enhanced planning capabilities. These decisions, based on the availability and requirements of power, cooling, and space, are fused with your own user-defined criteria, such as business grouping or a preferred level of redundancy.

The result: assurance that your physical infrastructure provides the redundancy and availability that you require. Use Capacity Manager to run your data centre closer to full load with minimal safety margins:

- > Use software to predict placement of equipment based on capacities and constraints to maximise use of your physical infrastructure.
- > See your run rate across the entire power train, from the UPS to the rack PDU to the IT equipment.
- > Automatically balance your three-phase load rack by rack.

Of course, since the application is fully integrated with Change Manager, once a new piece of equipment is provisioned, Capacity Manager is automatically updated through a common database. And, once installed, customisable views let you check the status of the hardware from any perspective. You can even simulate the de-activation of one or more cooling units to quickly see the impact on surrounding equipment.

+ Capacity Manager was the recipient of a gold medal from SearchDataCenter.com, which honored the software with its Product of the Year Award for 2007.



# Change Manager:

## An Integrated Inventory Management System

Every data centre needs a process for moves, adds, and changes. Whether you're installing one server a week or moving a dozen each day, inventory management can be a daunting task to undertake. And yet, knowing where each server is in the context of your infrastructure is absolutely essential.

Change Manager is a full work order system that takes a hands-on approach to inventory management, significantly reducing the potential for downtime by ensuring proper hardware implementation. The application automatically keeps track of device properties and physical equipment location using a data store, so you finally have accurate information any time. And you can even use a scannable barcode system to add new equipment when it arrives using the Mobile Datacenter Assistant.

Simplify your operations and use Change Manager to track and organise your data centre assets:

- > Stay organised by planning your team's work using a schedule of changes, tracking changes, due dates, status, and priority.
- > Save time and make light work of implementing work orders, carrying out equipment audits, and keeping track of inventory on the move.
- > Easily identify new equipment and ensure the integrity of inventory data by adding scannable barcodes to data centre hardware.

It's never been easier to organise your data centre. With Change Manager, you can better plan for new equipment by reserving power, cooling, and rack space. Then, once the new hardware is installed, you'll never again have to ask, "Where is it? What's it plugged into?" or "What's cooling it?"

Why? Because Change Manager instantly puts an organised view of your data centre right at your fingertips. It's inventory management, made easy.



# The Software Suite:

## Charting its Capabilities Across the Data Centre

Looking for a visual breakdown of the features offered by our integrated software suite? It's all right here—use this chart to quickly, clearly familiarise yourself with the basic capabilities of InfraStruXure® Central, Capacity Manager, and Change Manager.

	InfraStruXure Central	Capacity Manager	Change Manager
Floor Layout	✓	✓	✓
Rack Layout		✓	✓
Constraints & Capabilities		✓	
Monitoring	✓		
Device Mgmt.	✓		
Centralised Mgmt.	✓		
Physical Equipment Planning		✓	✓
Live Data Analysis		✓	
Capacity Calculations		✓	
Airflow Analysis		✓	
Workflow Mgmt.			✓
Inventory Mgmt.		✓	✓
Report Generation	✓	✓	✓
Synchronous Offline Mode			✓
Mobile Change Manager			✓

For complete technical specifications and further details on APC products, go to [www.apc.com/products](http://www.apc.com/products)



### Need design software, too?

**InfraStruXure Designer** incorporates technical specifications and data on thousands of products, assuring customers that they're getting the best data centre design possible. No more having to interpret engineering diagrams—InfraStruXure Designer gives you a 3-D proposal based on best practices, research, trends and APC's modular design principle. So increase your speed of deployment, lower the TCO, and reduce the risk of human error—with InfraStruXure Designer, data centre design has never been easier.

# Data Centre Snapshot:

## Software in Real-Life Applications

### CUSTOMER PROFILE



**Name:** John Smith  
**Occupation:** Data Centre Manager  
**Industry:** Communications  
**Data Centre Size:** 900 Racks  
 4,700 Servers  
 2,900 kW IT Load  
**Short-term Goal:** Maintaining continuous uptime  
**Long-term Goal:** Make the best use of available energy through optimal data centre design and efficient equipment  
**Greatest Challenges:** Virtualisation, cost efficiencies, frequent hardware changes, and the remote management of multiple sites

- > As a data centre manager, John uses InfraStruXure® Central-Enterprise to manage a networked company-wide infrastructure, ranging from individual appliances to large data centres, spread over several countries.
- > He uses InfraStruXure Central as the centralised repository for critical power, cooling, environmental, and surveillance data and events, which can be accessed by multiple users, from anywhere on the network.
- > Using Capacity Manager, he recommends optimal equipment locations based on real-time data, as opposed to the static, nameplate data his former management system used.
- > Change Manager automatically generates a work order for each new piece of equipment he scans into the system, and the hand-held device immediately updates the status of the hardware when a task is completed.
- > InfraStruXure Central provides real-time monitoring—and if one of the infrastructure devices fails, a user-defined escalation policy is activated, which notifies John of the fault.
- > Knowing he's going to need new servers soon, John uses Change Manager to reserve space, power, and cooling, optimising the use of his data centre assets and ensuring that no other servers are deployed there without his consent.
- > John periodically receives user-defined reports and graphs based on current and historic data, which enables him to get an overview of his infrastructure and create trending analysis to highlight potentially hazardous trends.
- > To ensure he's using the best possible data centre design, John uses the airflow analysis of Capacity Manager to simulate the cooling capacity of different scenarios.

# Schneider Electric Critical Power and Cooling Services: Customise Your Software to Suit Your Business

APC's software services enhance your use of our management tools beginning as early as the installation stage. From there, your products can be quickly configured to suit your specific business needs, enabling you to utilise the product's full capabilities.



## Software services include:

- > **Software Installation.**  
APC Service Professionals will install and register your newly purchased APC management product.
- > **Software Configuration.**  
Quick and precise configuration of the system to suit your specific business needs.
- > **Network Integration.**  
Provide planning, design and project management for the integration of APC software into your existing software or system.
- > **Software Consulting and Enhancement.**  
Customise our products by working directly with senior software engineers.
- > **Software Education.**  
Choose from a robust list of existing curriculums or work with our professional trainers to customise sessions based on your needs—we offer both on-site and remote training services.
- > **Software Maintenance.**  
Make sure your investment stays current with ongoing in-depth technical support and access to the latest software updates.
- > **Remote Monitoring.**  
Proactive management of your converged IT infrastructure by identifying and resolving day-to-day operational issues.

Looking for more information about one of our products? Curious to see how our solutions work in a real-world environment? Want to see InfraStruXure Central in action?

APC online tools, research guides, and online courses give you all the background you need to make informed decisions and smart investments.



## Your Next Steps



### CHECK OUT... APC online resources

APC has developed a wealth of online tools to help you clarify your requirements and explore your options:

- **TradeOff Tools™**  
These easy-to-use, Web-based applications enable data centre professionals to experiment with various design scenarios, including virtualisation, efficiency, and capital costs.  
*tools.apc.com*
- **Online Selectors**  
The APC Online Selector Tools cut right to the chase to recommend the products that best meet your needs, saving you time and hassle. All the Selector tools are accessed via the "Selectors" tab in the top menu bar at *www.apc.com*
- **Test Drive**  
See products like InfraStruXure® Central and NetBotz® 500 in action, with live images sent right to your desktop to show you the functions you can expect from our products.  
*http://testdrive.apc.com/*
- **Multi-vendor Support**  
Look for your data centre equipment in the ever-growing list of validated support from APC's InfraStruXure Central management software.  
*http://www.apcmedia.com/salestools/RJEN-7G4FPS\_R0\_EN.pdf*



### READ ... APC Data Centre Science Centre research

APC has spent \$90 million researching solutions to the most pressing customer problems. Take advantage of more than 100 "must-read" white papers, practical how-to guides, and other thought-leadership publications from the world's leading R&D centre on power, cooling, and physical infrastructure issues.

- Essential NCPI Management Requirements for Next Generation Data Centres (#14)
- Management Strategy for Network-Critical Physical Infrastructure (#100)
- Guidelines for Specification of Data Centre Power Density (#120)
- Power and Cooling Capacity Management for Data Centres (#150)

Browse through the entire APC library of research by going to our Information Centre at *www.apc.com*



### INTERACT... APC Online Discussion Forums

Get answers, help others, or simply explore the blog posts of our virtual community members, including blogs on InfraStruXure Central.

*www.apc-forums.com/index.jspa*



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