



Increase data center uptime
while decreasing costs.
Why not have it all?

D Data Center Building Management Solutions



Keep your data center and your

Your data center is a complex, dynamic environment that must balance the need for ever-increasing amounts of power and the pressure to reduce costs, while satisfying your customers' Service Level Agreements. High-density IT systems demand vast amounts of electrical power to operate; however, the amount of heat produced from these systems can lead to overheating. Thus, cooling infrastructures are needed to protect your data center assets and maintain continuous uptime. In addition, these diverse systems generate vast amounts of real-time, unstructured data that can be difficult to capture, integrate, and interpret. This can lead to human errors, and eventually, downtime.

How can you respond to these challenges? By choosing the right partner that can help you strike the perfect balance among the competing demands of high-density computing, essential cooling at all times, and the stresses placed on your electrical and cooling infrastructure. TAC is that partner. We help data centers around the world monitor and capture hundreds of data points, and then integrate, manage, and turn that raw data into actionable alarms, displays, and reports that facilitate better decision-making. The result is money saved by reducing both cooling and energy consumption, plus improved operational uptime and increased employee productivity.

"We conducted a strenuous selection process, looking at all the suppliers. TAC and Schneider Electric provided the greatest degree of flexibility to address our multi-tenant applications. International expansion goals for Digital Realty Trust include TAC and Schneider Electric as key partners to guarantee high-performance capacity and profitability of our facilities."
—Ted Martin, VP Operations, Digital Realty Trust



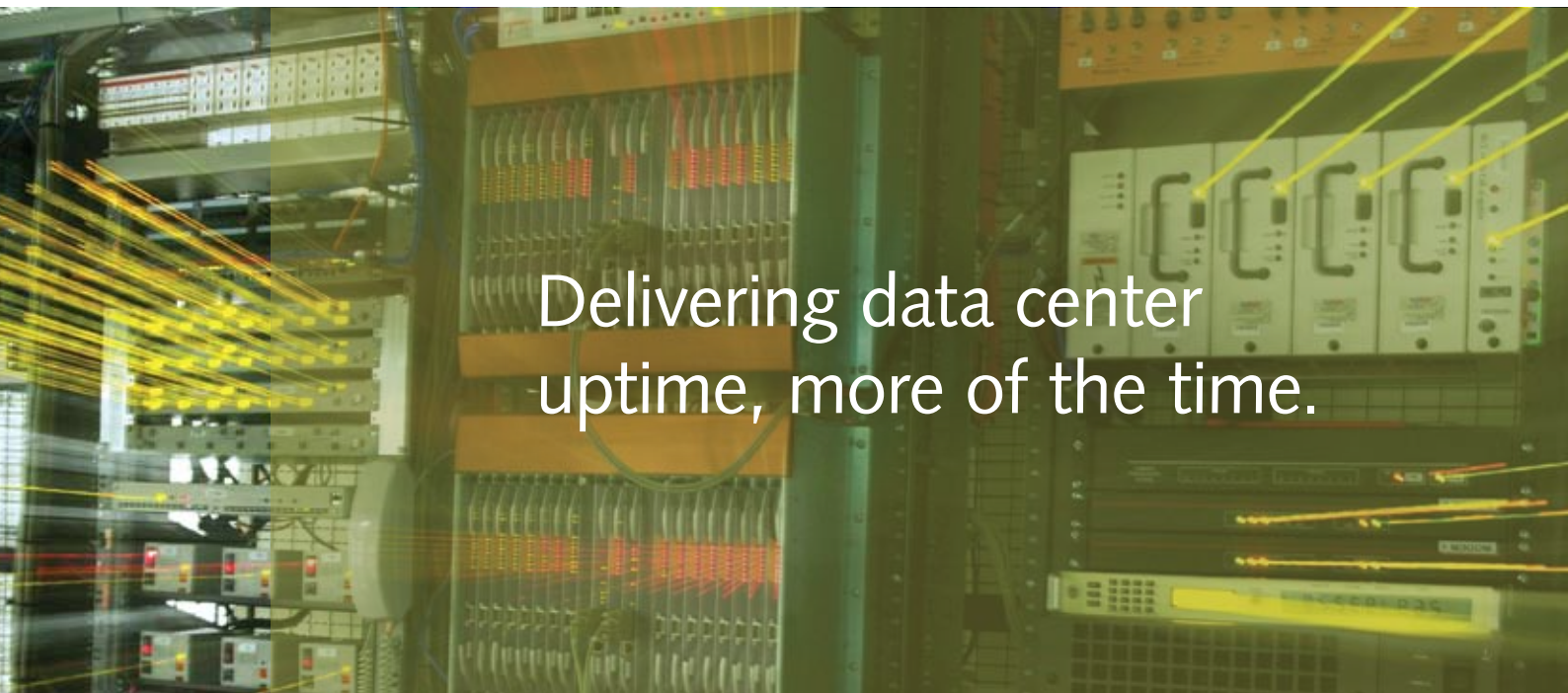
customers from overheating.

Data center downtime is catastrophic. It leads to lost transactions, corrupted server data, network traffic disruptions, unavailable hosted applications, financial losses, plus unhappy and lost customers. Consider how much money per minute a large international brokerage firm would lose if customer trades couldn't be executed. How much revenue would Amazon.com lose if their data center was down for several hours? How much

money would be lost in click-through advertising if search engines like Google™ were unavailable?

To avoid downtime, you need TAC's experience and reliable solutions. Our systems monitor, collect, integrate, and display real-time data in a single frame, so that data center managers can access and analyze it quickly, and avoid potential problems. Operators and management

are alerted immediately in the event of a potential or real failure. In so doing, you meet the expectations of your customers and your executives. Our systems will help keep your applications running 24/7/365. When your data center is this reliable, it lowers your total cost of ownership (TCO), and allows you to focus on improved performance and disaster avoidance, instead of disaster recovery.



Delivering data center uptime, more of the time.

R Reliability





Cooling the IT gear typically consumes 50% of the power a data center uses. Effectively managing the heat load minimizes the risk of downtime and manages energy costs. How can you do this? Choose TAC as your building management systems partner. We help you answer your most pressing energy-efficiency questions—How much power am I using? What IT services are costing me the most in power consumption? How can I turn the power down when the IT load decreases? How much money can I save?

TAC's solutions, integrated with Schneider Electric's electrical power monitoring systems and APC's critical power and

cooling systems for the IT space, help your company become more energy-efficient, immediately. One single management system for a data center's physical infrastructure delivers a common view of energy, enabling data center management to tie energy into the service management of IT assets. We collect and analyze key power consumption data, temperature and humidity in real time, and automatically adjust cooling and lighting. In addition, TAC's system has secure web portals, so that you can access reports on power quality, personnel access, and critical alarm history more easily and securely—even from remote locations. With us, you not only improve your bottom line; you also make information more accessible.

Make the most of your energy, and still reduce costs.



Energy



Schneider Electric is a key solutions provider for the Switch® SUPERNAP data center in Las Vegas, NV, which opened in Fall, 2008. Schneider's innovative solutions allow the SUPERNAP to run 95% efficient at half-load, saving Switch several million dollars a year in electricity cost, and allowing them to grow their data center modularly as they acquire more customers. Switch's data center employs solutions from Square D for electrical distribution and power monitoring; TAC for building automation; Pelco for video security; and APC for their white space.



Protect your data, your facility, and your reputation.



TAC's access control solutions allow you to monitor and authorize who enters your data center, to prevent security breaches and sabotage that can result in lost data, damaged equipment, and downtime. Our biometric, card, and keypad access systems keep unauthorized people out of your data center building, too. You can restrict access by assigning specific staff to role-based groups, setting schedules, and using temporary access codes.

TAC and Pelco's state-of-the-art video surveillance and analysis technology further protect a data center's most important assets. Under the watchful eye of Pelco cameras, video analytic software examines a camera's field-of-view for patterns of movement that match abnormal real-life events, like left items, fence-climbing, lurking, and jumping trip lines. Alarms alert security staff members immediately when any of these patterns occur. This allows security to focus on unusual events, rather than on all events simultaneously.

By integrating your security and life safety systems with your building management system, you can reduce installation and operating costs significantly, and control your entire facility via a single set of networked workstations. With this single browser interface, you can manage diverse building functions, such as environmental and access controls, power reliability and quality, video security, and alarms.

S Security

Digital Realty Trust's data center in Dublin, Ireland is a hardened, state-of-the-art facility protected by TAC and Pelco security solutions. This new energy efficient data center provides mission critical IT infrastructure to eircom, the country's leading broadband provider. TAC's motion detection sensors, access controllers, biometric readers, and Pelco fixed cameras provide fail-safe, positive access control to the data center's doors and suites. Pelco's video security system with IP cameras and recorders keeps a watchful eye with active surveillance 24/7 on the facility's exterior and sensitive areas. Security personnel use the Identify, Observe, and Understand (IOU) methodology to include constant monitoring, camera use for detection, and a video recording for investigations.



As the largest third-party owner of technology-related real estate, Digital Realty Trust acquires, manages, and builds mission critical communication and data center facilities for tenants such as Amazon.com, British Petroleum, and Yahoo!®. Digital Realty Trust chose TAC to meet their unique needs. Our precision temperature and air flow control systems keep servers running at maximum efficiency and our an efficient BMS integrates easily with their building and access control systems.

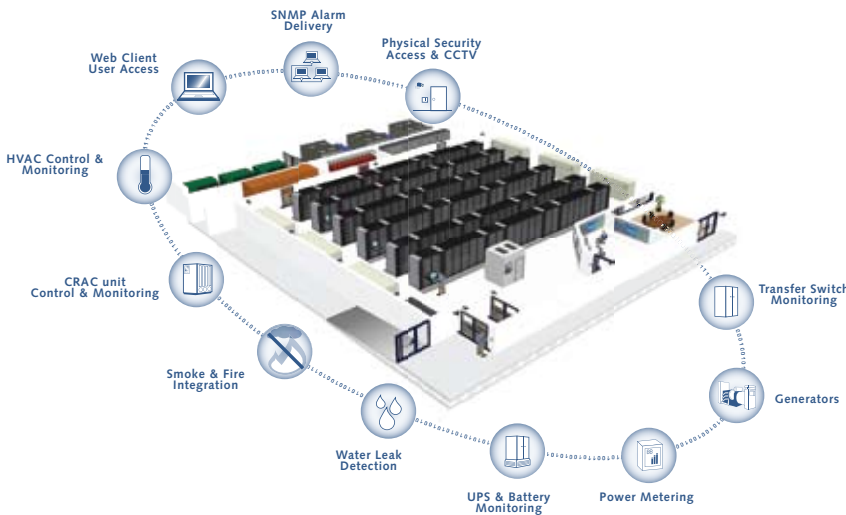
“We update and refine the system regularly and TAC’s ability to adapt to change is very important.”
—Ted Martin, VP Operations, Digital Realty Trust

Integrated systems are essential for data center reliability, security, and energy efficiency to extend the life of your system components, support your infrastructure, and run the IT equipment more efficiently. TAC’s building management system

(BMS) combines simplicity, scalability, and flexibility. With it, you can monitor and integrate all of the points in your data center relating to power usage, cooling, white space (UPS, CRACs, PDUs), backup power systems, lighting, environmental,

security systems, and third-party equipment at the same time. This enables you to address problems before they arise with our effective alarm management, and avoid downtime.

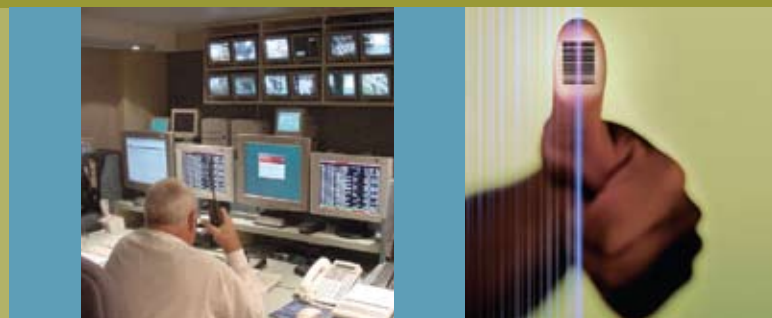
By integrating the entire facility, TAC’s BMS delivers operational and energy-efficiency metrics. We allow your data center personnel to track your Power Usage Effectiveness (PUE) and its reciprocal Data Center Infrastructure Efficiency (DCiE)—key measures of operational efficiency—in real time. With new government regulations to reduce power usage and carbon emissions, measuring and improving data center efficiency is a key concern. We also make it possible to tie operational alarms into your Computerized Maintenance Management System, to schedule maintenance on aging gear quickly, and prevent costly equipment downtime.



Built to work together,
24/7/365.

Integration

www.tac.com



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BR-DC-BLDMGTSOL-A4
May 2009

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