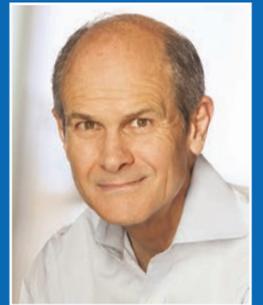




THE END-TO-END RELIABILITY FORUM™

WORKING IN CONCERT TO SUPPORT NEW DATA CENTER DEVELOPMENTS

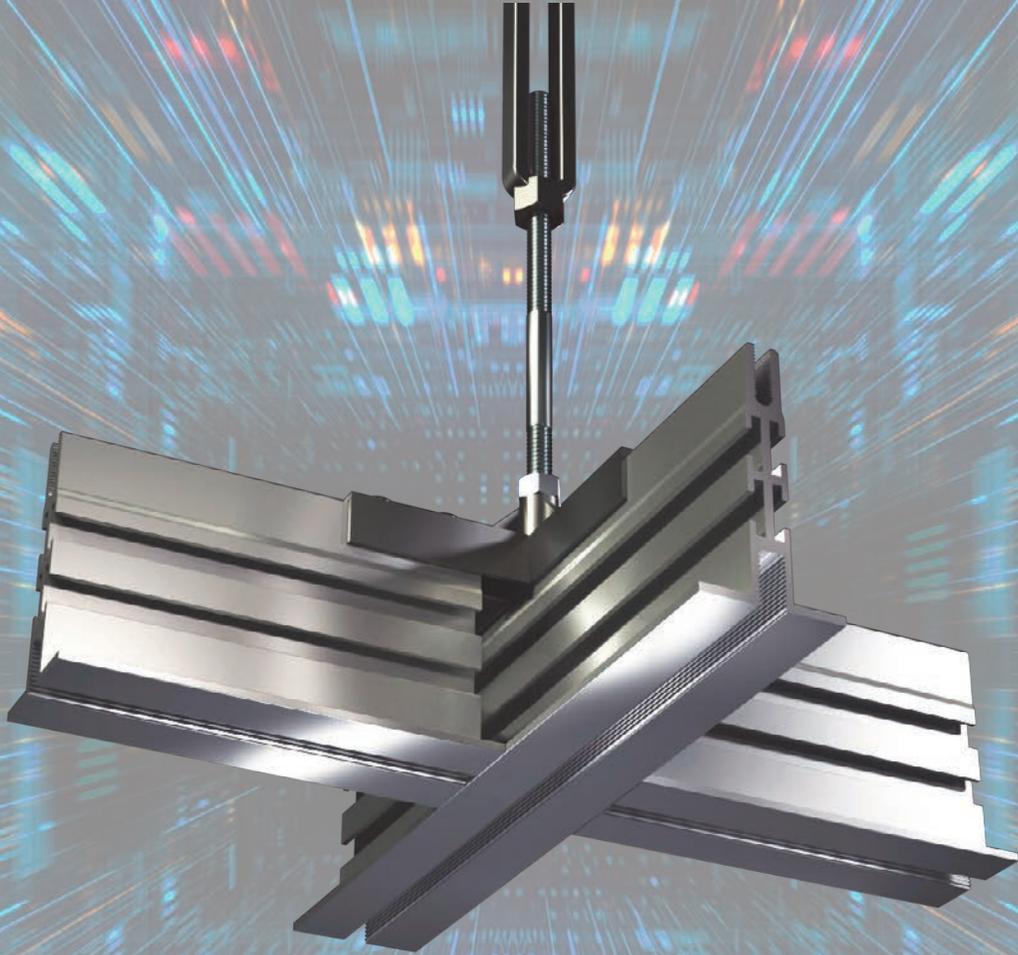
**CONFERENCE
KEYNOTE**



Geoff Colvin
Senior Editor-at-Large
for *Fortune*, and *The
New York Times* Best
Selling Author



Choose Maximum Value
Learn how to do MORE with LESS



ASK ABOUT DG X-SPAN!

Re-Imagine Your Structural Ceiling!

DG X-SPAN boasts the sturdiest load capacity,
allowing suspensions up to 8' spans,
often eliminating the need for strut to suspend from the roof deck.
Let us help you design the most versatile ceiling for your next Data Center!



GORDON[®]
ARCHITECTURAL • ENGINEERED SOLUTIONS
800.747.8954 | GORDON-INC.COM

CONTENTS

WWW.7X24EXCHANGE.ORG

■ WORKING IN CONCERT TO SUPPORT NEW DATA CENTER DEVELOPMENTS	6
■ 3 REASONS TO INVEST IN YOUR CRITICAL POWER	10
■ MAKING THE BUSINESS CASE FOR UPS	14
■ A CRITICAL APPROACH: ELEVATING A SAFETY CULTURE IN MISSION CRITICAL	20
■ THE GREEN DATA CENTER: IMPROVING DATA CENTER SUSTAINABILITY THROUGH OPERATIONS	24
■ INSIDE 7X24	35



2014

As a service to assist our valued members in staying informed about our dynamic industry, 7x24 Exchange is pleased to publish 7x24 Exchange Magazine, offering articles by leading professional experts on current and future trends, best practices, and the state of our industry. Please note that the opinions and views expressed in these articles are those of the individual authors themselves, and do not necessarily reflect the views of 7x24 Exchange or any of our members.



The end-to-end reliability forum.™

www.7x24exchange.org

DIRECTORS AND OFFICERS

Chairman & CEO

ROBERT J. CASSILIANO

Business Information Services, Inc.

President

CYRUS J. IZZO, P.E.

Syska Hennessy Group

Vice President,

Marketing Director,

Vendor Representative

JULI IERULLI

Caterpillar

Director,

Chapter Representative

MICHAEL SITEMAN

Prodigious Proclivities, Inc.

STAFF

Director, Chapter &

Member Relations

KATHLEEN A. DOLCI

646-486-3818 x103

Program Director & Editor,

7x24 Exchange Magazine

TARA OEHLMANN, ED.M.

646-486-3818 x104

Senior Director of Conferences

BRANDON A. DOLCI, CMP

646-486-3818 x108

QUESTIONS?

Call 646-486-3818 or

www.7x24exchange.org



When failure is not an option, Maddox is the answer.

Essential services demand dependable power. That's why mission critical operations rely on us for quality transformers, fast lead times, and thousands of in stock options. We keep your operation powered up and online 24/7.

Expertise

We don't just sell transformers. We understand them. Our technical sales team will review all the options for your project's needs. When it's time for you to make a decision, it'll be an informed one.

Responsive

When you call or email, you're looking for information that is crucial to moving your project forward. That's why we have staff on both coasts who prioritize fast response times for all communications.

Quality

All our transformers, whether standard or custom, are made to meet the highest industry standards. We stand behind the quality of our product with a 3 year warranty. They're built to last.

1-800-270-2011

sales@maddoxtransformer.com

maddoxtransformer.com



Robert J. Cassiliano

2021 was the year of the comeback for the Mission Critical events industry as 7x24 Exchange conducted conferences in San Antonio in the Spring and Phoenix in the Fall. 2022 will take it to the next level with increases in conference attendance and sponsorships as industry professionals look forward enthusiastically to onsite events.

For some time, industry professionals have been concerned over the number of Mission Critical events being conducted throughout the United States. This is a very valid concern which includes conferences with conflicting dates, a company's willingness to pay for attendance at multiple events, and the lack of quality networking due to dispersed attendance. 7x24 Exchange International's Board of Directors decided to address this issue by purchasing the assets of CAPRE Omnimedia.

The mission critical industry will benefit from this transaction as it consolidates the data center events industry professionals attend making for more efficient and productive opportunities for networking, information sharing, and sponsorships. CAPRE held 15-20 regional conferences per year which will now generate increased attendance and sponsorships for events conducted by 7x24 Exchange's 28 chapters. This chapter benefit combined with consolidating industry events are the primary reasons for the asset purchase.

The goal of 7x24 Exchange conferences is to provide attendees with quality education, networking, and information sharing all in an environment designed for a memorable experience for attendees and guests. 7x24 Exchange is committed to providing value to members, conference participants, and their companies.

The theme for the 2022 7x24 Exchange Spring Conference being held at the JW Marriott Orlando Grand Lakes in Orlando, Florida from June 12-15, 2022, is End to End Reliability: "Impact of COVID". Conference highlights are as follows:

- Sunday evening Welcome Reception
- Conference Keynote: "Confronting Reality: Leading Ahead of Disruption" by Geoff Colvin, Senior Editor-at-Large, *Fortune*, and *The New York Times* Best-Selling Author
- Keynotes by Aligned Data Centers, Switch and Enchanted Rock
- Talks from Compass Datacenters and Schneider Electric, Schweitzer Engineering Labs, and the US Department of Defense
- Panel on COVID and Its Impact on Data Center Construction and Equipment Procurement – participants include EYP, DC Box, and Vantage Data Centers
- Talks from ASHRAE / Mission Critical Global Alliance / Uptime Institute
- Panel on Sustainability and Reliability – participants include Evoque / Kohler / Salute
- Panel on COVID and Climate Crisis = Better Data Centers – participants include Burns McDonnell, JM Gross Engineering, Open Compute Project, and Wyoming Hyperscale White Box
- 7x24 Exchange WiMCO Panel: Intentional Recruiting & Development: Building the Future of Data Centers Today – participants include Caterpillar and Miller Electric
- WiMCO Networking Reception sponsored by Meta
- Exchange Tables on specific topics at Tuesday lunch
- Tuesday Sponsored Event "An Evening at Universal Orlando Resort"

The program content is designed to provide value to conference participants and their companies by focusing on important topics of the day. Impact of COVID on the data center industry, sustainability, and recruiting talent are highlighted at this year's Spring event.

I look forward to seeing you at the Spring Conference in Orlando, Florida!

A handwritten signature in black ink that reads "Bob". The signature is fluid and cursive.

Bob



Bob Cassiliano presents conference keynote, John Battelle, with a donation to the "UC Berkeley Foundation" on his behalf.



WORKING IN CONCERT TO SUPPORT NEW DATA CENTER DEVELOPMENTS

by Chris Curtis

Environmental stewardship is at the forefront of all local and state regulations and development decisions – as it should be. It tops the list of priorities for data center developers and operators, too, but that fact flies a bit under the radar on the local level. Sustainability is a business priority that needs to become a communications imperative to support the industry's continued growth.

BAD NEWS GETS RATINGS AND SELLS PAPERS

A decade ago, *The New York Times* released an exposé-style article depicting the potential negative effects of data centers on the environment. One sentence from this Sept. 22, 2012 article titled “Power, Pollution and the Internet” sums it up nicely, “A yearlong examination by *The New York Times* has

revealed that this foundation of the information industry is sharply at odds with its image of sleek efficiency and environmental friendliness.”

It goes on to detail a host of harrowing claims such as:

- Data centers waste 90% or more of the electricity they pull off the grid.
- Data centers rely on banks of generators that emit diesel exhaust.
- Large data centers contain banks of huge, spinning flywheels or thousands of lead-acid batteries.

Hundreds of reader comments ensued. There were a few letters to the editor in defense of data centers following this scathing rebuke, but nothing packs a punch like a year-long “investigation” and front-page news. It was a big reputational hit early in the industry's unfolding.

TURNING THE TIDE

If a top-tier news outlet has written an article heralding advancements made by the data center industry to protect the environment, we haven't seen it. *The New York Times* article seemed to spur community leaders, everyday citizens, regulators and government officials toward predisposition to resist new data center developments, regardless of environmental accomplishments and site-specific commitments. This was a turning point where onerous restrictions became mainstream and site selection and project development became infinitely more complex.

Our industry's impact on the environment is a critical issue, and one that data centers and all 7x24, critical infrastructure providers take extremely seriously. We have a shared goal of creating and maintaining a more sustainable future. Environmental

concern and commitment guide the way we design, construct and operate data centers. Yet, the fear narrative looms large and is a consistent, shared obstacle faced when it comes to developing new projects.

So, how do we share the advances our industry has made with respect to sustainable, environmentally neutral operations? One key is, singing from the same song sheet.

OUR HYMN

We wouldn't complain if a top-tier news outlet wanted to write a lengthy, front-page article on how the data center industry has spurred massive investments in renewable power generation; how seldom back up power is tested or used and the move toward lithium-ion batteries to minimize use of diesel-powered backup generators; or how the airside cooling systems available now mean no water is wasted. But it hasn't happened.

In addition to talking about those technical advancements that benefit the environment, we can build greater

awareness of the upsides by consistently balancing the narrative and seeding positive messages about our industry's contributions toward a carbon neutral future. Consistent communication is key to being heard and we have plenty to croon about.

Virtual capability contributes to lower carbon emissions

The pandemic changed everything. We will henceforth rely infinitely more on virtual meetings, streaming entertainment and digital learning tools. If the events of 2020 weren't enough to reinforce the significant role of technology in our businesses and schools, the delta, lambda and omicron variants of COVID-19 underscore the ongoing need for connectivity at the drop of hat.

While it's been tough for the travel and hospitality industries, all of the many meetings gone virtual equates to significantly less carbon emitted by planes, trains and automobiles. A comprehensive new survey of the effects of the pandemic on the atmosphere, using satellite data from

NASA and other international space agencies, revealed that:

- Carbon dioxide emissions fell by 5.4% in 2020.
- Pandemic-induced drops in NOx quickly led to a global reduction in ozone.
- Methane in the atmosphere dropped by 10% (according to one study).

All of the virtual work and entertainment our society tapped into over the past two years would not have been possible without healthy and robust data streams.

A boon to renewable energy development

Most data centers have moved to exclusive use of renewable energy, delivering the large-scale, ongoing contracts needed to build more renewable generation capacity, and invest in renewable power storage solutions and grid improvements. This industry has driven the demand needed to expand green energy solutions and capacity.



DO YOU HEAR THAT? NEITHER DO WE!

Robinson specializes in critical sound reduction packages for diesel and natural gas gen sets. Call us today to learn more about our single source solutions.



P.O. Box 5905 | De Pere, WI 54115-5905
920.490.3250 | www.robinsoninc.com
De Pere | Manitowoc

Localized benefits

Data centers aren't 25-story, hulking buildings with throngs of workers creating congested city streets. While the acreage can be significant, it's usually a low-rise building in a far-flung place that is visually unobtrusive.

Developers today are making impressive commitments to protect, improve and enhance areas around campuses by protecting or improving wildlife habitats, building hike and bike trails, planting pollinator plants to support growing bee populations, and improving water treatment and storm water drainage to fortify cities against extreme weather.

In addition, the tax revenue a data

center can bring to the city offers the potential to meet city needs without raising taxes for its citizens. In 2019, data centers contributed more than a quarter billion dollars in tax revenue in Loudoun County, a U.S. data center hub.

On the unseen side, investments in power and fiber optic networks are a huge benefit to local residents. Bandwidth and the ability to serve growing data infrastructure needs also makes it possible to attract larger employers in search of new markets to establish operations.

These mission-critical facilities are not a threat to the environment. They're

enablers with real, significant benefits to communities and the environment, addressing the needs of our rapidly evolving world in an environmentally responsible way. There are a lot of reasons to welcome data center development done right.

Data centers will continue to play a key role in our future, providing the foundation for the data driven capabilities and applications changing the way we work, learn and communicate. Let's see if we can't chip away at negative perceptions by being more vocal and consistent, and break down some barriers to responsible data infrastructure development in the process.

Chris Curtis is Senior Vice President of Development & Acquisitions at Compass Datacenters. He can be reached at ccurtis@compassdatacenters.com.

> DON'T GET LEFT IN THE DARK_

Let ABB's complete data center portfolio be your guiding light to help ensure your data center runs smoothly, reliably and efficiently.

Our comprehensive offering of LV and MV power distribution, power protection, digitalization, service and support help you keep your uptime up, your outages out and your disruptions to the absolute minimum!



ABB Data Center Solutions.
Trusted. Reliable. Proven.





Your perfect partner for data center construction.

By safely delivering mission critical equipment, expertise and information seamlessly across the complete construction life cycle, United Rentals enables its customers to build their data centers more quickly and efficiently. Our Total Control[®] digital solution allows you to track both rented and owned equipment utilization and benchmark its performance against prior projects and your peers.

With our commitment to safety and security, our engineering professionals have the know-how to plan and execute during construction through ongoing facilities maintenance spanning product, service and support groups. Lastly, we have the experience to help maximize your sustainability opportunities and the integrated technologies around managing your equipment to provide you reliability and increased uptime.

UnitedRentals.com | 800.UR.RENTS

© 2022 United Rentals, Inc.





3 REASONS TO INVEST IN YOUR CRITICAL POWER

by Steve Vechy

Power failures and critical system outages are often front page news. New York City subways were recently impacted by one such system failure, possibly due to lead acid or nicad batteries – causing a major disruption for millions of daily commuters. And then there was the Arizona explosion in 2019 that caused significant injuries to nine first responders, all as a result of an imperfect large battery installation. Stories like this are unfortunately commonplace, and this is too often due to a lack of investment in critical power (also known as reserve power).

From my experience working 30+ years in the critical power industry, there are three main reasons that it's now prudent to make meaningful investments of time, resources and

manpower into back-up systems. I'm going to run through each reason, but first it might be helpful to describe a strong, top-performing critical power system.

A good critical power system must be both reliable and resilient, meaning they need to be both built to reliably respond to low-impact, high-frequency typical power system outages, and built to handle low-probability, high impact events such as natural disasters and extreme weather events. We unfortunately live in a changing world in which these events have become more and more frequent, which means that many of my clients are seeing more intense and more regular system failures.

If your system is built for day to day reliability, but not for resilience in the time of crisis or disaster, you're deeply at risk. A single high-impact event can devastate a power grid, leading to power gaps and blackouts that can have catastrophic consequences – possibly including loss of life.

So, what's leading to this changing landscape? Why do we need to invest in our critical power, now more than ever?

1. Because our weather is becoming more and more unpredictable, leading to disastrous weather events and natural disasters that wreak havoc on power systems. Nearly 1 in 3 Americans experienced a weather disaster this summer. Hurricane Ida is a recent example of one such

Decades of Data Center Thought Leadership



SYSKA HENNESSY
GROUP

Our 500+ engineers enable cloud, colocation, and enterprise providers to move seamlessly from concept through construction to meet speed to market drivers and sustainability initiatives. Syska designs low-cost engineering solutions with world class innovation to allow data centers to operate efficiently and without disruption.

www.syska.com

Atlanta, GA • Boston, MA • Charlotte, NC • Chicago, IL • Dallas, TX • Hamilton, NJ • Jacksonville, FL • Los Angeles, CA • New York, NY • Orange County, CA • Raleigh, NC • Richmond, VA • San Diego, CA • San Francisco, CA • Silicon Valley, CA • Washington, DC • Dubai, UAE • Shanghai, PRC

weather event. Nine days following the storm, 430,000 Louisianans were still suffering in the humid September heat without power to their homes and businesses. The reality is, we're living on a planet battling extremes – heat, cold, storms, wildfires – all of these events can take their catastrophic toll on a back-up power system at any time.

2. Because there's more demand on our global power grid than ever before, thanks to population growth, climate change measures and emerging renewable power sources. While there is still a great deal of debate about whether the Earth is actually overpopulated, I think we can all agree that our global

population of eight billion people, combined with our collective carbon footprint and fast-moving technological innovation is making its impact on our use and overuse of power. As we utilize more power, in more ways, more often, we see the consequences (system failures).

3. Because lack of attention, awareness and preventative measures always ends up causing problems, no matter what industry or field you're in, and critical power is no different. In just the same way that any good accountant would recommend routine bookkeeping and careful maintenance of expenses, or in the same way that a doctor would advocate for preventative care and

regular check-ups, I must advocate for more consistent and focused attention and investment in critical power systems. For the reasons we've already discussed, and because it just makes good sense to care for your infrastructure.

Critical power is out of sight and out of mind until you have a problem. Then it's often too little, too late. Instead of waiting for a serious problem to arise, why not look at your back-up system now, put a plan in place for proactive management and maintenance, engage with experts and upgrade your system elements while everything is still functional. Taking this action may ultimately be what comes between your business, your clients and disaster.

Steve Vechy is Director of Engineering & Marketing at Concentric, LLC. He can be reached at steve.vechy@concentricusa.com.

Left unchecked, biofilm deposits cause serious problems in cooling water systems including corrosion damage, heat transfer losses, reduced flow, and the transmission of disease. Routine bio-monitoring is important, but with current methods, it's difficult to know whether your system is under control. Until now...

360 APPROACH TO BIO-MANAGEMENT



Biofilm Reduction



Real-Time Monitoring



Reduce Water & Energy Use



Increase Efficiency

EARLY WARNING SENSORS ASSURE UPTIME & PREVENT FIRE THREATS



Thermal Image Sensor



Example: PDU Thermal Imaging



CO₂ + VOC Vent Gas Sensor



Daisy-Chain IR Temperature Sensors



Viking Integrated Safety and ServersCheck are partnering to bring a new class of fire prevention solutions to critical infrastructure.

[Safety.SupplyNet.com](https://www.safety.supplynet.com)

VIKING
Integrated Safety





MAKING THE BUSINESS CASE FOR UPS

by Yaron Binder

Uninterruptible power supply (UPS) systems are generally thought of as insurance policies for companies and institutions with critical power requirements such as hospitals, research facilities, laboratories, data centers, manufacturers, healthcare, government, academic, research, and transportation facilities, providing reliable power supply.

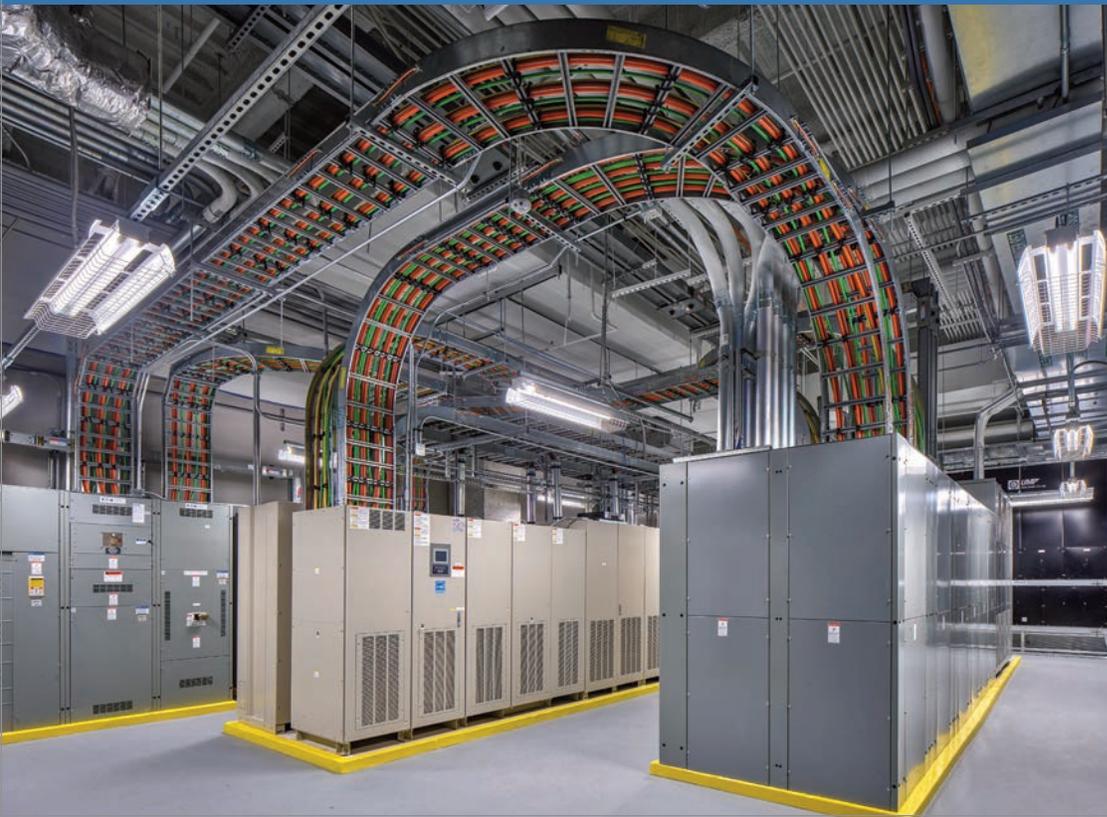
Using UPS systems as more than emergency backup—and *monetizing their use*—makes a compelling proposition. Seeing these systems as assets and new revenue generators—with *no risk to backup capabilities*—introduces a new, strategic way of thinking about UPS capabilities.

At present, the most common method of providing backup power is the use of generators with UPS batteries. This method bridges the gap between the power interruption and the point in time when the generators produce a stable power supply. This is the traditional model that protects those with critical power requirements from grid failures. Typically, it can take between a few seconds to a few minutes

for a generator to reach appropriate production levels. If a generator is not in place, a longer battery backup solution will be needed to bridge the time until grid power is resumed.

However, grid failure or grid interruption aren't the only factors that need to be considered by energy users; there are a wide variety of commercial implications to think about, too. First, there are variations in tariffs throughout the day: power from the grid at peak times is more expensive. Secondly, in some countries, rates charged are based on the maximum consumption in a given period. For example, a manufacturer on a five-day week might have a disproportionate spike in power usage when operating multiple machines or devices at the same time, or when using a high power device infrequently. Power usage will be several times higher than the maximum consumption level for the rest of the week, but that increase in power consumption, even for a short period of time, will determine the tariff rate for the entire period.

When it comes to mission critical,
there's no such thing as 6x23.



DPR consistently ranks among the top 5 data center builders in the U.S. for a reason. Our dedicated mission critical teams know that uptime and speed to market are essential in this sector, while coupling our agility with cost and schedule predictability clients can count on. By leveraging our preconstruction expertise, from site selection to supply chain management and cost modeling, we help you make strategic and informed decisions for your projects.



Learn more at www.dpr.com

The Smartest Battery Choice for Resilient, Profitable Data Centers

Reduce Your Risk, Cost, and Hassle
with Proven Technology.

We get it. Data center leaders and CIOs face endless demands — greater efficiency, agility and operational sustainability — while mitigating risk and lowering costs. Deka Fahrenheit is your answer. It's an advanced battery technology for conquering your biggest data center battery challenges.



Lyon Station, PA 19536 P: 610-682-3263 www.dekabatteries.com





There is a way of ameliorating these challenges by using the existing UPS systems that are already installed. New, specialized software allows energy to be stored when charges are less expensive—to be used in place of grid power at times when charges are higher. This can be done automatically as part of normal operations whenever surplus battery capacity is available, while still ensuring that sufficient capacity is preserved for emergency backup if required.

Similarly, it is possible to draw energy stored in UPS batteries during low usage periods to supply extra peak power when needed, thus reducing or eliminating predictable spikes in consumption and reducing the overall tariff.

In addition to this, UPS batteries can be

From High-Performance to Hyperscale...

Clayco delivers high-performing data centers - SAFELY and FAST.

As experts in integrated delivery, we work alongside mission critical design teams and engineers more collaboratively and quickly than the competition using lean construction techniques while always keeping safety our first priority.

CLAYCO

THE ART & SCIENCE OF BUILDING

claycorp.com

used to provide additional power for short periods of time in instances where energy cannot be sourced from the grid. Consider the case of a hospital that needed to install a new scanner. The inrush power requirement of the scanner was in excess of what the grid connection could provide, though its post-start-up operation was within the available capacity. The hospital's location also made it unfeasible to upgrade the energy supply. This is quite a common problem in cities around the world where infrastructure tends to be stressed.

With the new model of UPS application, the hospital can draw on its UPS power in the scanner's inrush phase to complement the grid supply until energy demand falls. Use-case scenarios such as these extend the limits of grid connection and enable the user to have access to more power than the grid can supply, while not taking away from the UPS system's emergency functionality.

ADDING SOLAR TO THE MIX

The next step in this evolution is to combine the increased capabilities of UPS systems with a renewable energy source.

Many companies and institutions with critical power requirements have already installed some level of solar energy generation as part of their wider carbon reduction goals in order to reduce energy costs. When the grid is on, solar power is used to supplement grid energy for operations and to charge UPS batteries. But what happens when the grid is down?

Companies may not realize that when this occurs, solar inverters need to be isolated from the grid, which can result in lost energy production. However, there are solutions that manage to overcome this issue. For example, SolarEdge's UPS backup solution includes hardware that isolates the inverters from the grid to maintain solar energy production while the grid is down, effectively creating a micro-grid.

UPS systems can also be utilized to help organizations improve their self-consumption of solar power. Energy usage does not always align with the energy generation of a PV system. As such, in order to overcome this inconsistency, energy can be stored in a battery for consumption at a later time instead of either limiting energy production or feeding it into the grid. Depending on which state you live in, this tactic

UPS • SWITCHGEAR • EMERGENCY LIGHTING • GENERATORS

POWERING YOUR ENTIRE DATA CENTER

Your data center is only as good as the back-up batteries behind it. That's why EnerSys® engineers developed a wide range of battery systems, designed to provide the reliable back-up power you need for any application.

EnerSys

+1 800 538 3627

datacenters@enersys.com

© 2022 EnerSys. All rights reserved. Trademarks and logos are the property of EnerSys and its affiliates unless otherwise noted. Subject to revisions without prior notice. E.&O.E.



www.enersys.com



of feeding excess energy back to the grid could add to your monetary gains from UPS and PV systems, further decreasing the ROI.

One way to achieve this is with a stand-alone storage system. However, it might be more cost-effective to add extra batteries to the existing UPS system and store the energy there instead. By adding batteries to the UPS system, this

otherwise wasted energy can be utilized at a lower cost than adding a separate storage system. In this way the UPS system acts as a hybrid system manager.

Crucially, this use of solar energy and batteries does not add risk to an organization's UPS provision. This is because the energy levels reserved for critical power are automatically monitored, regulated, and preserved. Beyond these requirements, using surplus solar energy can cut costs without adding risk: it maximizes self-consumption when the grid is on and provides backup power capabilities when the grid is down.

PUTTING IT TOGETHER

The integration of flexible PV and UPS solutions changes the whole dynamic of working with energy suppliers and using the grid.

An integrated PV and UPS system can add value and reduce costs, on top of providing users with energy protection. Longer backup times can be achieved, and the flexibility of allocating batteries to the solar and/or UPS sides of the

Sustainable, resilient data centers

- Strategic planning
- Site selection
- Sustainable design
- Construction management and oversight
- Commissioning and operational consulting
- Decommissioning and repurposing



See how
we do it!

system can deliver further efficiencies and savings, transforming a backup solution from a necessity to an asset.

THE IMPACT ON CRITICAL POWER

The solution integrates three important elements: backup, storage and PV. By joining UPS and PV solutions together, it improves the use of existing UPS resources, allowing users to reduce energy costs while also benefitting from uninterrupted power supply and battery backup. Full-integration of the solar PV system with existing UPS provision provides higher efficiency and further reduced costs.

As a manufacturer of both solar and UPS systems, SolarEdge is able to design the system components so that they seamlessly work together. A single controller manages both systems. As such, it knows how much solar energy is being produced, how much capacity must be reserved, and the exact prioritization of all applications, to provide seamless operation with maximum system availability and best total cost of ownership (TCO).

Those planning to install or renew a UPS system will always enquire about cost, and adapting to this new 'integrated' vision requires a new perspective. However, with a fully-integrated solar+UPS solution, ROI actually enters the conversation, which is typically not the case with traditional UPS systems.

The UPS batteries have an expected lifetime of 15-20 years. After an initial payback time, which depends on the tariffs and incentives, they are expected to create income for many years. With the cost of batteries continuing to fall, the future ROI will likely continue to improve.

Critical power is, and will always be, essential for certain organizations and institutions. As renewable energies, particularly solar energy, become a larger part of the wider energy mix, the vast potential it brings when combined with critical power applications, in terms of financial investment, uninterrupted operations, and of course sustainability objectives, can no longer be ignored.

Yaron Binder is VP Product Management. He can be reached at salesna.cp@solaredge.com.



Click QR
Code to
download
roadmap



SMART DATA CENTERS

Navigating data-driven complexities in a hybrid environment

Download your roadmap to a smart data center today!
usa.siemens.com/smartebook

SIEMENS

A CRITICAL APPROACH: ELEVATING A SAFETY CULTURE IN MISSION CRITICAL

by Desmond Clark

Safety is the top priority on every jobsite, but the challenge now is how to not only improve upon it, but also to instill it into the culture and get buy-in from every single person who walks onto the project site. It requires trying different approaches and a commitment to a safety-first mindset—one that goes beyond the jobsite and extends to overall care. JE Dunn's mission critical team recognizes that safety is more than an EMR score or other statistic; it's a culture shift and holistic approach that acknowledges emotional and mental health are large parts of overall health and safety. Employed on mission critical jobsites in recent years, the JE Dunn teams are seeing results with a shift in approach, technology, and claims management.

KEEPING A FINGER ON THE PULSE

Deployed as a pilot program a few years ago, fatigue-monitoring wearables provided valuable insights and data aimed at driving safety decisions on a daily basis. While widespread deployment of the program is still being reviewed, the insights gleaned extended beyond those project teams and contributed to the evolution of JE Dunn's comprehensive safety program

for mission critical. A key indicator the wearables identified was sleep quality in addition to quantity. The scores, though, were telling a deeper story and pointed toward other factors that could be explored and addressed to improve overall safety—including mental health. Leadership took that information and used it to expand JE Dunn's safety program on all mission critical sites to rethink resources, training, etc., to then implement a more holistic approach.

One of the first things we did was send out non-biased perception surveys to keep our finger on the pulse to pinpoint gaps in safety and where we could do better as a team. We wanted honest feedback about how our teams and trade partners felt regarding their relationships with the owner, whether they felt valued, etc., which helped us identify more ways to get our workforce in front of the owner to bridge that gap while showcasing their expertise. We also asked about teams' well-being, and

DATA NUT

It's what's inside that counts.



Nancy Mills, P.E.
Regional Sales Manager

Actionable and Scalable Precision Cooling.

Lower your energy consumption with economization solutions from Data Aire.

Whether you're looking for air-side or water-side economization, Data Aire has engineered an adaptable system for you. Use the built-in dual cooling technology or seamlessly integrate with your building's chilled water tower to tap into economization happening at the site level.

Economic Solutions to Cool Your System with Precision.

If it's important to you, it's important to us.

For more information,
call 800.347.2473 or
email sales@dataaire.com

dataaire
Precise by Design
www.dataaire.com

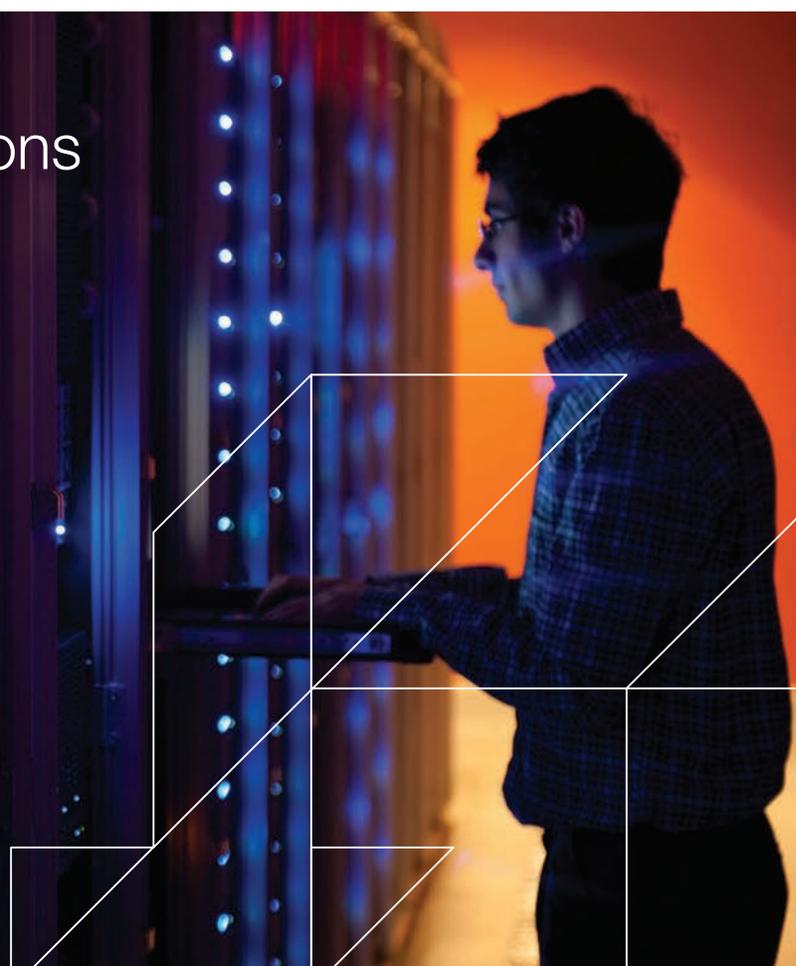
Producing Secure Solutions at Hyper Speed.

As a premier service provider for the Mission Critical industry, Gray's unique project approach drives success in a 7x24 industry. Our technologically advanced project teams help customers achieve their goals where speed to market, efficiency, safety, and security are paramount.

Let Gray bring your next project to life.



gray.com



what we found was that many people had high anxiety and worried about job security, health, and their families, among other things.

Because of these perception survey results, we researched mental health experts in construction to bring mental health sessions to our jobsites where a clinical psychologist talked about topics ranging from suicide within the construction industry to personal struggles. “The biggest thing we wanted to establish was that JE Dunn is a safe space, and that everyone’s voice will be heard,” said Vice President Chris Teddy. “Part of these sessions involved project management sitting in front of our craft workers and not only having open dialogue, but also showing vulnerability. The conversations were eye opening to everyone—owners

included—and went a long way into leveling the playing field, so to speak, when it came to issues everyone is facing and ensuring everyone felt valued.”

Improved mental health includes a clearer head for more attention to detail. The safety program also integrates technology to help direct focus should any mental slipups occur.

- **Fatigue Bands** – Much like an activity tracker, fatigue bands monitor sleep of workers each night. The bands report a fatigue score each day to indicate whether employees are work ready or if fatigue presents a potential risk.
- **Warning Lights** – Warning lights have been installed on forklifts as well as scissor lifts to create a visual marker

to indicate a safe distance to stand while working next to the equipment. They also shine ahead of the equipment to warn others as equipment is traveling.

- **Zoning** – Zoning allows or denies access to certain areas based on individuals’ training. This ensures that workers who are not performing a certain type of work or qualified for the work don’t have access to particular zones.
- **Badging** – Teams use badging to ensure only approved employees are allowed onsite and that they have gone through appropriate testing and training. This also allows leadership to identify who is onsite at any given time for head count in case of an emergency.



Fast Starts, Fuel Flexibility, and Low Emissions

Solar Turbines product line offers a variety of features that will meet your data center and energy needs

www.solarturbines.com
infocorp@solarturbines.com

Solar[®] Turbines

A Caterpillar Company

CLAIMS MANAGEMENT

Knowing that incidents are an unfortunate hazard that comes with construction, we took a proactive approach to mitigate lost-time incidents to head them off before they become problematic. "Often times, we see what an employee may deem as a minor injury not worthy of treatment snowball into a much larger, lost-time recordable if left unchecked or untreated," said Teddy. "To head off those potential situations, we started providing on-call doctors at all mission critical jobsites. This gives our men and women the confidence of speaking to a trained doctor who can set them up with a work plan to better manage an injury before it results in lost time. Since

employing this, we have more first-aid incidents rather than recordables, which benefits everyone. Last year, we used our virtual doctor a total of 61 times. Of those 61 times, only 10 became recordables, which kept the remaining 51 at a first-aid site level—a significant savings in cost."

REAL-LIFE RESULTS

Looking at safety from a different, holistic angle was an approach not seen in mission critical construction—or much of the construction industry at all. The payoff? An industry-leading safety program for mission critical construction that permeates into the culture across the entire company. Some results are difficult to quantify, but the stories of the holistic training in

action speak for themselves. "We had a situation where a foreman noticed something was not quite right with one of his workers, and because of the additional mental health safety resources and training, he pulled the worker aside and identified a deeper issue. The superintendent and foreman went above and beyond to support him and gave him the time he needed while ensuring he was secure in his job. Those types of things never happened before we included mental health as part of safety," said Teddy. "We've had other general contractors reach out to ask what we are doing in our reimagined, more comprehensive safety program, so while there's more to learn and a number of ways to evolve, we know we are on the right track."

Desmond Clark is Safety Manager at JE Dunn Construction. He can be reached at desmond.clark@jedunn.com.



SOLUTIONS DESIGNED FOR TRANSPARENCY & SUSTAINABILITY

Building automation solutions for industrial, commercial and mission-critical applications in existing facilities and new construction. Proven solutions that monitor and control environments, promote energy efficiency and long-term savings, and provide customers with the flexibility they need. Since 1989.



DATA CENTER SOLUTIONS

Design

- Building Management
- Network Architecture
- Operational Technology
- Electrical & Power Monitoring
- Mechanical & HVAC Controls
- Front-End Engineering Design
- Master System Integrator

Control

- BMS
- EPMS
- HVAC
- PLC & DDC Systems
- Modular Chiller plant
- Modular Electrical

Analytics

- Energy Management
- Fault Detection
- Predictive Analysis
- Prescriptive Diagnostics
- Metering & Submetering



THE GREEN DATA CENTER: IMPROVING DATA CENTER SUSTAINABILITY THROUGH OPERATIONS

by Lee Kirby

Sustainability is now a top-of-mind issue in data center management, as data centers consume an estimated 200 terawatt hours (TWh) each year. With digital transformation, the rise of human-induced climate change is at an all-time high and the growth of connected device workloads is only growing more. It must be our global imperative to focus on energy efficiency and reduce the carbon footprint. In the quest to make your data center more 'green', we share some solid strategies to help data centers more efficiently transition to more sustainable practices as an industry worldwide.

MAKING AN IMPACT THROUGH SUSTAINABLE DATA CENTER OPERATIONS

Salute Mission Critical, a global data center services company, shares an efficient delivery model that uses fewer people, optimizes processes and with fully integrated technology, can be a key solution to the increasing sustainability issue. In short, Salute helps data centers efficiently transition to more sustainable practices for the world's most sophisticated hyperscalers, colo providers and edge operators. With that experience, Salute has perfected a model to optimize

operations, reduce operating expenses, and minimize risk. The advantage of this model has an enormous commercial impact through enhanced cost savings and a societal impact through reduced energy consumption.

STEP 1: 3 TIERED RESPONSIBILITIES FRAMEWORK

The Responsibilities Framework below is the starting point to understanding and implementing a program that will drive positive outcomes.

- Company Responsibility – The company is committed to controlling its actions.

- Service Delivery Responsibility – The company will continue to drive optimization, flexibility, training and best practices to increase value.
- Global Responsibility – The company can help apply expertise and creativity to integrate sustainability across their data centers.

The key to success for sustainable operations is to define the partnership responsibilities between the various stakeholders. Once established, the transformation begins. Below are the steps to becoming a sustainable operator.

STEP 2: A HOLISTIC APPROACH TO BECOMING A GREEN DATA CENTER

The key to taking a holistic approach is one that encompasses the life cycle of the data center and manages all

systems, processes, and teams as an integrated ecosystem. An ecosystem that includes these elements:

- Data Center Lifecycle Analysis (LCA) – Incorporating a data center lifecycle analysis (LCA) helps make more informed decisions regarding design and operational activities that contribute to and can reduce a data center's environmental impact.
- Workforce Development – Appropriately resource, train and incentivize the workforce to embed sustainability across all job functions.
- Resource and Goods Optimization/ Prioritization – the 4 most important elements to resource utilization include:
 - Reducing electrical power generation from fossil fuels by way of geothermal, wind and solar energy

sources.

- Proactively reducing water consumption and understanding local water supply.
- Not throwing away decommissioned equipment, using certified recycling and leveraging sustainable goods/ personal protective equipment (PPE).
- Make informed decisions on predictive maintenance plans with a focus on thresholds, risk mitigation, and optimization of contractors.
- Audits - important audits include:
 - Dematerialization audit
 - Design and Planning Review
 - Full Emissions Audit
 - Scope 2 + 3 Greenhouse Gas (GHG) Emissions Audit



Ensure power system uptime for mission-critical facilities.

Deploy resilient, cybersecure power systems rapidly and at any scale across the globe.

Learn more at selinc.com/solutions/data-centers.



- Local Requirement Consideration - work closely with local authorities and planning councils to be proactive in changes that may be enacted.
- Measuring Success - You can start with the top 5 most common metrics:
 - Data Center Infrastructure Efficiency (DCIE)
 - Power Usage Effectiveness (PUE)
 - Carbon Usage Effectiveness (CUE)
 - Water Usage Effectiveness (WUE)
 - Electronics Disposal Efficiency (EDE)
- With KPIs established, the next step

is to establish an effective real-time monitoring solution that immediately identifies deviations and supports key functions in the change management process.

- Goal Setting - Having goals associated with a sustainability road map can help facilities improve upon future sustainability implementation. As the industry learns more about different practices to become more sustainable, the goals can be adjusted to transform services and solutions.

Remember, the data center companies leading the sustainability charge will

bring these benefits to their customers first. Pioneering new sustainable strategies can be a competitive advantage and lower the costs for data centers and customers alike, all the while impacting the environment for future generations. Embracing change and optimizing traditional standards is critical for making the ethical impacts needed to turn the current trajectory around. It is up to us and if you do it right, sustainable operations can drive bottom-line results that will have a long-term economic and social benefit.

Lee Kirby is Co-Founder and Chairman of Salute Mission Critical. He can be reached at marketing@saluteinc.com.



RELIABLE, SUSTAINABLE SOLUTIONS

Legrand's expertly designed portfolio of server racks, aisle containment systems, high density rack PDUs, and above-rack power distribution drive innovation around three crucial market requirements:

- Ensuring service continuity
- Optimizing energy efficiency
 - Incorporating scalability

[Click here to learn more about our critical power solutions](#)

Raritan[®]
A brand of  **legrand**

**Server
Technology**[®]
A brand of  **legrand**

Starline[®]
A brand of  **legrand**



Southwire®

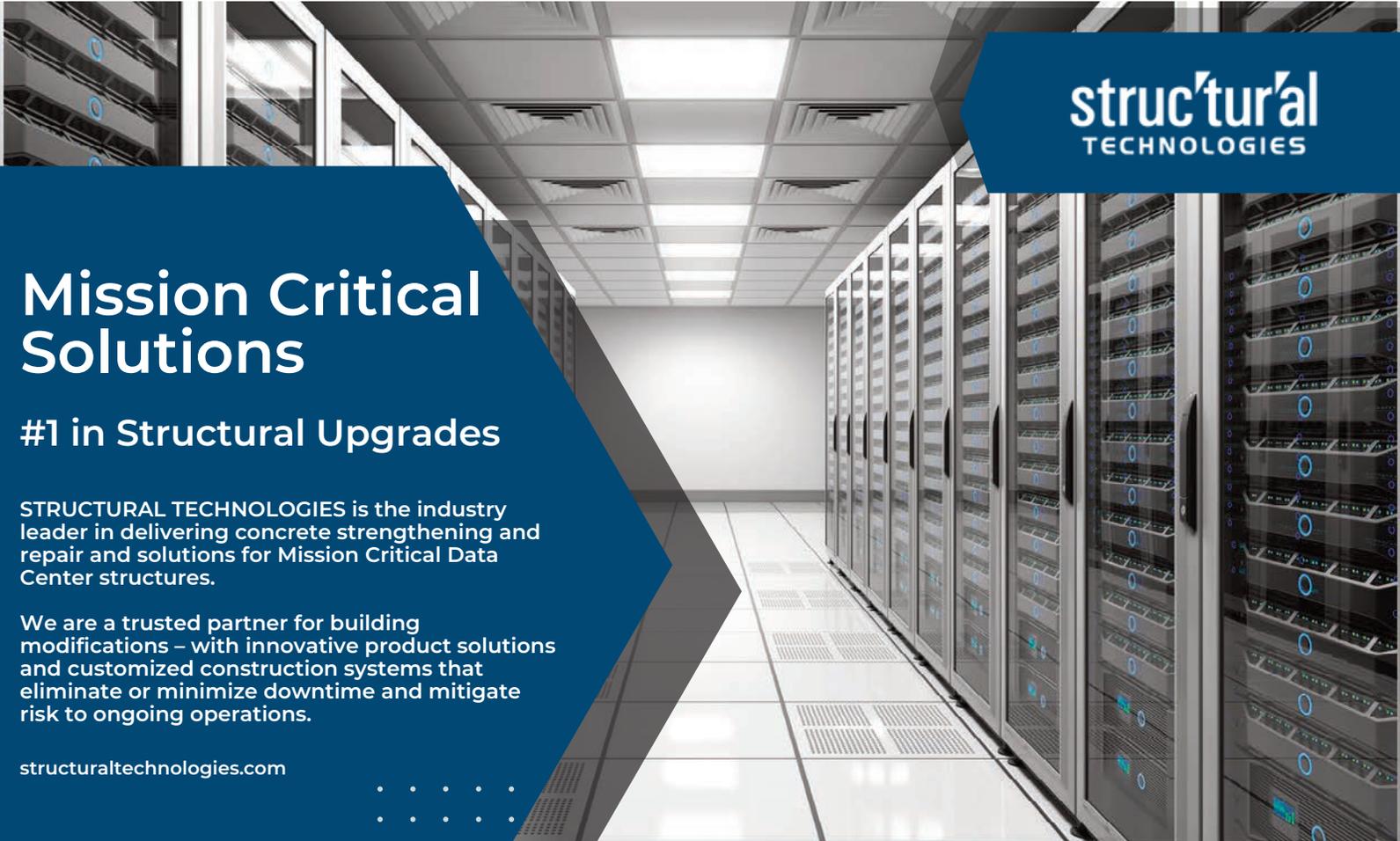
DATA CENTER SOLUTIONS

Southwire offers the complete solution for your next data center project.

Southwire is positioned to assist in every phase of the job in building and operating a Data Center Facility. Our team is ready to assist with lighting and temporary power in the early phases of construction, the wire, tools and equipment needed to install it during construction, and custom power delivery cables and breakers to the server.



SCAN TO LEARN MORE



struc'tural
TECHNOLOGIES

Mission Critical Solutions

#1 in Structural Upgrades

STRUCTURAL TECHNOLOGIES is the industry leader in delivering concrete strengthening and repair and solutions for Mission Critical Data Center structures.

We are a trusted partner for building modifications – with innovative product solutions and customized construction systems that eliminate or minimize downtime and mitigate risk to ongoing operations.

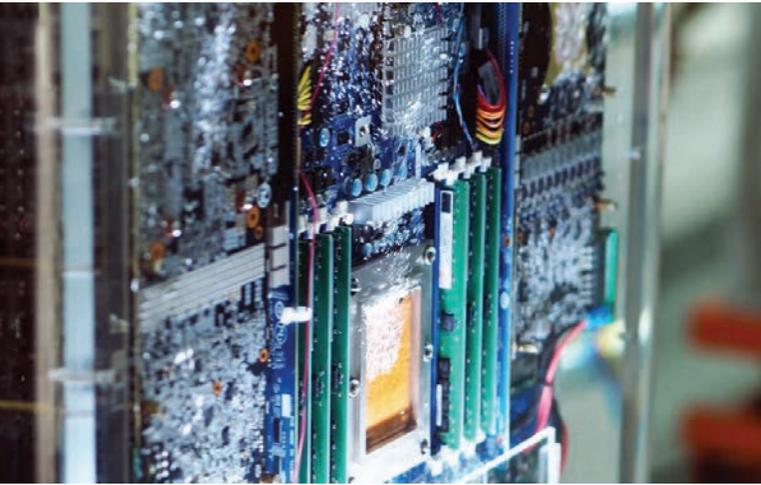
structuraltechnologies.com



DATA CENTER DYNAMICS:

Keeping IT Cool | Liquid

May 4, 2022



PRESENTING TOPIC:

Air-Cooled Data Center Campus vs. Two-Phase Liquid Immersion Cooled Data Center Campus

Many of today's data centers employ an air-based cooling system to keep the servers and equipment cool inside the data halls. Architects, engineers and operators are constantly seeking ways to innovate with data center design, to create even more energy, space, and resource-efficient ways of keeping data centers functioning at optimal levels. This study evaluates the use of both an air-based and a liquid-immersion-based cooling approach for hypothetical facilities managed by hyperscale operators. The selected direct evaporative cooling system (air-cooled) will be compared to a two-phase liquid immersion cooling system, with supporting electrical and technology typologies housed within an analogous architectural environment.

Presented By:

Page/ liquid^ostack

HENSEL PHELPS Plan Build Manage BCER

Scan to Register:



Lori
Engineering Sales Manager, Data Centers
North America

Kinjal
Marketing Executive
India

Darren
Business Development Manager,
Data Centers, Southeast Asia



Meet your GLOBAL POWER PARTNER

Generators, power solutions, and 24/7 support.
Dedicated to data centers.

- 24/7 Personal Support Worldwide
- Exclusive Access for Specifying Engineers
- Backup Power Solutions Tailored to Data Centers
- Immediate, Accurate Quotes



KohlerPower.com/datacenters

KOHLER
IN POWER. SINCE 1920.

AMICO SECURITY PERIMETER SYSTEMS DELIVER THE PROVEN SOLUTIONS FOR DATA CENTERS TO PROVIDE A FORMIDABLE BARRIER TO INTRUSION



FULL RANGE OF PERIMETER SOLUTIONS WITH A WIDE ARRAY OF MEDIUM TO HIGH SECURITY DESIGNS

- Anti-climb, anti-cut, ballistic, visual screening
- ANC non conductive designs
- Ability to upgrade an existing chain link fence

CRASH RATED ANTI-VEHICULAR EQUIPMENT

- Cable Systems
- Full array of Crash Gates and Crash Arms
- Full offering of fixed, removable, shallow and retractable Bollards
- Wedge Barriers



amicosecurity.com/ay/
855-552-6426
info@amicosecurity.com

SUSTAINABILITY

In the cloud and at the edge

Download our latest white paper, “A Guide To Environmental Sustainability Metrics for Data Centers” and find out 23 metrics that indicate whether you’re at beginner, intermediate or advanced in data center sustainability.

Visit se.com/WP67



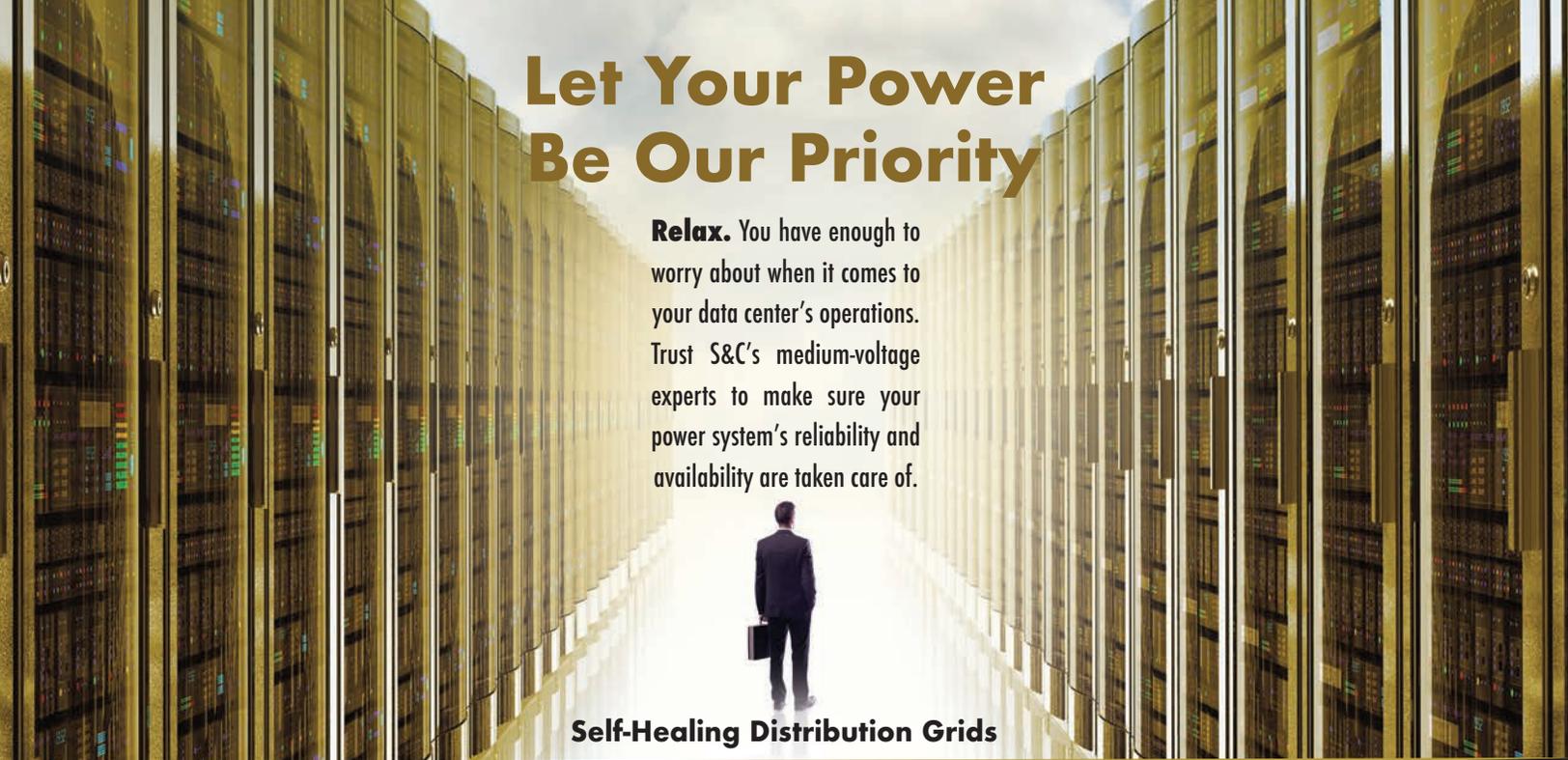
Life Is On

Schneider
Electric



WE BUILD INSPIRED PLACES TO
DISCOVER

jedunn.com



Let Your Power Be Our Priority

Relax. You have enough to worry about when it comes to your data center's operations. Trust S&C's medium-voltage experts to make sure your power system's reliability and availability are taken care of.

Self-Healing Distribution Grids



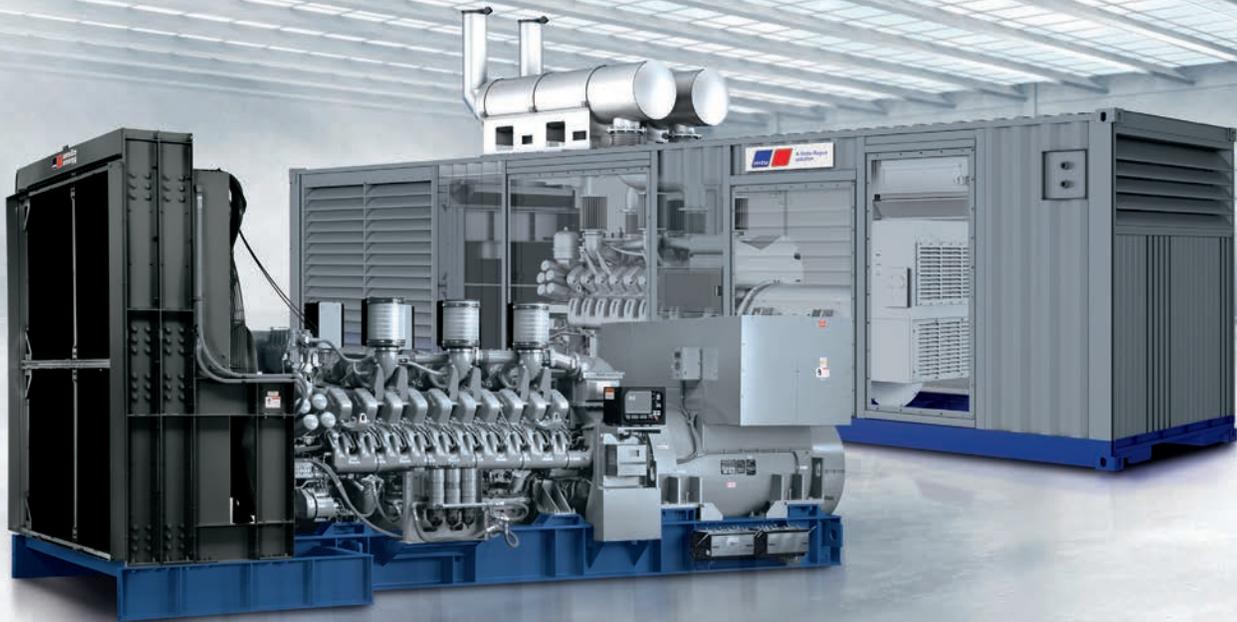
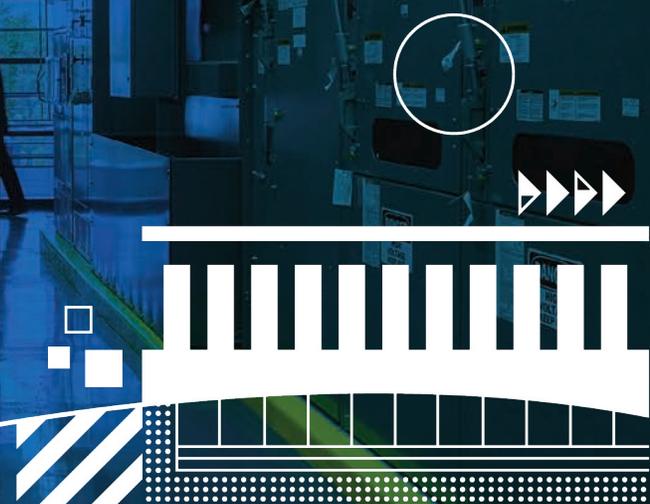
Your Data Center Medium-Voltage Experts

Learn more at
sandc.com/MVexperts



A TRUE DATA CENTER PROGRAM PARTNER

Comprehensive data center, infrastructure and supply chain support across projects, campuses, and programs.



COMPLETE POWER
SOLUTIONS THAT
KEEP YOUR DATA
FLOWING

Data centers require power supply solutions that are modular, scalable and have the utmost reliability. From standby solutions to continuous co- and trigeneration solutions, our skilled experts employ the latest technologies that are future-proof and able to be adapted on the road to net zero. With **mtu** solutions, you can reduce the risk of downtime, equipment damage and environmental impact, while saving costs and keeping data flowing.

www.mtu-solutions.com/datacenter





PRECISION TESTING FOR ANY POWER SYSTEM

Wherever power system testing is needed to ensure performance, system safety, and equipment investment, Sunbelt Rentals is ready with the load bank equipment you need. General, electrical, and mechanical contractors can rely on our systems knowledge and experience to keep their testing project on time and on budget.

Visit sunbeltrentals.com or call **800-736-2504** to bring more "Yes" to your project.



©2021 Sunbelt Rentals Inc. All Rights Reserved. | 2939

TOSHIBA

Critical Power Ecosystem



Toshiba Expert Monitoring 24/7

SCiB Lithium-Ion Energy Storage System
UL9540A Tested

G9400 Series UPS
Modular, Resilient, Efficient
1200, 1600, 2000kW

Toshiba.com/UPS



IS PROUD TO SPONSOR THE

7x24 EXCHANGE



WWW.WHITING-TURNER.COM

Construction Management | General Contracting
Design-Build | Integrated Project Delivery

GREG BOTTEON

Mission Critical National Leader
greg.botteon@whiting-turner.com



Powerful. Safe. Reliable. Green.
**Mission Critical Backup
with Megawatt Class
Nickel-Zinc
Battery Cabinets**



ZincFive

Visit our booth at
7x24 Exchange Spring

info@zincfive.com



SCAN TO
LEARN MORE

INSPIRED

TO HELP YOU SAVE MORE THAN ENERGY

This big, beautiful world is worth protecting. So, we're revolutionizing the way data center cooling impacts the planet. Join us at trane.com/datacenter.



TRANE
TECHNOLOGIES

©2022 Trane. All Rights Reserved

inside
7x24

2022 FALL CONFERENCE

BUILDING FOR THE FUTURE



**END-TO-END RELIABILITY:
MISSION CRITICAL FACILITIES**

October 23-26, 2022

JW Marriott San Antonio Hill Country, TX

INTERESTED IN PRESENTING AT THE 2022 FALL CONFERENCE?

Visit www.7x24exchange.org and complete the
Call for Presentations or call 646-486-3818 x104



DEADLINE: JUNE 24, 2022

SUBMIT AN ARTICLE FOR THE 2022 FALL ISSUE OF 7x24 EXCHANGE MAGAZINE

Visit www.7x24exchange.org
and download the Call for Articles

DEADLINE: JULY 8, 2022



IMPACT OF COVID

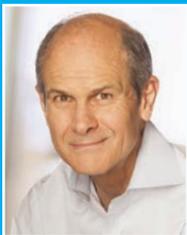
2022 SPRING CONFERENCE
END-TO-END RELIABILITY:
MISSION CRITICAL FACILITIES

June 12-15, 2022

JW Marriott Orlando Grande Lakes, FL

2022 SPRING CONFERENCE HIGHLIGHTS

The Spring Conference themed “End-to-End Reliability – Impact of COVID” will be held June 12-15, at the JW Marriott Orlando Grande Lakes in Orlando, FL. The Conference will feature compelling keynotes, high level speakers, concurrent sessions, a Women in Mission Critical Operations session and networking event, an Evening at Universal Orlando Resort and more...



Geoff Colvin, Senior Editor-at-Large for *Fortune*, and *The New York Times* Best Selling Author will kick off the conference with a keynote address on the topic **“Confronting Reality - Leading Ahead of Disruption.”**

Every day can bring harsh new surprises, economic and policy change, the competitor or new business model you never saw coming or game-changing technology. Competing in the friction-free economy has leaders worrying most about what they don't know. In his talk, Geoff Colvin leverages nearly 40 years at *Fortune* to arm audiences with valuable perspective on the trends driving business disruption, revealing how top leaders are confronting them right now. Economic growth, consumer demand, interest rates, taxes, employment costs – these issues are transforming the business environment daily, and Geoff provides unparalleled insights in terms you won't hear elsewhere. And while political winds may blow toward protectionism, the market trends powering the friction-free economy are technological and going strong, requiring swift and full attention. As a result, winning in business today demands extraordinary leadership acting on the best intelligence it can find. Geoff's message is optimistic and energizing: opportunity is more widely available than ever and there will be winners – why shouldn't it be you?



Our second conference day will open with a keynote **“How to Build to Scale with Sustainability in Mind”** by **Phill-Lawson Shanks**, Chief Innovation Officer at Aligned Data Centers.



The closing keynote **“Power Resiliency for Data Centers: Breaking Old Myths and Power Paradigms”** will be delivered by **Bill Kleyman**, Executive Vice President Digital Solutions at Switch and **Allan Schurr**, Chief Commercial Officer at Enchanted Rock.

Additional presentations will be delivered on compelling mission critical industry topics:

- Less Talk, More Doing: Sustainable Data Centers by 2030
- COVID and Its Impact on Data Center Construction and Equipment Procurement
- WiMCO: Intentional Recruiting and Development: Building the Future of Data Centers Today
- Pandemic Continued Impact of Data Center Costs: How to Apply the Strategic Operation Planning in the Future
- Panel: Sustainability and Reliability: Operating Lessons Learned for Unordinary Times
- ASHRAE: Hardware Evolution: Most Radical TC9.9 Change Yet
- Why Adversaries are Focusing Control Systems Networks to Create the Impact of Their Choosing
- COVID + Climate = Better Data Centers

UNIVERSAL ORLANDO RESORT

**An Evening at
Universal Orlando Resort!**
Tuesday June 14, 2022 - 6:30 PM – 10:30 PM

Get ready for one of the most incredible events 7x24 Exchange International has ever produced, an evening that fills four different clubs in Universal CityWalk at Universal Orlando Resort. Take a trip to New Orleans at Pat O'Brien's® and explore the home of the king of reggae at Bob Marley—A Tribute to Freedom™. Next door you can take the stage at CityWalk's Rising Star or relax in the trendy and tropical atmosphere of the Red Coconut Club.

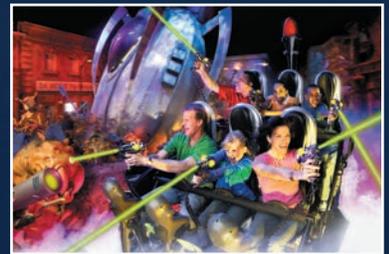
Then, head to The Bourne Stuntacular to see a stunning blend of stagecraft and film that follows the legendary Jason Bourne around the globe as he's pursued by sinister characters.

Last, we've reserved The Wizarding World of Harry Potter™ - Diagon Alley™, Springfield, U.S.A.™, and the World Expo areas at Universal Studios Florida just for you! You'll have unlimited access to experience the magic and excitement of Diagon Alley™, including the multi-dimensional thrill ride, Harry Potter and the Escape from Gringotts™. In Springfield, U.S.A.™, you'll enter the world of The Simpsons™ and the hilarious The Simpsons Ride™. And, in the World Expo area you'll zap aliens to save the galaxy on MEN IN BLACK™ Alien Attack™.

It's a night of unforgettable fun and excitement—and it's all yours!

Before visiting Universal Orlando, review the safety guidelines at [UniversalOrlando.com/SafetyInfo](https://www.universalorlando.com/SafetyInfo)

WIZARDING WORLD and all related trademarks, characters, names, and indicia are © & ™ Warner Bros. Entertainment Inc. Publishing Rights © JKR. (s22) The Simpsons™ & © 20th Television. MEN IN BLACK and ALIEN ATTACK™ & © 2022 Columbia Pictures Industries, Inc. All Rights Reserved. Universal elements and all related indicia™ & © 2022 Universal Studios. All rights reserved. Pat O'Brien's, Hurricane Glass logo, Have Fun! and Iron Grill Design © Pat O'Brien's Bar, Inc. © 2022 Pat O'Brien's Bar, Inc. All rights reserved. Universal elements and all related indicia™ & © 2022 Universal Studios. All rights reserved.



SPECIAL THANKS TO THE 7x24 EXCHANGE PARTNERS THAT MADE THIS EVENT POSSIBLE.





2021 FALL CONFERENCE HIGHLIGHTS





3 EASY WAYS TO ADVERTISE

7x24 Exchange Digital Magazine

Info Exchange eNewsletter

7x24exchange.org website



THE END-TO-END RELIABILITY FORUM™

Click Here for the Digital Media Kit





CLICK HERE FOR FURTHER DETAILS.



The end-to-end reliability forum.™

WEBINAR SERIES

Webinar Series Sponsorship Opportunities



ENGAGE

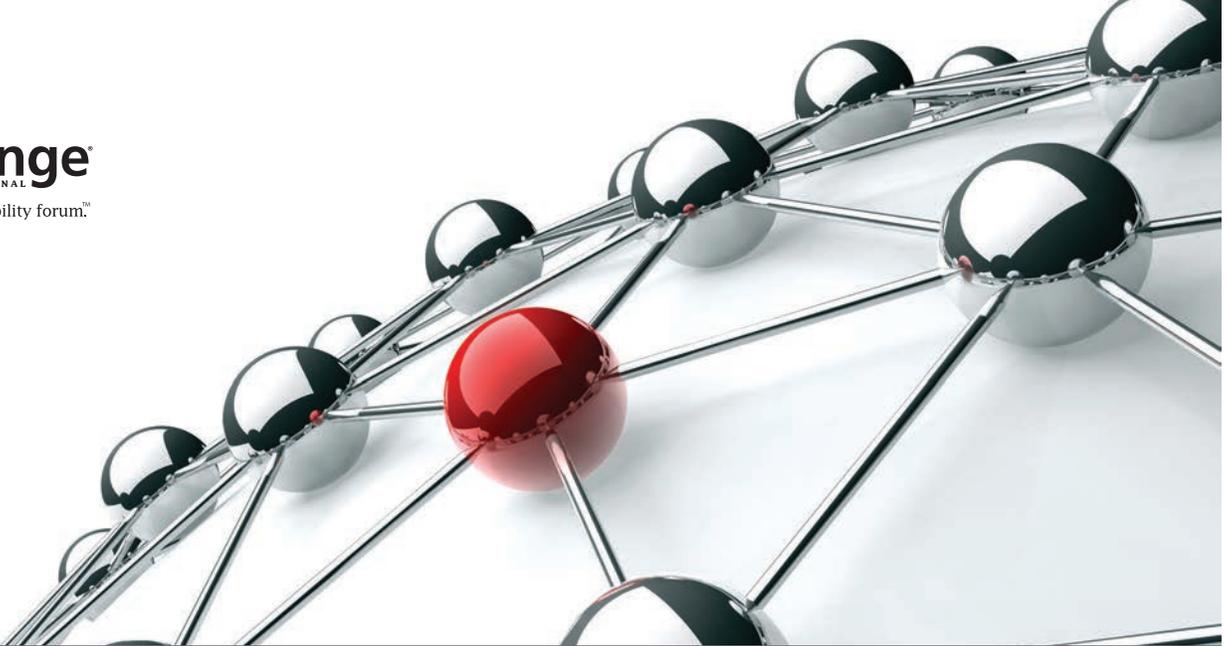
Generate Visibility

COLLABORATE

Position your Company as a Thought Leader

SHARE KNOWLEDGE

Connect with Data Center Professionals



BECOME INVOLVED IN YOUR LOCAL 7x24 CHAPTER

INTERNATIONAL CHAPTERS



❁ = 7x24 Chapter

- Arizona
- Atlanta
- Bluegrass
- Canada
- The Carolinas
- Central Texas
- Central Virginia
- Delaware Valley
- EMEA
- Empire State (Albany)
- Greater Florida/Alabama
- Greater Pittsburgh Area
- Lake Michigan Region
- Lone Star (Dallas)
- Metro New York
- Midwest
- New England Area
- Northern California
- Northwest (Seattle, WA)
- Ohio
- Oregon & SW Washington
- Rocky Mountain
- Silicon Prairie
- Southeast Michigan
- Southern California
- Texas South
- Washington DC
- Western New York

VISIT WWW.7x24EXCHANGE.ORG/CHAPTERS/ 
 TODAY TO PARTICIPATE IN YOUR LOCAL CHAPTER

7x24 EXCHANGE

Women in Mission Critical Operations[®] (WiMCO[®])

As the leading knowledge exchange in the mission critical space, 7x24 Exchange recognizes the importance of increasing the engagement and participation of women in the industry. This understanding has led to the development of 7x24 Exchange WiMCO (Women in Mission Critical Operations) which will focus on:

- Recruiting women into the 7x24 Exchange organization
- Supporting WiMCO initiatives at the Chapter level
- Promoting mission critical opportunities for women
- Providing leadership opportunities through the community



2021 Fall Conference WiMCO Session Speakers. *Left to right:* Carrie Goetz, Principal/CTO, StrategITcom; Melissa Chambal, US LATAM & Canada Technical Manager, CNet Training; Juli Ierulli, Global eCommerce Growth Manager-Electric Power Division, Caterpillar, Inc, and Vice President / National WiMCO Committee Chair, 7x24 Exchange International; Nancy Novak, Chief Innovation Officer, Compass Datacenters

Take a look at what's happening with WiMCO 
Email wimco@7x24exchange.org for more information.

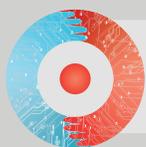


BECOME A MENTOR

*BUILD THE NEXT GENERATION OF
MISSION CRITICAL OPERATORS*

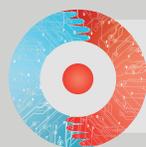
You have done a lot to help mission critical grow. Now, you have the opportunity to share your knowledge and experience.

The 7x24 Exchange Mentoring Program is the **industry-leading** next generation **mission critical mentoring program**, providing **students** and **early career professionals** with opportunities to receive **meaningful career guidance** from today's **practicing industry professionals**.



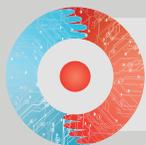
ENGAGE

Early Career Mission Critical Professionals and Students



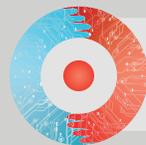
CONNECT

With Others Who Have an Interest in the MCO Field



ENHANCE

Your Career Experience by Helping Others Grow



ENRICH

The Career Path of Next Generation Professionals

Visit

7x24exchange.org/mentoring



Want to know more?

Contact Denman Wall, Mentoring Administrator
mentoring@7x24exchange.org





Stay Informed

Join Us on LinkedIn, Twitter, YouTube... and now, Facebook!

As 7x24 Exchange International prepares for numerous events including the 7x24 Exchange Spring Conference in Orlando, FL, STEM activities, Chapter events, and more, we'd like to invite you to follow us on our social media platforms.

facebook

Linked **in**[®]



YouTube

For information about sponsoring an event or for more detailed information not available at www.7x24exchange.org, please contact us at info@7x24exchange.org or (646) 486-3818.
7x24 Exchange International – P.O. Box 61360, Staten Island, NY 10306



INTERNATIONAL DATA CENTER DAY

Powered by 7x24 Exchange International

2022 INTERNATIONAL DATA CENTER DAY RECAP

By Denman Wall, Sr. Director, Interactive Services, 7x24 Exchange International

March 23, 2022 marked the celebration of the 4th International Data Center Day. Launched in the fall of 2019, the celebration is designed to create awareness of the data center industry and to inspire the next generation of talent. It provides the industry with an opportunity to open its doors and show, in a collaborative effort, what data centers are, why they are so important to our connected world, and the wide array of career opportunities that are part of the data center industry.

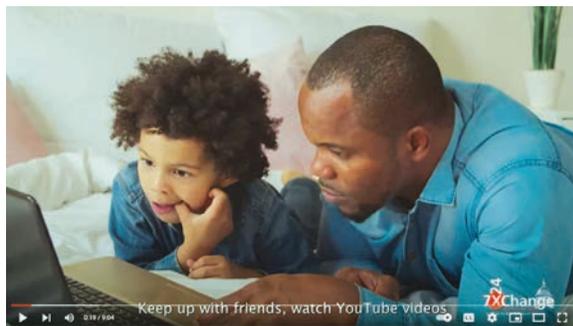


THIS YEAR, ORGANIZATIONS FROM ALL OVER THE GLOBE SHOWED THEIR SUPPORT OF THE INITIATIVE IN A VARIETY OF WAYS.

Data Centers and other tech firms gave in-person tours to students, created videos and rich content highlighting their celebration. They shared them on social media and re-posted and liked 7x24 Exchange's posts.

[WATCH THE YONDR VIDEO](#)

WANT TO SHOW YOUR SUPPORT THROUGHOUT THE YEAR? BE SURE TO POST YOUR EVENTS ON SOCIAL MEDIA AND TAG US WITH #INTLDATACENTERDAY



[WATCH THE GREATER WASHINGTON DC CHAPTER VIDEO](#)

7X24 EXCHANGE CHAPTERS ALSO PARTICIPATED BY HOSTING EVENTS AND CREATING SPECIAL RICH MEDIA CONTENT.

Standing out, the 7x24 Exchange Greater Washington D.C. Chapter created a video featuring K-12 students learning about what data centers are all about.

The 7x24 Exchange Greater Philadelphia Chapter along with International Data Center Day Signature Sponsor Netrality hosted three high schools in their Philadelphia data center. Students enjoyed an educational presentation followed by a visit to tenant Nerd Street Gamers, a national network of esports facilities and events that power competitive opportunities for gamers.



Netrality Event with Greater Philadelphia Chapter



Student from Canada coloring a cloud image



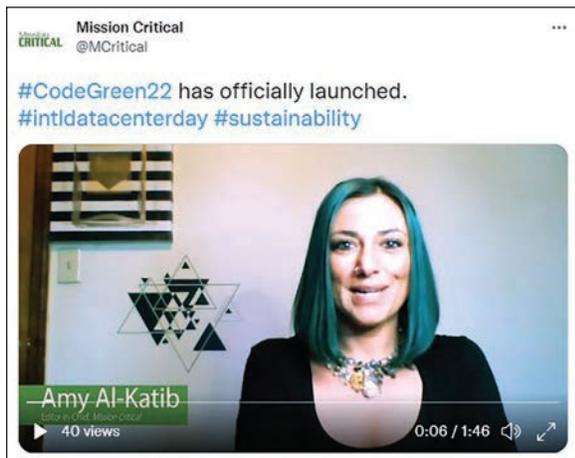
Florida/Alabama Chapter Event



INDUSTRY SPONSORS USED THE OCCASION TO ANNOUNCE NEW EFFORTS TO BRING AWARENESS TO THE INDUSTRY.

For example, Uptime Institute in collaboration with its sponsors created The Data Center Career Pathfinder, an interactive grid showcasing different types of jobs in the data center industry.

CHECK OUT THE DATA CENTER CAREER PATHFINDER



IN ADDITION TO CORPORATE, INDUSTRY, AND 7X24 CHAPTER SUPPORT, INDIVIDUALS SHOWED THEIR SUPPORT IN A VARIETY OF WAYS AS PART OF THE POWER OF ONE CAMPAIGN.

The Power of One campaign reinforces the idea that you don't have to work at a data center to celebrate International Data Center Day. Rather, all you need is an interest in sharing. Some individuals, including media partner Mission Critical Magazine's Editor Amy Al-Katib went all in on the celebration.

Check out her video, and new hairdo, in support of their Code Green campaign in honor of International Data Center Day.

WATCH AS AMY AL-KATIB LAUNCHES CODE GREEN



LISTEN TO THE THOUGHT CLOUD HERE



WATCH THE WORKING IN THE CLOUD REPLAY



Speaking of Mission Critical Magazine, this year's International Data Center Day season kicked off with *The Thought Cloud Podcast*

interview of **Bob Cassiliano**, chairman and CEO of 7x24 Exchange, and **Chris Crosby**, founder and CEO of Compass Datacenters.

With much of life returning to a semblance of normalcy following the pandemic, 7x24 Exchange is looking forward to more in-person events in the years to come.

According to Cassiliano, "Virtual events are good for a fill-in or a backup, but virtual events sometimes lack the intensity of education, information sharing, and networking that gets done when students are at an onsite situation."

7X24 EXCHANGE INTERNATIONAL LAUNCHED A NEW INITIATIVE CALLED THE INTERACTIVE CAREER TREE.

Visitors who use the career tree can learn from industry professionals about different career paths within the mission critical industry. With four "branches" containing over 20 "leaves", users can watch video interviews from sales and marketing, operations, design, and information technology professionals.

Throughout the year, 7x24 Exchange will be adding more content to the career tree.

VIEW THE INTERACTIVE CAREER TREE

In addition, the organization held a **Working in the Cloud** virtual session that focused on preparing for a data center career. The event was supported by the 7x24 Exchange Mentoring Program. It shed light on the importance of mentoring for those who are entering or who have an interest in the mission critical field.

International Data Center Day is thriving, as evidenced by the amount of support seen online and shared with 7x24 Exchange.

It is terrific to see organizations and individuals not only adopting the initiative but enthusiastically raising the bar of their celebrations year after year.

TO SEE OTHER EXAMPLES OF THE IMPACT OF THE DAY'S REACH, VISIT [HTTPS://WWW.INTERNATIONALDATACENTERDAY.ORG/ACTIVITIES/](https://www.internationaldatacenterday.org/activities/)

THANK YOU

2022 SPRING CONFERENCE CORPORATE LEADERSHIP PROGRAM PARTNERS (at press time)

MARQUIS PARTNERS



GOLD PARTNERS



SILVER PARTNERS



BRONZE PARTNERS



MEDIA PARTNERS



Kelvion

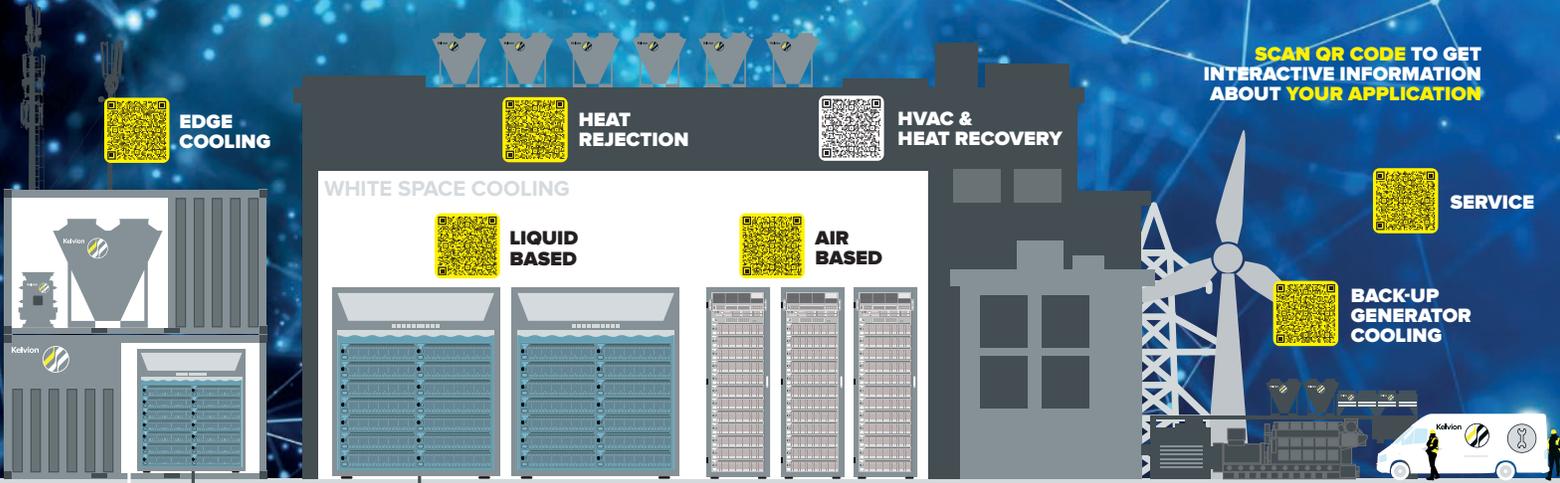


Follow us on:



www.kelvion.com

CUSTOM ENGINEERED INTEGRATED MISSION CRITICAL INTELLIGENT COOLING SOLUTIONS



SCAN QR CODE TO GET
INTERACTIVE INFORMATION
ABOUT YOUR APPLICATION



Dielectric Mobile Air Cooler



Dielectric Oil Pump



Brazen Plate Heat Exchangers



Cooling Towers



Condensers & Dry Coolers



CRAC CRAH Coils



Aluminium Bloc



Gasketed Plate Heat Exchangers



Adiabatic Coolers



Customized Dry Coolers



Shell & Tube Heat Exchangers



Closed Circuit Coolers



Charge Air Coolers



Exhaust Gas Heat Exchangers

BOOST DESIGN. BUILD EFFICIENCY. REDUCE COSTS.

- Structural strength, acoustical performance, and air temperature containment in a single ceiling solution
- Suspend equipment, partitions, heaviest cable trays, and hot/cold aisle containment barriers from the ceiling
- Flexible integration with standard grid systems provide strength where you need it

Learn more at armstrongceilings.com/datacenter

DATA CENTER CEILING SOLUTIONS

ALL-IN-ONE



DynaMax™
Structural
Aluminum
Suspension
System

SUPPORTS UP TO
900
LB POINT LOADS

Armstrong®
CEILING SOLUTIONS