

CASE STUDY

Circa Resort & Casino Las Vegas

Industry Fault Managed Power Intelligent Buildings

Solution Digital Electricity[™] Belden's REVConnect® system

Introduction

Circa Resort and Casino is the first ground-up casino to be built in downtown Las Vegas in 40 years. The visionary owners, brothers Derek and Greg Stevens, were adamant that the all-new building would implement state-of-the-art technologies while paying homage to Las Vegas history. The new landmark building boasts a 3-story, ultra-high-definition display in the largest sports book in the world with a 78-million-pixel screen. It also has the country's largest pool experience for sports fans, with a massive 135-foot-wide screen, while the original Vegas Vickie neon-kicking cowgirl greets you in the lobby.

Spanning 1.25 million square feet, with 777 rooms and suites, the Circa Resort and Casino is a landmark capitalizing on cutting-edge technology, including advanced building automation, digital in-room controls, LED lighting, and electrical power distribution, utilizing Digital Electricity[™] from VoltServer to power critical electrical infrastructure.

Project Overview

The Facility

Circa Resort & Casino Las Vegas is a 35-floor, 1.2 million-square-foot property that stands as the tallest hotel north of the Strip. It boasts an adults-only atmosphere with an old-school Vegas ambiance, highlighted by the iconic Vegas Vickie neon sign. One of its standout features is the fifth-floor aqua theater, Stadium Swim, which can accommodate over 4,000 people and features a massive high-definition screen.

The Challenge

The owners of the Circa Resort & Casino Las Vegas applied their ingenuity to every aspect of the property.

Instead of using dedicated AC power, for example, Greg Stephens wanted to use Digital Electricity[™] (DE) as the backbone power distribution infrastructure to decrease energy use and create an intelligent building. His vision involved powering everything from lights and switches to in-room climate control and wireless access points with DE. This approach would require a cabling and connectivity partner that could think outside the box. Because unobstructed views were crucial to many project components, including Stadium Swim, all infrastructure had to be hidden: no utility poles for Wi-Fi connectivity. With the structure built along a narrow street among existing high-rises, careful planning and maneuvering for material delivery would be needed throughout the project.

COVID-19 also created restrictions, limiting the number of people allowed on the job site and preventing regular check-ins on progress. The project had to be managed remotely while still staying on schedule.

The Solution

Belden Digital Electricity Cables were deployed to support the backbone power distribution infrastructure; they're optimized to extend Digital Electricity across the longest distance possible safely. In many cases—including at Circa Resort & Casino Las Vegas—networks utilizing Digital Electricity can be installed by low-voltage technicians instead of electricians (similar to a PoE cable), saving time and money.

In addition to Digital Electricity Cables, Belden also provided Category 6, AV, CCTV/security, access control cables, copper connectivity, racks, and cabinets.

Keith Nichols, the founder of DKNQ Inc. and owner representative, attributes the project's ability to wrap up two months ahead of schedule partly to Belden's REVConnect® system. "We saved so much time because we were able to pull the wire in and not have to punch it down on the blocks," he explains.

When first terminated, the connection can be tested to ensure performance. Then, the cable can be pushed back into the wall or ceiling so finishing contractors can come through. After their work is done, the jack or plug body and faceplate can be installed. REVConnect's unique core and cap let installers finish 95% of the termination without needing to know whether a jack, plug, or coupler will be used.

"We left all the connections terminated in the ceiling and drywalled it," says Nichols. "Because it was terminated and tested before we put the drywall up, it saved tons of time. We didn't have to put anyone on a lift to test and terminate everything in the air. The labor savings were very large." "The VoltServer team worked with our design team from the beginning to ensure the best possible application of Digital Electricity[™] to help determine where it provided the most value for Circa. Additionally, their team provided top-notch support throughout the deployment cycle to our construction teams all the way up to the opening."

– Greg Stevens, Owner of Circa Resort and Casino He says REVConnect was also a lifesaver amid COVID-19, allowing installers to complete work to a certain point and vacate the site so painters and other contractors could finish their work. The trades never had to cross paths or work side by side.

The connectivity system also allowed apprentices and new installers to complete mission-critical work after only 15 minutes of training—without any problems or anyone having to check their work.

"REVConnect doesn't allow for error," Nichols explains. "With a traditional termination, a new employee doesn't know how to terminate, or they can mess up the wires. You have a mess on your hands if you don't have



someone good at crimping, terminating, and punching down. REVConnect allowed us to become operational quickly. Conventional termination methods don't do that."

Communication Electronic Systems (CES), a Belden Certified Belden Installer located in Las Vegas, did all the installation work. Because the company is certified, its team members are trained according to the latest, most relevant industry technology and standards. CES can also offer customers 25-Year Product Warranties and Lifetime Application Assurance for Belden solutions.

Implementation Details

The REVConnect system allowed for quick and error-free terminations, reducing the need for extensive training. As a certified installer, CES ensured the installation was conducted according to industry standards, with minimal disruption to the project timeline.

Distance Considerations

With Circa Resort & Casino being built along a narrow street among existing high-rises, careful planning was essential for material delivery and infrastructure installation. Belden's Digital Electricity cables were optimized for long-distance power distribution, ensuring efficient connectivity throughout the property.



Results and Future Expansion

The Circa Resort & Casino Las Vegas opened nearly two months ahead of schedule—in October 2020—during a pandemic. Nichols says this was only possible with a partner like Belden.

"Working with FEA and Belden early in the design process was critical to the success of building in the middle of a pandemic. Having an owner, consultant, and manufacturer that was ready to change the power distribution paradigm in this market vertical has been a game- changer. We're already seeing substantial interest on the Strip considering this same Digital Electricity model," Ken Hydzik, director of sales for VoltServer.

In addition to lower utility bills, Nichols estimates construction cost savings of between \$2 million and \$3 million thanks to the combination of using VoltServer's Digital Electricity and Belden's Digital Electricity Cables instead of dedicated AC power.

Circa Resort & Casino Las Vegas now stands out on the Strip for many reasons: Not only does it bring new attractions to Fremont Street, but it's also the most intelligent building downtown, taking advantage of cutting-edge technology like advanced building automation, digital in-room controls, LED lighting and electrical power distribution—all using Digital Electricity and supported by Belden cables and connectivity.

Conclusion

Circa Resort & Casino Las Vegas exemplifies innovation and forward-thinking in its construction and design. By leveraging Digital Electricity and partnering with Belden for infrastructure solutions, the project overcame challenges and achieved success ahead of schedule. The facility is now a beacon of intelligent design and technological advancement in downtown Las Vegas.

See how Circa Resort & Casino and VoltServer are using Fault Managed Power to deliver electricity in the most efficient way possible, lowering their carbon footprint, megawatts, and operating costs. Watch the full <u>video</u>.

To learn more or schedule a demo, visit **voltserver.com** or call **888-622-8658**

