Circa Resort & Casino Deploys State of the Art Infrastructure Using Digital Electricity™

DEREK AND GREG STEVENS

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.

THE LARGEST SPORTS BOOK IN THE WORLD

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.

Greg Stevens led the investigation into the technologies that would be deployed at Circa. His goal was to learn what is possible, and armed with that knowledge, he and his team could determine what made sense for final deployment.

"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." Said Greg. "Additionally, their team provided top notch support throughout the deployment cycle to our construction teams all the way up to opening."

LIGHTING:

When evaluating the "art of the possible", Circa's design team determined LED lighting infrastructure was a must for both in-room and corridor lighting to capitalize on energy and efficiency savings. They elected to utilize 24VDC and 48VDC direct fed lighting instead of PoE driven LEDs. This provided the best electrical efficiency and up-front cost, without sacrificing the aesthetics the team wanted to achieve on their landmark resort.

IN ROOM EXPERIENCE:

When considering what to deploy, the customer experience was at the forefront for every decision. The technology team deployed an all-digital in-room control, communications, and power architecture. Guests can control lighting and temperature through a tablet or wall interface. Additionally, they can utilize a tablet to request guest services, make reservations at Stadium Swim, sportsbook, and restaurants. In each guest room, the control panel and other room amenities are connected to a dedicated PoE switch fed by 48VDC.

"The flexibility, support and ease of installation that VoltServer provided allowed us to meet our demanding deadlines and hit our target opening dates while in the midst of the challenges of 2020" according to Keith Nichols, President of DKNQ and Owners Representative for Circa.

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WIRELESS CONNECTIVITY:

Wireless connectivity has become "the 4th utility". Ensuring constant connectivity for their Guests, Circa deployed Wi-Fi for in-room coverage which is powered via the in-room switch powered by Voltserver's DE system. Additionally, Circa selected a 3rd Party Operator to deploy a neutral host DAS solution to ensure 4G/5G wireless connectivity for guest mobile devices. Coverage is ubiquitous throughout the resort both indoors and in the expansive parking area, aptly named Garage Mahal.

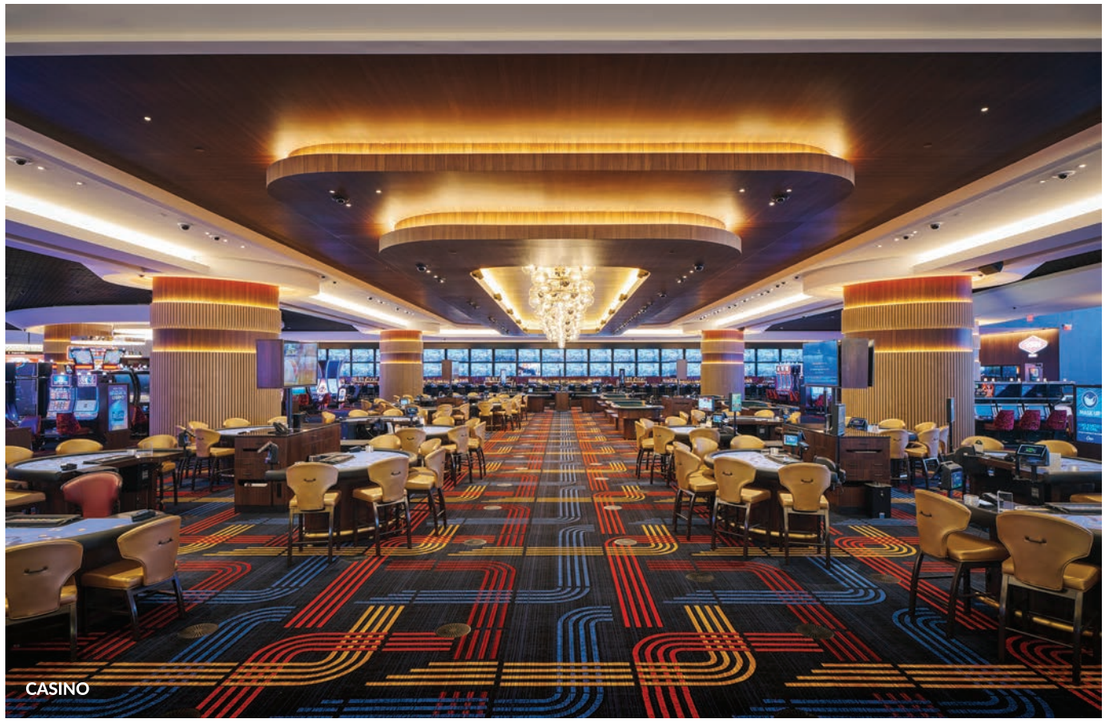
POWER:

The LEDs, in-room controls, and the DAS radios are all powered with low-voltage inputs.However, they exceed the distance and power limitations of PoE and Class 2 power distribution systems. The Circa team performed an exhaustive analysis for the optimal solution to power these critical systems. Greg and team ultimately selected Digital Electricity™ infrastructure from VoltServer.

VoltServer's Digital Electricity™ (DE) power distribution platform utilizes low-voltage, Class 2 wiring methods, but delivers up to 20 times the power at 20 times the distance compared to PoE. This

CORRIDOR LIGHTING

IN ROOM CLIMATE CONTROL



CASINO

was key to the decision to deploy DE as the backbone power distribution infrastructure. DE enables a cost effective, resilient, rapid deployment because the power distribution wiring can be run in the same pathways as fiber optic cable. The DE platform distributes power from a centralized location like conventional AC but with the safety and economics of PoE. This allows Circa to power all the critical infrastructure

DIGITAL ELECTRICITY HEAD END

elements from a single head-end where a large uninterruptable power supply (UPS) provides fallback power during an outage. This removed the need for dedicated UPS in the building IT closets. Distributed UPSs can be costly because the IT closets need to be temperature controlled which adds significant cost for HVAC. If they are not temperature controlled, the battery life of the UPS is reduced by HALF for every 10 degree C rise in temperature.

EVERYTHING is powered, controlled, and backed up from a central, environmentally controlled location which has several advantages over a distributed UPS solution. The environmental control dramatically increases the life expectancy of the UPS. It also provides a single monitoring point for backup power vs. many. Finally, the UPS can be sized appropriately for the total aggregated load which avoids stranded battery power in a distributed UPS architecture.

"It was a pleasure to collaborate with Greg to determine the optimal design of VoltServer's Digital Electricity™ platform to realize his vision for Circa and then to work with Keith and his team to see that

DE INFRASTRUCTURE CABLING

vision through to implementation and opening." said Ken Hydzik, Director of Sales at VoltServer.

The team at Circa have planted their flag firmly at the forefront of Intelligent Building architectures by constructing a 21st century landmark from the ground up.