

City of Dreams in Macau Sets New Paradigm

For Gaming and Hospitality Industry In Asia With Cisco's World-class Networking Technologies



City of Dreams (Photo © 2010 Melco Crown Entertainment Limited)

EXECUTIVE SUMMARY	
Customer	<ul style="list-style-type: none"> City of Dreams, Melco Crown Entertainment Limited
Industry	<ul style="list-style-type: none"> Gaming and hospitality industry
Location	<ul style="list-style-type: none"> Macau
Challenges	<ul style="list-style-type: none"> To stand out from competitors by adopting latest technology To support the 24x7 operation of the resort To cope with the expansion of Melco Crown Entertainment
Solutions	<ul style="list-style-type: none"> Network backbone technologies including Cisco Catalyst Switches Unified Communications, including IP phones Wireless and security solutions
Results	<ul style="list-style-type: none"> Unprecedented customer experience Streamlined operation and increased productivity Valuable business assets secured High service availability assured

Challenges

Melco Crown Entertainment Limited (“Melco Crown Entertainment”), an entertainment company listed on the NASDAQ Global Select Market (NASDAQ: MPEL), is a developer, owner and operator of casino gaming and entertainment and casino resort facilities focused on the Macau market. City of Dreams, Melco Crown Entertainment’s flagship property, is a multi-billion dollar must-see integrated entertainment resort in Cotai, Macau. City of Dreams features a 420,000 square-foot casino with approximately 400 gaming tables, around 1,300 gaming machines, over 20 restaurants and bars, an impressive array of some of the world’s most sought-after retail brands, as well as the award-winning multi-media attraction “Dragon’s Treasure” and The House of Dancing Water, which is the largest water-based show ever staged in the world.

The gaming and hospitality industry in Macau is an extremely competitive arena. Melco Crown Entertainment’s Co-Chairman and CEO, Mr. Lawrence Ho, recognized the need to stand out from competitors by providing an innovative and personal experience that exceeds customers’ expectations. City of Dreams, a truly visionary project never preceded in Macau, proved Mr. Ho’s strategy right by winning multiple awards within the first year of its opening, including the Best Leisure Development in Asia Pacific at the prestigious International Property Awards.

As the gaming, entertainment and hospitality operations are around the clock, City of Dreams required a highly robust, reliable, sustainable and environmentally friendly IT network infrastructure to ensure business continuity with uninterrupted service and first-class performance.

In order to achieve these parameters, City of Dreams needed an appropriate Architecture Design and Quality Assurance framework to guarantee successful deployment. In addition, Melco Crown Entertainment required the most cutting edge and scalable network architecture and communications platform to cope with its business expansion.

“We regard the IP network as the fourth utility, offering service to third parties, designed as a service oriented architecture in mind towards building a Virtual Private Cloud. We believe technology is a major differentiator for a top-notch resort operator now, and that is why we chose to create the single largest converged infrastructure in Asia Pacific to support our business and development,” said Mr. Roger Seshadri, Senior Vice President and Chief Information Officer, Melco Crown Entertainment.

Solutions

The biggest challenge for City of Dreams' IT network infrastructure was to choose the correct architecture and network design which strikes the right balance between performance, sustainability and environment friendliness. This does not transpire into sunken costs, as we all know costs play the vital and critical role in any success/failures of the project.

After evaluating various aspects:

- Technical i.e. circuit-switched / packet-switched
- Functional i.e. performance, configuration etc.
- Non-Functional i.e. cabling, installations etc.
- Financial i.e. costs / liabilities etc.

City of Dreams decided to go into network convergence and adapted to a single packet-switch network supporting both voice & data protocols, with an extended layered switch architecture; to ensure horizontal and vertical expansions on all the three (Access / Switched & Farm) layers. By adapting to converged network; packet security at transport layer both for voice & data with QoS was implemented making this network highly efficient at the same time securing from unsolicited packets.

City of Dreams' deployment is the first and the largest end-to-end IP-based Extra Low Voltage system implementation in Macau, Melco Crown Entertainment leveraged on the Cisco empowered network as a platform and deployed with approximately 10,000 IP phones, 5,000 IP-based CCTV cameras and 30,000 data ports. The network architecture and communications platform implementation of City of Dreams started in 2008, with phase 1 completion prior to its grand opening on June 1st 2009. The second and final phase were completed by the end of 2009 and the first quarter of 2010 respectively.

“Cisco is a trusted advisor for us. Right from the beginning, they collaborated with the system integrators to deliver solutions that are ideal for our operations.”

- Mr. Roger Seshadri, Senior Vice President and Chief Information Officer, Melco Crown Entertainment.

Results

Unprecedented customer experience

City of Dreams delivers state of the art media experiences to visitors, such as its iconic landmark, a dome-shaped theater called The Bubble, which delivers Dragon's Treasure, an immersive multimedia animation for guests.

With approximately 450 casino information panels and over 3,000 connected screens throughout all the guest rooms in the hotels, City of Dreams provides its guests and visitors with stunning audio-visual experiences. Full high-vision media like high-definition movies, as well as real-time information such as news and weather, can be accessed on demand from all the guest rooms.

PRODUCT LIST

Routing and Switching

- Cisco Catalyst 6500 Series Switches
- Cisco Catalyst 4700 Series Switches
- Cisco Catalyst 3750 Series Switches

Communications

- Cisco Unified IP Phones 7906G, 7911, 7941 and 7961
- Cisco Unified Wireless IP Phones 7925G
- Cisco VG224 Analogue Voice Gateway
- Cisco PBX Call Manager
- Call Center System: Unified Call Center Express

Wireless

- Cisco Wireless Controllers 4500
- Cisco Aironet 1240 AG Series Wireless Access Points

Security

- Cisco ASA 5510 / 5550 Adaptive Security Appliance

Wireless solutions allow guests at City of Dreams to stay connected with their PDA/notebooks, as well as empowering staff mobility and increasing operational efficiencies that result in a better customer experience. This also simplifies the cabling and wiring set-up, reducing maintenance cost and down-times.

All this made possible via Cisco Catalyst 6500 & 3750 Series Switches and Cisco wireless network technologies, a pioneering deployment of such solutions for the gaming and hospitality industry in the region.

Streamlined operation and increased productivity

City of Dreams provides a centralized call center for the three world-class hotel brands within the property; namely Hard Rock Hotel, Grand Hyatt Macau and Crown Towers. Unified Communications not only centralizes resources, but also enables call center agents to check emails, messages and voice mails without the need to go to multiple places, saving their time

and enabling them to provide better and more personalized services for guests.

Unified Communications also equips staff with multi-tasking capabilities. For example, customer service officers can provide concierge services, customer support and even telemarketing services at the same time.

IP phones are deployed in different departments to help increase staff productivity with reliable and rapid communication. Unified Communications caters for the group's escalating demands as business and new services continue to develop.

Cisco's Unified Communications allows City of Dreams to offer its staff seamless collaborative communications, enhancing their productivity.

Valuable business assets secured

City of Dreams built one of the world's first, largest and most comprehensive end-to-end IP casino surveillance systems. The system provides real-time images and recording for this vast resort, sends real-time automated alerts and proactively reports to the operators 24 hours a day, 7 days a week and 365 days a year.

The system also helps the detection and prevention of criminal activities, providing visual evidence as needed, and thus protecting and securing the considerable amount of assets at the resort, especially in the casino.

High service availability assured

As City of Dreams operates around the clock, a highly available and redundant infrastructure is vital to support its mission-critical environment where the core gaming, entertainment and hospitality businesses of the resort run non-stop throughout the year.

City of Dreams' IP-based backbone is built on the Cisco Catalyst 6500 Series Switches with switching capability of up to 720 gigabits per second and 10 Gigabit Ethernet connectivity, offering a scalable, reliable and compelling platform at City of Dreams to ensure uninterrupted service and first-class performance. City of Dreams also uses Cisco Catalyst 3750 Series Switches and multiple Cisco routers to power its network.

“Cisco’s ability to mobilize global subject matter expertise in the gaming and hospitality industry, and to apply this expertise locally, has contributed significantly to the overall success of the project. End-to-end IP-based architecture is not just an aspiration; it’s a dream that has come true at City of Dreams,” said Mr. Seshadri.

“Cisco is delighted to collaborate on a visionary and leading integrated resort like City of Dreams to establish a pioneering model in Asia for the gaming and hospitality industry. With our vision of Smart+Connected Real Estate and our commitment to fostering the economic development of Macau, we will help the industry provide a customer environment that is personalized, efficient and functional,” said Ms. Barbara Chiu, General Manager, Cisco Hong Kong and Macau.

Next Steps

The flexible and highly scalable infrastructure of Cisco solutions enables City of Dreams to strengthen its leading position in the gaming and hospitality industry. Looking ahead, Melco Crown Entertainment aims to further streamline its IT infrastructure to reduce cost, increase revenue and enhance its service level by leveraging the strategic investment in Cisco infrastructure to facilitate consolidation and centralization of other Melco Crown Entertainment operations, delivering economies of scale and operational efficiencies that will empower staff to exceed guest expectations and support Melco Crown Entertainment in achieving large-scale business goals.

City of Dreams being aware of how important video will be in future is also considering adopting video IP phones to provide next-generation collaboration for its workforce and customers. This could further enhance the customer experience, boost staff productivity and enable City of Dreams to better prepare for its future business expansion.

For More Information

To find out more about Cisco Routing and Switching, go to:
http://www.cisco.com/web/HK/solutions/network_index.html

To find out more about Cisco Unified Communications, go to:
http://www.cisco.com/web/HK/solutions/unified_index.html

To find out more about Cisco wireless solutions, go to:
<http://www.cisco.com/web/HK/products/wireless.html#~solutions>

To find out more about Cisco security solutions, go to:
<http://www.cisco.com/en/US/products/hw/vpndevc/index.html>



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