The digital revolution is inevitable, with old analogue systems sooner or later having to be converted to digital. Existing casinos have either switched or are planning to switch to the IP-based network matrix switching.

THE SKY IS THE LIMIT

With its head office in Auckland, the SkyCity Casino group owns 6 casinos, 4 in New Zealand and 2 in Australia. Having a first-rate experience with SkyCity Casino Darwin's switch to digital, the whole SkyCity group has chosen Dallmeier's proven system.

BACK in 2008 something novel happened in our industry that went unnoticed. SkyCity Casino in Darwin changed its old analogue 350-camera system, based on the famous Maxpro MAX-1000 analogue matrix, to a digital system. It was special because it was the first switchover from an analogue matrix to a digital network system without any downtime.

As most people would know, casinos are not allowed to operate without a surveillance system by law. Shutting down an analogue system and putting a digital solution in whenever convenient to the installer, was not an option. SkyCity Casino's existing system had to remain in place and operate until the new one was installed, using the same cameras.

This was a real challenge. The only way it could be done was to have the old analogue system running in parallel with the new digital system being put in place. This required some good installation practices and project management skills. Each shift of operators was carefully trained on how the new digital system worked while remaining shifts did their normal duty with the old system.

One of the advantages of going digital is that you can run a control room anywhere there is a network connection. Just one Gigabit cable is sufficient, instead of hundreds of coaxial cables. Taking advantage of this, SkyCity Casino operator's kitchen area was converted into a temporary digital training room. Once all the operators were proficient and comfortable in using the new system, it was decided to make the switch.

It all happened one fine morning in 2008 at around 4am, when there were the least number of visitors at the casino. The old analogue Maxpro MAX-1000, after so many years of dutiful service, was turned off and the new Dallmeier based digital system was engaged. Simply and quietly, with the flick of a switch – and without anybody noticing on the gaming floor - history was made: A casino analogue matrix system was replaced with a digital network system.

The digital revolution is inevitable, with old analogue systems sooner or later having to be converted to digital. Existing casinos have either switched or are planning to switch to the IP-based network matrix switching. Not only the analogue matrix is removed from the core of the system, but also analogue cameras are gradually replaced with HD IP cameras. All this change needs to be seamless and it is now happening with the SkyCity Casino Group.

The company delivering these solutions is C.R.Kennedy, the exclusive Australian and New Zealand

In a Dallmeier casino system, each recorder has a redundant power supply as well. Each power supply rail runs on a separate phase of a redundant UPS. Each SeMSy server has its own stand-by server and each network switch has a redundant path through redundant core switches. Being able to guarantee the surveillance system continuous operation is what casinos are after. This is what Dallmeier systems deliver and this is why they are considered the best in the field.

NEW ZEALAND'S INTEGRATED SOLUTION

SkyCity Casino in Auckland, with more than 3000 cameras, is the largest casino in New Zealand and a most recognised landmark. Visitors to Auckland would know the SkyCity tower and the wonderful SkyCity restaurants and hotels around the casino, with their splendid conference rooms and exhibition venues.

There are 2 smaller casinos within the SkyCity group, one at picturesque Queenstown in the South Island, and one at Hamilton in the North Island. All 3 casinos have chosen to go with Dallmeier SeMSy. Interestingly, in a new innovation in the casino industry, all 3 casinos can be supported remotely from either Auckland or, in Queenstown, from one site to the other (supporting each other as a hot-standby).

The SkyCity casinos in New Zealand have also implemented numerous Dallmeier High Level Interfaces (HLIs) needed in the gaming industry. One of Dallmeier's strong points in casino surveillance systems is their HLIs to various systems. For example, these HLIs connect the surveillance system to the AngelEye playing card monitoring system, improving control over the purity of each game, and minimizing casino losses due to scams. Each deck of cards is noted and counted individually, allowing the casino to overview all games and their outcomes.

Furthermore, there are HLIs to the point of sales (POS) Micros system, Bally's Gaming Machines, Cardax access control and similar. All such interfaces have been integrated very securely into Dallmeier's SeMSy so that anything can be searched for at any time, even intelligent game analysis can be added if requested by the casino. Dallmeier casino surveillance systems are not only digital large scale IP systems but also profit management tools, game video analysis tools, inventory tracking tools, people traffic analysis tools and building management tools, all in one. When more is needed, it is easily added to the Dallmeier SeMSy by way of using standard interface protocols, such as OPC or ONVIF.

The innovative ideas of the SkyCity management have initiated the development of an RFID card tracking system, which will integrate with Dallmeier SeMSy. This tracking system is an

Australian development by Vision Technology Systems and will be implemented this year.

"There are thousands of CCTV exponents in the world today, however, Dallmeier and C.R.Kennedy have delivered outstanding support and service to my operations, providing a product tailored to our unique environments involving thousands of cameras, innovative recording solutions, video analytics and end user simplicity," says Bill Bonar, general manager of corporate asset protection & surveillance for SkyCity Entertainment Group.

"For me, Dallmeier, supported by C.R.Kennedy, provides excellent turnkey solutions with ongoing support and service."

ADELAIDE GOING DIGITAL

SkyCity group also owns 2 casinos in Australia - SkyCity Darwin and SkyCity Adelaide. As we've seen, SkyCity Darwin was converted to Dallmeier 7 years ago. Since then, this casino's system has grown to 525 cameras of which around 166 are HD IP. It has also added the AngelEye card tracking system, as well as interfacing to the Micros POS system.

Adelaide SkyCity followed suit in 2012, when it started introducing Dallmeier recorders and IP cameras while keeping the existing analogue as long as needed. SkyCity Adelaide is an old casino, located in the top 3 floors of the historic Adelaide Central Railway Station. SkyCity Adelaide previously had an old Maxpro analogue system but it was only a question of time when the support for the analogue system would cease, so in 2012 management also decided to begin converting to digital. The Adelaide SkyCity Casino now has close to 1000 cameras, of which over 80 per cent are 1080p HD IP cameras.

"A decision was made to provide improved camera coverage throughout the Adelaide SkyCity Casino in conjunction with the building upgrades," says Geoff Stow, surveillance engineer at SkyCity Adelaide.

"As a result, new HD IP cameras were installed and we now have approximately 80 per cent IP HD cameras operational, all of which are fully recorded on the Dallmeier recording system and available to all operators.

"I was very pleased with the professional approach taken with regard to the replacement of the previous recording system," Stow says. "We were able to maintain a fully operational surveillance system during all parts of the change over without the loss of any major camera coverage."

Continuous improvement of the SeMSy, cameras and recorders, as well as the ability to interface to third party systems – including ONVIF cameras – is an important part of the big picture Dallmeier paints in its business strategy. Since the early days of SeMSy version 1, first installed at the Sands Casino Macau in 2002, SeMsy has evolved into its

third generation, with so much functionality that everything a casino operator may require is covered. The new SeMSy v.4 just around the corner pushes even further the boundaries of user friendliness and functionality, and I am sure it will lift some eyebrows. As its logo states, Dallmeier ensures that customers will... 'see more than others' and when you consider the company's success in Australasia from 2008 to today, it will continue to do so. ◣◥◥

To date, Dallmeier through its joint venture with C.R. Kennedy, has commissioned more than 20,000 camera systems running over IP networks as well as more than a dozen casinos in Macao, Singapore, the Philippines and South-East Asia.

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distributor of the high quality German brand Dallmeier, one of the biggest names in the casino surveillance industry. C.R.Kennedy's experienced technical team, including David Payne, Trevor Joseph, Steve Maynard, Nadir Sahiner, Paul Cafeo and Amir Pirani; ably supported by Dallmeier engineers, continues to be invaluable in providing the final touches with high-end technical commissioning for SkyCity.

To date, Dallmeier through its joint venture with C.R. Kennedy, has commissioned more than 20,000 camera systems running over IP networks as well as more than a dozen casinos in Macau, Singapore, the Philippines and South-East Asia. These casinos are some of the largest in the world - like the Venetian and City Of Dreams – with more than 5000 cameras each and well over 5 PB (1 Peta Byte = 1000 TB)) of storage, all running smoothly with multiple operators and a multi-redundant Dallmeier SeMSy management system. There are no analogue matrix switchers in these systems – it all happens over IP networks.

With nearly 20 years experience, Dallmeier has been a pioneer in casino digital surveillance systems, commencing with Melbourne's Crown Casino in 1996. Dallmeier systems are guaranteed to run with high up-time due to their careful redundant design. The hard disk redundancy is only one of the many redundant components.