

ENGINEERING

PARTY TIME

HWL BEHIND THE SCENES AT THE WORLDS' BIGGEST PARTIES

When the party is on, no one wants to stop and think about those working to make sure that everyone has a good time. Under the hood of major events like the FIFA World Cup and the Olympic Games, Hutchison teams are in full swing around the clock to make sure that everything happens when it is supposed to so the world can celebrate in style.





he planning for a single event can take as much as seven years. From retail to travel to power, *Sphere* looks at how HWL firms do the work so everyone else can enjoy the party.

OLÉ! OLÉ! OLÉ!

HUTCHISON AND THE WORLD CUP!

The World Cup is one of the most viewed events around the world. This year, **3** Hong Kong and Hutchison Global Communications Limited (HGC) joined in on the fun while making sure their mobile and broadband networks stayed secure for its Hong Kong customers.

Historically, most football fans only watched matches live on TV. Recently, however, younger people watched the World Cup on their mobile phones, over the Internet or on any one of a range of mobile devices.

BRAVE NEW WORLD CUP

The World Cup experience, in the modern era, isn't just waiting for a televised event. **3** Hong Kong's mobile network was used for viewing matches, highlights, instant updates, and replays on demand, around the clock. Instead of using satellite, HGC deployed advanced Radio Over Fibre technology to help a TV station deliver World Cup content live. HGC's abundant bandwidth enabled the content to be transmitted over an optical fibre dedicated to the World Cup.

MAKE WAY FOR FANS

Still, game time is the most exciting and the time of highest demand. Thanks to the time difference, much of the mobile usage was in the early morning, avoiding normal peak usage. It meant that routine network upgrades and maintenance work, usually carried out from 2 am to 5 am, were rescheduled to days without matches during the World Cup.

To fully take advantage of the World Cup, a host of initiatives was introduced to **3** Hong Kong service subscribers. Fans could check out World Cup content through the Planet **3** mobile portal, in addition to playing games and winning prizes.

3 Hong Kong didn't just take care of fans in Hong Kong. It even launched a special phone plan for fans who were visiting

Brazil during the World Cup. How they got there was another question. If you want to get off your phone, on to a plane and into the stadium, you need another star World Cup player.

PLAYING TO WIN - FOR TICKETS

Hutchison-Priceline (Travel) Ltd also gets on the field for this football fiesta every four years. It is approached by VIP customers to get them - and their guests - to the games. The company uses extensive and carefully cultivated industry connections to work with select business partners of FIFA to ensure that clients can access the best of the contests.

Time is the biggest challenge for the company, says CEO of Hutchison-Priceline, Tony Ma. The team can make a little magic happen, but not full-blown miracles. For global events like the World Cup, preparation begins a year in advance. This is true not only for travel, but also for special World Cup promotions and marketing efforts with valued partners.

For example, Hutchison-Priceline was hired by an international credit card company to manage its promotional campaign for the 2014 World Cup Brazil. The highest wintertime spenders at a high-end Hong Kong shopping mall were offered a package to travel to the World Cup. Hutchison-Priceline was responsible for the planning and execution of the travel programmes, making sure the winners made it to the World Cup! The staff may not have been able to go, but they shared in the excitement by sending other people.

"One of the major advantages for Hutchison of taking part in the World Cup is to make our staff happy. The staff are so engaged, happy and feel proud to be a part of it," says Mr Ma. If the staff in Hong Kong are enthusiastic to be taking part in a FIFA World Cup happening on the other side of the world, imagine the electric feeling from being in the middle of the action, playing host to the world. When the Olympic Games arrived in London and Beijing, Hutchison's teams were behind them 100 per cent.

POWERLIFTING AT THE OLYMPICS

The London 2012 Summer Olympic Games were a majestic spectacle. 10,820 athletes

from 204 national teams competed at 34 venues. The games were alternately spectacular, heartbreaking and sometimes simply breathtaking.

Much less visible to the public, yet absolutely essential to the sporting extravaganza, were the services of UK Power Networks. Their efforts in powering most of the Games garnered them the prestigious Utility of the Year title. As a contractor and not a sponsor, UK Power Networks was intended to remain unknown to the public. The group unrolled seven years of groundwork, just to stay invisible when the whole world was watching.

THE HARDWARE: SUBSTATION CENTRAL

The electricity distribution networks of UK Power Networks were responsible

ESDLIFE: FIFA WORLD CUP STOREFRONT TO THE WORLD

In 2006, ESD Services Limited (*ESDlife*), a company focusing on e-commerce, was selected by FIFA to operate its official online shop in Asia for the 2006 World Cup Germany. The company was responsible for the whole online sales process, from designing the website to merchandising, delivery and inventory control.

The biggest challenge, according to Tony Ma, CEO of *ESDlife* and Hutchison-Priceline, was countering the scourge of counterfeiting that supplied shoddy replica paraphernalia and dented the legitimate business of FIFA and *ESDlife*. The firm had to be vigilant to identify and discourage online fraudsters by alerting the relevant authorities to their presence.

Mr Ma says, "We had to design the website, source the products and merchandise goods from licensed suppliers. And we had to determine what to order, the quantity and manage the inventory control ... it was an interesting experience and we were all excited about it."

for supplying energy to 29 of the 34 Olympic Games venues. They also powered a greater number of associated supporting non-sporting venues, such as the International Broadcasting Centre and Main Press Centre.

The construction programme began in 2006. An entirely new Olympic Park distribution network was required. The new main substation at Kings Yard had a 132 MVA capacity and needed a 7 km bore tunnel to carry new 132 kV cables. The substation was accommodated in an area two-thirds the size of an equivalent capacity substation, a triumph of innovative, cost-effective design. The engineers had a place for nature in all this construction – the main substation features a brown roof providing a habitat for nesting birds.

Olympic Park, when operational, comprised a network covering 185 distribution substations, 250 km of cables, and 900 street lights.

The construction cost to UK Power Networks was more than GBP125 million, and included the removal of 100 temporary distribution substations after the Games. These substations have now been serviced and reused on the company's network.

THE SOFTWARE: DEVISING A PLAN

Three years before the event, the group put together a special project team to devise the operational strategy.

Four hundred and sixty individual mitigation measures were implemented, including the testing of network protection systems at 116 major substations across London. Steps were taken to safeguard the system from physical attacks. Staff members were deployed strategically to respond to system faults. Capital works were brought forward to ensure the overall network had maximum availability and resilience. The network was at its best for Olympic and perennial customers alike. Detailed contingency plans were developed for a wide range of possible issues, and in the final six months leading up to the Games, eight separate exercises were carried out involving all levels of response management.

Even pre-planning for a possible cyber-attack proved invaluable, when in the early hours of the day of the opening ceremony, credible plans for cyber-attacks against electricity supplies for the opening

ceremony were uncovered by security services. Thankfully no attack came to fruition, but the plans implemented were a product of attention to detail and forward thinking.

GOLD MEDAL PERFORMANCE

UK Power Networks successfully remained invisible. The significant influx of tourists and those watching the Games caused a seven per cent increase in energy consumption across London for extended periods of time, compared to the same period in 2011. Yet, despite higher demands, unprecedented travel, and roadwork restrictions, network performance actually improved during the Games. No power failures occurred at any of the Olympic sporting venues, hotels, transport networks, command and control centres, or broadcasting stations during the Games. The London Organising Committee's standby generators were kept idle throughout.

In addition to the Utility of the Year title, UK Power Networks' London 2012 team was also granted the Team of the Year award by Utility Industry Achievement Awards in 2012. It required a colossal team effort from the preparation to the execution of service. This experience benefited later Olympics, as UK Power Networks shared their expertise with Sochi 2014 and will do the same for Rio 2016.

Rock-steady engineering isn't the only way Hutchison has supported past Olympics. At the Beijing Summer Olympics 2008, it was human capital that had to be upgraded.



Everything a visitor to the Beijing Olympics needs - especially how to find a Watsons outlet!



THE PEOPLE'S OLYMPICS

The 2008 Beijing Summer Olympics were a resounding success. Much of the city's efforts focused on training the over 100,000 volunteers for the Olympics and Paralympics. Watsons China made sure they did their part to upgrade the city's human resources.

CONVENIENCE FOR TOURISTS

Beijing today is a much more internationalised city than it was in 2005 when volunteer preparation began. Watsons China realised that they could contribute to helping tourists and making the Games a success.

Watsons used their experience in customer service to produce a custom-made package containing vital information for tourists: a map of Beijing city, a subway map, schedules for the Olympic Games and events, airport shuttle bus routes and timetables, useful daily phrases in Mandarin Chinese, emergency telephone numbers, and, of course, the locations of the nearest Watsons stores and details of Watsons products.

Twelve thousand copies were placed in 12 Watsons stores in Beijing and 38,000 copies in special restaurants, economy hotels and the airport. They proved wildly successful in both helping tourists and driving business to the stores. Many visitors were from regions that Watsons does not serve. They were introduced to the brand as a trusted go-to in Beijing for their trip. When they arrived, they could even find someone who spoke English to help them.

"I CAN SPEAK ENGLISH"

To better serve foreign tourists, Watsons made the commitment to send staff to a well-regarded specialist English language training school for two and a half months. After the training, staff sported "I can speak English" badges. The English language service was available in 12 Watsons stores in Beijing and one in the seaside city of Qingdao, the venue for the Olympic sailing events.

From Beijing to London to Hong Kong, the Group's experience in upgrading infrastructure power and human capital continues to make the difference to the success of global sporting events. Like the world-class athletes in the spotlight, staff dedicate themselves to the challenge and bring their best to the events. It's possible they may miss being in the stands. But then again, why go to the party when you can be the party? □



Credit: Hong Kong Rugby Football Union

HK ELECTRIC SHOWS ITS MUSCLE FOR THE RUGBY SEVENS

They may be smaller than the Olympics, but the 2009 East Asian Games and the annual Hong Kong Rugby Sevens still have high standards. The Hongkong Electric Co Ltd (HK Electric) made sure it pulled out all the stops to guarantee their supply of energy was stable and secure.

"METICULOUSITY"

Special events demand meticulous testing to ensure all the equipment within substations is functioning as planned. The police then sweep the area for suspicious elements, and when everything checks out, seal the entrance. This seal lets them identify immediately whether anyone has accessed the substations, and prevents unauthorised interference with the equipment.

During the critical periods of the events, HK Electric avoids having other planned work in the same part of the network. Since all the supply networks

are interconnected, this maintains maximum availability to the substations servicing the events. Staff technicians are then stationed within the vicinity of the substations. Usually, HK Electric makes a pledge to its customers to arrive at the scene within 28 minutes on average for an incident in urban areas. But for mega events like the Rugby Sevens, they cut that down to less than one minute, with staff on standby at Hong Kong Stadium.

BACK-UP PLANNED

In HK Electric's network supplying the Hong Kong Stadium, more than one cable is installed to feed substations at the same time. If one cable fails, the other one automatically picks up the load and safeguards any event from interruption.

The supply network is world class with reliability of over 99.999 per cent. But at mega events, HK Electric goes the extra mile to make sure game visitors and global viewers get 100 per cent excitement from the action.

