EXECUTIVE SUMMARY

Customer Name: Tele2 Arena
Industry: Sports and Entertainment
Location: Sweden
Number of Employees: 120

Challenge
• Provide exceptional, interactive experiences for fans
• Maximize venue revenues and profitability
• Meet Stockholm’s ambitious world-class city vision for 2030

Solution
• Complete Cisco Connected Sports portfolio: Connected Stadium, Connected Stadium Wi-Fi, StadiumVision, and StadiumVision Mobile
• Cisco Services for design, implementation, and ongoing support
• Cisco Capital financial solution to optimize cash flow and return on investment

Results
• Arena hailed as breakthrough in European and global sports and entertainment
• Fans placed at center of action with streaming video on mobile devices, access to HD video throughout venue, reliable wireless connectivity, and social networks
• Ability and flexibility to rapidly deploy and monetize new services

Challenge
Tele2 Arena is a new sports and entertainment venue in Stockholm. Owned by the municipality and operated by Stockholm Globe Arenas (SGA)—part of the sports and entertainment giant AEG—the multipurpose arena holds up to 40,000 people. It can host events ranging from football matches (it’s the permanent home of the Hammarby and Djurgården teams) and ice hockey games to concerts and business conventions.

The arena was conceived as one of the key components of Vision 2030, Stockholm’s bold plan to become a world-class city, and its biggest challenge was to win over stay-away fans. SGA chief executive, Ninna Engberg, says: “Today, success increasingly depends on tempting people away from watching at home or in bars. And that means offering the best possible experience, from start to finish, so they keep coming back for more.”

With this in mind, Tele2 Arena was purposely designed around the needs of fans and visitors, adding to the in-stadium experience with revenue-generating multimedia and mobile services.

Solution
Some new stadiums and arenas only consider how to leverage technology at the end of the project, but the Tele2 Arena had a clear, holistic vision. “We recognized the importance of investing in and embedding IT and communications upfront in the planning process,” says David Jones, vice president of IT, AEG Europe. “Our well-established partnership with Cisco and the results from our successful global projects together have shown that making advanced technology integral to the building really does help to deliver a great result.”

To achieve its vision, Tele2 Arena worked closely with its Cisco account team and Cisco Services to create a validated design based upon stadium technology best practices. Cisco Services also provided implementation support, testing and certification with focused technical support services for ongoing management.
“Our well-established partnership with Cisco and the results from our successful global projects together have shown that making advanced technology integral to the building really does help to deliver a great result.”

David Jones
Vice President of IT
AEG Europe

“The quality of Cisco Services is second-to-none,” says Jones. “Its engineers have fantastic skills and expertise, especially when it comes to fine-tuning wireless and video in these complex environments. They made a significant contribution and helped ensure a fast, hassle-free deployment.”

The approach taken by Tele2 Arena comprises four interlocking solutions:

- **Cisco Connected Stadium** providing a secure, scalable network foundation and common IP platform for efficient stadium management and innovative spectator services
- **Cisco Connected Stadium Wi-Fi** for smooth and reliable delivery of wireless services in congested environments with tens of thousands of concurrent users and regular spikes in demand
- **Cisco StadiumVision** for centrally-managed video and digital content distribution, coordinating the delivery of targeted live and broadcast video, advertisements and promotions, and event information to any or all screens
- **Cisco StadiumVision Mobile** allowing deeper fan engagement through personalized, media-rich experiences such as live mobile video, alternative camera angles and accompanying targeted promotions, real time statistics, and improved fan-base profiling capabilities
- **SGA** collaborated with Cisco to finance its investment. “Cisco Capital was very professional and responsive,” says Andreas Sand, CFO and deputy CEO for SGA. “Spreading certain project costs over three years allowed us to accelerate return on investment. It also helped free-up funds and fully optimize cash flow.”

Results

Tele2 Arena hosted its first football match at the end of June 2013, and the official opening came a month later, prompting positive media coverage. It earned an emphatic endorsement from Stockholm’s mayor as a world-class facility. Having also earned a top environmental rating, the venue is quickly being recognized as being as good as it gets technologically.

“We’re told it’s one of the most modern arenas in Europe and sets a new benchmark,” says Sand. “Our mantra is Get Closer; to us, that means greater interactivity with the audience. We’re extremely pleased with what we have, now and going forward. Cisco is the right technology partner for us to address today’s business needs and anticipate those of tomorrow.”

Stadium operations are streamlined and tightly linked to situational awareness from the moment people enter the arena. Ticket scanners ensure smooth, safe entry with CCTV cameras monitoring queues in case extra gates need to be opened.

Real time information flows wirelessly, from those that know to those that need to know. Food and drink is a prime example. Menus and prices can be set according to each event, and subsequently revised during games or concerts to reflect sales and changing availability by location, or to highlight special offers.

Video can be streamed anywhere, to any device. Fans can watch pre-match entertainment and follow the action on hundreds of digital screens throughout the arena and on a huge video wall. And they can stay connected to social media, posting their experiences and passing on the adrenaline rush you only get from being at a live event. Word-of-mouth, this time via social networks, remains one of the most powerful forms of free advertising.

From an IT perspective, the advantages are clear. “Cisco designed and tested its stadium portfolio from the ground up so everything works together,” says Jones, “and we only have one supplier. That helps keep costs down and lowers risk because we don’t have to integrate and manage separate solutions from different vendors.”
In many ways, Tele2 Arena exemplifies the Internet of Everything, the idea of bringing together people, process, data, and things to make networked connections more relevant and valuable than ever before. “And we have a model for monetizing new services,” says Sand.

With the introduction of Cisco® StadiumVision Mobile, the arena intends to further grow fan intimacy. Offered as an opt-in/opt-out service, a new mobile application will provide fans with live event video, instant replays, alternative camera angles, breaking news, key information, and promotional offers. As a result, the arena can build customer loyalty and drive revenues from advertising and ticket sales on the app.

**Technical Implementation**

The arena’s LAN provides 10Gbps Ethernet connectivity and is built on Cisco Nexus® 7000 and Catalyst® 4500 and 3750 Series Switches. The wireless LAN consists of four Cisco 5508 Series Wireless Controllers and 340 Cisco Aironet® 3500 and 3600 Series Wireless Access Points equipped with Cisco CleanAir® technology to minimize interference and enable dynamic rerouting. In the arena bowl, the purpose-built, high-gain Cisco Stadium Antenna is used to provide comprehensive coverage and capacity.

Cisco Prime™ Infrastructure offers unified management of both wired and wireless networks, which are secured with Cisco ASA 5585X Series Adaptive Security Appliance for firewalling services.

Collaboration is enabled with Cisco Unified Communications Manager, which supports 180 Cisco Unified IP Phones (6921, 9951, and 9971 Series) offering high-quality interactive multimedia communications and video. VIP suites are fitted with touchscreen phones, and the arena also uses Cisco Unified IP Conferencing and Unity® Express for integrated messaging and voicemail.

For video experience, the Tele2 Arena relies on Cisco StadiumVision. This solution allows hundreds or thousands of displays to be controlled from a single monitor, enabling, for example, in-game promotions or special offers of merchandise to suite holders. Cisco Digital Content Manager and Cisco Digital Media Player 4310 are used to deliver live HD broadcasts from the Cisco-powered video headend, web content, graphics, and text on screens across the arena. The imminent addition of StadiumVision Mobile Streamer will provide live and playback video to tens of thousands of mobile devices.

**For More Information**

To learn more about the Cisco solutions described in this case study, go to: [www.cisco.com/web/strategy/sports/index.html](http://www.cisco.com/web/strategy/sports/index.html)
Product List

Routing and Switching
- Cisco Nexus 7000 and Catalyst 4500 and 3750 Series Switches

Wireless
- Cisco 5508 Series Wireless Controllers
- Cisco Aironet 3500 and 3600 Series Wireless Access Points with Cisco CleanAir technology

Video
- Cisco StadiumVision Director
- Cisco Digital Content Manager
- Cisco Digital Media Player 4310
- StadiumVision Mobile Streamer

Unified Communications
- Cisco Unified Communications Manager
- Cisco Unified IP Phones (6921, 9951, and 9971 Series)

Security
- Cisco ASA 5585X Series Adaptive Security Appliance

Management
- Cisco Prime Infrastructure