Mega Events: Transforming Safety and Security for Lasting Benefits

Sports Security and Improved Public Safety

Overview

From the Olympic Games and the World Cup to large regional sports competitions, an international mega event is an opportunity for the host country to distinguish itself. It can enable a nation to claim a place on the world stage, act as a symbolic focus for regional aspirations, and state its credentials as a real contributor to the future global economy.

Such events also provide a chance to transform the national safety and security apparatus. The host nation can manage the complex logistics of the event impeccably and lay firm foundations for improvements in the future protection and welfare of its people.

Introduction

At a sports event with an international audience running into many millions, the safety and security of athletes, fans, visiting leaders, sporting dignitaries, officials, media, tourists, organizing committees, volunteers, and local communities are a top priority. At a global event, host governments carry the ultimate responsibility for the safety and security of all present.

A mega event also exacerbates risk factors sharply. Correlations between the scale of the event and the level of potential risk are not necessarily exact, but a coordinated strategy, enabled by innovative improvements in security collaboration, and supported by advanced technology, will always help to minimize the chances of a major incident.

It is vital to help ensure that any money invested is spent wisely, not just to run the event smoothly, but also to make choices that leave a lasting legacy. People at home can then remember a moment when life started improving more visibly, when tourists began to arrive in greater numbers and spread the word to others. With the experience of success and sound leadership thereafter, investment and faster economic development should follow.

To meet these needs, short-term and long-term, Cisco has developed a range of solutions that support both the success of the mega event and the development of a community able to benefit from a coherent and integrated approach to technology. Cisco starts with the concept of the network as the foundation, on which many applications and services can be built as required; the ultimate aim is to make real its vision of Smart+Connected Communities. Security is just one of the essential solutions offered to a host nation by Cisco.

If a security incident occurs during the event, enhanced capabilities for emergency and security personnel, including real-time access to video and information, help automate detection and analysis and coordinate incident response. Better communication and collaboration underpin all aspects of safety, from initial planning right through to a demanding operational reality.

The legacy also offers huge potential for improvements in tackling endemic crime and security issues. In developing countries, the longer-term benefits of improved security may include more inward investment, higher gross domestic product (GDP) and tax revenues, new jobs, increased tourism, and a better quality of life. The level of infrastructure investment required of the host nation offers a good chance to move ahead to next-generation technologies, thus promoting future prosperity and laying the groundwork for the smart cities of the future.

Key Challenges

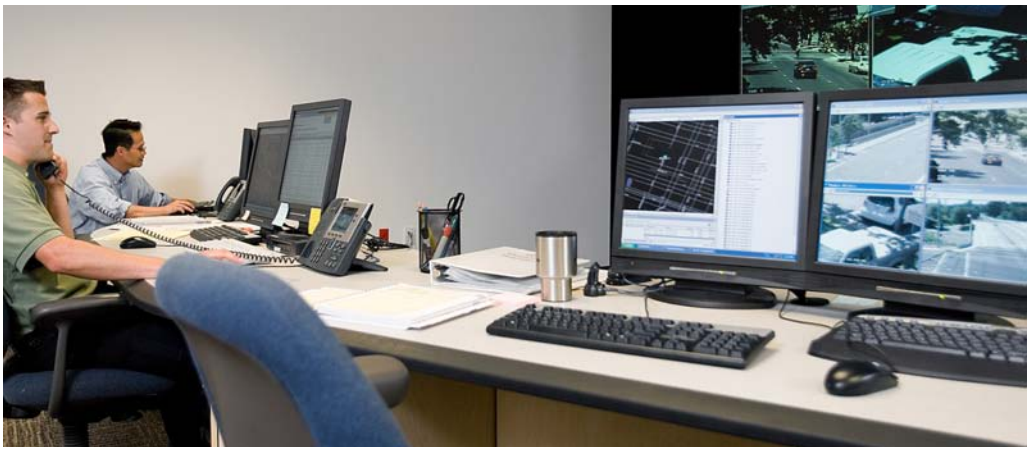
To win a mega event bid, it is essential to prove to the franchise holder that its security demands will be met in full. For national sports governing bodies, this proof means offering the assurance of a single, unified command and control center for safety and security. Envisioning this command and control center, in turn, creates the opportunity to create a new intra-agency communications infrastructure.

Police, government officials, emergency services, and others must be able to collaborate effectively throughout. And today, along with traditional risks of accident, natural disaster, or crime, national organizers must plan against the heightened risk of terrorist attack.

Even if a country has no previous history of terrorist threats, hosting a mega-sports event is, regrettably, liable to put that country on a target list. Striking the right balance between preparations for the possibility of outright disaster, and retaining the flexibility required for a more localized response to lesser incidents, is also important. Small problems can have a big impact too.

Grand opening ceremonies draw in numerous heads of state and their entourages. All must be safely accommodated within the host's security framework, underlining the need for cross-border collaboration. A mega event also attracts hundreds of thousands of visiting fans and so becomes a magnet for gangs of highly organized and mobile professional criminals, including pickpockets and operators of fraudulent enterprises. Nor does the list of security issues end there: speed and efficiency of medical treatment for visitors are no less crucial.

The physical scope of event security must cover ports of entry, travel routes, public transport, and stadiums (sometimes hundreds of miles apart), along with practice grounds, fan parks, hotels (inside and out), and traffic exclusion zones. The organizational scope is also wide. Security stakeholders include politicians; civil servants; police; international intelligence and defence forces; disaster management and emergency services, including health, ambulance, and fire brigades; and key infrastructure operators, such as transport, power, water, and waste.



Competing claims on national budgets place formidable pressures on decision-makers. Expenditures need to show lasting value from investment. Indeed, global sports event franchise holders now look for legacy benefits, and a country is unlikely to win its bid to host a mega event unless it can persuasively demonstrate how life for its citizens will improve as a result. The legacy issue is not just a simple question of future uses for new sports grounds.

Developed countries generally have ample infrastructure when planning for a mega event. Yet they may also be burdened by legacy technologies with multiple compatibility problems. Having less technology in place, as a rule, developing countries are often better placed to install up-to-date infrastructure, and to deploy the latest, fully compatible solutions; in short, they may even overtake their more "developed" counterparts by short-circuiting intervening stages.

Technology is only one part of the picture. Incompatible communications technologies often reflect a corresponding lack of organizational coordination, with different agencies operating in organizational isolation or closed-off bureaucratic domains, too often at the expense of their collective effectiveness. Exceptional coordination and collaboration are needed to meet these challenges, internationally and nationally, regionally, and locally.

The Cisco Vision for Safety and Security at Sports Events and Beyond

The Cisco approach to creating safer and more secure societies worldwide is to transform the connections between people, places, things, and information. It forms an essential component of the Cisco Smart+Connected Communities initiative, empowering government and citizens alike by providing anytime, anywhere access to key information.

At the heart of this vision is the shared responsibility of national, regional, and municipal authorities, alongside operational command structures and field operatives of the frontline services, for the safety and security of their citizens. It can be applied just as effectively in normal times as during high-profile international sports, or other mega events.

Smart+Connected Communities works by enabling a dynamic sharing of information and services across all responsible organizations. It sweeps away entrenched organizational isolation, creating an unprecedented level of multidisciplinary and cross-jurisdictional collaboration. It transforms operational mindsets across multiple organizations, opening up an opportunity to train a generation of people skilled and experienced in today's proven best practices for safety and security.

The Cisco Smart+Connected Communities initiative is also designed to enable new kinds of two-way interaction between citizens and authorities. Citizens can get help faster, and, in turn, use their mobile devices to feed visual and other incident information back to the authorities. In this way, technology may be used to create a socially beneficial feedback loop.

The Cisco view of the needs of sports event security dovetails with its Urban Security framework, covering areas of the city that fall outside an event's tightly focused "security bubble." International sports events work best when security is marshalled concentrically, applying a web of connected vigilance across each successive perimeter. At the heart of the event, it also meshes with the Cisco StadiumVision™ solution: a next-generation venue, connected over a single network infrastructure, securing both the venue and its immediate surroundings and making centrally held information available at the stadium.

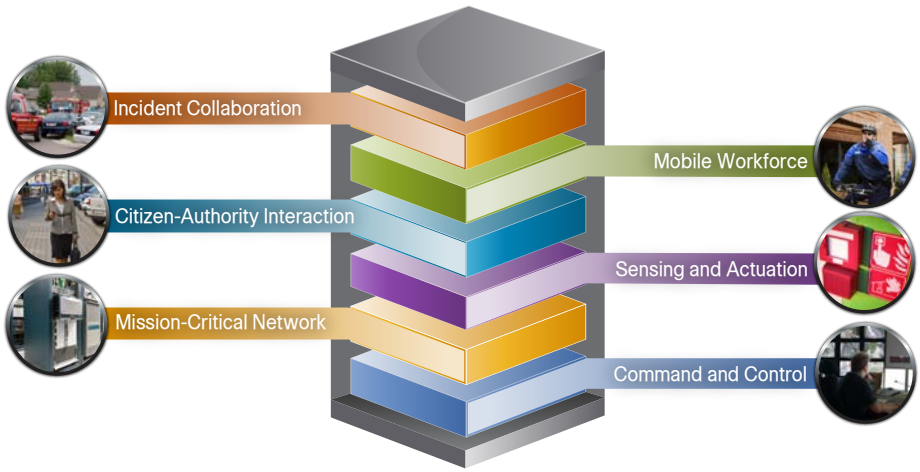
Allianz Arena in Munich

Foundations for Success

The basis for bringing this vision to reality is the Cisco Open Platform for Safety and Security (COPSS). It provides a mission-critical IP network, enabling the authorities to unify the chain of command at local, regional, and national levels and meet all the security needs of a mega event. The platform functions as a bridge between disparate processes and organizational domains, extending across headquarters, operations and emergency operations centres, disaster management agencies, and incident command and field personnel.

The COPSS platform enables improved collaboration, above all enabling increased speed and precision of decision-making at the strategic, tactical and operational levels. The platform makes multiple devices fully interoperable, collects real-time information, provides on-the-spot analytics and rapid correlation capabilities, and allows a fully co-ordinated response by the authorities to disasters and emergencies. Cisco's ecosystem of partners also enables a number of specialist security solutions, from automobile license plate recognition and biometrics to RFID asset-tagging and presence technology, which can enable, for example, fast identification of potential first responders.

Figure 1. Cisco's COPSS mission critical network is the basis for a complete sports safety and security solution, including unified command and control, incident collaboration, mobile field operatives, citizen interactions, and electronic sensing and actuation.



The security requirements and existing resources of any country hosting a mega event are unique. Cisco collaborates to optimize available infrastructure, employing everything from optical networks to wireless, leased line, or satellite systems. Cisco works closely with national joint operations centres to define needs and listens carefully to individual stakeholders, providing valuable pointers on how diverse functions can come together in a cohesive whole.

Key information and communication technology (ICT) requirements for stakeholders combine video, radio, telephony, and data, all of which need to be ubiquitously shared. Cisco and its partners offer a wide range of solutions to give the best possible chance of running a big event without mishap. Many of these solutions can be swiftly and inexpensively redeployed afterwards, thus enabling the host nation to create a lasting legacy of improved safety and security for citizens.

How the Technology Is Being Used Today

A COPSS platform opens up many options that meet the needs of a mega event. A wide range of technologies can be integrated with the platform to create a comprehensive safety and security solution. They may include Cisco Digital Signage, to provide fans at a stadium with clear, real-time updates and instructions in the event of accident or evaculation; Cisco Unified Communications, enabling closer, quicker and more coordinated collaboration between jurisdictions and agencies; or satellite communications, to empower rapid links between geographically remote control centres. Among the key safety and security solutions offered by Cisco for mega sport events are:

- Cisco Network Emergency Response Vehicle (NERV)

  A mobile command and communication centre raises a country's capacity to respond in emergencies to a new level. NERV is equipped with a full range of technologies to deliver smooth communications between first responders anywhere, over any medium. It carries on-board racks of radio, telecommunications, computer, and video technologies along with non-Cisco very small aperture terminal (VSAT) and satellite TV.

  Capable of going operational in under 20 minutes, it is equipped with plasma displays, teleconferencing equipment, and IP phones. It thereby increases situational awareness, helps manage people and resources effectively, and improves the safety of first responders and the public. NERV was successfully deployed in the United States during the devastating California wildfires, and authorities elsewhere in the world are already planning to deploy it to support international sports events.

- Cisco IP Interoperability and Collaboration System (IPICS)

  Enabling numerous previously incompatible technologies to intercommunicate, such as police and emergency radios, Cisco IPICS creates full interoperability between wired and wireless networks. It extends push-to-talk technologies onto IP networks, and turns wireless IP phones into universal voice communication devices.

  It is used in Poland with voice over wireless local area networks and Wi-Fi mesh technology, along the country's borders with Russia, Lithuania, Belarus, and Ukraine, to provide integrated communications for officers across disparate posts, improving responsiveness and enhancing security. At sports events, it can be a key tool both for border surveillance and internal event security.

- Cisco Video Surveillance and Video Surveillance Management

  Cisco video surveillance management capabilities permit diverse existing devices, owned by different organizations, to operate in a fully compatible way. These capabilities enable agencies to share multiple video feeds over IP and provide a complete visual overview of designated security areas at operational headquarters, enhancing the ability to monitor, detect, investigate, and deter trouble. It works with fixed-position cameras, both permanent and temporary, and with mobile video recording devices.

Zurich Police made extensive use of Cisco video surveillance technologies at the Euro 2008 competition. The aim was to provide a temporary, reusable video surveillance solution, covering public viewing areas in the Swiss city. Using Wi-Fi mesh technology, the police were able to mount their cameras on poles to keep control of the event, while acquiring a solution that can be deployed at other big public gatherings.

Conclusion

Pledges of lasting improvement, to sporting opportunity or to public life in general, can be tough to sustain once a mega event is over. Cisco Public Safety and Security solutions help meet the formidable challenges of a mega event by using the network as a platform to transform communications and break down the barriers that separate multiple organizations. The solutions also enable more sustained improvements in the lives of citizens, long after the excitement has died away, by paving the way towards development of Smart+Connected Communities.

Next Steps

To learn more about how Cisco can help you stage a mega event and build a lasting legacy, please follow these links:

- Smart+Connected Communities
- Industry Solutions, Sports and Entertainment
- Safety and Security

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