



## **A Race to the Finish** ADC's Structured Cabling Solutions at the Commonwealth Games

### CASE STUDY

The 19th edition of the Commonwealth Games is scheduled to be held in Delhi, India between 3rd and 14th October 2010. The games will be the largest multi-sport event conducted to date in Delhi and India generally, which has previously hosted the Asian Games in 1951 and 1982. With 10 Venues hosting 17 sporting events the Commonwealth Games is truly going to be a sporting spectacle of immense proportions.

The stadium is a ring shaped architecture with two parallel running networks. The first network being the Games Data Network (GDN) which will handle the applications which include the entire Internet Protocol (IP) network and telephony provisions, advertising screens around the stadium, scoring, attendance, media broadcasting, ticketing systems, stand management.

The second network is a Security Data Network (SDN) which will link IP based cameras for 24x7 complete stadium coverage with the feeds going to the Delhi Police Control Center to ensure maximum safety and security at the games.





### The Challenge

With the background and history of this event and the need to relay all games and events to the entire world, the most critical challenge is to have a high-speed and bandwidth connectivity system that is 24/7 real-time with a reliable network. The CWG management was looking at a 100% uptime and error-free network connectivity solution for all the sports, training venues along with the games village (where thousands of athletes would be residing).

The second challenge was to Design a network that would provide virtually 100% uptime and NO network failure that could hamper the critical real time applications. It also required a convergence of voice, data and video over a robust, reliable and efficient structured cabling backbone. The demand was clear! - When the cabling system work is completed the operators MUST

have a stadium with a 24/7 Real-time, Reliable connectivity system.

The third challenge was to complete the design, installation and testing of the entire solution within a short timeline which included coordinating with the various stake holders involved in this government project. To integrate all these needs and deliver would require an expert network infrastructure provider

### The ADC Solution

ADC won the contract after extensive study, design proposals and a solution mix of Copper & Fibre cable and connectivity products. ADC implemented a network for more than 7000 nodes in the sporting venues: Thyagaraj Sports Complex, Indira Gandhi Sports Complex, Dr. S.P. Mukherjee Swimming Stadium, Talkatora Indoor

CASE STUDY

A reliable and efficient structured cabling backbone.



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Stadium, Major Dhyan Chand National Stadium, Siri Fort Sports Complex and Yamuna Sports Complex.

ADC first conducted a thorough site survey for all the venues and designed a network that would accommodate the bandwidth requirements of the intended applications. For the Games Data Network (GDN), the LAN is networked using Cat6 Cables for connectivity and Fibre for the Backbone cabling. In the Security Data Network (SDN), which has an IP based security camera at every 100m interval, to cover every corner of the stadium, a fibre end to end connectivity solution was implemented.

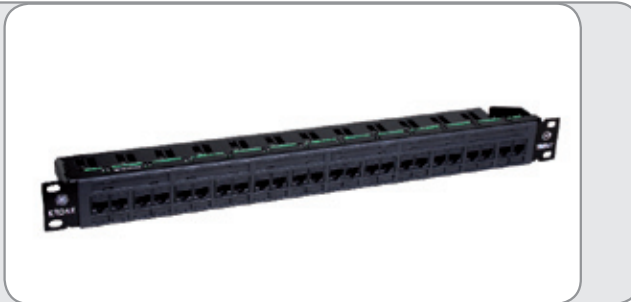
A structured cabling system was designed for these multi-story structures in order to realize ideal connectivity and communication between all the services locations (including advertising screens around the stadium, scoring, attendance, media broadcasting, ticketing systems, stand management). The system installed was Category 6 Copper horizontal cabling and Fibre Connectivity for the backbone cabling.

In all, more than 7000 nodes with over 200km of Fibre Cable and 350 km of Cat6 Copper Cabling has been deployed. ADC's innovative modular jacks (RJ45) are installed at the telecommunication outlets, along with ADC's patch panels and patch cords.



### Conclusion

ADC managed to successfully complete the design, coordination, delivery, installation, integration and testing as per schedule and to the customers' satisfaction. On time delivery and coordinating with various government agencies for completion of the installation was a key achievement. With the cabling installation left until the final stages of the project, the entire installation from conceptual design to final handover was done in 7 weeks.



CASE STUDY



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