



## CASE STUDY Sports Venues

### Aruba provides flexibility, scalability and situational awareness to Tennis Australia

Tennis Australia is the governing body of tennis within Australia, linking to member associations throughout the countries.

The organization promotes and facilitates participation in tennis at all levels, and also conducts national and international tournaments. The most widely recognized of these include the Davis Cup, the Fed Cup, the Australian Open, the Tennis Pro Circuit, and the Australian Open Series.

#### Mission-critical peak usage drives strategy

In 2009, Tennis Australia decided to upgrade its wireless LAN (WLAN) to a single infrastructure that could support a variety of audiences at its offices and event sites:

- Employees
- Visitors at its offices
- Members of the press covering its events
- Players participating in events
- Physiotherapists and other professionals providing services to the players

Each of these groups needed fast, reliable and secure access, particularly during major tournaments. The tournaments created a planning challenge, however, because network traffic during events like the Australian Open can be 100 times higher than during the normal course of business.

“We needed to think seriously about scalability,” said Chris Yates, Chief Information Officer of Tennis Australia. “Wireless is no longer a feature. People now expect it to be ubiquitous. At the last Australian Open, we had more than 1,500 journalists, photographers and producers on site, all of whom needed reliable, time-critical network access to get their jobs done.”

Before Yates joined the organization in 2007, Tennis Australia looked at the requirements for non-tournament and tournament infrastructure separately. Yates changed that approach and implemented a three-pronged strategy.

“Now, our policy is that everything that we put in place has to scale for the Australian Open,” he said. “In addition, every part of our infrastructure needs to be able to be monitored in real-time so that we always know what’s going on and have plenty of warning if problems occur.”

“Finally, we need to consider not just our requirements today at peak usage but also where usage will go in the future,” Yates added. “I never want to be in a position where I have to go to my CEO and say, ‘I didn’t plan for this.’”

#### Changing technology prompts need for wireless

In 2009, a new challenge was emerging: the smartphone.

“The prevalence of smartphones was actually one of the primary reasons that we needed to upgrade the WLAN,” Yates commented. “An iPhone never



**Location** Melbourne, Australia

#### Network Size

- Aruba Mobility Controllers and access points (APs) at the head office and event locations
- Aruba Virtual Branch Network (VBN) at regional offices

#### Wireless LAN Infrastructure

- Three Aruba 3600 Mobility Controllers
- Approximately 40 Aruba AP-105 and AP-125 802.11n APs
- Aruba VBN includes Remote APs (RAPs) and 600 series Mobility Controllers at regional offices
- AirWave Wireless Management Suite



stops asking for permission to join the network, and at our major tournaments this incremental traffic from our fans could have reached a point where it prevented our existing WLAN from functioning.”

“This year the trend is iPads, and next year it will be something else,” he continued. “The bottom line was that we needed to be sure that our new WLAN would make it possible to cope with these kinds of changes over time.”

#### **Aruba offers key advantages**

As Tennis Australia evaluated solutions that would meet its unique requirements, the Aruba Networks WLAN solution brought several key advantages to the table:

- The strength of its Policy Enforcement Firewall (PEF) module, enabling one wireless network to effectively serve all of its user populations by means of identity-based controls.
- The ease of implementing Aruba within existing network infrastructure. “We wanted to be able to use best-of-breed vendors in specific areas, and Aruba really takes a vendor-agnostic approach,” Yates said. “We could see that we wouldn’t have trouble getting our various devices to work together.”
- The real-time monitoring and analysis and historical data provided by the AirWave Wireless Management Suite™.

#### **Time-critical deployment schedule**

Tennis Australia began its Aruba implementation in November 2009 – just two months before the Australian Open – and went live just prior to the event.

“We took an enormous risk embarking on this project so close to our biggest even of the year,” said Yates. “We couldn’t have been successful without the expertise that we got from Aruba’s professional services organization. They made sure that our installation was done right, and they worked side-by-side with my team during the Australian Open. Their dedication and knowledge was second to none.”

The head office utilizes Aruba’s AP-105 access points (APs). Tennis Australia has regional offices located throughout the country, and these are now connected to the head office using the Aruba Virtual Branch Network (VBN).

Each remote office is equipped with inexpensive Remote Access Points (RAPs) or 600 series Mobility Controllers, which provides secure authenticated remote access to Tennis Australia’s data center. Aruba Mobility Controllers in the data center handle all VBN-related configuration, management and security tasks, minimizing the need for IT resources at regional offices and simplifying network installation.

In the media centre, which serves members of the press who cover tournaments, Tennis Australia replaced a legacy Cisco network with Aruba AP-125 802.11n APs and 3600 series Mobility Controllers.

In addition, the regional offices sponsor interstate tennis events that require Internet access similar to, but on a smaller scale than, the Australian Open event. These events move from location to location, so Aruba provided two portable, rapid-deployment WLAN kits to provide court coverage at these sites.

The AirWave Wireless Management Suite serves as a single operations solution for managing service quality and facilitating planning across the network.

#### Extending secure, reliable service

The Aruba solution has made it possible for Yates and his team to easily and securely add Wi-Fi service to new groups of users – visitors to the head office, players, and other staff – without adding any incremental headcount.

“Because we can have one wireless network serving multiple user populations, we realize huge cost savings, minimize hassles for my staff, and provide valuable services to all of our constituents,” Yates said. “The security and reliability of the Aruba network has been very good, even during peak usage.”

#### Situational awareness with AirWave

AirWave has given Yates’ team the situational awareness it needs to manage the network with confidence on tournament days.

“The amount of detail that AirWave provides is far above any other operations solution we have seen,” he said. “With its real-time analysis, we were able to work proactively throughout the tournament.”

During the Australian Open, Yates’ team ran AirWave VisualRF™ on a large plasma screen in the operations center. The heat map view proved to be very valuable in identifying potential problems on the spot. For example, honing in on the media centre, Yates’ team could see hundreds of devices trying to connect to the network.

With the patterns of movement and device details shown in AirWave, they soon recognized that these devices as iPhones belonging to tennis fans that were walking past the media centre entrance. The team was then able to blacklist all iPhones from the WLAN via the Aruba Mobility Controller as an interim solution. After further analysis, they were able to allow the media to use their iPhones without threatening quality of service (QoS) for the network.

#### Historical data drives better planning

Tennis Australia views the historical data provided by AirWave as a critical component of its planning process going forward. According to Yates, “We could look at AirWave data during the Open and know where the highest usage was. Using that data, we have been able to add service in these areas before the next event so that we prevent problems before they occur.”

#### Next server: To the fans

Building on the success of the Aruba solution at the 2010 Australian Open, Yates and his team are looking at ways that they can offer public Wi-Fi service on-site at next year’s event. With his experience at recent tournaments and the data from AirWave, Yates is sure that the demand from fans is there.



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**Chris Yates**  
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