

### Wireless Management System (WMS):

The Wireless Management System (WMS), specifically designed for public library use, has been operational for some time in around 300 NSW metropolitan and country public libraries. This solution is a cloud-based service that offers functionality such as a session management system to control access and comprehensive reporting facilities. These features can be turned on or off to suit the library's needs.

#### How does it work?

We setup a Wireless Access Point (small wireless radio device) in the vicinity of where the public users will be able to sit at a desk with their laptops and mobile devices. This Wireless Access Point is connected back into the hotspot controller, library's firewall and the Internet Service.

The user simply connects to the library wireless network, and then login via the landing page.

There are three ways that we can setup the user logins (one or more can be used per site):

- Open Hotspot (user just accepts Usage Policy)
- Ticketed Hotspot (for restricted or customised access)
- Authentication with Library Management System (for offering premium service)

With an Open Hotspot, a user would only have to agree to the library's Internet Usage Policy in order to complete the login process. The advantages of this login method is that it is simple and straight forward.

With the Ticketed and LMS integrated Hotspots, a user will require a ticket containing a username and password or a Library member ID to access the Internet.

Tickets can be obtained from the library staff and will have an expiry date. Once the time period expires the ticket becomes obsolete and cannot be used again. Issuance of a ticket can be limited to users that have read and agreed to your Internet usage policy.

Browsing time, download quota and bandwidth limits can be specified for each login setup to prevent abuse of the hotspot service.

#### Other features of the WMS service:

- Bandwidth Management: capability to control how much of the available Internet service will be used by the public access PCs compared to the wireless PCs. This limits the impact of the Wireless hotspot on the current public network.
  - Bandwidth throttling on a per user basis, so one wireless hotspot user cannot use all the bandwidth from other wireless users.
  - We can also throttle the amount of bandwidth that is provided to users who are browsing multimedia sites e.g. YouTube. This will provide more bandwidth to users who are trying to use the facility for less bandwidth intensive research.
- Monthly Reporting on the amount of tickets created, printed, Internet Usage, Bandwidth by Device, Top Web Sites, and Top services
- On demand reporting of hotspot bandwidth, tickets generated, tickets used, number of devices using the hotspot, number of tickets used per device, top downloaders by ticket, top downloaders by device.