Wireless Statistics
Recommendations
for Public Libraries

presented by
The Library Network

Tuesday, October 15
10am

Farmington Hills Community Library
32737 W. 12 Mile Rd.
Farmington Hills, MI
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http://www.farmlib.org/
Sub-Committee Purpose:
- Identify Vendors and Technologies for Wireless Service that provide adequate statistical reporting
- Identify the recommended level of statistics reporting for the State of Michigan Aid report
- Form Best Practices for Wireless Statistics collection and reporting
To accomplish these goals, the sub-committee...

• Spoke with the State of Michigan to clarify their expectations of what should be reported
• Arranged demonstrations with multiple local vendors
• Compared competing vendor solutions
• Researched solution for pre-existing wireless solutions, both vendor and open source
• Determined the best price/best service solution for vendor, by choosing two vendors
STATE AID REPORT – WIRELESS USAGE STATISTICS;
Section X: Library Services, Question 19

19. Uses of Wireless Logins per Year
Report the total number of wireless logins in the library during the last year. If the data element is collected as a weekly figure, multiple that figure by 50 to annualize it.

Issue: No methodology or minimum requirements are provided to guide libraries as to HOW to gather these statistics.
Best Practices for Wireless Statistics

1. Present a splash screen with your wireless and/or Internet usage guideline(s).
   1. The splash screen exists both to inform and to count. Patrons will be required to accept the page before accessing the wireless network.
   2. Systems without a splash screen will have issues with accurate counting.
      a. Can cause system to count “passerbys” who never use the system.

2. Ensure that your wireless solution allows creation of at least 1 public SSID, and 1 secured staff SSID.
   1. SSID is defined as Service Set Identifier, or the name provided to a wireless network.
   2. The State of Michigan does not differentiate between Staff or Public usage. They want to know how often your wireless connection is used.
Best Practices for Wireless Statistics (cont)

3. Set any system to count by “unique user”.
   1. Unique Users are defined by MAC address.
   2. Counting by (Internet Protocol) IP addresses issued will result in skewed results (higher or lower, depending on use/abuse).

4. Set counting mechanisms for your chosen system to store login information for 12 hrs minimum and 24 hrs maximum.
   1. Increasing this to shorter time intervals (example: 2 hrs) will result in an inflated usage count.
   2. Many products default to 24 hours.

5. Ensure that the main Internet connection has a static IP address or use a Dynamic DNS service. Otherwise, it can be very difficult or impossible to get accurate usage statistics.
Wireless Statistics Recommendations for Public Libraries

RECOMMENDED WIRELESS SERVICE AND VENDORS
• Cisco Meraki
  • NuWave Technologies - http://www.nuwavepartners.com/
• Aerohive
  • InterWorks - http://www.iworkstech.com/aerohive.html

RECOMMENDED FOR PRE-EXISTING WIRELESS SYSTEMS
• pfSense – http://www.pfsense.org
• Google Analytics and m0n0wall
  • http://www.mono.ch
  • http://www.google.com/analytics
Wireless Statistics Recommendations for Public Libraries

ABOUT

• Cloud based Wireless – All services are managed from a single web-based portal (http://dashboard.meraki.com)
• Statistics are set to 24 hour lease by default
• High level of security, traffic control and filtering
• High level of statistical reports
• Includes “System Manager” to help manage your network
• Currently used at Northville and Salem-South Lyon
Demo

• Demo on your own:
  https://meraki.cisco.com/form/demo

• Primary interface for Meraki:
  http://dashboard.meraki.com

• 3 ways to try for Free:
  http://meraki.cisco.com/lp/free-demo
Nuwave has offices in Lansing, Southfield, Grand Rapids and Kalamazoo with support regions covering the entire State of Michigan.

NuWave pricing is available as HANDOUT with this meeting, or contact Angie Michelini (TLN) via email (amichelini@tln.lib.mi.us) or by phone at (248) 536-3100 ext. 144. Please note your interest in Cisco Meraki Pricing with any email inquiry.
Nuwave Webinar
“Cisco Meraki & Your Library”

Thursday, October 31, 2013 from 2:00PM to 3:00PM EDT

Complete Webinar info will be sent to TLN distribution lists, the TLN Calendar of Events, or contact Angie Michelini or Michael McEvoy for webinar info.

Meeting Number: 200 264 476
Meeting Password: Meraki
https://cisco.webex.com/cisco/j.php?J=200264476&PW=NNmJiOTlkYmMy
Wireless Statistics Recommendations for Public Libraries

About

- Cloud based Wireless
- Statistics are set to 12 hour lease by default
- High level of security, traffic control and filtering
- High level of statistical reports
- 100% cloud based using HiveManager
- TLN has tested and used Aerohive
- Currently used at all Livonia Public Libraries
Demo

• Demo Information:
  http://aerohive.com/resources?tab=solution-briefs

• 2 Minute Video:
  http://aerohive.com/sites/default/files/Aerohive_Overview_2-ME/Aerohive_Overview_2ME.html
InterWorks is located in Rochester, MI.

InterWorks pricing is available as HANDOUT with this meeting, or contact Angie Michelini (TLN) via email (amichelini@tln.lib.mi.us) or by phone at (248) 536-3100 ext. 144. Please note your interest in Aerohive Pricing with any email inquiry.
Aerohive Webinar
"The Library Network and Aerohive Networks Wi-Fi"

Wednesday, October 30, 2013 from 10:00 AM - 11:00 AM EDT

Complete Webinar info will be sent to TLN distribution lists, the TLN Calendar of Events, or contact Angie Michelini or Michael McEvoy for webinar info.

Aerohive Webinar: At the time listed above, click this link to join the Webinar: https://www1.gotomeeting.com/pjoin/813748025/105962631
This link should not be shared with others; it is unique to you.
Webinar ID: 813-748-025
Wireless Statistics Recommendations for Public Libraries

• pfSense is a free and powerful solution for those with an existing wireless system that does not provide adequate statistic or security settings.
• pfSense is a distribution of FreeBSD that has been tailored for use as a firewall/router. It offers many features that would be useful for public wifi.
• Any PC built within the last 5 years should be more than adequate
• Most any access point can be used with pfSense.
• Provides Captive Portal, Firewall services, traffic graphs, a web interface, and extensive stat collection features.
• Refer to documentation for the technical specifics.
• This is a free solution for those who have existing wireless that does not provide statistics gathering. Examples are: Cisco Aironet, Linksys or home style wireless routers

• Directs all wireless browsing to a splash page or policy acceptance page using a m0n0wall hardware appliance

• Upon clicking Accept, the user gets sent to a zero second redirect page which places them on the library’s home page

• Google Analytics code tracks user connections to the zero second redirect page and a report can be created to gather this connection information

• Contact Mike Vela (mvela@tln.lib.mi.us) for documentation and questions
Wireless Statistics Recommendations for Public Libraries

Copies of all documents related to this presentation can be found at:

http://tln.lib.mi.us/dept/technology-services/wifi/
Wireless Statistics Recommendations for Public Libraries

Any Questions?
Wireless Statistics Recommendations for Public Libraries

The Sub-Committee on Wireless Statistics includes:
Eric Hayes (Royal Oak), Garrett Hungerford (Salem-South Lyon), Michael McEvoy (Northville), Angie Michelini (TLN), Carl Swanberg (Canton), and Mike Vela (TLN).

Thank you for your time today!