

MINet WIRELESS



City of Martinsville

Telecommunications Department

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Wi-Fi Background



- Invented in 1991 by NCR Corp. / AT&T (later Lucent Technologies)
- Does not mean anything
 - Suggested “Wireless Fidelity”
- Standard interoperability 802.11
 - 802.11 a, b, g, n
 - A standard or protocol that allows different wireless devices to talk to each other
 - Basically “Radio Frequency or Technology”

Who Connects?



- PC
- Personal
- Business (VPN)
- Private Access
- Mobile Phone
- MP3 Player
- PDA
- Game Console



Type of Network



- CISCO Solution
- Mesh Network 802.11
- General Public use
 - Wireless 2400-2483.5 MHz, Omni Ant. w/N Connect
- Police, Fire, Rescue (government) Channel
 - Wireless 4900-5850 MHz, Omni Ant. w/N Connect

How it Works



- CISCO AEROnet 1522 Wireless Mesh Technology
- MAIN PROCESSING UNIT OR CONTROLLER
 - Controls all aspects of the WLAN
- HOT SPOT
 - One or a series of Access Points
 - Hanging on Traffic Signal Poles UpTown
 - Comprise an area as small as a single room or an area as large as many square miles

How it Works



■ LIMITS

- Each computer has a unique MAC Address or Code with its wireless device – Track Usage
- Current limits are 3 hours per day. (Can and may be adjusted after evaluation)
- Limiting ensures that people or Companies do not use it as their main ISP

Specifics



- LAUNCH DATE: Phase 1
 - October 5, 2009
- COVERAGE-
 - Moss & Church to Church & Ellsworth
 - Moss & Main to Main & Lester
 - Slight Building Penetration – No Guarantee
 - Interior buildings accessible at an additional charge
 - Positioned for complete coverage in UpTown area

STATISTICS



- SNAPSHOTWIRELESS1.xlsx
- October 7, 2009 96 logins
 - 8 Duplicates
- 15 weekday logins since October 5th
 - 1,231 People logged in to the network
 - 3% +/- were duplicate daily logins
 - Average weekday usage ... 33hrs per day
- Average weekend usage ... 12.6 hrs per day

STATISTICS



- SNAPSHOTWIRELESS1.xlsx
- May 3, 2010 136 logins
 - 12 Duplicates
- Week of April 1st
 - 1,922 People logged in to the network
 - 4% +/- were duplicate daily logins
 - Average weekday usage ... 46 hrs per day
- Average weekend usage ... 11.6 hrs per day

ACCESS POINT USAGE

■ Church and Moss	57%
■ Jefferson Plaza	22%
■ Church and Broad	9%
■ New College Institute	7%
■ Church and Bridge	4%
■ SunTrust	1%
■ Main and Lester	0%

ACCESS POINT USAGE

■ Church and Moss	48%
■ Jefferson Plaza	16%
■ Church and Broad	9%
■ New College Institute	12%
■ Church and Bridge	7%
■ SunTrust	6%
■ Main and Lester	2%

Phase II & Beyond



- DEVELOP HOTSPOTS POCKETS
- DEFINE KEY AREAS WITH NETWORK NODES
 - Patrick Henry community college
 - Martinsville High School
 - Hooker Field
 - Martinsville Middle School
 - Blue Ridge Regional Library
 - All Schools
 - Commonwealth Center
 - Beaver Creek Industrial Park
 - DuPont Facility

Not on Network



- Piedmont Arts
- Virginia Museum of Natural History
- YMCA
- Commonwealth Corridor
- National Business College

Log-on Demo



- HOW IT WORKS
- Simply log on to MINet Wireless
- Pull up Internet
- (MINet Home Page comes up)
- Accept a Disclaimer
- Browse the Internet

