Wi-Fi in Blacksburg

VIG Wi-Fi Forum

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Technology@Blacksburg.gov

Overview

- How we use Wi-Fi
- Challenges
- Advantages
- Future
- Lessons learned
- Questions

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How Blacksburg uses Wi-Fi

- Network Backbone
- In building networking
- Hot spots
- Ad hoc networking
- Staff – meetings and @ home
- Computer purchases
- Webcam
- Traffic Signals
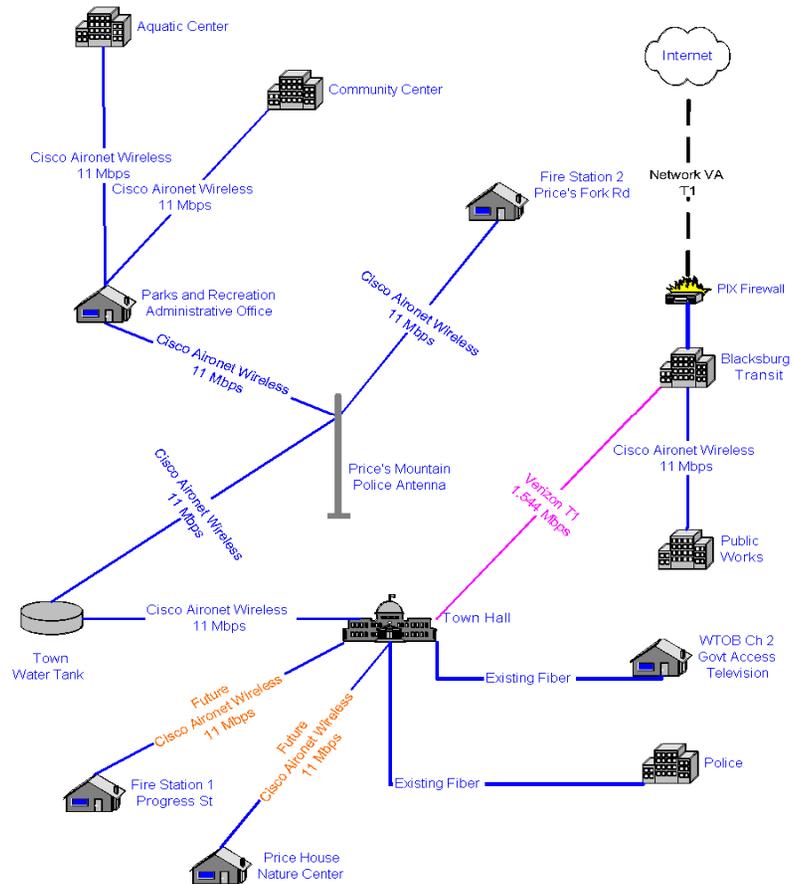
How Blacksburg uses Wi-Fi

Network Backbone

- Connect 8 locations

- Approx 75 users

- Installed for $50,000

- ROI – less than 2 years

- In use since 2001

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How Blacksburg uses Wi-Fi

Town of Blacksburg
Wide Area Network
August 2001

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How Blacksburg uses Wi-Fi

How Blacksburg uses Wi-Fi

In Building Networks

- Wi-Fi covers all of Town Hall
- Great for Technology staff
- Meeting rooms

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How Blacksburg uses Wi-Fi

Pilot Project –

Hot Spots for Police, Fire, Rescue

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How Blacksburg uses Wi-Fi

- Ad Hoc networking
  - Training room, conference rooms
- Staff and elected officials
  - Meetings and at home
- Technology Staff
  - Become familiar with the technology
- Computer Purchases
  - Laptops, PDA's

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How Blacksburg uses Wi-Fi

Webcam

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How Blacksburg uses Wi-Fi

Traffic Signal – 900 MHz

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Challenges of Wi-Fi

- Line of sight?

- Security

- Remote locations

- Can be complex

- Proprietary nature of vendors
  - Clients, equipment

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Advantages of Wi-Fi

- Significant cost savings
  - Reduce recurring costs
- Increased bandwidth
- <u>VERY</u> reliable

Future of Wi-Fi in Blacksburg

- Expand network backbone

- Expand hot spots

- Upgrade to other Wireless technologies
  - 802.11a, LMDS

- MDT or equivalent for town vehicles

- PDA's for inspectors, code enforcement

- More traffic signals

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Lessons Learned

- Standardize

- Design using open standards
  - COTS – Common off the shelf stuff

- Be creative

- Be aware of the risks

Questions?

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