How Safe is Your Router?

Logan Herodes

Necessary Evil

- Allow large numbers of people to connect to the internet
- Allow devices to connect without being stationary
- Configurable depending on desires

Ubiquitous

- "Free WIFI" used as marketing tool
- Nearly every home has a router
- Most business and school campuses use routers to connect stakeholders

It's not all good though...

Dangers

- Commonly plagued with bad code and credentials
- Companies tend not to patch vulnerabilities
- Exposed device; anyone walking in range can see a network
- Uninformed users

83%

Of routers were found to be vulnerable by American Consumer Institute Center for Citizen Research (darkreading.com)

Firmware Issues

Firmware issues have caused hackable, exploitable routers in the past.

Default Credentials

Users do not know to change administrative username and password during setup.

What can we do?

Seek Out and Install Patches

- Keep up-to-date with vulnerabilities for your specific router
- Install any available updates
- If there are no patches, GET A NEW ROUTER

Use Encryption and Strong Passwords

- Ensure that a network coming from a router is encrypted
- Ensure that the password needed to access the network is complicated
- Ensure that admin username and password are not the factory default

Monitor Traffic

- Check IP addresses of known devices on network
- Check IP addresses accessing the network
- If there are differences between the two, someone may be on your network without permission.

Don't Use a Router

- Wherever possible, use a wired connection
- Never use someone else's open network

It's Not All Bad...

Routers aren't going away.

Make sure yours doesn't harm you.

Sources

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