

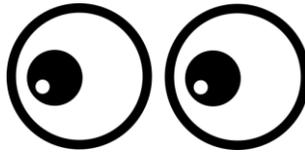
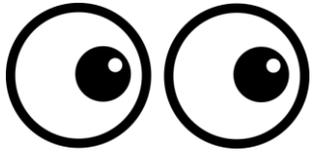
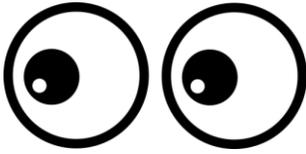
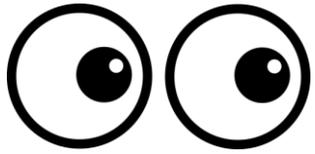
Online Privacy Concepts and Tools

Rob Caluori

Director of IT, Westchester Library System

Prepared for WLS Board Meeting:

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Risks

Tools

Action



- The “Cloud”
 - There is no magical cloud
 - The cloud is made up of servers you just can’t see or touch
- Plain-text information (data) exchange
 - Via websites
 - Via one-to-one communications (email, SMS)
 - Via media (USB flash drives, CDs, etc)
- Search and browsing history and patterns
- Shared / generic passwords
- Malware / Ransomware / Spyware

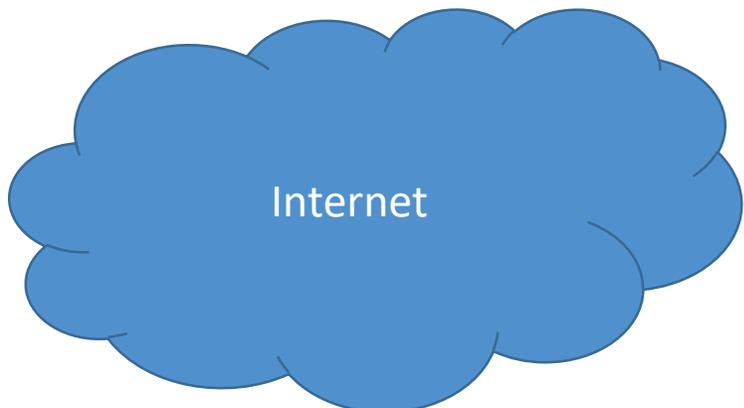
Risks

Action

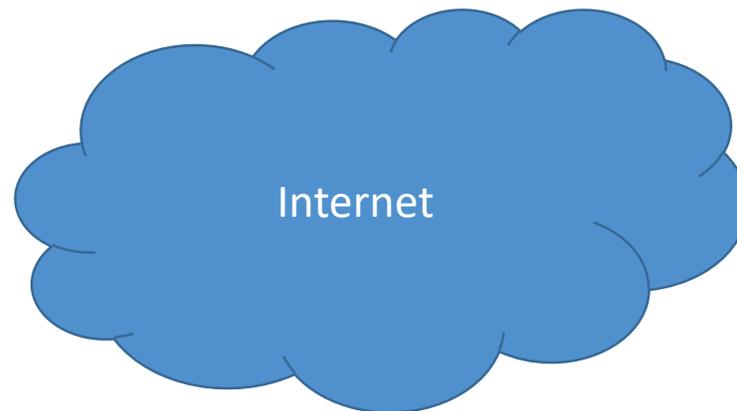
Tools



- Private Cloud vs Public Cloud



Public Cloud



Private Cloud

Risks

Action

Tools



- Securing Plain Text Information

- Web Traffic – TOR Browser

- TOR – The Onion Router

- Provides privacy by hopping traffic through anonymous proxies.
- Three proxy system, an Entrance Relay, Middle Relay and an Exit Relay
- All traffic (including the URLs and headers) is encrypted except the final exit

Risks

Action

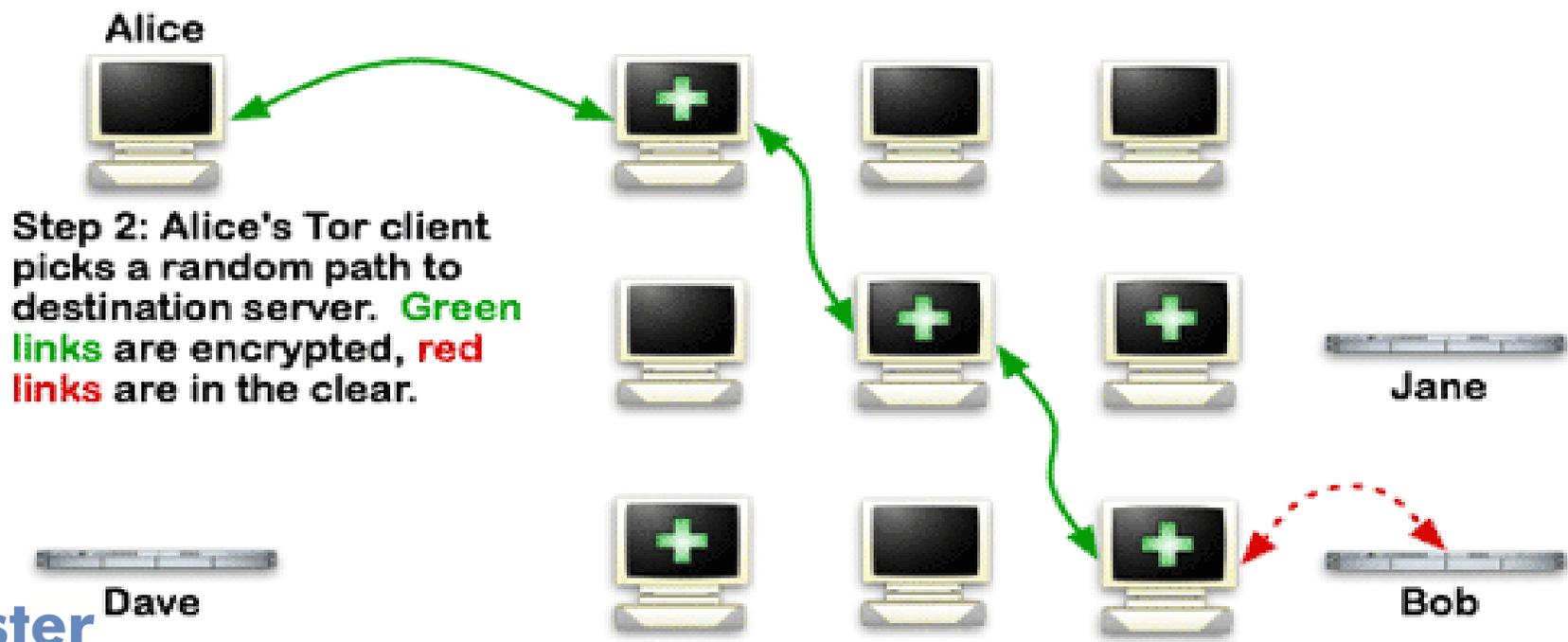
Tools



How Tor Works: 2

Legend:

-  Tor node
-  unencrypted link
-  encrypted link



Risks

Action

Tools



- Securing Plain Text Information
 - Files and Emails – GPG / PGP
 - GPG (GNU Privacy Guard) / PGP (Pretty Good Privacy)
 - Public key locks the data, Private key unlocks it
 - Encrypt file for transport over the Internet or on media
 - Encrypt text of an email
 - Remember subjects are still in plain text

Personal
Information

Locked with
Public Key

EY^S9u%^7
dwjwdnH7
wxw-dw98e

Unlocked with
Private Key

Personal
Information

Risks

Action

Tools



- Shared / generic passwords
 - Single / Same Sign-on (SSO) systems help reduce usernames and passwords
 - Password sharing tools to control access to a shared password (LastPass)
- Search and browsing history and patterns
 - Privacy-friendly search engines (DuckDuckGo, Disconnect Search, StartPage)
 - Privacy / Incognito mode – use with caution
- Malware / Ransomware / Spyware
 - Malware - Malwarebytes
 - Ransomware - System snapshots / Backups – Make your PC disposable
 - Anti-virus – Keep it up to date!



Risks

Action

Tools

- Providing tools to patrons
 - Choice of browsers including TOR Browser
 - Kleopatra / GPA
 - Default search engine to Disconnect, DuckDuckGo, StartPage
- Providing training on privacy tools / digital literacy to library staff
- Supporting TOR – Setting up a “significant” relay
- Securing PCs to protect resources
- Implementing SSO whenever possible