Highlands Regional Library Cooperative
66 Ford Road, Suite 124
Denville, NJ 07834
TEL: 973-664-1776 or 800-NET-HRLC *(Members Only)*
FAX: 973-664-1780
www.hrlc.org

Amy Kearns' notes from Computer Security and Technology Planning Workshop
Bill & Melinda Gates Foundation / NJ State Library / New Jersey State Council on the Arts
December 2, 2005, Madison Hotel

Maintaining a secure computing environment for our customers and staff is a continually challenging goal, as is planning for current and future technology needs. The role of firewalls, wireless security considerations, protection from spam/spyware/adware/viruses, securing a PC and planning for technology will be highlighted at two free workshops in December. Join us on either December 2 at the Madison Hotel in Morristown NJ or December 6 at the Sheraton Eatontown in Eatontown NJ to hear Omar Wasow, founder of BlackPlanet.com; NPowerNY, a consulting organization specializing in technology assistance for non-profits; and the staff of the New Jersey State Library's IT Department for an informative day. Both days will begin with a continental breakfast at 9; the program will begin at 9:30 and conclude at 4 pm; lunch is included. Staff who are responsible for maintaining computers at NJ public libraries or arts oganizations are invited. This program is brought to the library and arts communities without cost due to support from the Gates Foundation Staying Connected grant and a grant from the New Jersey State Council on the Arts.

Keynote Speaker: Mr. Omar Wasow, "Today's Technologies"
Omar started blackplanet.com

Goals for Public Access Computers

Availability – Enough machines working and the needed applications are available
Integrity – Patrons' disks and files safe
Privacy – Activity is protected
Access – Reliable and fast connection and licensed content shared appropriately
(NYT Nov. 20th Ideas and Trends)

Privacy vs. Convenience, i.e., Amazon tracking (the security side vs. the convenience side)

Multiple Points of Vulnerability

Polices & Procedures (risk assessment)
Staff Training
Users - accidental/malicious
Workstations - holes in operation systems/applications
Servers – compromised from outside
Network – flooded, clogged, misused

Attacks

Probes/Scans (access)
Account Compromise (passwords)
Packet Sniffing (wifi)
Denial of Service (flooding)
Malicious Code (virus, spyware, etc.)
Spoofing ("trusted" looking)

Risk Assessment

ID threats and points of weakness, value of assets/costs (databases, software/hardware)

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Security Policy

Organize Security Team
Cover: Objective
Scope
Responsibilities
Physical Security
Network Security
Software Security
Disaster Plan
Acceptable Use Plan
Security Awareness
Compliance

Staff Security

Broad training and grounding for all staff
Staff participates in creation/understanding policies
Remind staff regularly
Cultivate vigilance

User Access Control

Staff/Patrons differentiate
Limit access to (?) databases
Rationing/Timing Access via registration system
How?
ID (who you are)
Authentication (you are who you say you are)
Authorization (what privileges given)

UPOC – Universal Point Of Contact

For mobile devices (phones, blackberry) create electronic mailing lists
(NY Celeb Sightings List was his example – he gets on his blackberry)

Workstation Security

BIOS – keyboard, input/output, hard drive, the "core" brain the screen, mouse, etc.
Basic input/out system
Secure operating system is vital!
Patches
Desktop Security Software
Personal Firewalls
All software has bugs! Some pose risks
Hardware/Hard drive……not IF it will fail, but WHEN
Fallback software = clean slate!
Cookies/preferences = cleanup individuals program preferences
Timers
Lockdowns – no updates to software, etc. / software on network for updates, patches, etc.

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Server Security

Keep in LOCKED CAGE!
Review server logs (log file monitor)
Make regular backups
Implement fault tolerance (kick-in "real time" backups – redundant is cheap enough)
Install Intrusion Detection Host Auditing Software
Detects file or directory modifications or detect intrusions (Infopeople.org)
Firewall – moat between to protect inner network from outsiders and out network from internal attacks

Remote Access
Wire/Wireless
Adaptive Technologies – i.e., visual impairments – special needs and disabilities
Technology is not a threat to libraries!
Security is necessary but not sufficient!
Library as public utility – availability of uptime!
Simple but detailed things need to be done, like flossing, for security.
Library as "Temple of Thought," living/active thoughts, a "public park" for your brain!

Websites:

Library Technology http://www.librarytechnology.org
Discussion for Library-based www managers http://lists.webjunction.org/web4lib
Public Library Technology Metrics and Standards
http://www.cde.state.co.us/cdelib/technology/techstan.htm
Library Computer and Network Security
http://www.infopeople.org/resources/security
Marshall Breeding's Site
http://staffweb.library.vanderbilt.edu/breeding
Thirty or So Things to Help You Manage Your PC
http://library.rider.edu/scholarly/ecorrado/emanj

Secure a PC

SSID:	Service Set ID – aka name
WEP:	Wired Equivalency Protocol – bad encryption –WPA preferred
WPA:	Wifi Protected Access – good encryption
Wifi:	Wireless trademark (certification)
Wireless:	Same as above, used interchangeably
802.11b/g/a:	Wifi technology, b/g most common
AP:	Wireless Access Point
NIC:	Wirless Network Card
Wardriver:	Freeloaders
Hackers:	"Bad guys"

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Wireless Networking

Flourescent lights, microwaves, cell phones – interfere with wireless

Wireless Network
access points - # of users – amount of broadband width – switches
allocation of bandwidth, configuration of software/hardware

Needs of Organization – what service you're going to provide staff/customers

Firewall? Limit types/sizes of traffic

Access Control – Blue Socket – access control

Infolink

CONSIDER: demand amount of users

Wired Ethernet

802.11b	7 mbps
802.11g	24 mbps

IP addresses go to web page to administer

Proxy Server – web caching

Staff Training – someone to help people

Network Vulnerability – hard drives

Disable file/print sharing

Change default passwords on routers / name of network / disable when not using CERT

MS Best Practices for Wireless

SSID – change it! and don't broadcast it!

Liability – telnet – secure shell SSH encrypted – Putty = an SSH Client Shareware needs a stumbler utility

DLINK = Default setup SSID shipped w/ that name

WPA-PSK Choose and use 20 random pass phrase

Turn off settings to auto-connect

HOTSPOTS USE NO SECURITY!!!!! No encryption, clearly sent out information

NPOWERNY site

Theresa Stroisch
Sr. Mngr., Consulting and Training
NpowerNY - a consulting organization specializing in technology assistance for non-profits

500 members
Find the Right Technology

Sustaining Your Technology
- planning
- budgeting
- training

Who has a TECH line item in their budget?!
- training/skills?
- computers?
- prof. dev.?

Technology Grants – rare, but program grants aren't – build in your TECH needs: I need X tech and X staff and X traning, sometimes a one time hit of money and then you can't maintain it! Upgrade it, etc.! (Capital $ budget)
A computer is different from a purchase of a desk,etc., what is a capital purchase? Value over time!?

TECH SOUP!!!

Budget lines – state aid reports

"Behind the scenes" tech things to get funded for

TECH BARRIERS
Technologists
Knowledge – informed decisions, "I don't know what I don't know," so much tech, how do I choose!?

Vendors – not friends!?
Consultants – friends!!

Strong Foundation!
Before “add-on’s” and/or skip a step or two
Pick your head up and find out what’s out there!

RFID – self-checkouts, etc - VOIP
Nano Tech
Wireless
Electronic document storage, etc.
Digitize newspapers – searchable PDFs on network
Ind. libraries don’t talk to consortia! How is the tech going to work together!??!?!?

PRIORITIES/TECH NEEDS!

Who needs to talk together about the tech!?

Take a HOLISTIC view – not piece-by-piece – how does it fit into my big picture!? Articulate to vendor and YOU SHOW ME!!!

Where is your organization going and what is your org about!?

It’s YOUR technology! Don’t just hand it over! GET SOME IDEA!!!

Needs of community and mission – who addresses it!?
Manage staff who is ‘techy’
Take care of efficiently – a process in place even at least for basics (windows updates, virus software, etc.)

FUNDS – how much? how/where do I get? how do I ask?

What is appropriate/right tech for YOUR ORG!?

risk-takers vs. money-holders

autonomy vs. non-autonomy