Chapter 28

Operational Procedures

Episode: **Documents You Need to Know**

Objective(s):

Core 2: 2.6 Given a scenario, configure a workstation to meet best practices for security.

Core 2: 4.1 Given a scenario, implement best practices associated with documentation and support systems information management.

Episode Description

Good techs must be comfortable with the common documentation used by IT departments everywhere. From hardware inventory to network diagrams to the many policies used in our industry, techs should know when and how documentation comes into play.
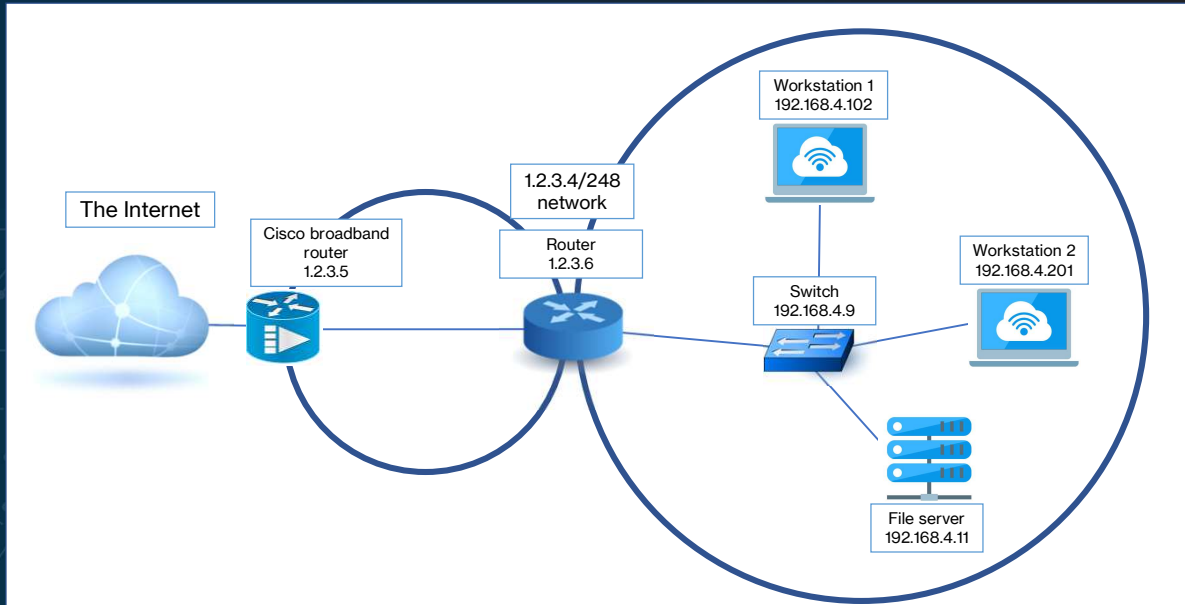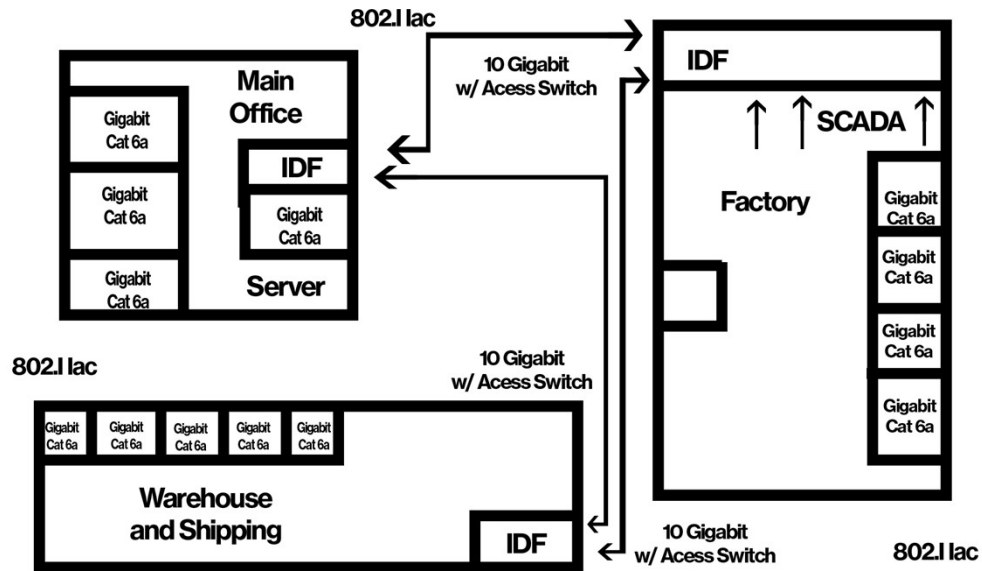
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Key Terms

- 0:33 - Objective term - Network topology diagrams
- 1:15 - Logical diagram
- 1:35 - Physical diagram
- 3:02 - Microsoft Knowledge Base
- 4:07 - Regulatory and compliance policy
- 4:27 - Laws
- 4:37 - Industry standards
- 4:39 - Best practices
- 5:05 - Traditions
- 5:18 - Common sense
- 5:57 - Objective term - Policies or standard operating procedures (SOPs)
- 6:06 - Objective term - Acceptable use policy (AUP)
- 6:46 - Objective term - Password policy
- 7:39 - Objective term - Inventory management (includes inventory lists, database of items, procurement life cycle, warranty information, and assigned users)
- 8:08 - Objective term - Asset tags

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Logical Diagram

The Internet

Cisco broadband router
1.2.3.5

1.2.3.4/248 network

Router
1.2.3.6

Workstation 1
192.168.4.102

Switch
192.168.4.9

Workstation 2
192.168.4.201

File server
192.168.4.11

Physical Diagram

Quick Review

- Document network assets through logical and physical diagrams
- Access good online sources for information, such as the Microsoft Knowledge Base
- Organizations follow rules for regulatory compliance
- Inventory management includes tagging, logging, and tracking assets in a database

Episode: **Data You Need To Know**

Objective(s): Core 2: 4.6 Explain the importance of prohibited content/activity and privacy, licensing, and policy concepts.

Episode Description

Data is everywhere in our networks. Good techs understand the types of data used on networks and how to handle that data from a business, legal, and moral standpoint. By organizing our data, it also helps to understand the types of protections used to keep them safe.

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Key Terms

- 0:48 - Objective term - Personally identifiable information (PII)
- 1:27 - Objective term - Protected health information (PHI)
- 1:58 - Objective term - EU General Data Protection Regulation (GDPR)
- 2:37 - Objective term - Payment Card Industry Data Security Standard (PCI-DSS)

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Quick Review

- Protect personally identifiable information (PII) such as social security numbers, address, and so on
- Strict laws govern what organizations can do with protected health information (PHI), like medical records
- The EU General Data Protection Regulation (GDPR)
- in the EU specifies how and what data online organizations can get from visitors
- The payment card industry follows the Payment Card Industry Data Security Standard (PCI-DSS) to ensure security of financial interactions

Episode: **Change Management**

Objective(s): Core 2: 4.2 Explain basic change management best practices.

Episode Description

Everything in IT seems to change constantly, but poorly-planned changes can be a real disaster in large enterprises. Change management is the process and organization of enacting change in an organization to ensure a smooth, safe, productive, cost-saving transition.

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Key Terms

- 0:53 - Objective term - Change management
- 1:29 - Objective term - Change board
- 1:56 - Objective term - Document business practice (and submit request form)
- 2:32 - Objective term - Purpose of the change
- 2:31 - Objective term - Scope of the change (including responsible staff member, date, time, details, etc.)

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Key Terms

- 2:48 - Objective term - Risk analysis of affected systems/resources (including the level of risk involved)
- 3:16 - Plan for change
- 3:45 - Objective term - End-user acceptance
- 4:34 - Objective term - Backout/rollback plan
- 5:07 - Document changes
- 5:25 - Lessons learned

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Quick Review

- Change management follows clear steps, from the getting approval from the change board to enacting changes to documenting everything
- It is important to note the purpose and scope of the change, including who is responsible for each step along the way
- A risk analysis is critical to assess potentially impacted systems and resources

Episode: **The Zen of Backup**

Objective(s):   Core 1: 4.1 Summarize cloud-computing concepts.
Core 2: 1.9 Given a scenario, perform OS installations and upgrades in a diverse OS environment.
Core 2: 4.3 Given a scenario, implement workstation backup and recovery methods.

Episode Description

Back up your data before you lose it! Create local backups, image backups, and file backups. Use Cloud storage for even more security.

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Key Terms

- 0:45 - Disaster recovery
- 1:11 - Objective term - Backup and recovery
- 2:19 - File-level backup
- 4:17 - Image-level backup
- 4:53 - Objective term - File-level backup enables backing up files and user preferences
- 7:31 - Objective term - Backup testing
- 7:44 - Objective term - Cloud storage
- 9:02 - Account recovery options

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Quick Review

- Disaster recovery starts and ends with restorable backups
- File-level backups provide good protection for data
- Image-level backups enable full system recovery quickly
- Backing desktop data up to the Cloud is a generally secure backup option

Episode: **Recycling and Data Destruction**

Objective(s): Core 2: 2.8 Given a scenario, use common data destruction and disposal methods.

Core 2: 4.5 Summarize environmental impacts and local environmental controls.

Episode Description

Disposing of old computer gear means using environmentally-friendly methods and wiping all of your data from any storage devices. Batteries in computers need to go to special recycling centers. Data wiping methods take many forms, from resetting to factory defaults to physically destroying the storage media.

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Key Terms

- 0:51 - Objective term - Proper battery disposal
- 1:15 - Objective term - Proper disposal/recycling of toner cartridges
- 1:24 - Objective term - CRT monitor disposal/recycling
- 1:27 - Objective term - Disposal/recycling of cell phones and tablets

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Key Terms

- 2:35 - Objective term - Low-level format
- 3:16 - Objective term - Standard format
- 3:37 - Objective term - Drive wipe/erase/overwrite
- 4:53 - Objective term - Degaussing machine
- 5:15 - Objective term - Shredding

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Key Terms

- 5:21 - Objective term - Crushing/drilling/ punch down
- 5:26 - Objective term - Incineration
- 5:40 - Objective term - Third-party vendors/organizations that destroy data
- 5:56 - Objective term - Certificate of Destruction

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Quick Review

- Take old computing parts, like toner cartridges and monitors, to recycling centers
- Do a factory reset on all smartphones and tablets before reselling or donating
- Run drive-wiping software or physically destroy all mass media drives when disposing of them

Episode: **Ticketing Systems**

Objective(s):
Core 1: 5.2 Given a scenario, troubleshoot problems related to motherboards, RAM, CPU, and power.

Core 2: 4.1 Given a scenario, implement best practices associated with documentation and support systems information management.

Episode Description

As a tech, you will almost certainly be dealing with tickets. Customers or employees run into technical issues all the time and it's important to prioritize and address the problems and solve them in a timely manner. This is where ticketing software comes in. Learn all about tickets and how to solve them and you'll be the office IT hero.

Key Terms

- 0:08 - Objective term - Ticketing systems
- 0:23 - osTicket (https://osticket.com/)
- 2:07 - Objective term - Clear, concise, written communication (with problem description, progress notes, and resolution)
- 2:38 - Objective term - Priority/category/ severity level

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Key Terms

- 3:57 - Objective term - Grinding noise from hard drive
- 4:32 - Objective term - Escalation
- 6:11 - Objective term - Tickets need to include user and device information

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Free Ticketing Software

- osTicket
  - https://osticket.com/

Quick Review

- Ticketing systems enable you to track and manage many help desk related tasks
- Tickets can be divided into specific categories for easier sorting
- Always use clear, concise language when filling out a ticket, and don't be afraid to escalate it to someone more adept if needed