A+ Core 1

Exam 220-1201

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Module 1

What Does an IT Specialist Do?

Learning Outcomes

Prepare for A+ Certification by:

- Describing what an IT specialist is and their responsibilities

- Describing the skills an IT specialist needs

- Describing the role of certifications for an IT specialist

Lesson 1.1

The Hero of Problem Solving

Role of an IT Specialist

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- Problem Solver
  - Responsibilities
- Range of Issues
  - Ever-changing daily tasking- No routine

- Problem Solving
  - Use a consistent process
- Communication
  - Written
  - Oral
  - Effective
- Organization
  - Clean workspace = easier to locate tools and parts
  - Organize thoughts that then are communicated to stakeholders

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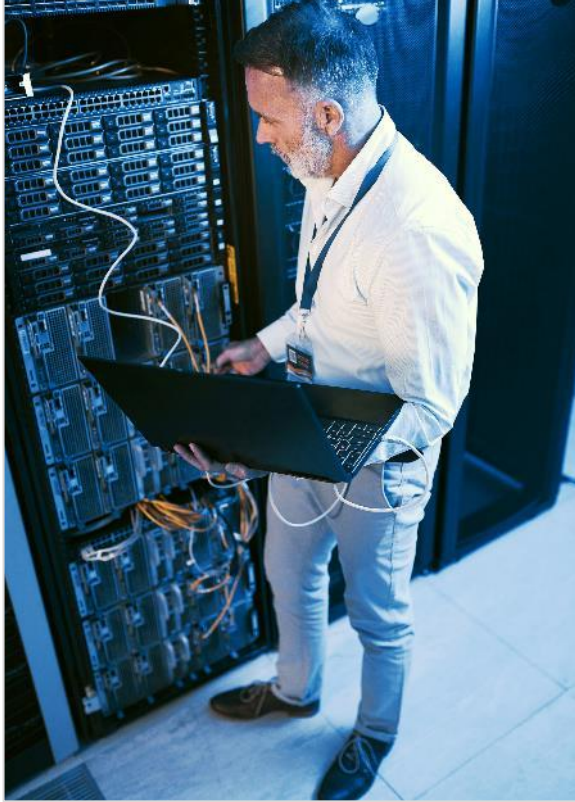
Skills and Abilities (Slide 2 of 2)

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- Technical Knowledge
  - Hardware
  - Software- including operating systems and applications
  - Networking
  - Cloud
  - Security

- Role of an IT Specialist

- Skills and Abilities

Lesson 1.2

The Troubleshooting Methodology

Best Practice Methodology

- Determine cause, symptoms and consequences
- Priority and severity
  - Critical systems and most severe issues need to be addressed first
- CompTIA Troubleshooting Methodology
  - Identify the problem
  - Establish a theory of probable cause
  - Test the theory
  - Establish a plan of action and implement the solution
  - Verify full system functionality
  - Document findings, actions, outcomes

Identify the Problem

- Gather information from the user
  - What are the exact error messages appearing on the screen or coming from the speaker?
  - Is anyone else experiencing the same problem?
  - How long has the problem been occurring?
  - What changes have been made recently to the system? Were these changes initiated by you or via another support request?
- Perform backups
  - Backup all critical and important information
  - Verify customer or client has done so if they are responsible for the system

Establish and Test a Theory

- Conduct research
  - Physically inspect the system
  - Reproduce the problem
  - Check system documentation or owner's manual
  - Ask other technicians for their thoughts; talk to previous technician who have worked on the system
  - Read vendor documentation and use the internet to conduct research for possible causes and solutions

Question the Obvious

- Never overlook a simple solution such as ensuring the item is turned on or plugged in

- Decide if the issue is likely hardware or software related

- Determine if the issue physical or a logical

- Test each theory individually to isolate the problem

Establish a New Theory or Escalate

- If initial theory does not check out, explore other causes and theories

- Escalate the issue if it is:

  - Beyond your skill level

  - Beyond your knowledge level

  - Out of scope per company policy or warranty documentation

Implement a Plan of Action

- Repair, replace, workarounds
  - Determine if solution to repair the system is cost effective
  - In some cases, may be cheaper to replace
  - Not all issues required to be resolved, in some cases a work around may be feasible
- Implement the solution
  - Apply the fix or replace the item
  - If a workaround is to be put in place, ensure it will work correctly

Verify and Document

- Verify solution resolves the issue
  - Ensure that the system is fully functional
  - Implement preventative measures to prevent reoccurrence
- Document findings, actions, and outcomes.
  - Parts used- cost and point of purchase information
  - Steps taken- be as through as possible; more detail the better
  - Tools used- software related or physical tools that were helpful to resolve the issue
  - Lessons learned

Lesson Review: The Troubleshooting Methodology

- Best Practice Methodology
- Identify the Problem
- Establish and Test a Theory
- Question the Obvious
- Establish a New Theory or Escalate
- Implement a Plan of Action
- Verify and Document