

## Network Security Basics

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### Introduction and Procedures

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This topic area will demonstrate the basics of network security in depth within basic security objectives, security architecture, security models, security layers, risk management, network security policy, security training, security keys, confidentiality integrity, availability, accountability and auditability.

A student must achieve a minimum of 80% of the total points allowed for this competency. That equates to 487 points out of 609 points. How this score is calculated can be found as descriptions under the various topics. Do not assume that each task is successfully accomplished if 80% is achieved for that particular task. Take notice of the variances.

Completion of the following tasks are required and will be available after successful completion of Network Concepts :

1. **Security Basics Competency LabConnection Assignment:** (Complete ALL 31 virtual labs. These labs can be accessed via the Security Basics Competency Lab link given below. Since the student will need to purchase an access code for these labs, a link is also provided below to do that.)
2. **Security Basics Competency Assessment #1** (An assessment using multiple choice, and short answer and essay type questions; Student gets two attempts to achieve required score.)
3. **Security Basics Competency Assessment #2** (An assessment similar in format to assessment #1 cover other materials; Student gets two attempts to achieve required score.)

Furthermore, in order to assist the student, Digital resources are provided as learning tools to enhance the student's knowledge as preparation for accomplishing any of these tasks.



### Required Competencies to Achieve

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- Explain the process of authentication and authorization between end-user devices and computing network resources.
- Implement a hardware and software configuration responsive to an identified scenario.
- Use a variety of practices for making end-user systems secure.
- Describe the data management activities associated with the data lifecycle **from a security perspective**.
- Differentiate between public and private data.
- Differentiate among data types, data transfer protocols and file characteristics specific to the targeted use. **(In this case, secured transfers.)**
- Carry out basic computer network troubleshooting techniques **on a security related issue**.
- Diagram the components of an integrated IT system **used to exercise good security**.
- Differentiate among various techniques for making a computer network secure.
- Differentiate among strategies for business continuity provisioning of IT resources at the enterprise level.
- Modify a system to improve data confidentiality or regulatory compliance.
- Summarize the security implications and risks for distributed IT systems.
- Summarize the tenets of ethics and professional behavior promoted by international computing societies.



### Digital Learning Resources

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This folder contains digital learning resources that cover the competency areas.

- It is recommended that the learner review this information prior to taking the two assessments.
- If a score of at least 80% is not earned on both assessments the learner should review this material before attempting the assessment again



### Lab Connection Purchasing

Enabled: Adaptive Release, Statistics Tracking

- The student must purchase the access code to complete LabConnection Assignment
- All labs must be completed
- A score of at least 80% must be earned on each lab. See details under the LabConnection assignment.

Lab access codes can be purchased at: <http://www.cengagebrain.com/shop/search/9781305586635>



### Security Basics LabConnection Competency Assignment

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This Folder contains the LabConnection area for Network Security Basics



### Security Basics Competency Assessment #1

Enabled: Adaptive Release

150 points max. Must achieve 80% or 120 points to pass this assessment.



### Security Basics Competency Assessment #2

Enabled: Adaptive Release

65 MC, 5 short answers and 2 scenarios of various complexity (call it critical thinking.). Total is 180 points. Student must achieve 80% score of 144 out of 180 for success in this assessment.



### Network Security Basics

Enabled: Adaptive Release

To be award the Network Security Foundation competency, the learner must :

1. Awarded Network Concepts creditals
2. Complete all 31 LabConnection hands-on labs at 80%
3. Pass the two assessments with a score of at least 80%

or

- Show evidence of a active Security+ Certificate

- K2W Network Specialist CSC Template (LF298.NetworkSpecialist.Template.K2W)
- Program Information
- Support Team
- Network Concepts
- Microcomputer OS
- PCs & Troubleshooting
- Linux OS
- Network Administration
- Network Security Basics
- Competency Progress
- Library Help
- K2W Website
- LFCC Help & Support

- Course Management**
- Control Panel
  - My Files
  - Course Tools
  - Evaluation
  - Grade Center
  - Users and Groups
  - Customization
  - Packages and Utilities
  - Help

Quick Unenroll

## Digital Learning Resources

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### Course Textbook Optional Purchase

Enabled: Statistics Tracking  
This textbook is optional to purchase as a resource. The book corresponds to content offered in this competency based course. .



### Authentication

This resources is from How Stuff Works



### Security Fundamental Video Series

Enabled: Statistics Tracking  
This video series from Microsoft Virtual Academy covers Understanding Security Layers; Authentication, Authorization, and Accounting; Understanding Security Policies, Understanding Network Security, and Protecting the Server and Client.



### IT Fundamentals - Security Wiki

Enabled: Statistics Tracking  
This material was authored by Dave Braunschweig



### Network Security Textbook

Enabled: Statistics Tracking  
**Material Type:** Open Online Textbook  
**Author:** The Open University

You can look at the book online in a single page format or download the entire eBook.



### CompTIA Security+ Videos

Enabled: Statistics Tracking  
This YouTube videos help learn the basics of the SY0-301 exam. These same concepts learned for the K2W assessments.

### K2W Network Specialist CSC Template (LF298.NetworkSpecialist.Template.K2W)

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### Course Management

#### Control Panel

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