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All CISSP® process steps

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Quantitative Risk analysis

1. Single Loss Expectancy = Asset Value x Exposure Factor

2. Annual Loss Expectancy = Single Loss Expectancy x Annual Rate of Occurence

3. Value of safeguard = ALE presafeguard - ALE postsafeguard - Annual Cost of Safeguard

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Risk Maturity Model

1. Ad hoc
2. Preliminary
3. Defined
4. Integrated
5. Optimized

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NIST Risk Management Framework

Memo tech: People Can See I Am Always Monitoring

1. Prepare
2. Categorize
3. Select
4. Implement
5. Assess
6. Authorize
7. Monitor

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Business Continuity Planning

1. Project Scope & Planning
2. Business Impact Analysis
3. Continuity planning
4. Plan approval & implementation

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Business Impact Analysis

1. Identify Priorities, Business Units & Data gathering techniques
2. Risk Identification (Asset Value)
3. Likelihood Assessment (ARO)
4. Impact Assessment (SLE & ALE)
5. Resources Prioritization

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Data classification process (1/2)

1. Criterias are set for classifying data
2. Data owners are established for each type of data
3. Data is classified
4. Required controls are selected for each classification

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Data classification process (2/2)

5. Baseline security standards are selected for the organization
6. Controls are scoped and tailored
7. Controls are applied and enforced
8. Access in granted and managed

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Data classification for Public companies

1. Public
2. Sensitive
3. Private
4. Confidential

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Data classification for Government

1. Unclassified
2. Confidential
3. Secret
4. Top Secret

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Digital signature

1. Sender hash plaintext
2. Sender encrypts hash with its private key
3. Sender adds encrypted hash to plaintext (signature)
4. Receiver decrypts the encrypted hash with sender’s public key
5. Receiver generates a hash of the plaintext using the same function as the sender
6. Receiver compares if the two hashes are similar

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Public Key Infrastructure

1. Sender obtains the recipient's certificate
2. Sender verifies the authenticity of the certificate by using the Certificate Authority’s public key to validate the digital signature contained in the certificate
3. Sender reach out to Certificate Revocation List to check if certificate is still valid
4. Sender encrypts and sends message using the recipient's public key contained in the certificate

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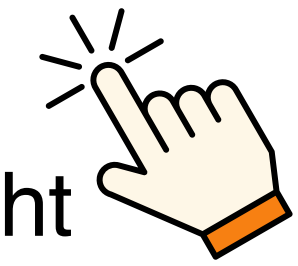

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Common Criteria

1. Functionality Tested
2. Structurally Tested
3. Methodically tested and checked
4. Methodically designed, tested and reviewed
5. Semi-formally designed and tested
6. Semi-formally verified design and tested
7. Formally verified design and tested

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Perimeter Protection

1. Deter
2. Deny
3. Detect
4. Delay
5. Determine
6. Decide

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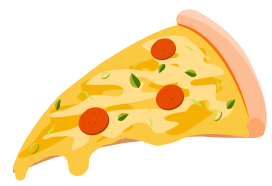
OSI layers

Memo tech: Please Do Not Throw Sausage Pizza Away



1. Physical
2. Data Link
3. Network
4. Transport
5. Session
6. Presentation
7. Application

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TCP/IP Layers

1. Network access
2. Internet
3. Transport
4. Application

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Keberos Authentication

1. The user types a username and password into the client.
2. The client encrypts the username with AES for transmission to the KDC.
3. The KDC verifies the username against a database of known credentials.
4. The KDC generates a symmetric key that will be used by the client and the Kerberos server. It encrypts this with a hash of the user's password. The KDC also generates an encrypted timestamped TGT.
5. The KDC then transmits the encrypted symmetric key and the encrypted timestamped TGT to the client.
6. The client installs the TGT for use until it expires. The client also decrypts the symmetric key using a hash of the user's password.

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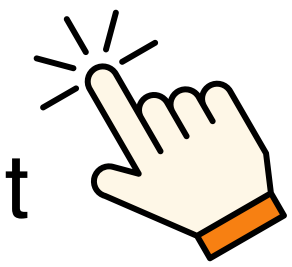

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Keberos Object Access

1. The client sends its TGT back to the KDC with a request for access to the resource.
2. The KDC verifies that the TGT is valid and checks its access control matrix to verify that the user has sufficient privileges to access the requested resource.
3. The KDC generates a service ticket and sends it to the client.
4. The client sends the ticket to the server or service hosting the resource.
5. The server or service hosting the resource verifies the validity of the ticket with the KDC.
6. Once identity and authorization are verified, Kerberos activity is complete. The server or service host then opens a session with the client and begins communications or data transmission.

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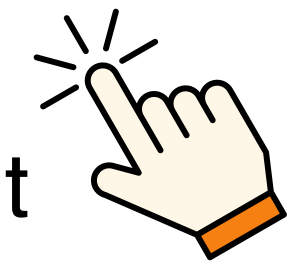

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Pentest phases

1. Planning
2. Information gathering & discovery
3. Attack
4. Reporting

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Incident management

Memo tech: DRMRRRL

1. Detection
2. Response
3. Mitigation
4. Reporting
5. Recovery
6. Remediation
7. Lesson Learned

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Kill Chain

1. Reconnaissance
2. Weaponization
3. Delivery
4. Exploitation
5. Installation
6. Command & control
7. Actions & objectives

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Change management

1. Request the change
2. Review the change
3. Approve/reject the change
4. Test the change
5. Schedule and implement the change
6. Document the change

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Patch Management

1. Evaluate
2. Test
3. Approve
4. Deploy
5. Verify

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Disaster Recovery Planning

1. Prioritizing business units (use BIA)
2. Crisis management
3. Emergency communications
4. Workgroup recovery (cold sites, warm sites or hot sites)

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Electronic Discovery (1/2)

1. Information governance
2. Identification
3. Preservation
4. Collection
5. Processing

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Electronic Discovery (2/2)

6. Review
7. Analysis
8. Production
9. Presentation

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ISC2 Code of Ethics

1. Protect society, the common good, necessary public trust and confidence, and the infrastructure
2. Act honorably, honestly, justly, responsibly, and legally
3. Provide diligent and competent service to principals
4. Advance and protect the profession

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Software Development Life Cycle

1. Requirement Gathering
2. Design
3. Development
4. Test
5. Deployment
6. Operation & Maintenance

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System Development Life Cycle

Same steps as Software Development Lifecycle +

Retirement/ Disposal

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Information System Lifecycle (1/2)

1. Stakeholders needs and requirements
2. Requirements analysis
3. Architectural design
4. Development/ Implement
5. Integration

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Information System Lifecycle (2/2)

6. Verification & validation
7. Transition/ Deployment
8. Operations & maintenance/ sustainment
9. Retirement/ Disposal

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Capability Maturity Model

1. Initial
2. Repeatable
3. Defined
4. Managed
5. Optimized

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Capability Maturity Model Integrated

1. Initial
2. Managed
3. Defined
4. Quantitatively Managed
5. Optimized

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IDEAL Model

1. Initiating
2. Diagnosing
3. Establishing
4. Acting
5. Learning

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Software Assurance Maturity Model (1/2)

1. Governance (Strategy & Metrics, Policy & Compliance, Education & Guidance)
2. Design (Threat Assessment, Security Requirement, Secure Architecture)
3. Implementation (Secure Build/Deployment, Defect Management)

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Software Assurance Maturity Model (2/2)

4. Verification (Architecture Analysis/ Requirement-driven/ Security Testing)

5. Operations (Incident /Environment/ Operational Management)

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Change management (Software)

1. Request Control
2. Change Control
3. Release Control

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Software configuration management

1. Configuration Identification
2. Configuration Control
3. Configuration Status Accounting
4. Configuration Audit

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ACID Model

1. Atomicity
2. Consistency
3. Isolation
4. Durability

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