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**VIRTUAL COACHING CLASSES  
ORGANIZED BY BOS, ICAI**

**INTERMEDIATE LEVEL  
PAPER 7A : ENTERPRISE INFORMATION SYSTEMS**

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# DAY -2



# AUDIT TRAIL

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**Audit Trails** are logs that can be designed to record activity at the system, application, and user level.

They provide an important detective control to help accomplish security policy objectives

An effective audit policy will capture all significant events without cluttering the log with trivial activity.



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Audit trail controls attempt to ensure that a chronological record of all events that have occurred in a system is maintained.

This record is needed to answer queries, fulfill statutory requirements, detect the consequences of error and allow system monitoring and tuning.



# TYPES OF AUDIT TRAIL

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The **Accounting Audit Trail** shows the source and nature of data and processes that update the database.

The **Operations Audit Trail** maintains a record of attempted or actual resource consumption within a system.



# OBJECTIVES

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- 1) Detecting Unauthorized Access
- 2) Reconstructing Events
- 3) Personal Accountability



# ILLUSTRATION

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- Identity of the would-be user of the system;
- Authentication information supplied;
- Resources requested;
- Action privileges requested;
- Terminal Identifier;
- Start and Finish Time;
- Number of Sign-on attempts;
- Resources provided/denied;



# ILLUSTRATION

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- **Accounting Audit Trail**

Action privileges allowed/denied.

- **Operations Audit Trail**

Resource usage from log-on to log-out time.

Log of Resource consumption.





# ORGANIZATION STRUCTURE AND RESPONSIBILITIES

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Organizations require structure to distribute responsibility to groups of people with specific skills and knowledge.

The structure of an organization is called an **Organization Chart** .



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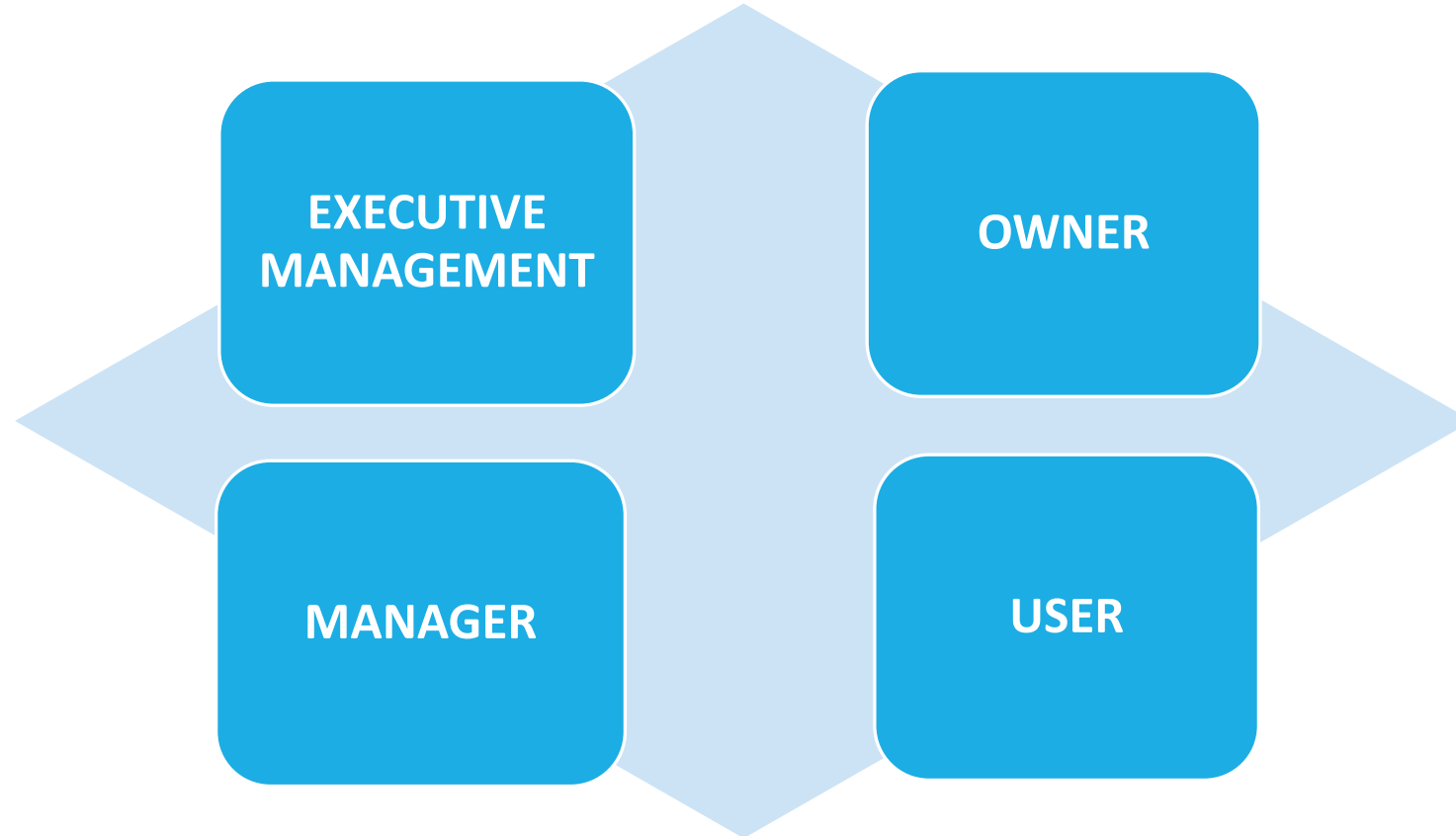
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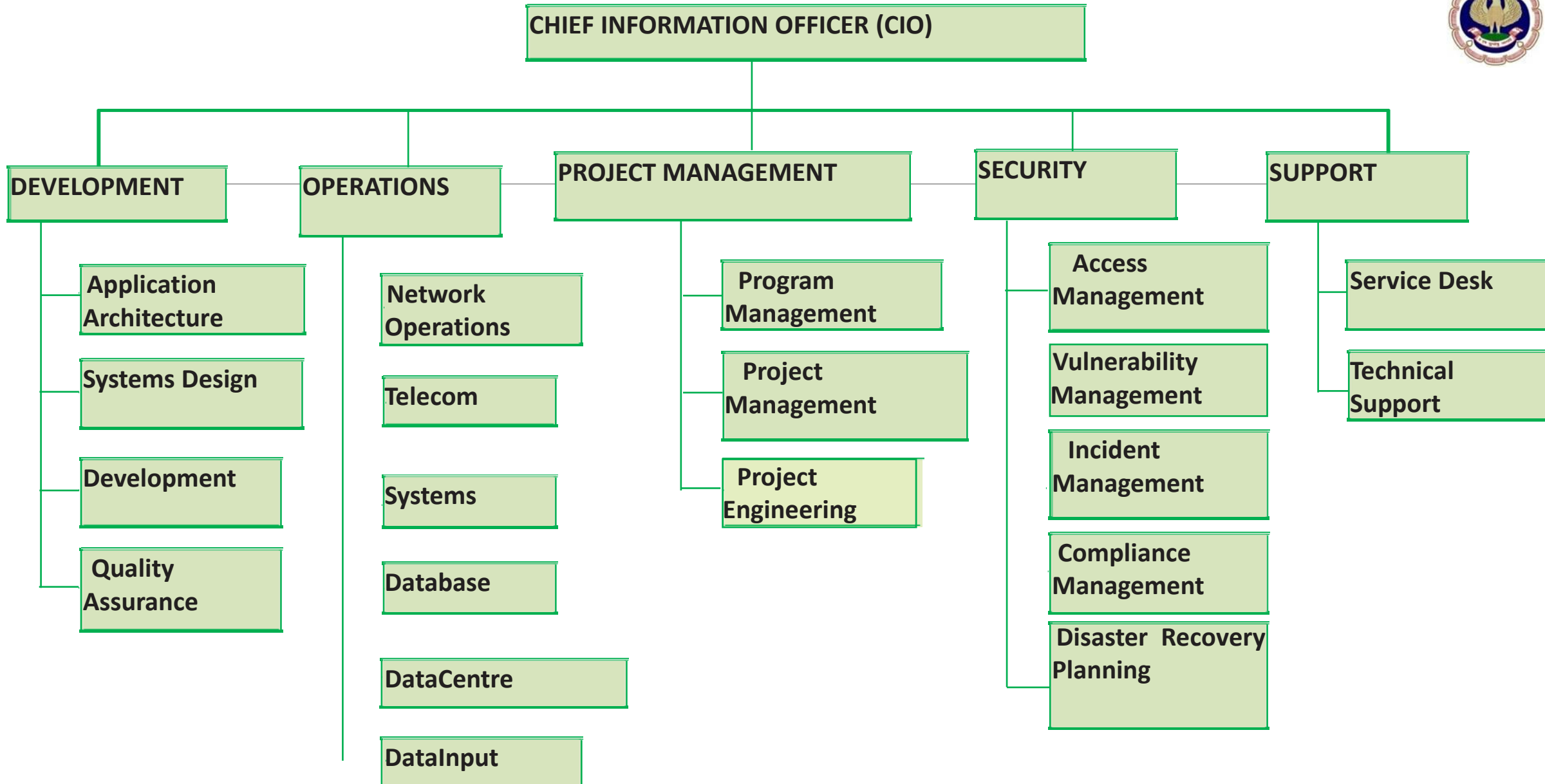
Organization chart changes with respect to several conditions :

- 1) Short and long-term objectives
- 2) Market Conditions
- 3) Regulation
- 4) Available talent



# INDIVIDUAL ROLES AND RESPONSIBILITIES







# SEGREGATION OF DUTIES (SOD)

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**Segregation of Duties (SOD)**, also known as Separation of Duties, ensures that single individuals do not possess excess privileges that could result in unauthorized activities such as fraud or the manipulation or exposure of sensitive data.

Examples include :

- Transaction Authorization
- Split custody of high-value assets
- Periodic reviews



# SOD ISSUES

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When SOD issues are encountered during a segregation of duties review, management will need to decide how to mitigate the matter.

The choices for mitigating a SOD issue include –

- **Reduce access privileges**
- **Introduce a new mitigating control**



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**THANK YOU**