

AIS

Control Activities

preventative

detective

corrective

Control Frame Works

COBIT	Control Objectives for Information and Related Technology
NIST	US National Institute of Standards and Technology
HIPPA	Health Insurance Portability and Accountability Act
PCI DSS	Payment Card Industry Data Security Standard
CIS	Center for Internet Security
GDPR	General Data Protection Regulation
COSO	The Committee of Sponsoring Organizations of the Internal Treadway Commission
control	

Internal Controls == **process** designed to provide **reasonable assurance** regarding **operations, reporting** and **compliance**

Conversions

Strategy in Risk order

Direct conversion	nightmare situation
Phased conversion	Rollout modules systemwide but not whole system
Pilot conversion	Single area implementation before full roll out
Parallel conversion	Run both concurrent

Testing

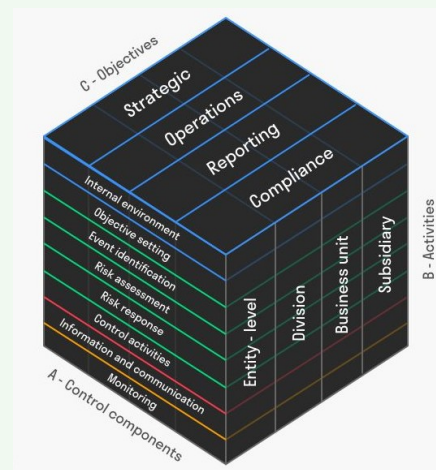
Unit tests	component/ function in isolation
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Conversions (cont)

Integration tests	ensure that the modules are talking to each other correctly
System tests	whole system functionality validation
User acceptance test (UAT)	confirm that it meets the business requirements
Performance tests	assess max load system speed and responsiveness
Security tests	id data vulnerabilities
Regression tests	no lost functionality with updates

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COSO Cube



TOP → Objectives

SIDE → Organizational

FRONT → Components

CRIME =

- Control Activities
- Risk Assessment
- Information and communication
- Monitoring
- Environment (most important)

Architecture

Centralized	connects ALL users to one location
Decent- ralized	MULTIPLE locations that each maintain a copy of the data
Distributed	all the users and systems are directly connected to one another

ERP

Enterprise Resource Planning

Why?	Improve data integrity and transparency
	Automate routine business processes
	Enhance operational efficiency
	Supports scalability and future growth

6 common modules

Financial accounting
SCM (Supply Chain Mgmt)
Production
CRM (Customer Relationship Mgmt)
Sales management
Human Resources Mgmt (HRM)

SOCs

SOC 1

Purpose	controls over financial reporting
	Internal Control over Financial Reporting (ICFR)
Users	auditors and financial statement users

SOC 2

Purpose	controls over non-financial (operational) controls
Users	Limited to parties stated in the report

SOC 3

Purpose	General Use Report simplified version of the SOC2 report
Users	Interested Parties

SOCs (cont)

SOC 1 Type 1

We have financial controls

SOC 1 Type 2

We have financial controls and we can prove that they are working

SOC 2 Type 1

We have operational controls @ pit

SOC 2 Type 1

We have operational controls and it has been tested over time

