



Definition of Key Terms

This resource serves as a quick reference for professionals looking to understand foundational terms related to **cloud computing, DevOps, security, compliance, financial services, software development, and IT automation.**



Observability & Monitoring

- **Grafana** – Open-source visualization tool for monitoring system performance, infrastructure, and business metrics using dashboards.
- **Prometheus** – Open-source monitoring and alerting toolkit designed for cloud-native applications, primarily used for collecting time-series data.
- **Datadog** – Cloud-based observability platform offering monitoring, security, and analytics for applications, infrastructure, and logs.



Cloud Platforms & Services

Amazon Web Services (AWS)

- **EKS (Elastic Kubernetes Service)** – A fully managed Kubernetes service that simplifies running containerized applications in AWS.
- **Lambda** – A serverless compute service that runs code in response to events without provisioning infrastructure.
- **IAM (Identity and Access Management)** – A security framework for managing users, roles, and permissions within AWS.

Microsoft Azure

- **AKS (Azure Kubernetes Service)** – A managed Kubernetes service that automates deployment, scaling, and operations of containerized applications.
- **DevOps Pipelines** – A CI/CD service within Azure DevOps that automates software builds, testing, and deployment.
- **Functions** – Azure's serverless compute solution that enables event-driven applications without managing servers.

Google Cloud

- **Google Cloud Platform (GCP)** – A suite of cloud computing services offering compute, storage, networking, AI, and security.



DevOps & Automation

- **Pipelines** – CI/CD pipelines that automate the development lifecycle, ensuring continuous integration and continuous deployment.
- **Functions** – Serverless execution of code in response to triggers without provisioning infrastructure.
- **CI/CD (Continuous Integration/Continuous Deployment)** – The practice of automating software integration, testing, and release processes.
- **VersionOne** – Agile project management tool that helps teams track sprints, releases, and work items efficiently.
- **GitHub** – A platform for version control and collaborative software development using Git repositories.
- **Shell** – Command-line scripting environment used for automation, system configuration, and DevOps workflows.
- **ServiceNow** – A cloud-based platform for IT Service Management (ITSM) that helps automate workflows, incident management, and compliance.
- **ADO (Azure DevOps)** – Microsoft's suite of development tools for managing version control, CI/CD, and project tracking.

Security & Compliance

AWS Security

- **CloudWatch** – AWS service for monitoring and observability, collecting logs, metrics, and traces from AWS environments.
- **GuardDuty** – AWS threat detection service that uses machine learning to identify suspicious activities and security threats.
- **WAF (Web Application Firewall)** – Protects web applications by filtering and monitoring HTTP/HTTPS traffic to prevent attacks.
- **IAM Governance** – The management of user access, roles, and security policies to enforce least privilege access.

Regulations & Compliance Frameworks

- **GDPR (General Data Protection Regulation)**
 - A European Union regulation focused on data privacy and protection.
 - Requires organizations handling EU citizen data to ensure secure storage, processing, and sharing of personal data.
 - Grants individuals rights over their data, including access, correction, and deletion (Right to be Forgotten).
 - Imposes strict penalties for non-compliance, including fines up to 4% of annual global revenue.
- **SOX (Sarbanes-Oxley Act)**
 - A U.S. regulation designed to protect investors by ensuring accurate financial reporting and IT security controls.

- IT teams must maintain strong internal controls over data security, audit trails, and financial system access.
- Requires periodic audits to prevent fraudulent activity and ensure compliance.
- Mandates data retention policies and the implementation of risk management measures.
- **FedRAMP (Federal Risk and Authorization Management Program)**
 - A U.S. government program that standardizes security assessments for cloud services used by federal agencies.
 - Ensures cloud providers meet strict cybersecurity requirements before gaining authorization.
 - Involves a three-tier security categorization: Low, Moderate, and High, based on the impact level of a data breach.
 - Requires continuous monitoring, incident response, and compliance reporting.
- **NIST (National Institute of Standards and Technology)**
 - A U.S. government agency that provides cybersecurity guidelines, including the NIST Cybersecurity Framework (CSF).
 - The CSF consists of five key functions: Identify, Protect, Detect, Respond, and Recover.
 - Used by financial institutions and cloud providers to implement security best practices.
 - Includes **NIST 800-53** (Security and Privacy Controls) and **NIST 800-171** (Protecting Controlled Unclassified Information).
- **CIS Frameworks (Center for Internet Security)**
 - A set of best practices and benchmarks for securing IT environments.
 - The CIS Controls include 18 prioritized security practices such as asset management, vulnerability scanning, and incident response.
 - Provides specific security guidelines for **AWS, Azure, and Google Cloud** to harden cloud workloads.
 - Often referenced in compliance audits for **SOC 2, HIPAA, and ISO 27001**.

Financial Services & Payments

- **ACH (Automated Clearing House)** – A U.S. network for processing electronic payments, including payroll, direct deposits, and bill payments.
- **SWIFT (Society for Worldwide Interbank Financial Telecommunication)** – A global messaging network used for secure financial transactions between banks.
- **RTP (Real-Time Payments)** – A real-time fund transfer system that allows for instant payments and settlements between financial institutions.
- **FedNow** – A U.S. Federal Reserve real-time payment system that facilitates instant transfers and 24/7 availability.
- **Credit/Debit Processing** – The infrastructure and network protocols that handle authorization, settlement, and processing of card transactions.

- **ISO 20022** – A global financial messaging standard that improves payment processing efficiency and data interoperability between financial institutions.
- **PCI-DSS Level 1** – The highest level of **Payment Card Industry Data Security Standard (PCI-DSS)** compliance, required for businesses processing over **6 million transactions annually**.
- **Open Banking** – A regulatory framework that allows third-party financial services to access banking data via APIs, enabling innovation in financial services.
- **Payment APIs** – APIs that allow businesses to integrate payment gateways, enabling online transactions and digital wallet functionalities.

Software Development & Testing

- **Java** – A widely used programming language for building enterprise applications, web services, and cloud-based applications.
- **JMeter** – Open-source tool for load testing, performance testing, and stress testing of web applications and APIs.
- **Improving UI Test** – Enhancing the quality of user interface testing through automation, usability testing, and continuous feedback loops.

Personal Financial & Risk Management

- **Personal Financial Management (PFM)** – Software tools that help users track expenses, manage budgets, and analyze financial data.
- **Multi-Factor Authentication (MFA)** – A security mechanism requiring multiple verification methods to strengthen access control.

Certifications & Methodologies

- **Certified ScrumMaster (CSM)** – Agile certification demonstrating knowledge of Scrum methodologies and leadership in Agile teams.
- **Lean Six Sigma Black Belt (LBBP)** – Certification in process improvement methodologies focusing on eliminating inefficiencies and enhancing quality.
- **PMP (Exam Approved)** – Certification indicating eligibility for the **Project Management Professional (PMP)** exam, validating expertise in project planning, execution, and risk management.
- **ITIL 4 Foundation** – Certification in **IT Service Management (ITSM)** best practices for delivering efficient and high-quality IT services.
- **SAFe Agilist** – Certification in **Scaled Agile Framework (SAFe)** methodologies for managing Agile transformations at the enterprise level.