IT Infrastructure

Empowering Connectivity, Securing Futures

Index

- Introduction

- What is IT infrastructure?

- Components of IT Infrastructure

- Types of IT Infrastructure

- What is IT Infrastructure Management?

- Stages in IT Infrastructure Evolution.

- What Is Infrastructure as a Service?

- What Are the Benefits of Infrastructure as a Service?

Introduction

- IT infrastructure serves as the foundation for digital operations within organizations.

- It encompasses hardware, software, networks, data centers, and skilled personnel.

- Key components include servers, networking equipment, storage devices, and end-user devices.

- Software components include operating systems, middleware, and applications tailored to specific business needs.

Introduction

- Networking infrastructure facilitates communication and data exchange between devices and systems.

- Data centers provide physical space, power, and security for IT equipment.

- Cloud infrastructure delivers scalable IT resources over the internet.

- Skilled IT professionals are crucial for designing, deploying, and managing IT infrastructure.

- IT infrastructure plays a vital role in enabling business operations, enhancing productivity, and supporting innovation.
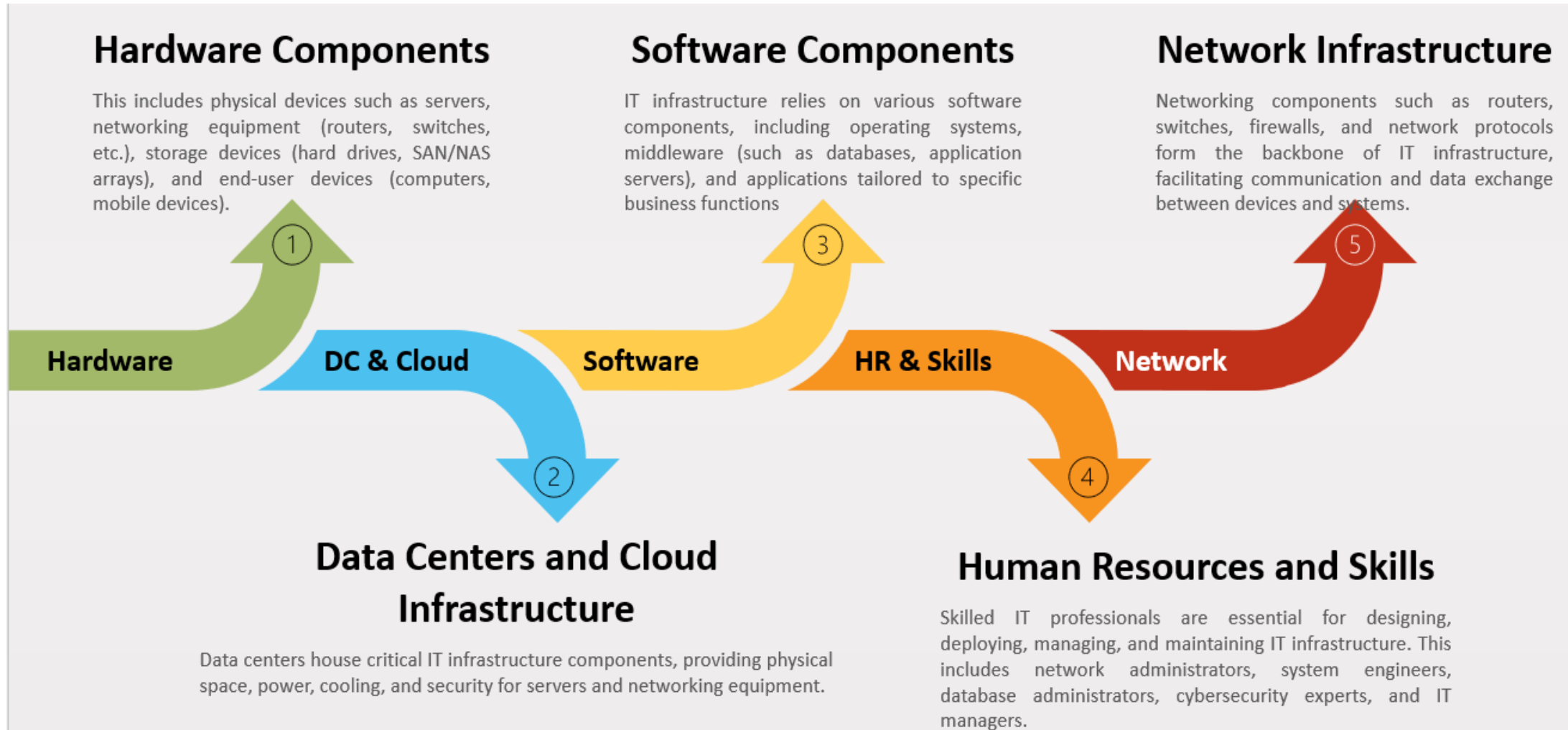
What is IT infrastructure?

- IT infrastructure refers to the comprehensive framework of hardware, software, networks, data centers, and personnel that collectively support and enable the operation, management, and delivery of information technology services within an organization.

- IT infrastructure encompasses a wide range of components, including servers, networking equipment, storage devices, operating systems, middleware, applications, and more.

What is IT infrastructure?
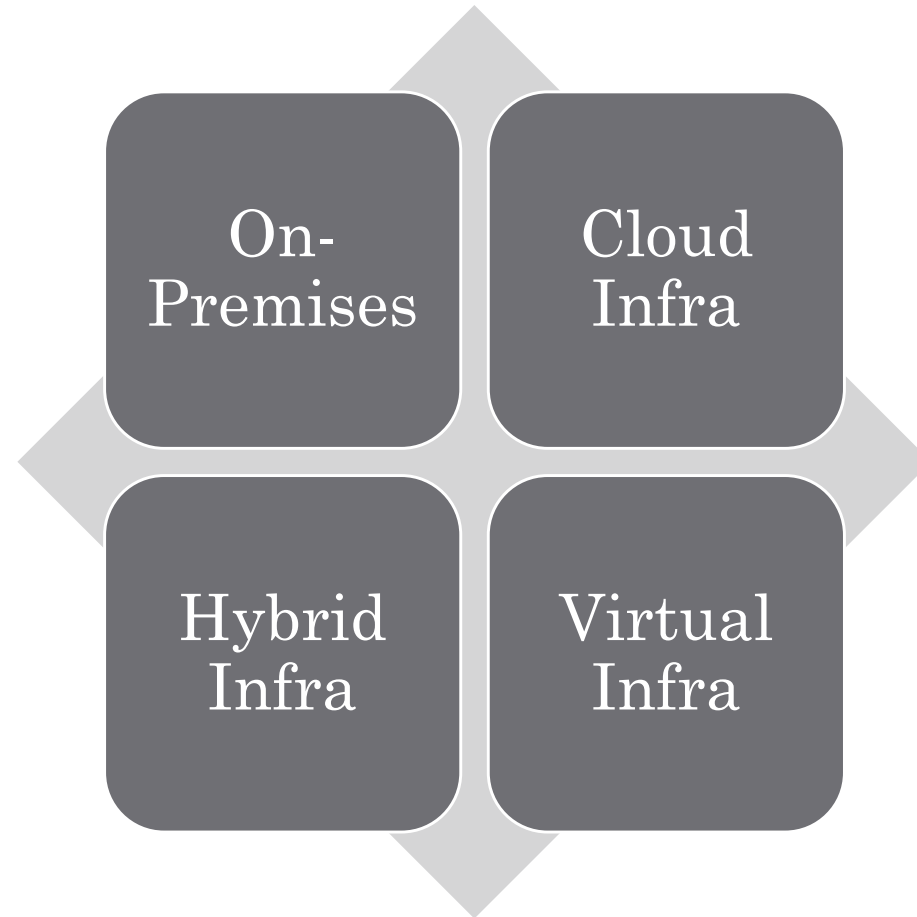
• It plays a critical role in facilitating communication, data storage and processing, application delivery, and decision-making processes within modern businesses.

• IT infrastructure is essential for ensuring the reliability, scalability, security, and performance of information technology services, thereby enabling organizations to remain competitive and agile in today's digital landscape.

Components of IT Infrastructure

Hardware Components

This includes physical devices such as servers, networking equipment (routers, switches, etc.), storage devices (hard drives, SAN/NAS arrays), and end-user devices (computers, mobile devices).

Hardware ① **DC & Cloud**

Software Components

IT infrastructure relies on various software components, including operating systems, middleware (such as databases, application servers), and applications tailored to specific business functions

Software ③ **HR & Skills**

Network Infrastructure

Networking components such as routers, switches, firewalls, and network protocols form the backbone of IT infrastructure, facilitating communication and data exchange between devices and systems.

Network ⑤

Data Centers and Cloud Infrastructure

Data centers house critical IT infrastructure components, providing physical space, power, cooling, and security for servers and networking equipment.

②

Human Resources and Skills

Skilled IT professionals are essential for designing, deploying, managing, and maintaining IT infrastructure. This includes network administrators, system engineers, database administrators, cybersecurity experts, and IT managers.

④

Types of IT infrastructure

On-Premises

Cloud Infra

Hybrid Infra

Virtual Infra

What's the characteristics of a cloud DC?

- Everything as a service

- SLA - 99.99%

- Unlimited Computation Power

- Elasticity (Scalability)