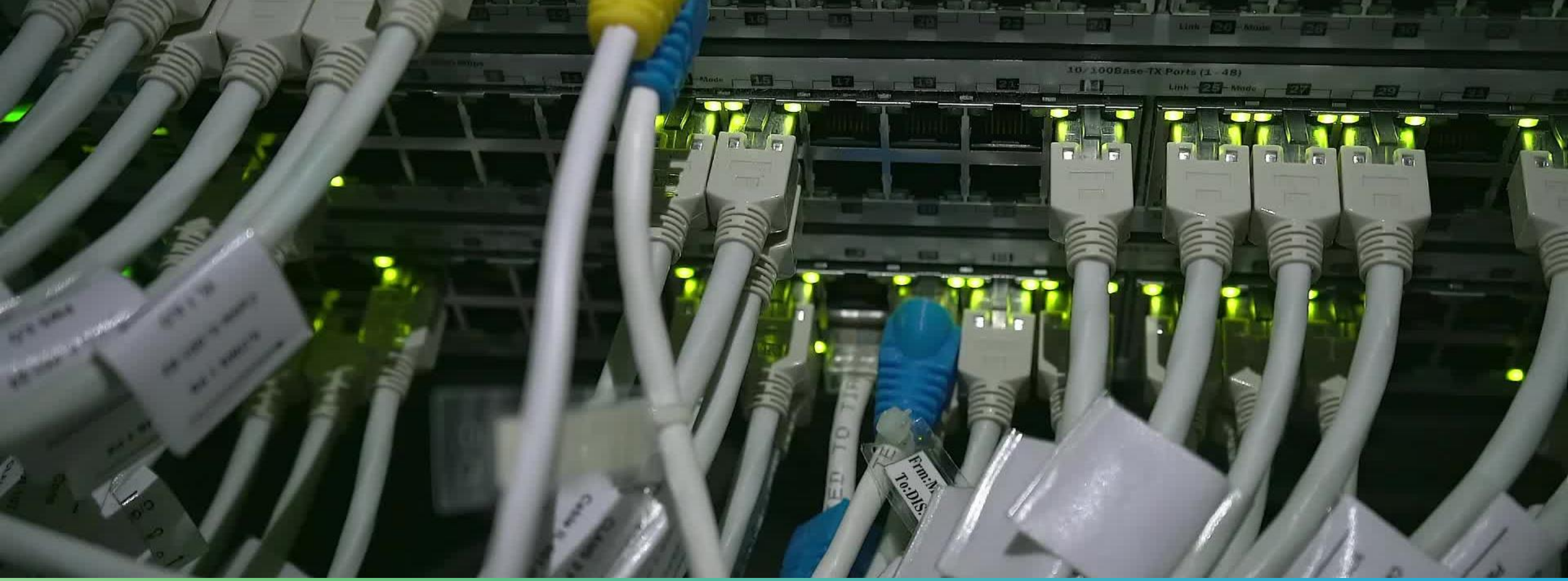


Operating Online with IT Systems

Enhancing business efficiency through digital technologies

Introduction to Online Systems

Online systems use cloud computing

Cloud Data Storage

Cloud computing enables storing data remotely, allowing users to access it anytime without physical hardware.

Resource Accessibility

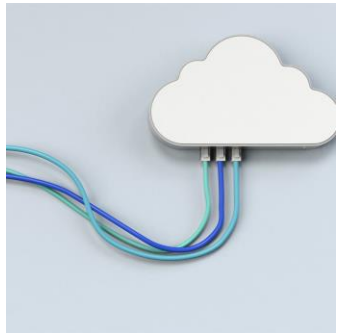
Users and organizations access computing resources and services over the internet seamlessly and flexibly.

Scalability and Flexibility

Cloud computing supports scalable IT systems that can quickly adapt to changing demands and workloads.

Cloud Computing Models

Private cloud is used by one organisation



Dedicated Infrastructure

Private clouds provide infrastructure dedicated solely to one organisation for exclusive use and management.

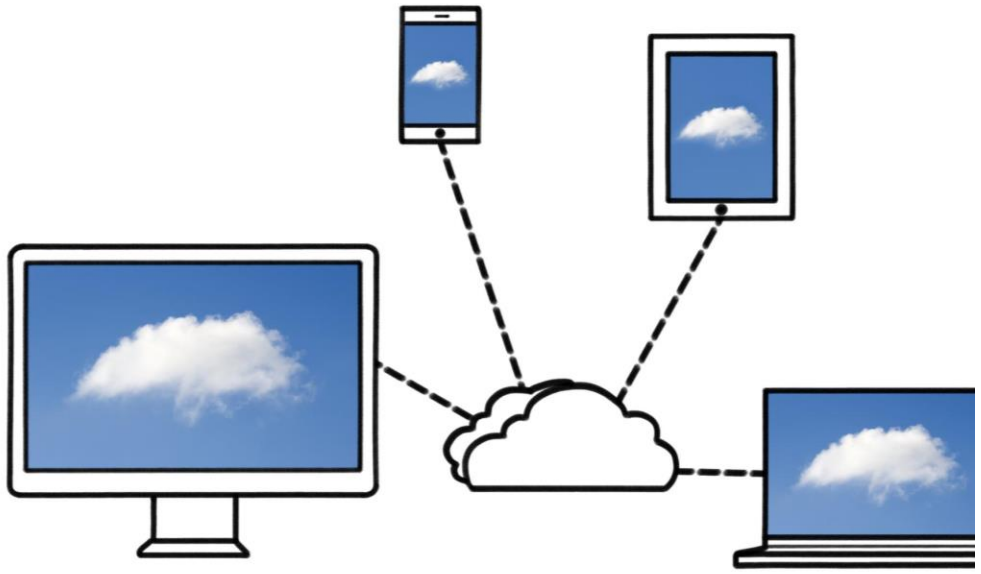
Enhanced Security and Control

Private clouds offer enhanced security features and greater control over data and resources.

Hosting Options

Private clouds can be hosted on-premises or by trusted third-party providers based on organisational needs.

Public cloud is shared by many users



Third-Party Cloud Providers

Public cloud services are hosted and managed by third-party vendors who maintain the infrastructure.

Shared Multi-User Environment

Multiple users share the same cloud resources, enabling efficient utilization and cost savings.

Cost-Effective Scalability

Public cloud offers flexible scaling options and cost efficiency for users with changing needs.

Infrastructure Management Free

Users access computing resources without managing underlying infrastructure, easing IT burdens.

Hybrid cloud combines private and public clouds

Integration of Cloud Environments

Hybrid cloud merges private and public clouds, enabling seamless data and application sharing across environments.

Security Benefits

Private cloud components provide enhanced security, protecting sensitive data within the hybrid model.

Scalability Advantages

Public cloud resources offer scalable infrastructure to meet fluctuating organizational demands efficiently.

Optimized IT Resource Use

Hybrid cloud allows organizations to optimize IT resource allocation based on their unique needs and workloads.

IaaS gives access to IT infrastructure online

Virtualized Computing Resources

IaaS offers virtual servers, storage, and networking accessible remotely through the internet.

No Physical Hardware Ownership

Users access infrastructure without needing to buy or maintain physical hardware onsite.

Dynamic Scalability

IaaS supports flexible scaling of resources to meet changing demands efficiently.

Common Use Cases

IaaS is widely used for hosting websites and deploying applications on demand.

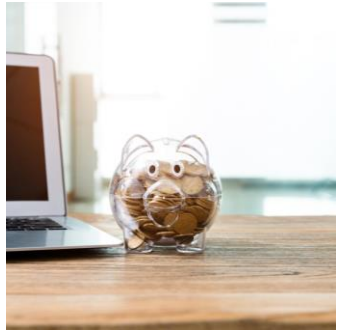
SaaS lets you use software over the internet

Cloud-Based Software Delivery

SaaS delivers software applications through the internet, removing the need for local installation and updates.

Wide Range of Applications

Users can access various tools like email, word processing, and CRM systems via web browsers.



Convenience and Cost Efficiency

SaaS eliminates maintenance and installation, making software use more convenient and cost-effective.

PaaS helps developers build apps online

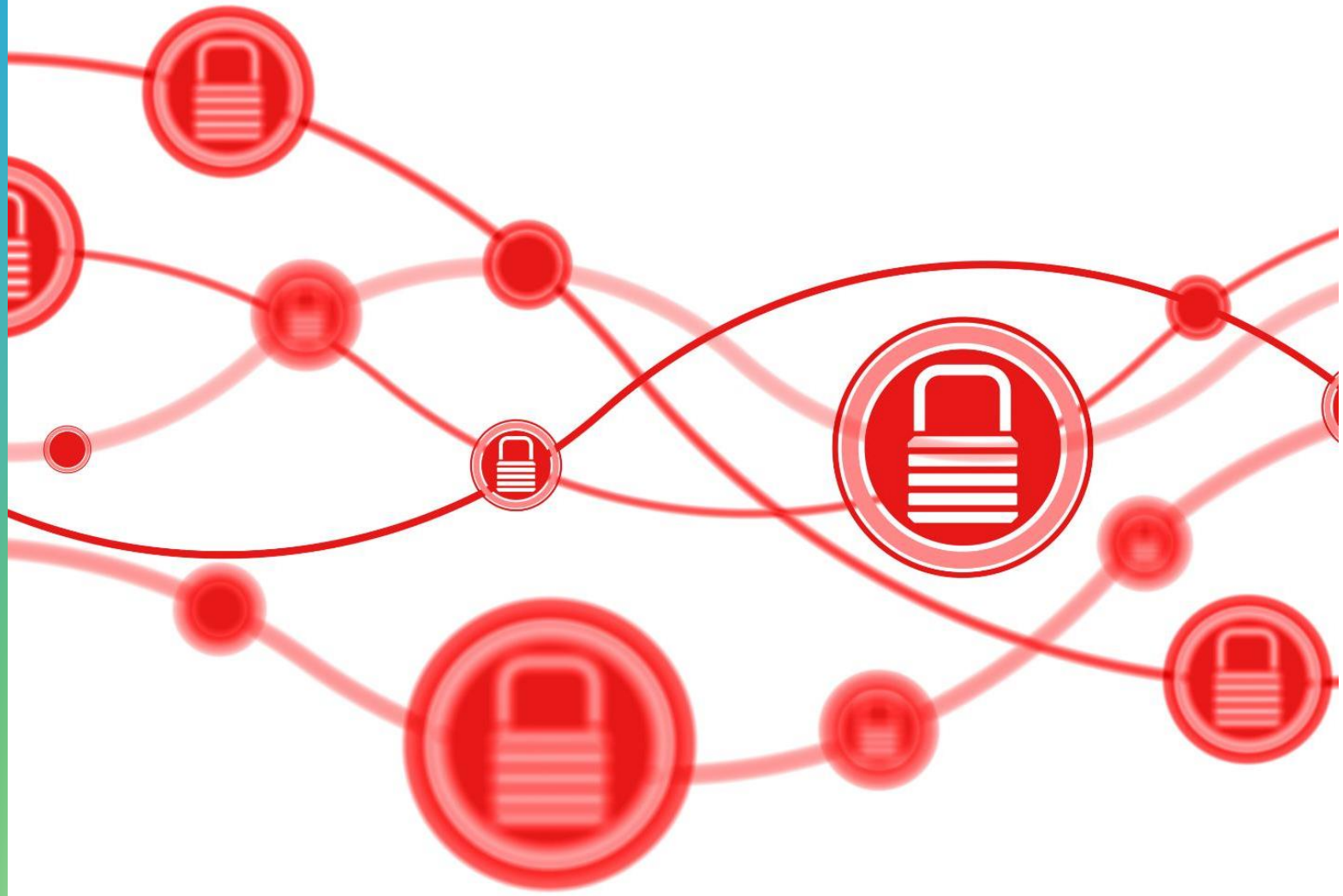
Cloud-based Development Environment

PaaS offers an online environment for creating, testing, and deploying applications seamlessly in the cloud.

Simplified Development Tools

Includes frameworks and tools that streamline coding, reducing the need to manage underlying infrastructure.

Remote Working Systems



VPNs allow secure remote access

Secure Internet Connections

VPNs create encrypted connections over the internet, ensuring data privacy and security during transmission.

Remote Access to Resources

VPNs enable users to securely access organizational resources from remote locations.

Privacy and Data Protection

VPNs protect user privacy by encrypting sensitive information against unauthorized access.

Remote desktop lets you control a computer from far away

Remote Access Capabilities

Remote desktop lets users control computers from any location with internet connectivity. It enables access to files and applications securely.

Uses in IT Support

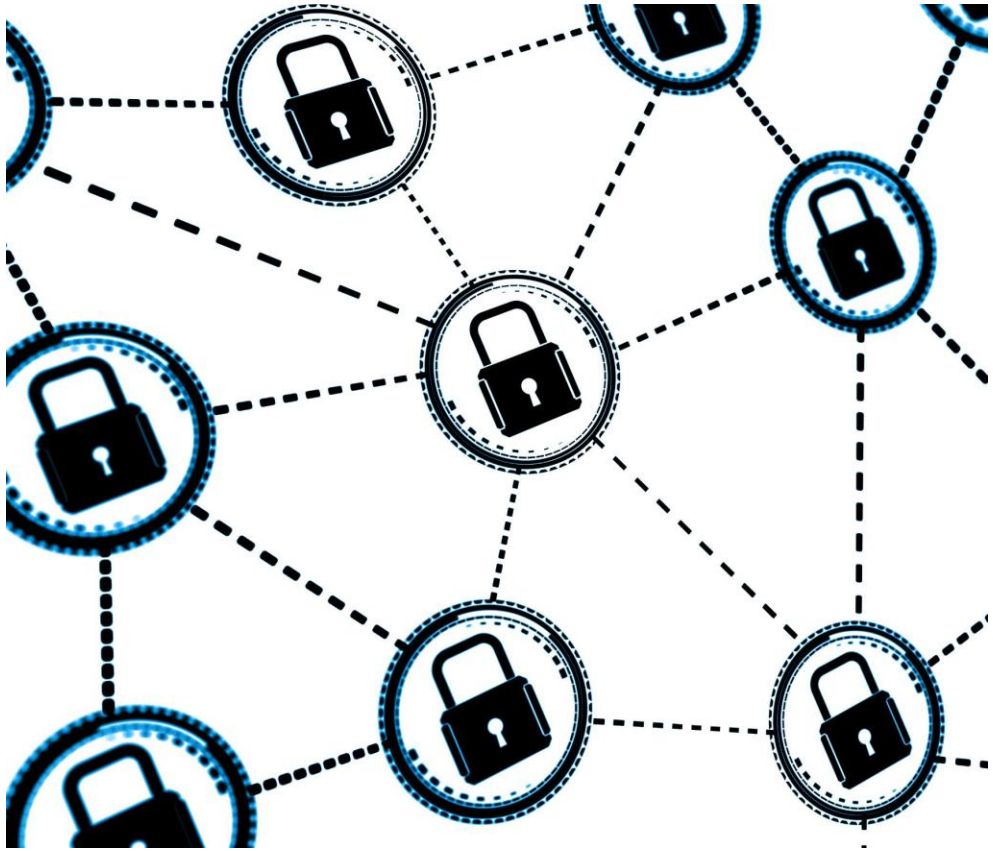
IT professionals use remote desktop to diagnose and fix issues without visiting the physical location. It enhances support efficiency.

Remote Work Enablement

Remote desktop allows employees to work from home by accessing office computers and resources seamlessly and securely.

Factors Affecting Online System Use

Security affects online system choices



Data Protection Importance

Protecting sensitive data is crucial to maintain privacy and prevent data breaches in online systems.

Preventing Unauthorized Access

Strong security measures are necessary to stop unauthorized users from accessing confidential information.

Regulatory Compliance

Organizations must comply with regulations to ensure legal and ethical handling of online data.

Building Trust

Secure online systems build user trust by safeguarding sensitive information effectively.

Cost matters when choosing online systems

Subscription Fees

Subscription fees are a major cost factor influencing the choice of online systems for organizations.

Infrastructure Expenses

Infrastructure expenses include hardware and network costs that impact the total cost of online systems.

Long-term Value

Organizations seek affordable online solutions that offer strong performance and good long-term value.

Ease of use is important for online systems

Quick User Learning

Ease of use enables users to learn online systems quickly, minimizing confusion and errors.

Intuitive Interfaces

Intuitive interfaces with user-friendly features enhance productivity and reduce training time.

Features help decide which system to use

Feature-Based Suitability

System features determine how well they fit specific organizational tasks and needs.

Collaboration Tools

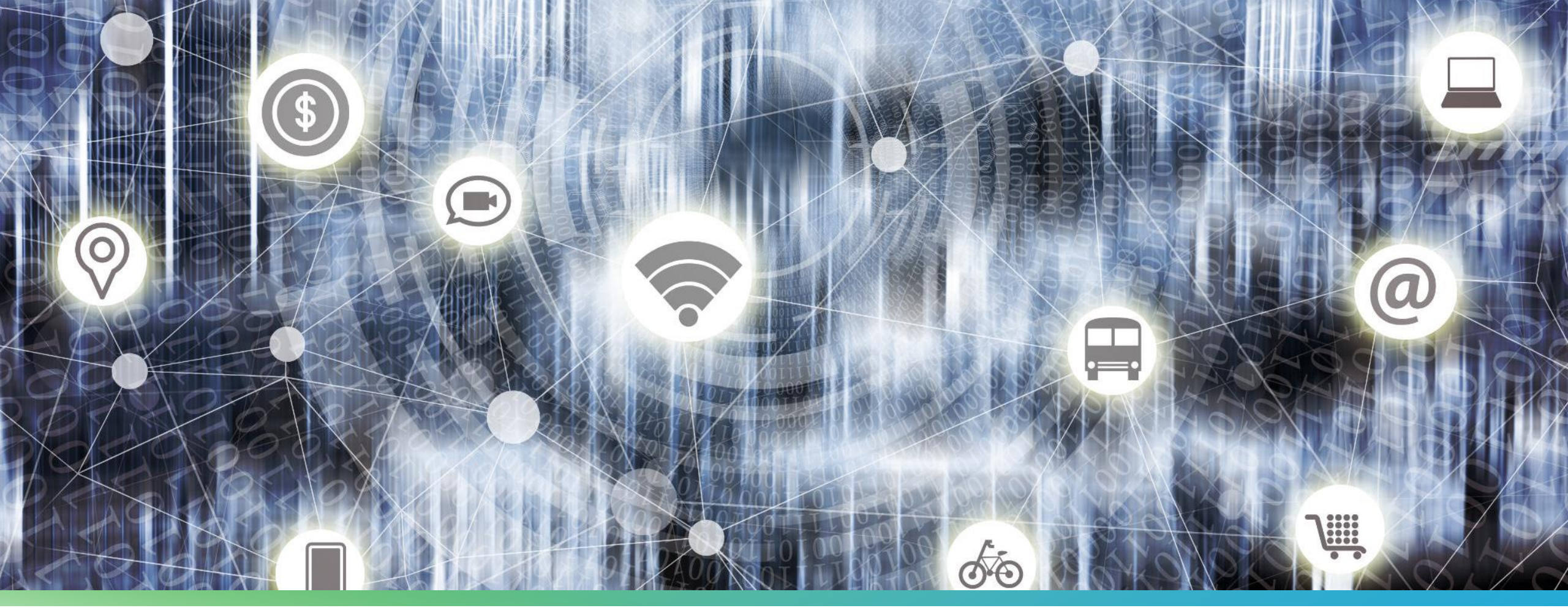
Effective systems offer collaboration features enabling team communication and coordination.

Data Management

Systems should provide robust data management for organizing and accessing information efficiently.

Service Integration

Integration with other services enhances system functionality and workflow automation.



Connectivity affects how well systems work

Importance of Reliable Connectivity

Reliable internet connectivity ensures smooth operation of online systems without interruptions or delays.

Consequences of Poor Connectivity

Poor connectivity causes data loss, delays, and lowers productivity in online operations.

Scalability means systems can grow with needs

Definition of Scalability

Scalability enables systems to handle growth and increased user demands effectively over time.

Importance for Organizations

Scalability is critical for organizations to adapt to changing requirements and increased demand.

Connecting people through digital platforms worldwide

C2: Online Communities

Introduction to Online Communities

Connecting through online communities

Platforms for Interaction

Online communities provide platforms that enable individuals to interact, share ideas, and collaborate effectively across distances.

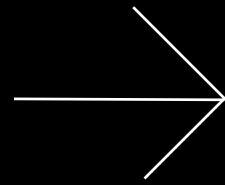
Building Relationships

These communities foster personal and professional relationships by facilitating knowledge exchange and meaningful discussions.

Transforming Communication

Widespread adoption of online communities has revolutionized communication and networking globally, bridging geographical gaps.

Types of Online Communities



Social media platforms

Online Community Engagement

Social media platforms create spaces for users to post updates, share media, and interact with others in real time.

Personal and Business Use

These platforms are widely used for personal connections and business marketing or communication purposes.

Trend Following and Engagement

Users can follow trends, engage with content, and maintain social connections through social media.

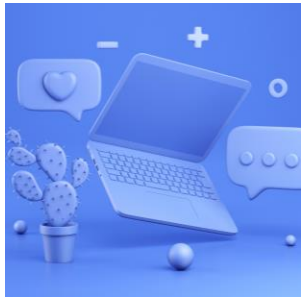
Blogs and vlogs

Content Sharing Formats

Blogs use written content while vlogs use video to share ideas and personal experiences effectively.

Common Uses

Both blogs and vlogs are popular for storytelling, tutorials, and commentary on diverse topics.



Audience Engagement

Regular posting builds a loyal audience by providing a personal and engaging creator connection.

Wikis and collaborative editing

Collaborative Content Creation

Wikis enable multiple users to contribute and edit shared pages collaboratively in real time.

Knowledge Sharing

Wikis serve as knowledge bases and educational resources accessible to many users.

Promoting Teamwork

Wikis foster teamwork and collective intelligence by allowing continuous updating and refinement.

Chatrooms and instant messaging

Real-time Communication

Instant messaging enables quick and direct communication facilitating real-time conversations between users globally.

Group and Private Chats

These services support both group chats and private messaging allowing versatile communication options for users.

Multimedia Sharing

Users can share multimedia content like images, videos, and voice messages enhancing communication richness.

Podcasts and forums

Podcasts for Learning

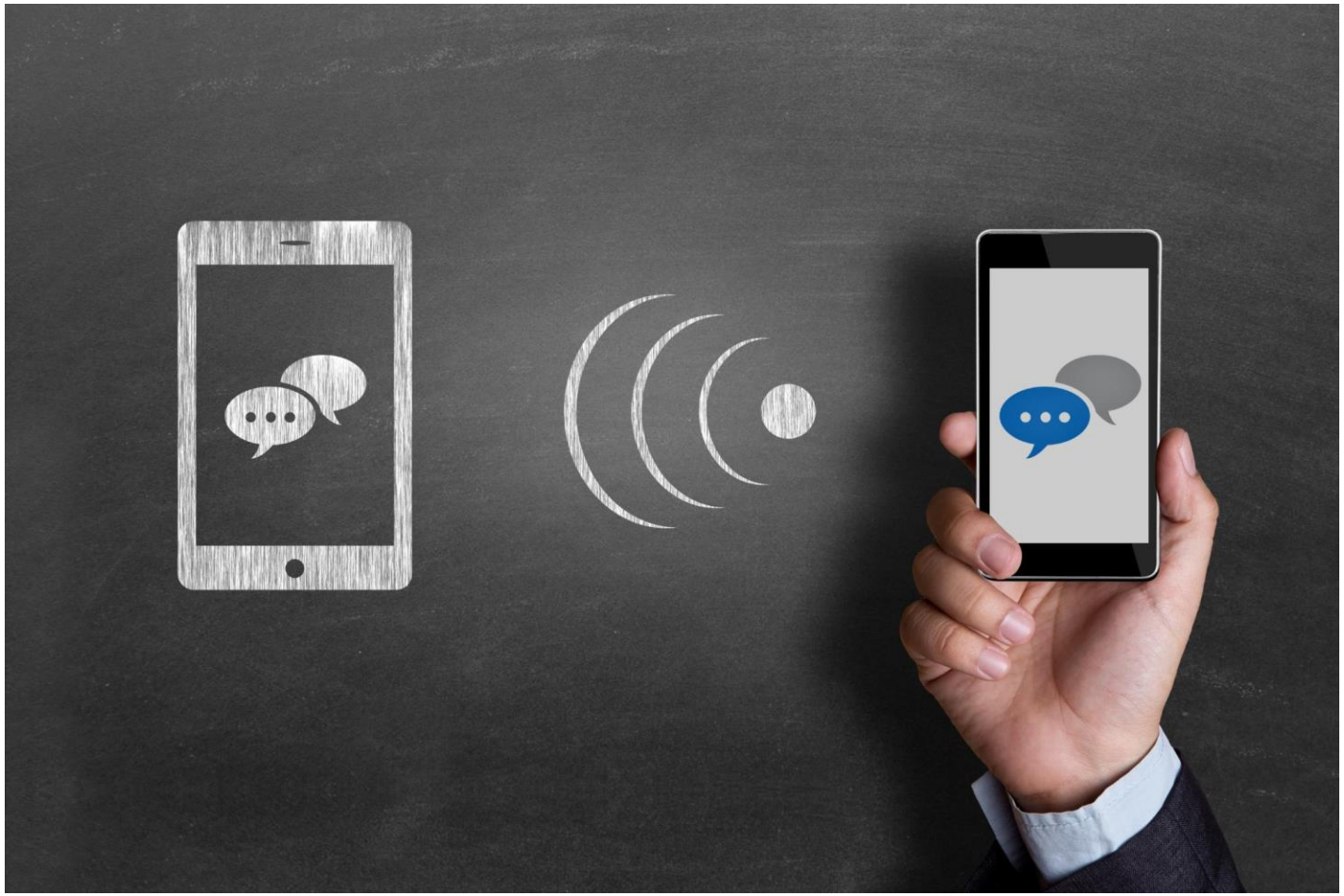
Podcasts offer diverse audio content enabling users to learn conveniently while multitasking or traveling.

Forums for Community Support

Forums provide structured platforms for asking questions and exchanging knowledge within communities.

Engagement and Accessibility

Both podcasts and forums foster user engagement and make information accessible to wider audiences.



Considerations for Using Online Communities

User experience and accessibility

Ease of Use

Platforms must be intuitive and user-friendly for smooth navigation and interaction.

Performance and Availability

Reliable, responsive platforms ensure consistent access and smooth user experience.

Accessibility Features

Inclusive design enables users with diverse needs to engage fully and effectively.

Meeting user needs and managing costs

User Needs Focus

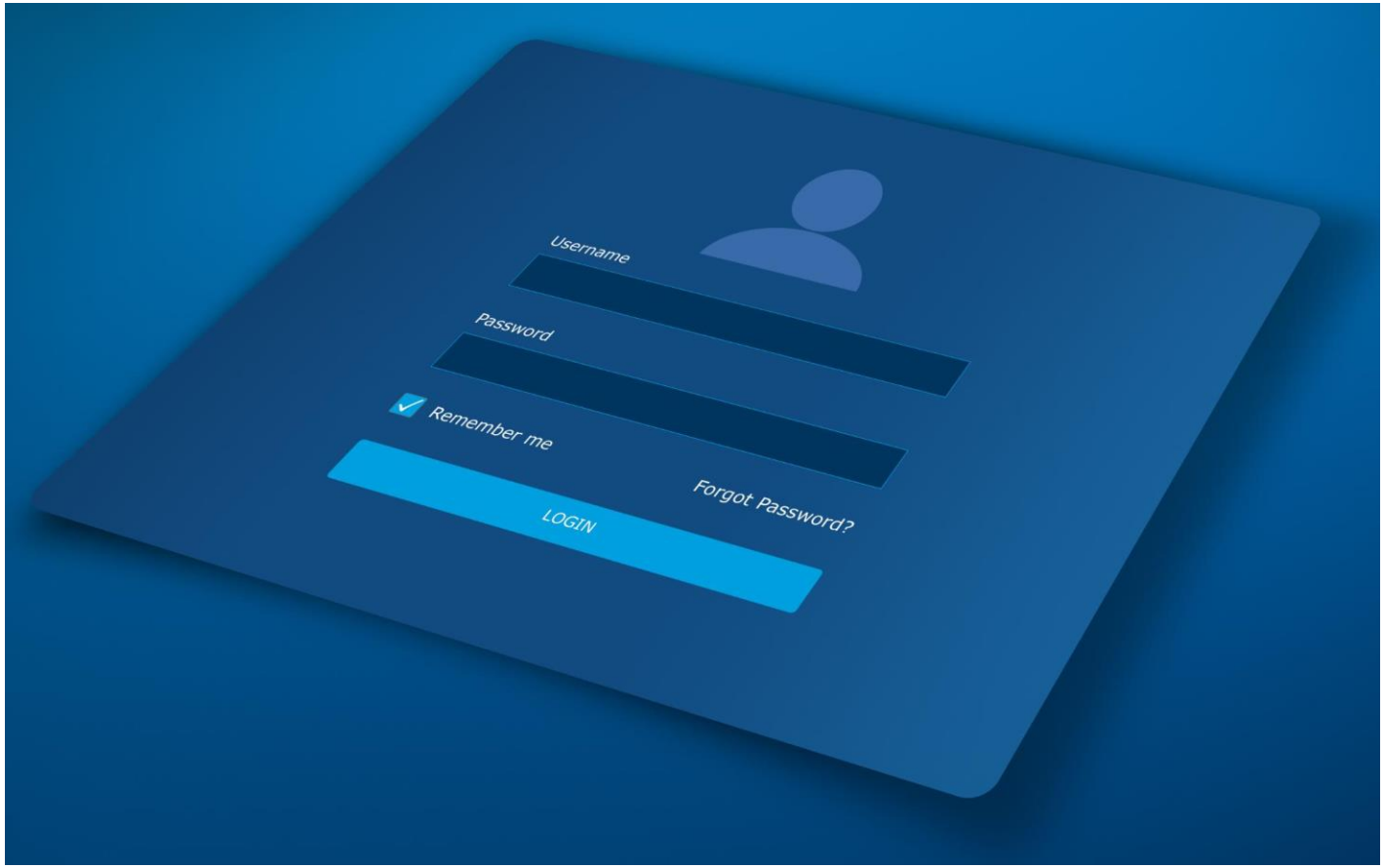
Successful online communities provide relevant features and ensure reliable service to satisfy user expectations.

Cost Considerations

Platform choices depend on cost factors affecting sustainability, especially for organizations with limited budgets.

Balancing Functionality and Affordability

A balance between features and cost ensures successful implementation and long-term use of online communities.



Privacy, security, and downtime

Importance of Privacy

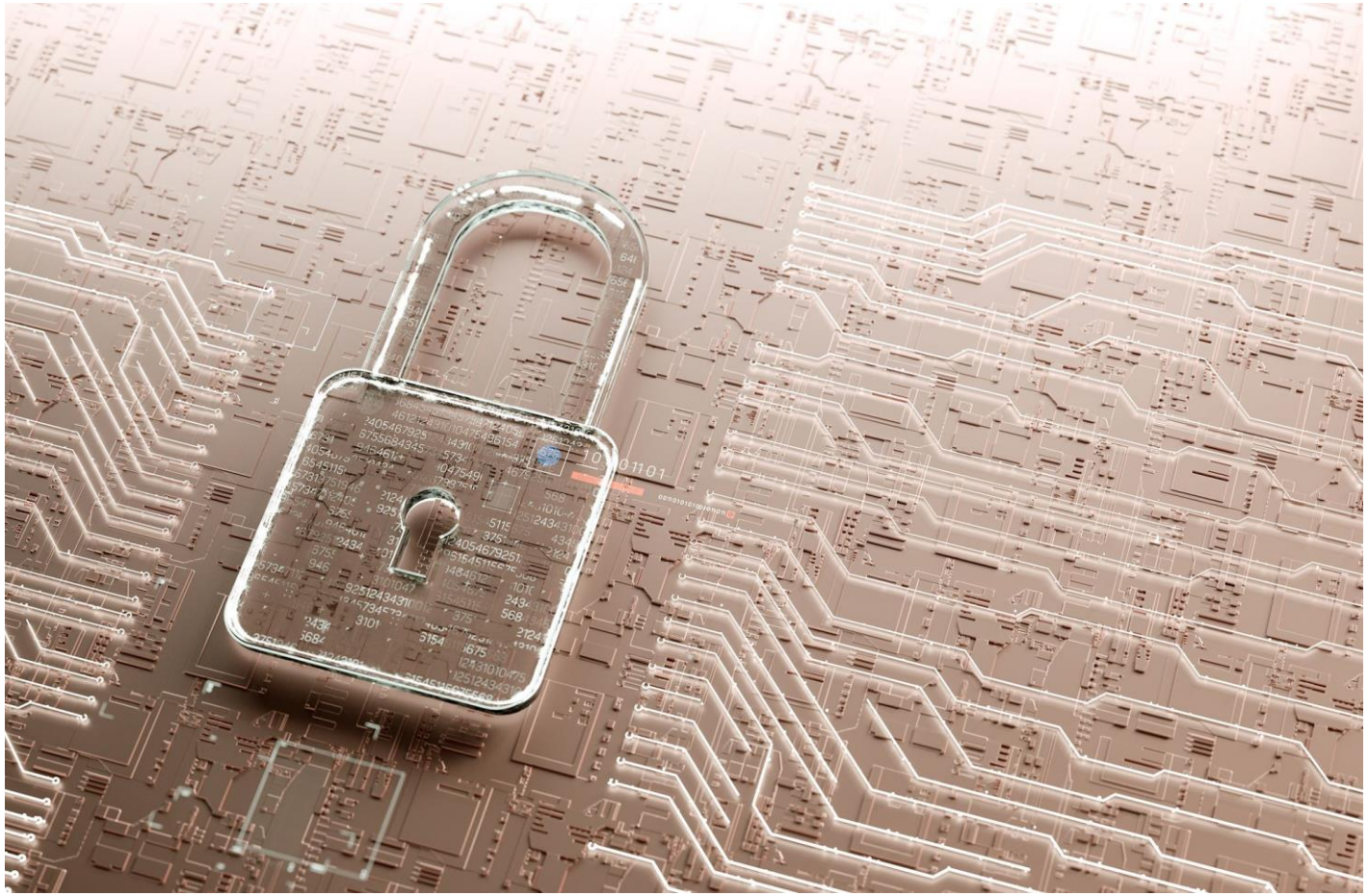
Users share sensitive information, so protecting privacy is a crucial priority for online platforms.

Robust Security Measures

Platforms must implement strong security practices to prevent data breaches and cyber threats.

Impact of Downtime

Downtime disrupts communication and productivity, making reliable uptime essential for users.



Training, integration, and productivity

Effective User Training

Training empowers users to understand and efficiently use online community platforms, boosting engagement and adoption.

System Integration

Integrating online communities with existing systems ensures smooth workflows and minimizes operational friction.

Enhanced Productivity

Online communities enhance productivity by streamlining communication and collaboration aligned with modern work practices.