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MS 365 Fundamentals (MS-900)

# What is cloud computing?

Cloud computing is the delivery of computing services over the internet.

* Compute
* Networking
* Storage
* Internet of Things (IoT)
* AI
* Machine Learning

# Describe the shared responsibility model

## On premises datacenter.

The company is responsible for everything.

* Physical Security
* Power
* Servers
* Infrastructure
* Software
* Pathe's
* Data

## Cloud Computing

Responsibilities are split between the cloud provider and the consumer.

## Cloud provider always handles

* Physical Security
* Power
* Cooling
* Networking
* Physical hosts

## Consumer always handles

* Data stored in the cloud
* Account / identity management
* Device connecting to the cloud

## Shared responsibilities

* OS
* Apps
* Pathe's
* Data

## Service models

* Infra structure as a Service (IaaS)
* Platform as a Service (PaaS)
* Software as a Service (SaaS)

# Define cloud models

## Private cloud

Dedicated to one organization, offers full control and security, but requires higher cost and maintenance.

## Public cloud

Managed by third-party providers, available to anyone, scalable, pay-as-you-go, but less control.

## Hybrid cloud

Mix of private and public cloud, providing flexibility, security options and scalability for temporary demand.

## Multi cloud

Use of multiple public cloud providers to combine features, manage migrations or reduce dependency on one provider Cloud models define how and where resources are deployed and managed, balancing costs, control flexibility and scalability.

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# Describe the consumption-based model

## CapEx

Capital Expenditure

## OpEx

Operational Expenditure

The consumptions-based model in cloud means you only pay for the IT resources you use, like a utility bill.

Traditional datacenters are CapEx, while OpEx is ongoing, pay-as-you-go costs

## Cloud benefits

* No upfront costs
* Scale resources up or down instantly
* Avoid over or under provisioning hardware
* Pay only for what you consume
* High availability
* Scalability
* Elasticity

## Efficiency

Instead of estimating future demand and risking waste or shortage, the cloud lets you adjust capacity as needed

## Bottom line

Clouds consumption-based model helps businesses manage costs, increase flexibility and run infrastructure more efficiently

# What is MS 365

MS 365 is a cloud-powered productivity platform combining familiar Office Apps (Word, Excel, PowerPoint and Outlook) with security, device management and online services. It’s designed for secure collaboration across, desktop, web and mobile devices.

## Scalability & Plans

Available for individuals, families, businesses, enterprises, education, non-profits and government.

## Core Services

* Office apps (desktop, web and mobile)
* Email & Calendaring (Outlook and Exchange)
* File storing & Sharing (OneDrive and SharePoint)
* Teamwork & Communication (Teams and Viva)
* AI assist (Co-pilot)
* Security and Compliance (Defender XDR, Purview and Entra ID)
* Device Management (Intune)

Seamless work across devices. Files saved to the cloud sync across devices, supported by MS Graph, which connects data and insights across MS Services.

## Bottom line

MS 365 is a secure, AI powered productivity platform that combines apps, collaboration tools and cloud services, scalable for individuals & organizations of all sizes.

# Describe difference between Office 365 and MS 365

## Office 365

Apps + cloud services

## MS 365

Office 365 + Windows + security and management tools (EMS)

# Describe the concept of hybrid work and flexible work

## Hybrid work

Is a work model where employees split their time between remote locations and the office. It combines on-site work with remote work to maximize productivity, collaboration and employee satisfaction.

## Flexible work

Goes beyond location, it’s about when how and where people work. It gives employees more control over their schedules and workstyle.

# Describe the productivity capabilities and benefits of MS 365

MS 365 helps people stay connected creative and productive across devices and locations.

## Creativity & AI support

Tools like MS 365 Co-pilot and Co-pilot Chat enhance productivity with AI driven assistance for summarizing , writing, coding and brainstorming.

## Office Apps

Word, Excel, PowerPoint, and OneNote enable the creation of professional content anytime, anywhere.

## File access & Sharing

OneDrive ensures secure real-time collaboration and file storage across devices.

## Communication & Organization

Outlook centralizes e-mail, calendars and contacts while MS To Do helps prioritize tasks.

## Work Management

Apps like Planner, Bookings, Forms, Lists, Loop and Project, streamline scheduling project tracking and decision making.

## Process Automation

Power Apps and Power Automate lets users build low-code apps and workflows to simplify and accelerate business tasks.

# Describe Work Management tools in MS 365

Microsoft offers a set of apps that streamlines task and project management, so individuals and teams can stay organized, on track and collaborative. These tools support everything from personal tasks to enterprise level project planning.

## MS Project

Advanced project management for complex projects with scheduling budgeting, dependencies and Power BI dashboards.

## MS Planner

A lightweight Kanban-style task management app for team collaboration, tracking and visual progress updates

## MS Bookings

Appointment scheduling and management integrated with Outlook and Teams. Allowing customers to self-schedule

## MS To Do

A personal task management app with daily planning (My Day), reminders and integration with Outlook and Planner.

## MS Forms

Simple surveys, quizzes and polls with built-in analytics and Excel export.

## MS Lists

Flexible information tracking with templates, filtering and automation capabilities

## MS Loops

A co-creation platform with components pages and workspace for real-time collaboration across Teams, Outlook and other apps

# Describe additional MS 365 Productivity apps

## Visual & Design tools

### Clipchamp

Browser-based video editor with filters, transitions, stock media and multi-track editing.

### Sway

Interactive web-based canvas for quick, professional, visually engaging presentations.

### Visio

Diagramming tool for flowcharts, network diagrams, floorplans etc.

### Whiteboard

Digital canvas for brainstorming and collaboration; integrates with Co-pilot for summarization and design suggestions

## MS Power Platform

### Power Apps

Low code no-code environment to build custom apps that integrate with MS 365, Dynamics 365 and third-party services.

### Power Automate

Workflow automation service for repetitive tasks, notifications and integrations

### Power BI

Business analytics and data visualization platform with AI capabilities and Excel integration; Co-pilot helps generate reports from natural language prompts.

## MS Business Platform

### Dynamics 365

Suite of intelligent business apps combining customer relationship management (CRM) and Enterprise Resource Planning (ERP); provides AI driven insights and customer feedback management.

# Describe how MS Team promotes collaboration and enhances teamwork.

MS Teams is a hub for teamwork, connecting people across work, school and home. It brings together messaging, meetings, file sharing, calling and extensible apps all built on MS 365 security and powered by MS Entra ID.

## Teams and channels

* Organize people, files and tools by project or topic
* Supports standard, private and shared channels
* Files in channels are stored in SharePoint

## Chat and Instant Messaging

* Quick communication without e-mail cluttering
* One-to-one or group chats, voice messages and screen sharing
* Conversations, files and apps are kept in one place

## Teams Phone

* Integrate cloud calling across devices with features like voicemail transcription and call history
* Supports seamless call transitions between networks
* Co-pilot generates summaries and action items from calls

## Meetings in Teams

### Standard Meetings

Interactive collaboration with audio, video and screen sharing for up to 1000 participants. Beyond that, up to 20.000 in view-only mode.

### Webinars

Structured sessions with presenters vs. Attendee roles, registration, engagement tools and up to 1000 interactive participants.

### Live Events

Broadcast-style meetings for large audiences up to 20.000, with moderated Q&A and controlled production.

### Meet App

Centralizes scheduling prep and reviewing past meeting content.

### Co-pilot in Meetings

Provides smart summaries, action items, unresolved questions and table of discussion points

## Collaborative Apps & Extensions

Add apps like Planner, Whiteboard, Power BI, Power Apps and Power Automate. Integrate with Dynamics 365 and third-party tools (Salesforce, Services Now). Build custom app or automate workflows directly in Teams.

# Describe the MS Viva Apps

Microsoft Viva is an Employee Experience Platform (EXP) built into MS Teams. It connects communications, knowledge, learning, resources and insights to help employees thrive. Viva is customizable, integrates with MS 365 and leverages Co-pilot for intelligent experiences.

## Employee Communications & Communities

### Viva Connections

Personalized company branded app in Teams; central hub for news, conversations and resources.

### Viva Engage

Social layer for communities, open conversations and company wide events.

### Viva Amplify

Centralized campaign management app for communications multi-channel publishing with analytics.

## Workplace Analytics & Feedback

### Viva Insights

Data driven privacy protected insights for productivity and wellbeing at individual, manager and organizational levels.

### Viva Glint

Employee feedback and engagement platform; enables continues feedback, predictive analytics and organizational health tracking.

### Viva Puls

Lightweight survey tools for manager and leaders to gather quick team feedback.

## Learning & Knowledge Management

### Viva Learning

Centralized hub for employee learning in Teams; integrates content from Learn Management Systems (LMS), MS and third-party providers, with sharing and tracking capabilities.

## Streamline content and collaboration with OneDrive & SharePoint

### OneDrive

* Personal cloud storage for files, photos and documents
* Automatic back-up of PC folders, phone photos
* Access anywhere with offline availability
* Realtime sync across devices
* Mobile scanning for docs and photos
* Photo & Video organization with smart collections
* Secure sharing with permission controls
* Collaboration with real-time co-authoring in Office apps
* Version history & recovery for restoring files
* Enterprise-grade security (encryption, MFA)

### SharePoint

* Team-based collaboration with shared sites and workspaces
* File sharing & Management across teams
* Team & Communication sites with engaging layouts
* Integration with Teams, Outlook and Office apps
* Intelligent search & organization with lists and libraries
* Automation with Power Automate and AI tagging
* Mobile & Web access to content
* Analytics for tracking engagement
* Extensibility with Co-pilot Studio and custom agents
* Security & Permission for controlled access

# Describe the endpoint management capabilities of MS 365

MS 365 provides comprehensive endpoint management to secure and manage all types of devices. This is done through the MS Intune family products, which delivers a unified cloud-based endpoint management solution.

## Key components include

### MS Intune

Manages apps and devices across platforms, enforces policies, protects data, integrates with MS Defender and offers a self-service Company Portal for users.

### Configuration Manager

On-premises solution for managing servers, desktops and laptops with cloud-attach capabilities to integrate with Intune.

### Co-management

Allows Windows devices to be managed by both Intune and Configuration Manager simultaneously.

### Tenant Attach

Extends on-premises Configuration Manager into the cloud, enabling real-time insights and management from the Intune admin center.

### Endpoint Analytics

Provides reporting and recommendations on device health, performance and user experience.

### Windows Autopilot

Simplifies deployment, setup, reset and repurposing of Windows devices

### Windows Autopatch

Automates updates for Windows, Office, Edge and Teams, minimizing IT Workloads

### Intune Admin center

A centralized web-based Portal to manage policies, devices, users and reporting's.

All of these solutions support Zero Trust by enforcing least privilege, verifying explicitly and assume breach.

# Compare the differences of Windows 365 and Azure Virtual Desktop (AVD)

## Windows 365

* Provides personal Cloud PCs that are dedicated to a single user.
* Managed fully by MS with fixed predictable costs
* Easy to setup – assign a license and the cloud PC is automatically provisioned
* Best for organizations that want a simple scalable, per user desktop solution without managing infrastructure.

## Azure Virtual Desktop (AVD)

* Offers flexible desktop and app virtualization, including multi-session Windows (multiple users sharing the same VM)
* Supports both Windows Client and Windows Server environments
* Customers manage the Azure infrastructure with consumption-based costs
* Best for organizations needing greater customization, scalability and app virtualization

# Describe the deployment and release models for Windows as a Service (WaaS)

WaaS is Microsoft's model for delivering Windows updates continuously instead of through big version releases every few years.

## It means

* Windows is always kept current and secure with regular updates
* Feature-updates (new functionality) and quality updates (security/reliability fixes) are delivered on a predictable schedule
* Organizations can manage updates through sevicing channels, deployment rings and modern deployment tools like Windows Autopilot

## Release Types

### Feature Updates

Released twice a year, small and incremental. Add new functionality with less disruption, quicker adaption and lower update costs.

### Quality Updates

Released monthly. Provide security and reliability fixes. Delivered cumulatively so devices stay aligned and secure.

## Servicing Channels

### Windows Insider Program

Early testing of upcoming features via Flighting. Recommended for a small set of devices in every org.

### General Availability Channel

Annual feature updates for broad use. Ideal for pilot deployments and early adopters.

### Long-term Servicing Channel (LTSC)

Designed for specialized devices (ATMs, medical equipment) Updates every 2-3 years.

## Deployment Rings

### Preview

Evaluate the new features of the update

### Limited

Validate the update on representative devices across the network.

### Broad

Once the devices in the limited ring have had a sufficient stabilisation period, it’s time for broad adoption.

## Deployment Methods

### Modern

#### Windows Autopilot

Customize out-of-the-box-experience (OOBE), self service

#### In-Place Upgrade

Automated upgrade while retaining data, apps and settings.

### Dynamic

#### Subscription activation

Upgrade editions based on license.

#### Entra ID & MDM auto-enrollment

Simplified setup via organizational login

#### Provisioning Packages

Pre-configured settings and apps applied at deployment.

### Traditional

#### New Computer

Fresh image deployment

#### Refresh (wipe and clean)

Save user state, wipe disk, restore device

# Identify deployment methods and update channels for MS 365 apps

## Deployment Methods

### Configuration Manager (local source)

Deploy office from on-premises distribution points

### Office Deployment Tools (ODT)

#### Cloud

Install office directly from Microsoft’s CDN using a config file.

#### Local source

Deploy office from a local network source instead of the cloud.

### Self-install from Office Portal

Users install Office themselves directly from the portal.

## Update Channels

### Current Channel

New features as soon as they’re ready; also, frequent security and quality updates (2-3 time a month).

### Monthly Enterprise channel

Predictive monthly updates (feature, security, non-security) on patch Tuesday

### Semi-annual Enterprise channel

Major updates twice a year (January & July), for devices that need extended testing.

## KeyPoint's

* Updates are automatic and cumulative (latest release includes all prior fixes)
* Security and non-security (quality) updates are included in all channels
* Orgs can mix channels (trainers on current channel, rest on Semi-annual) depending on testing and readiness.

# Describe the capabilities of Viva Insights

Viva insights provide privacy-protected, data driven recommendations to improve productivity, wellbeing and collaboration at personal, team and organizational levels

## Capabilities

### Personal Insights

* Private to the employee
* Suggestions for better work habits
* Tools for wellbeing
* Progress tracking

### Viva Insights in Teams & Web

#### Home tab

Personalized suggestions and progress tracking

#### Wellbeing tab

Recommendations for balance and stress management

#### Productivity tab

Meeting effectiveness insights, task tracking, collaboration suggestions

#### Teamwork tab

Shows collaboration patterns and top collaborators

### Viva Insights in Outlook

#### Add-ins

Insights for meeting prep, relationships and focus

#### Briefing e-mail

Daily recommendations for commitments, follow-ups and prep.

#### Digest

Highlights of work patterns

#### Inline suggestions

AI-driven tips when composing/reading e-mails

### Team Insights

* Available to managers
* Shows team habits, collaboration trends and meeting effectiveness
* Provides shared plans for promoting healthy team norms

### Organization Insights

* Available to leaders
* Reports on companywide productivity, wellbeing and culture
* Identifies opportunities for positive organizational change

### Advanced Insights

* Deeper analytics on resilience, work culture and hybrid work impact
* Helps leaders align processes to improve business outcomes and employee wellbeing

### Data Privacy

* Fully compliant with laws /regulations
* Employees personal insights remain private

# Describe the capabilities of MS Co-pilot Dashboard

The MS Co-pilot Dashboard in Viva Insights helps organizations maximize the value of Co-pilot by providing actionable insights to prepare for deployment, drive adaptation, and measure impact. It is available to MS 365 of Office 365 Business an Enterprise customers with an active Exchange Online account, no additional Viva Insights or Co-pilot license required

## Capabilities

### Readiness

Assesses organizational preparedness for Co-pilot adaption (license assignments, enablement)

### Adoption

Tracks employee usage of Co-pilot across MS 365 apps

### Impact

Measures productivity and collaboration improvements

### Sentiment

Collect user feedback and collaborate improvements

## MS 365 Admin Center

Admins can manage access and settings via the MS 365 Admin Center, including assigning dashboard access, uploading organizational data, managing comparison groups, exclusion and group size thresholds

# Describe the capabilities of the MS 365 admin center and User Portal

## MS 365 Admin center

Accessible at admin.microsoft.com (admin permissions required). It provides two views: simplified and dashboard (for more advanced tasks).

## Key capabilities

### User management

Add, delete, restore, reset passwords.

### License Management

Assign or remove license.

### Groups

Create, edit or delete MS 365 groups

### Roles & Identity

Assign MS Entra ID built-in roles

### Billing

View, purchase and cancel subscriptions.

### Support

Create and track service requests.

### Global Settings

Manage apps like Outlook, Teams and Co-pilot.

### Resources

Create/manage SharePoint sites, Teams resources.

### Monitoring

View activity reports and service health.

### Separate Admin Centers

Access Exchange, SharePoint, Viva Engage and MS Entra.

### Co-pilot Management

Assign licenses, configure and view insights.

## MS 365 User Portal (MS 365 Co-pilot app)

## Key Capabilities

### App Hub

Find, open and use MS 365 apps like Word, Excel, PowerPoint, Outlook and Teams.

### Co-pilot Chat

AI assistance for work tasks (summarizing, generating, analyzing).

### File Access

Quick access to files stored in OneDrive, SharePoint and other cloud locations.

### Email & Calendar

Integrated with Outlook and Exchange.

### Self-Service

Reset passwords, change profile picture, manage MFA and install Office apps (if admin allows).

### Licensing Awareness

Shows only the apps the user has licensed access to.

## Bottom Line

The admin center supports IT/admin taks like management, security and monitoring, while the user portal focuses on individual productivity, collaboration and AI-powered assistance.