



**Schule ohne Server – Kein Problem mit Microsoft Azure**



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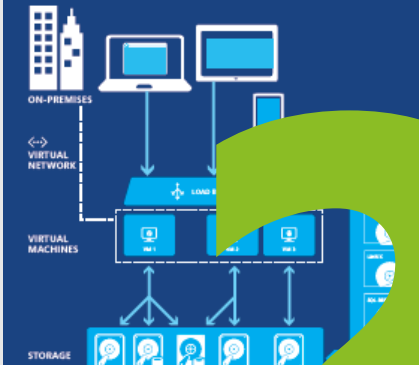
- Microsoft Azure
- Primarschule «OnPremise»
- Primarschule «Cloud»
- Demo RemoteApp
- Wer wir sind
- Fragen & Antworten

# Microsoft Azure

## What is Microsoft Azure?

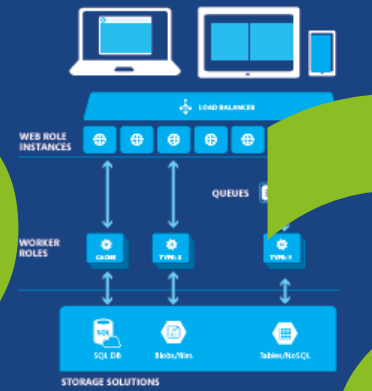
### Virtual Machines

May be best described as a virtual machine with almost full OS, kernel and no software you want. Configure multiple machines with different roles to create complex solutions. VMs are nearly identical to conventional (real) servers, and are the easiest way to run existing applications in the cloud.



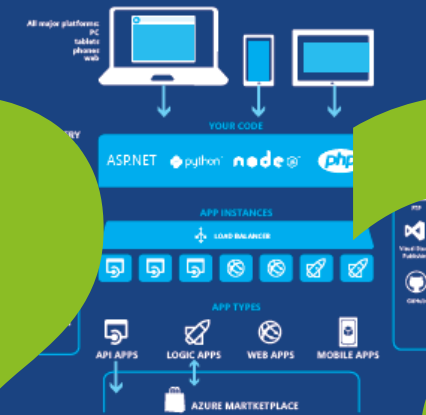
### Cloud Services

Ready access and manage these general-purpose VMs. We maintain and update each VM as needed with system updates. You configure the VM size as needed, and scale out as many copies as needed. Two types of VMs: worker VMs and web VMs. Worker VMs are used for computing and running services. The web VM is simply a worker VM with a standard web server installed and configured.



### App Service

App Service is a high productivity solution for developers who need to create enterprise-grade web and mobile app experiences. App Service provides a complete platform as a service solution that enables you to deploy and manage code applications in the cloud, and seamlessly integrate them with on-premise resources and third-party applications.



## Microsoft Azure

Microsoft Azure is a flexible, open, and secure public cloud built for business. Access a broad collection of integrated services that accommodate many languages and operating systems. Use world-class tools to accelerate a wide variety of app development and delivery scenarios.

Get 30-day free credit to try any combination of Azure services:

<https://azure.microsoft.com/try-azure/>

Search [azure.microsoft.com](https://azure.microsoft.com/), MSDN, or TechNet for keywords found in this poster

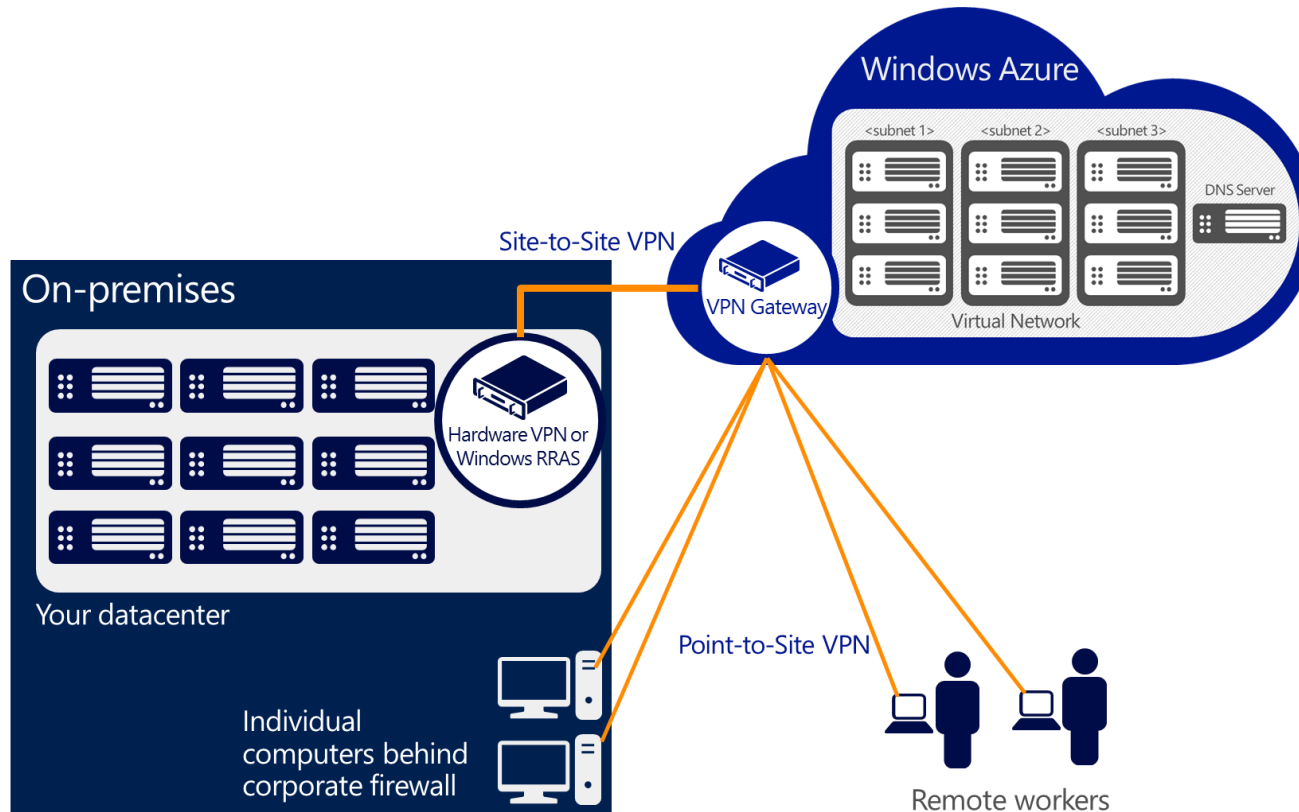
## Catalog of Services

COMPUTE	WEB & MOBILE	STORAGE & BACKUP	HYBRID INTEGRATION	NETWORKING	DATA	IDENTITY & ACCESS	MANAGEMENT	MEDIA & CDN	DEVELOPER SERVICES	COMMERCE
<b>Virtual Machines</b> Get full control over a server in the cloud and maintain it as your business requires.	<b>Web Apps</b> Managed web applications get started fast and scale to support any number of languages.	<b>Storage Blobs &amp; Files</b> Store binary application data and web content - store for dedicated and shared virtual disks for VMs.	<b>Storage Queues</b> Simple message queue for applications designed to be asynchronous and reliable.	<b>Express Route</b> Connect on-premise and cloud datacenters directly through dedicated, non-Internet lines.	<b>SQL Database</b> Managed relational database service with high availability and automatic performance tuning.	<b>Active Directory</b> Identity and access management for cloud applications and ability to link to on-premise Server AD.	<b>Automation</b> Run reusable PowerShell scripts to automate tasks, manage complex Azure tasks.	<b>Media Services</b> Range of services that support video on demand and live streaming workflows.	<b>Visual Studio Online</b> Store code, plan and track projects, build, deploy and test apps in the cloud continuously.	<b>Store / Marketplace</b> Find and manage other services provided by third parties.
<b>Cloud Services</b> Managed virtual machines with various roles and worker roles.	<b>Mobile Apps</b> Add backend capabilities to mobile apps with native cloud support on most device platforms.	<b>Backup</b> Managed service that handles backup and recovery of Windows Server machines (backup agent).	<b>BizTalk Services</b> Build ESB and Integration App Integration (B2B) solutions in the cloud.	<b>Traffic Manager</b> Load balance incoming global traffic across multiple services running in multiple datacenters.	<b>DocumentDB</b> Store unstructured data in JSON or MongoDB format.	<b>Factor Authentication</b> Secure your applications with multi-factor authentication.	<b>Portal</b> Web-based experience to provision, control and monitor all Azure services.	<b>CDN</b> Cache content for your apps to Content Delivery Networks (CDN) all over the world to improve user experience.	<b>Application Insights</b> Analyze app usage, availability and performance to detect issues and troubleshoot problems proactively.	<b>VM Depot</b> Find free open source VM images that you can download and run in Azure Virtual Machines.
<b>Batch</b> For running large-scale parallel and high-performance computing (HPC) applications.	<b>API Apps</b> Create and surface your APIs as an API Gateway or Marketplace.	<b>Import / Export</b> For massive data transfer - ship encrypted data to move data from on-premise data centers to cloud storage.	<b>Hybrid Connections</b> Connect apps in Azure with on-premise resources without a VPN or dedicated line.	<b>Remote App</b> Access Windows apps from any device and any location that can run a RemoteApp client.	<b>Big Data</b> Big Data Store on Apache Hadoop in Azure that integrates easily with Microsoft Office.	<b>Cloud Shell</b> Run commands in the cloud from a web browser.	<b>Key Vault</b> Securely store and control keys and secrets in cloud-scale hardware security modules.	<b>Mobile Engagement</b> Real-time analytics on user behavior for better app usage.		
<b>Scheduler</b> Create jobs that run reliably on a single or complex schedule to window any type of service.	<b>Logic Apps</b> No-code/low-code workflow automation by linking your own custom APIs with an API Gateway/Marketplace.	<b>Site Recovery</b> Coordinate replication and recovery of System Center private clouds.	<b>Service Bus</b> Managing capabilities (queues, topics) and on-premise to cloud connectivity solution.	<b>Network</b> Connect on-premise and cloud datacenters directly through dedicated, non-Internet lines.	<b>Machine Learning</b> Build intelligent models with complete power to predict future trends or behavior.	<b>Search</b> Managed, scalable search service for your apps. Create custom search results and ranking models.	<b>Operational Insights</b> Analyze and troubleshoot on-premise IT infrastructure without using measurement code.			





Die Microsoft Azure Plattform besteht aktuell aus **18+ Datacenter Lokationen** weltweit, verbunden über einen Netzwerk Backbone welcher intern von allen **60+ Cloud Diensten** genutzt werden kann.



## Variante 1

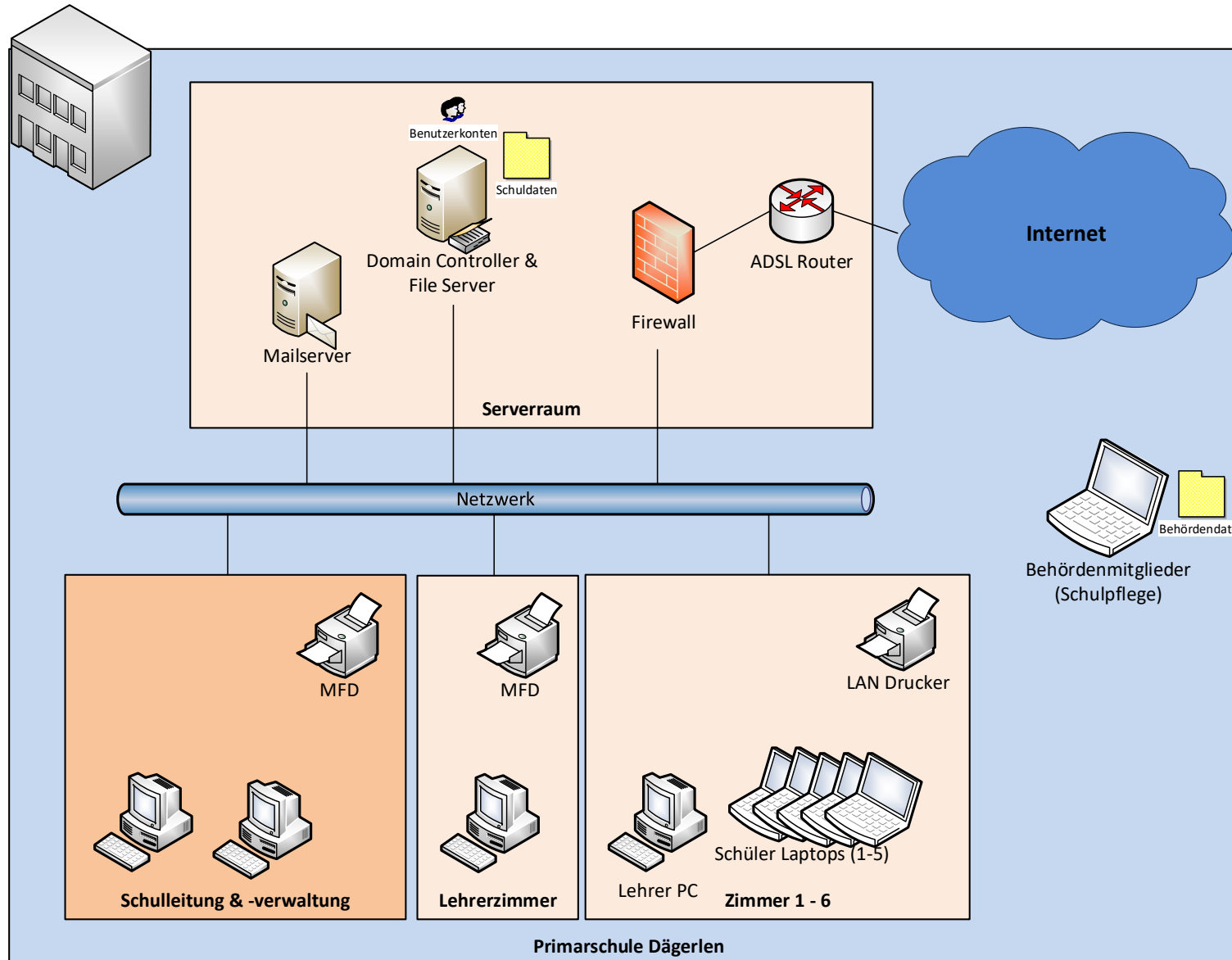
Erweiterung des lokalen Netzwerks in die Cloud mittels **Site-to-Site VPN**. Bestehende Server als **virtuelle Maschinen in Azure** betreiben.

## Variante 2

Bestehende Datei- und Mailservices migrieren zu Cloud Services. Exchange zu **Office 365 Online**, Dateiablagen zu **Sharepoint Online**.

- Neu «mieten» anstatt «investieren»
- Einfacher zu budgetieren (nur Betriebskosten)

# Primarschule «OnPremise»



- 2 Server, Firewall, ADSL Modem
- Schulleitung, -verwaltung und Lehrerzimmer je ein PC
- Pro Klassenzimmer ein PC und diverse Laptops und Drucker
- Daten & Mails lokal
- Schulsoftware und Office Applikationen auf allen Geräten installiert
- Schulbehörde nicht integriert (Daten verteilt)

# Schule ohne Server? Ja aber...

Benutzerkonten?

Mailboxen?

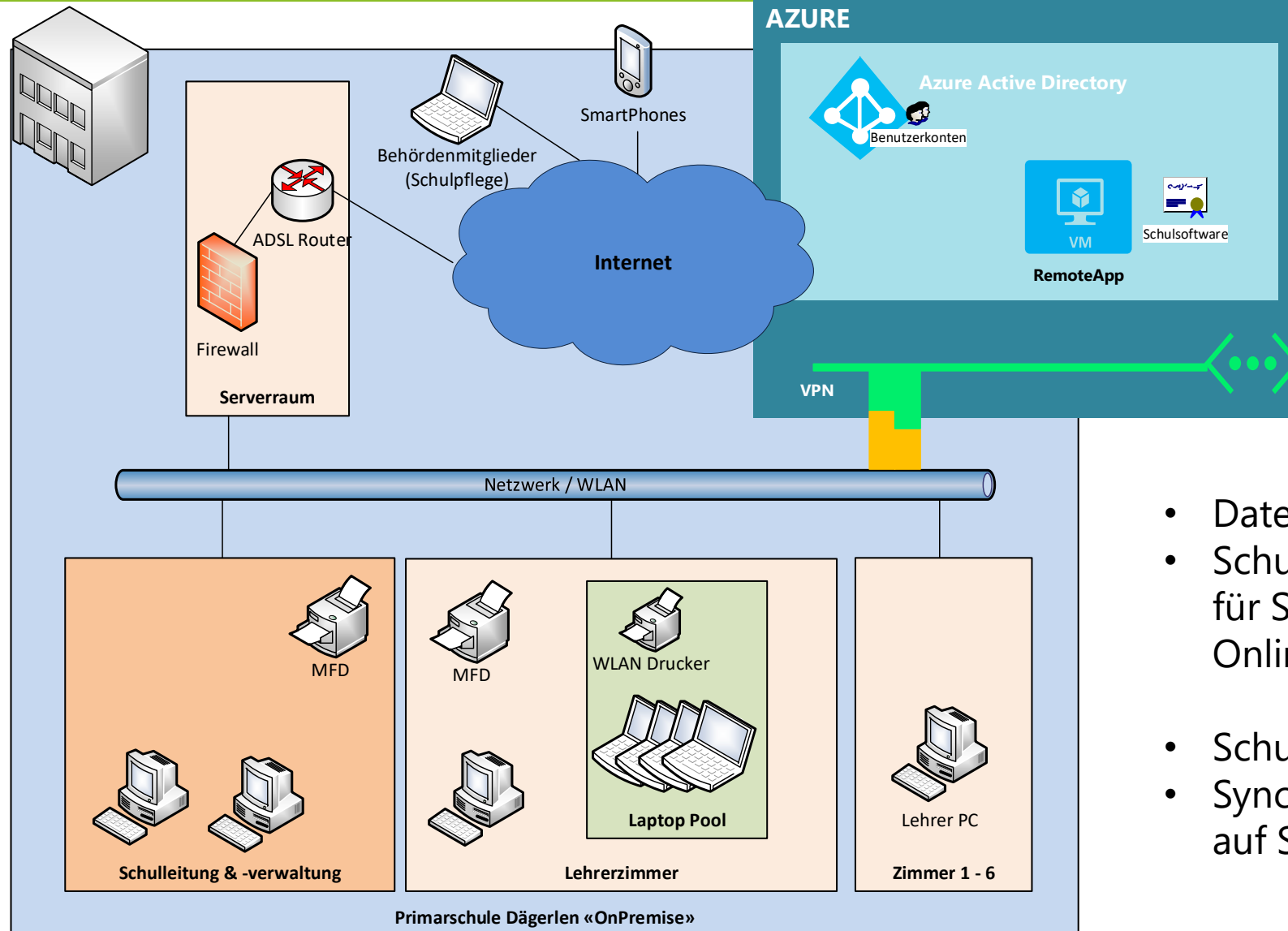
Dokumente & Daten?

Netzlaufwerke?

Applikationsserver?

Internetzugang?

# Primarschule «Cloud»

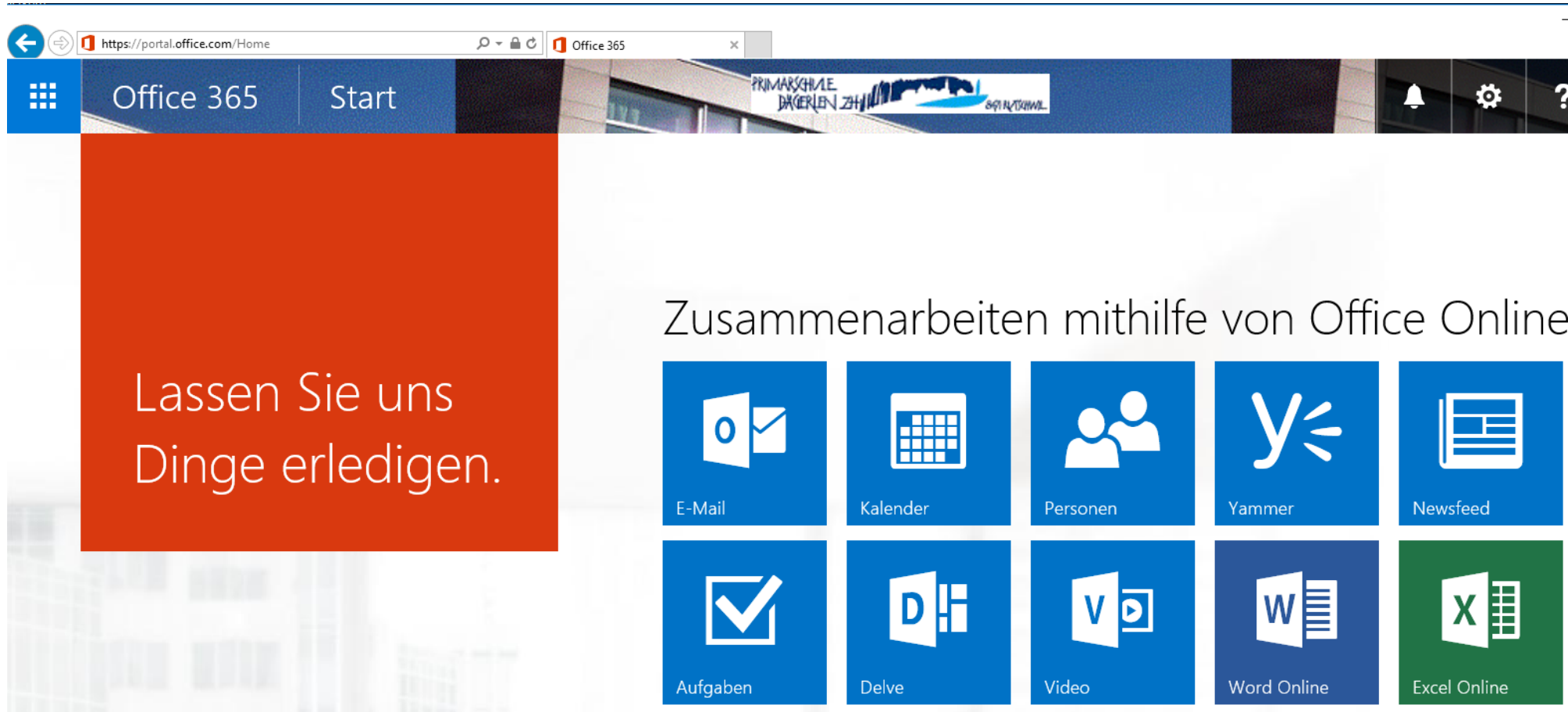


**ABER:** zuverlässiger Internetzugang ist zwingend!

- Daten & Mails in der «Cloud»
- Schulsoftware und Office Applikationen für Schüler via RemoteApp oder Office Online
- Schulbehörde Mail & Daten integriert
- Synchronisation von Mails und Kalender auf SmartPhones













## Office 365 Online auf den Pool Laptops...



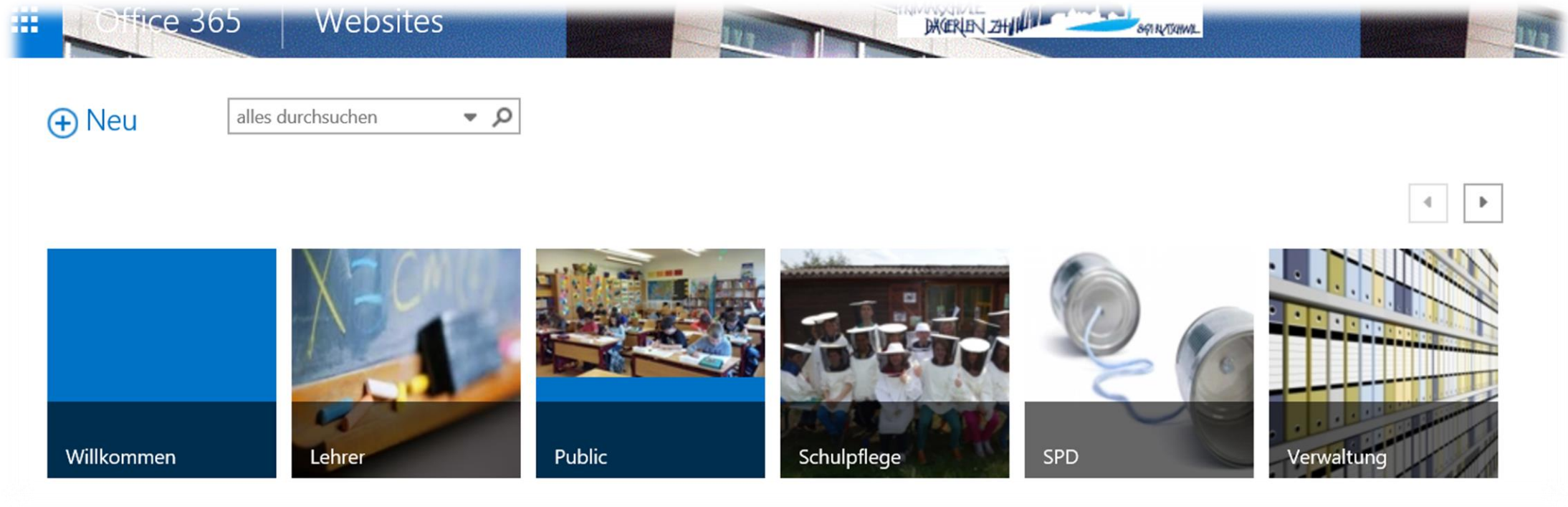
The screenshot shows the Office 365 online portal in a web browser. The address bar displays <https://portal.office.com/Home>. The page features a blue header with the Office 365 logo and a 'Start' button. Below the header, there is a large orange box on the left containing the text 'Lassen Sie uns Dinge erledigen.' To the right of this box, the text 'Zusammenarbeiten mithilfe von Office Online' is displayed. Below this text is a grid of ten application tiles: E-Mail, Kalender, Personen, Yammer, Newsfeed, Aufgaben, Delve, Video, Word Online, and Excel Online. The tiles are arranged in two rows of five. The background of the portal shows a blurred image of a building.

Lassen Sie uns Dinge erledigen.

Zusammenarbeiten mithilfe von Office Online

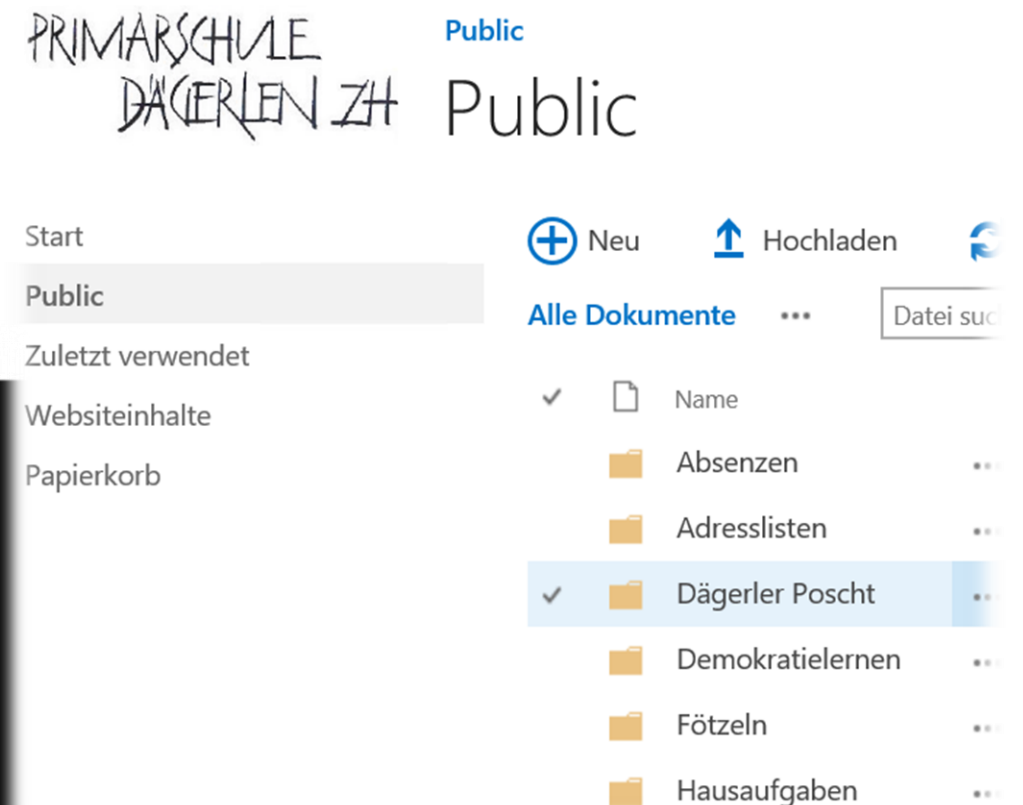
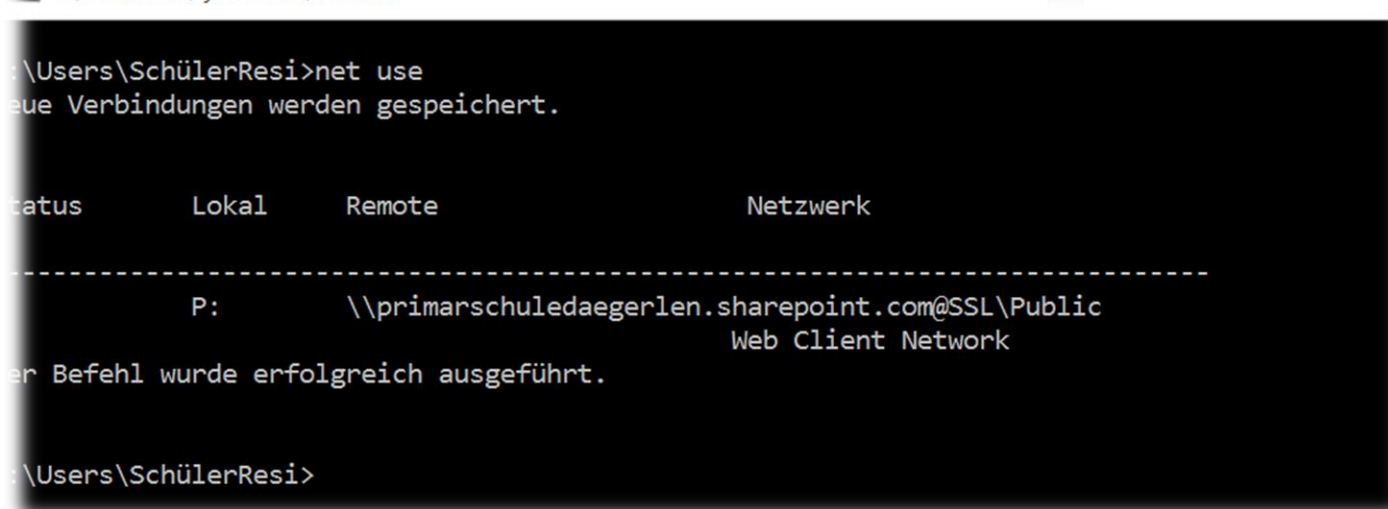
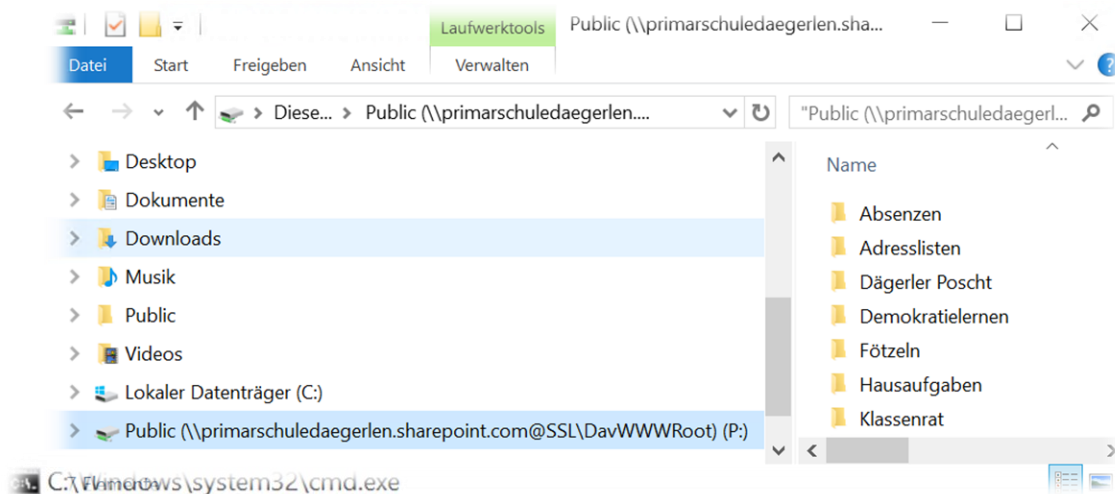
 E-Mail	 Kalender	 Personen	 Yammer	 Newsfeed
 Aufgaben	 Delve	 Video	 Word Online	 Excel Online

## SharePoint Online als zentral Datenablage...



- Schulverwaltung / -leitung
- Lehrer & Schüler
- Schulpflege

## Zugriff auf Daten...





«Schulapplikationen in der Cloud installiert», nutzbar von jedem Windows, iOS & Android Gerät

Nur Bildschirminhalt wird übertragen

- Wir sind Technik-interessiert, affin für Neues und haben Spass an dem was wir machen!
- Ein Unternehmen in privater Hand mit einem Partner Modell
- Wir haben miteinander in über 600 Projekten mehr als 100 Jahre IT Erfahrung erarbeitet
- Unser Fokus liegt auf    
- Unsere Kunden kommen aus verschiedenen Branchen und haben individuelle Anforderungen
- Von uns erhalten Sie First Class IT Services inner- und ausserhalb der Cloud, je nach Bedarf





## Technische Kompetenzen

