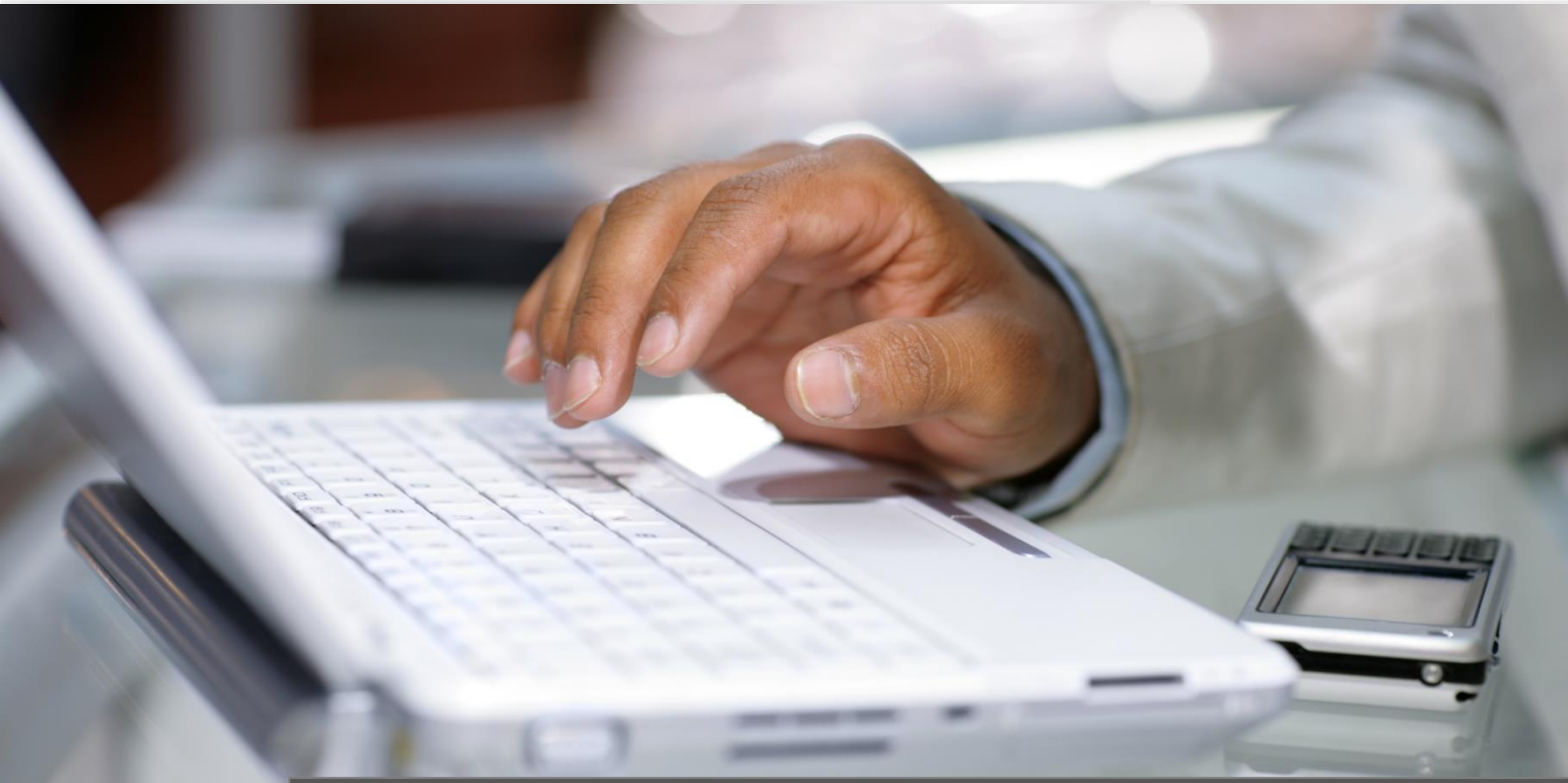
Fundamentals of Windows Server

Online-Training | Examen MTA



Ausbildungsinhalte

ITKservice

Fundamentals of Windows Server

Mit dieser Ausbildung legen Sie die notwendigen Netzwerkgrundlagen, die Sie für alle weiterführenden Microsoft Server-Ausbildungen benötigen. Zudem können Sie sich auf das Examen 366 vorbereiten, mit dem Sie den Titel *Microsoft Technology Associate (MTA)* erlangen.

Ausbildungspfad | Microsoft Technology Associate (MTA)

Der *Microsoft Technology Associate (MTA)* ist eine einführende Microsoft-Zertifizierung für Personen, die eine Karriere in der Technologiebranche anstreben. Die MTA-Zertifizierung umfasst grundlegende technische Konzepte und bewertet, überprüft und verbessert technische Grundkenntnisse.

	Online-Training	Dauer	Examen
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Sie erhalten einen ersten Einblick in Netzwerkinfrastrukturen, sowie Konzepte und Konfigurationen, der Anwendungsplattform, unter Windows Server.
Mit der Nutzung dieser Ausbildungsreihe legen Sie die Basis für eine erfolgreiche Windows Server-Installation und für alle weiterführenden Microsoft Windows Server Ausbildungen.

	Unterrichtseinheit	UE 01	MTA

Network Architecture Standards
- ✓ Network Components and Terminology
- ✓ Network Architecture
- ✓ Network Media Access Control Methods
- ✓ IEEE 802 Standards

Local Area Networking
- ✓ What Is a LAN?
- ✓ How Nodes on a LAN Communicate
- ✓ Physical Components of a LAN
- ✓ LAN Physical Topologies
- ✓ LAN Logical Topologies

Wide Area Networking
- ✓ What Is a WAN?
- ✓ Physical WAN Components
- ✓ What Are the WAN Standards?
- ✓ What Are the T-Carrier and E-Carrier Standards?
- ✓ Optical Carrier Standards
- ✓ What Is ISDN?
- ✓ Connecting to the Internet with WAN Components

Wireless Networking
- ✓ Wireless Networking Components
- ✓ Wireless Standards and Protocols
- ✓ What Is 802.11?
- ✓ Securing Wireless Networks

Unterrichtseinheit	UE 02	MTA

Connecting to the Internet
- ✓ What Is the Internet?
- ✓ Intranets and Extranets
- ✓ What Is a Firewall?
- ✓ What Is a Perimeter Network?
- ✓ Proxy and Reverse Proxy Servers

Remote Access
- ✓ What Is a Branch Office?
- ✓ What Is Remote Access?
- ✓ Encryption and Authentication
- ✓ Virtual Private Networks
- ✓ RADIUS

Understanding the OSI Model
- ✓ The OSI Model
- ✓ The Lower Layers of the OSI Model
- ✓ The Middle Layers of the OSI Model
- ✓ The Upper Layers of the OSI Model

Understanding Adapters, Hubs, and Switches
- ✓ What Is a Network Adapter?
- ✓ Transmission Speeds
- ✓ What Is a Hub?
- ✓ Characteristics of a Switch
- ✓ What Is a VLAN?

Understanding Routing
- ✓ What Is a Router?
- ✓ How a Router Determines a Destination
- ✓ Common Routing Protocols

Understanding Media Types
- ✓ Coaxial Cable
- ✓ Twisted-Pair Cable
- ✓ What Are the CAT Standards?
- ✓ Fiber Cable

Overview of TCP/IP
- ✓ The TCP/IP Protocol Suite
- ✓ Protocols in the TCP/IP Suite
- ✓ TCP/IP Applications
- ✓ What Is a Socket?

Unterrichtseinheit	UE 03	MTA

Understanding IPv4 Addressing
- ✓ How Dotted Decimal Notation Relates to Binary Numbers
- ✓ IPv4 Addressing
- ✓ Simple IPv4 Implementations
- ✓ More Complex IPv4 Implementations
- ✓ How Bits Are Used in a Subnet Mask
- ✓ Implementing an IPv4 Subnetting Scheme
- ✓ Determining Subnet Addresses
- ✓ Determining Host Addresses

Configuring IPv4
- ✓ Public and Private IPv4 Addresses
- ✓ Automatic IPv4 Configuration

Understanding IPv6
- ✓ Benefits of Using IPv6
- ✓ The IPv6 Address Space
- ✓ IPv6 Address Types
- ✓ Interface Identifiers
- ✓ Transitioning to IPv6
- ✓ IPv6 Automatic Configuration

Name Resolution
- ✓ Configuring a Computer Name
- ✓ What Is DNS?
- ✓ DNS Zones and Records
- ✓ How Internet DNS Names Are Resolved
- ✓ What Is WINS?
- ✓ The NetBIOS Name Resolution Process
- ✓ The GlobalNames Zone
- ✓ How a Client Resolves a Name
- ✓ How to Troubleshoot Name Resolution

Identifying Storage Technologies
- ✓ What Is Direct Attached Storage?
- ✓ What Is Network Attached Storage?
- ✓ What Is a Storage Area Network?
- ✓ What Is a Fiber Channel SAN?
- ✓ What Is an iSCSI SAN?

Unterrichtseinheit	UE 04	MTA

Managing Disks and Volumes
- ✓ Basic Disks vs. Dynamic Disks
- ✓ Selecting a File System
- ✓ What Is a Mount Point?
- ✓ How to Create and Manage Volumes in Windows Server

Implementing RAID
- ✓ What Is RAID?
- ✓ Considerations for Implementing RAID
- ✓ RAID Levels
- ✓ How to Implement RAID in Windows Server

Installing Windows Server
- ✓ Installing Windows Server
- ✓ Managing Services
- ✓ Managing Peripherals and Devices

Managing Services
- ✓ What Is a Service?
- ✓ How to Configure Service Startup
- ✓ Troubleshooting Services

Managing Peripherals and Devices
- ✓ What Is a Device?
- ✓ Hardware Settings for Devices
- ✓ What Is a Device Driver?
- ✓ Driver Signing

Unterrichtseinheit	UE 05	MTA

Role-Based Deployment
- ✓ What Is a Server Role?
- ✓ What Are Role Services?
- ✓ What Are Features?
- ✓ Overview of Server Manager
- ✓ How to Manage Roles and Features

Deploying Role-Specific Servers
- ✓ What Is a File Server?
- ✓ What Is a Domain Controller?
- ✓ What Is an Application Server?
- ✓ What Is a Web Server?
- ✓ What Is a Remote Access Server?

Physical Security
- ✓ What Are the Physical Security Risks?
- ✓ Physical Security Best Practices
- ✓ Implementing Physical Security with Windows Server Tools

Overview of Defense-in-Depth
- ✓ What Is Defense-in-Depth?
- ✓ Policies, Procedures, and Awareness
- ✓ Physical Layer Security
- ✓ Perimeter Layer Security
- ✓ Internal Network Layer Security
- ✓ Host Layer Security
- ✓ Application Layer Security
- ✓ Data Layer Security

Internet Security
- ✓ What Are the Risks?
- ✓ Mitigating the Risks
- ✓ Implementing Internet Security with Win
- ✓ Internet Explorer Security Settings
- ✓ How to Secure Internet Explorer

Unterrichtseinheit	UE 06	MTA

Overview of Windows Security
- ✓ What Are Authentication and Authorization?
- ✓ What Is UAC?
- ✓ File and Folder Permissions
- ✓ Account Lockout and Password Policies
- ✓ Fine-Grained Password Policies
- ✓ Auditing Features
- ✓ Data Encryption Features

Securing Files and Folders
- ✓ NTFS File and Folder Permissions
- ✓ Permissions Inheritance
- ✓ Shared Folder Permissions
- ✓ Evaluating Combined, Shared and Local Folder Permissions
- ✓ Considerations for Securing Files and Folders
- ✓ Demonstration: How to Secure a Shared Folder
- ✓ File Auditing
- ✓ How to Configure File Auditing

Implementing Encryption
- ✓ What Are Digital Certificates?
- ✓ What Is a PKI?
- ✓ How are Digital Certificates Used?
- ✓ EFS
- ✓ Sharing Files Encrypted with EFS
- ✓ Offline File Encryption Using EFS
- ✓ BitLocker Drive Encryption

Unterrichtseinheit	UE 07	MTA

Overview of Network Security
- ✓ Network Security Threats
- ✓ Mitigating Network Security Threats

Implementing Firewalls
- ✓ Types of Firewall
- ✓ What Is a Perimeter Network?
- ✓ What Is Windows Firewall?
- ✓ Network Location Profiles
- ✓ Configuring Windows Firewall with Advanced Security
- ✓ How to Use Windows Firewall to Manage Inbound Network Traffic
- ✓ What Is IPsec?
- ✓ Connection Security Rules

Network Access Protection
- ✓ Why Is Network Compliance Important?
- ✓ What Is Network Access Protection?
- ✓ NAP Scenarios
- ✓ NAP Enforcement Methods
- ✓ How to Configure NAP with DHCP Enforcement

Unterrichtseinheit	UE 08	MTA

Client Protection Features
- ✓ What Are Software Restriction Policies?
- ✓ What Is AppLocker?
- ✓ AppLocker Rules
- ✓ How to Configure AppLocker
- ✓ SRP vs. AppLocker

E-Mail Protection
- ✓ Common E-Mail Security Threats
- ✓ Server-Side Solutions
- ✓ Client-Side Solutions

Server Protection
- ✓ Maintaining Server Security
- ✓ What Is the Security Configuration Wizard?
- ✓ Using the SCW
- ✓ What Is the Microsoft Baseline Security Analyzer?
- ✓ Using MBSA to Secure Servers

Overview of Server Components
- ✓ Server Components
- ✓ 64-bit Computing
- ✓ Performance Bottlenecks

Performance Monitoring
- ✓ The Process of Performance Monitoring
- ✓ How to Capture Current Performance Activity
- ✓ What Are Data Collector Sets?
- ✓ How to Use Data Collector Sets to Capture Performance Data
- ✓ How to Use Alerts to Identify Performance Bottlenecks

Unterrichtseinheit	UE 09	MTA

Troubleshooting Windows Server Startup
- ✓ Windows Server Startup
- ✓ Troubleshooting Tools in the Startup Environment
- ✓ Considerations for Troubleshooting Startup
- ✓ How to Recover the Startup Environment

Server Availability and Data Recovery
- ✓ Why Backup Data?
- ✓ The Importance of Business Continuity
- ✓ High Availability and Data Recovery
- ✓ Network Load Balancing
- ✓ Failover Clustering
- ✓ Providing for Data Recovery

Applying Updates to Windows Server
- ✓ Why Update Windows?
- ✓ What Must Be Updated?
- ✓ Windows Server Update Services
- ✓ How to Configure WSUS to Provide Updates for Your Organization

Troubleshooting Windows Server
- ✓ Developing a Troubleshooting Methodology
- ✓ Stages in a Typical Troubleshooting Methodology
- ✓ Windows Server Troubleshooting Tools
- ✓ Troubleshooting Component Areas
- ✓ How to Use the Windows Tools to Help Troubleshoot Windows Server Problems

Unterrichtseinheit	UE 10	MTA

Overview of Virtualization Technologies
- ✓ Microsoft Virtualization Technologies
- ✓ Server Virtualization
- ✓ Desktop Virtualization
- ✓ Presentation Virtualization
- ✓ Application Virtualization

Implementing the Hyper-V Role
- ✓ What Is Hyper-V?
- ✓ Hardware Requirements for Hyper-V
- ✓ Virtual Hard Disks | Networks | Machines
- ✓ How to Configure a Virtual Machine
- ✓ What Is VMM 2008 R2?

Overview of Active Directory Domain Services
- ✓ What is a Directory Service?
- ✓ What is AD DS?
- ✓ How Does AD DS Work?
- ✓ AD DS Integration with Other Active Directory Server Roles

Overview of Active Directory Lightweight Directory Services
- ✓ What is LDAP?
- ✓ What is AD LDS?
- ✓ AD LDS Implementation Examples

Unterrichtseinheit	UE 11	MTA

Overview of AD Certificate Services
- ✓ What are Digital Certificates Used For?
- ✓ What is a PKI?
- ✓ What is AD CS?
- ✓ AD CS Implementation Examples
- ✓ How Does AD CS Work?
- ✓ AD DS and AD CS Integration

Overview of AD Rights Management Services
- ✓ What is an Enterprise Rights Management Solution?
- ✓ What is AD Rights Management Services?
- ✓ AD RMS Implementation Examples
- ✓ AD DS and AD RMS Integration

Overview of AD Federation Services
- ✓ What is AD FS?
- ✓ How AD FS Traffic Flows in a B2B Federation Scenario
- ✓ How Does AD FS Work?
- ✓ AD DS and AD FS Integration
- ✓ Summary of the Active Directory Server Roles

Overview of AD DS
- ✓ Why Deploy AD DS?
- ✓ What is Authentication?
- ✓ What is Authorization?
- ✓ Using AD DS to Centralize Network Management
- ✓ Overview of AD DS Components

Overview of AD DS Logical Components
- ✓ What is the AD DS Schema?
- ✓ What is a Domain und a Domain Tree?
- ✓ What are AD DS Trusts?
- ✓ What is a Forest und an OU?
- ✓ Scenarios for Implementing AD DS Logical Components
- ✓ What are AD DS Objects?
- ✓ Tools for Managing the AD DS Logical Components

Overview of AD DS Physical Components
- ✓ What are AD DS Domain Controllers?
- ✓ Overview of DNS and AD DS
- ✓ What are Global Catalog Servers?
- ✓ What is the AD DS Data Store?
- ✓ What is AD DS Replication?
- ✓ What are Sites?
- ✓ Scenarios for Implementing AD DS Physical Components
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AD LDS Overview
- ✓ How AD LDS Works
- ✓ AD LDS Administration Tools
- ✓ What Is the AD LDS Schema?
- ✓ Modifying the AD LDS Schema

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- ✓ What Is an AD LDS Instance?
- ✓ What Is an AD LDS Application Partition?
- ✓ Configuring AD LDS Instances and Application Partitions
- ✓ AD LDS Users and Groups
- ✓ How Does Access Control Work in AD LDS?
- ✓ Configuring Users, Groups, and Access Control

Implementing AD LDS Replication
- ✓ How AD LDS Replication Works
- ✓ Why Implement AD LDS Replication?
- ✓ Configuring AD LDS Replication
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Comparing AD DS and AD LDS
- ✓ Similarities between AD DS and AD LDS
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- ✓ Integrating AD DS and AD LDS

Overview of Active Directory Certificate Services
- ✓ What Is a Certification Authority?
- ✓ How CA Hierarchies Work
- ✓ Options for Implementing CAs
- ✓ Options for Integrating AD CS and AD DS
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- ✓ What Are Digital Certificates?
- ✓ How Public Keys and Private Keys Work
- ✓ Using Certificates to Secure Data
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Implementing Certificate Enrollment and Revocation
- ✓ Options for Implementing Certificate Enrollment
- ✓ Using Web Enrollment to Obtain Certificates
- ✓ Administering Certificate Enrollment
- ✓ Administering Certificate Requests
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- ✓ What is Certificate Revocation?
- ✓ Revoking Certificates

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AD RMS Overview
- ✓ Overview of AD RMS
- ✓ How AD RMS Works
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Understanding AD RMS
- ✓ AD RMS Components
- ✓ AD RMS Certificates and Licenses
- ✓ How AD RMS Secures Content
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- ✓ How AD RMS Works

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- ✓ AD RMS Management Console
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- ✓ Configuring Exclusion Policies
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- ✓ Configuring Rights Policy Templates

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- ✓ What Are the Identity Federation Scenarios?
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- ✓ How AD FS Traffic Flows in a B2B Federation Scenario
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- ✓ Federation Service Configuration Options
- ✓ What Are AD FS Trust Policies?
- ✓ Configuring the Federation Services for an Account Partner
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- ✓ Configuring the Web Proxy Agent
- ✓ What Are AD FS Claims?

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- ✓ What Is a User Account?
- ✓ Names Associated with Domain User Accounts
- ✓ User Account Password Options
- ✓ Tools for Configuring User Accounts
- ✓ Configuring User Accounts
- ✓ Renaming a User Account
- ✓ What Is a User Account Template?
- ✓ Creating and Using a User Account Template

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- ✓ Options for Creating Computer Accounts
- ✓ Managing Computer Accounts
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- ✓ Options for Locating Objects in AD DS
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- ✓ What Is a Saved Query?
- ✓ Using a Saved Query

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- ✓ What Are Groups?
- ✓ What Are Global Groups?
- ✓ What Are Universal Groups?
- ✓ What Are Domain Local Groups?
- ✓ What Are Local Groups?
- ✓ Identifying Group Usage
- ✓ Strategies for Using AD DS Groups
- ✓ Strategies for Nesting AD DS Groups
- ✓ AD DS Groups Review

Managing Group Accounts
- ✓ Considerations for Naming Groups
- ✓ Creating Groups
- ✓ Adding Members to Groups
- ✓ Identifying Group Membership
- ✓ Modifying Group Scope and Type

Creating Organizational Units
- ✓ What Is an OU?
- ✓ What Is an OU Hierarchy?
- ✓ OU Hierarchy Examples
- ✓ Creating OUs
- ✓ Moving Objects Between OUs

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Managing Access Overview
- ✓ What Are Security Principals?
- ✓ What Are Access Tokens?
- ✓ What Are Permissions?
- ✓ How Access Control Works

Assigning Permissions to Shared Resources
- ✓ What Are Shared Folders?
- ✓ What Are Administrative Shared Folders?
- ✓ Shared Folder Permissions
- ✓ Creating Shared Folders
- ✓ Connecting to Shared Folders
- ✓ Managing Shared Folders
- ✓ Considerations for Using Shared Folders

Managing NTFS File and Folder Permissions
- ✓ What Are NTFS Permissions?
- ✓ What Are Standard and Special Permissions?
- ✓ What Is NTFS Permissions Inheritance?
- ✓ Configuring NTFS Permissions
- ✓ Effects on NTFS Permissions When Copying and Moving Files and Folders

Determining Effective Permission
- ✓ What Are Effective NTFS Permissions
- ✓ Applying NTFS Permissions
- ✓ Evaluating Effective Permissions
- ✓ Effects of Combining Shared Folder and NTFS Permissions
- ✓ Determining Effective NTFS and Shared Folder Permissions
- ✓ Considerations for Implementing NTFS and Shared Folder Permissions

Weitere wichtige Informationen

Sie haben Fragen oder Anregungen?

Falls Sie Fragen, Wünsche oder Anregungen zu dieser oder zu anderen Ausbildungen haben, stehen wir Ihnen montags bis donnerstags in der Zeit von 08:00 – 17:00 Uhr und freitags von 08:00 – 15:00 Uhr sehr gerne zur Verfügung.

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