

WINDOWS 7 – DAS BESSERE WINDOWS VISTA?

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IT TRAINING GROTE



Inhalt - I

Überblick Windows 7

- Editionen
- Hardwareanforderungen

Bedienbarkeit

- Bibliotheken
- Windows Troubleshooting Platform

Sicherheit

- Wartungscenter
- BitLocker / BitLocker to go
- User Account Control
- App Locker

Inhalt - II

- Printer Location Awareness
- Direct Access
- BranchCache
- VPN Reconnect
- Domain Join
- Network Access Protection
- Gruppenrichtlinien
- Installation / Deployment
 - Lizenzueberblick
 - WAIK / OPK

Inhalt - III

- Migration
 - Von XP
 - Von Vista
 - Datenübernahme durch Easy Transfer / USMT
 - Neuinstallation von Windows 7
- XP Mode
- Med-V
- App-V
- VHD-Boot
- Treibermodell und Anwendungskompatibilität

Referentenvorstellung

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- Baujahr 1972 – seit 1989 hauptberuflich ITler
seit 1995 Selbststaendig (bis 2004 Teilzeit Consultant),
vorher angestellt als IT-Administrator
- Schwerpunkte: Windows Server seit NT 3.5, Clustering,
PKI, Exchange Server seit 5.0, ISA Server (Forefront
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Alles neu & alles besser

- Windows 7 ist besser ...
 - Moderner
 - Sicherer
 - schneller
- Microsoft moechte
 - zurueck in die Firmen
 - ein modernes Windows auf Netbooks

Schnell

AMD Phenom 9700 / Radeon 3850 / 4GB RAM			
	XP	Vista	7
Install OS	3	2	1
Boot up	3	2	1
Shut down	2	3	1
Move 100MB files	3	2	1
Move 2.5GB files	2	3	1
Network transfer 100MB	2	3	1
Network transfer 2.5GB	3	2	1
Move 100MB files under load	2	3	1
Move 2.5GB files under load	3	2	1
Network transfer 100MB under load	3	2	1
Network transfer 2.5GB under load	3	2	1
Compress 100MB files	2	3	1
Compress 1GB files	3	2	1
Extract 100MB files	3	2	1
Extract 1GB files	3	2	1
Install Office 2007	3	1	2
Open 10 page Word doc	2	3	1
Open 100 page Word doc	3	2	1
Open simple Excel doc	2	3	1
Open complex Excel doc	3	2	1
Burn DVD	3	1	2
Open 10 page PDF	2	3	1
Open 100 page PDF	3	2	1
Score (less is better)	61	52	25

Geschmacksrichtungen

- Starter Edition
- Home Basic
- Home Premium
- Professional
- Enterprise (*weiterhin nur mit SA*)
- Ultimate
- Features sind kumulativ
- Windows N hat sich (momentan) erledigt

Feature ueber Feature

Key Features	Windows® 7 Starter	Windows® 7 Home Basic (EM only)	Windows® 7 Home Premium	Windows® 7 Professional	Windows® 7 Enterprise/ Windows® 7 Ultimate
Improved Windows® Taskbar & Jump Lists	✓	✓	✓	✓	✓
Windows® Search	✓	✓	✓	✓	✓
Join a HomeGroup	✓	✓	✓	✓	✓
Windows Media® Player	✓	✓	✓	✓	✓
Back-up & Restore	✓	✓	✓	✓	✓
Action Center	✓	✓	✓	✓	✓
Device Stage™	✓	✓	✓	✓	✓
Enhanced home media streaming, including Play To	✓	✓	✓	✓	✓
Application Capabilities	Up to 3 concurrent programs	Unlimited	Unlimited	Unlimited	Unlimited
Live Thumbnail Previews from Taskbar		✓	✓	✓	✓
Fast User Switching		✓	✓	✓	✓
Create ad-hoc wireless networks		✓	✓	✓	✓
Internet Connection Sharing		✓	✓	✓	✓
Aero® Glass & advanced Window navigation			✓	✓	✓
Windows® Touch (Multi-touch and handwriting support)			✓	✓	✓
Create a HomeGroup			✓	✓	✓
Windows® Media Center			✓	✓	✓
DVD Video playback and authoring			✓	✓	✓
Location Aware Printing				✓	✓
Domain Join & Group Policy Controls				✓	✓
Remote Desktop Host				✓	✓
Advanced Back-up (Network & Group Policy)				✓	✓
Encrypting File System				✓	✓
BitLocker™ & BitLocker To Go™					✓
AppLocker™					✓
DirectAccess					✓
BranchCache™					✓
MUI Language Packs					✓

Upgrade

From Windows Vista (SP1, SP2)	Upgrade to Windows 7
Business	Professional, Enterprise, Ultimate
Enterprise	Enterprise
Home Basic	Home Basic, Home Premium, Ultimate
Home Premium	Home Premium, Ultimate
Ultimate	Ultimate

From Windows 7	Upgrade to Windows 7
Enterprise	Enterprise
Home Basic	Home Basic
Home Premium	Home Premium
Professional	Professional
Starter (x86 only)	Starter (x86)
Ultimate	Ultimate



From Windows 7	Anytime Upgrade to Windows 7
Home Basic	Home Premium, Professional, Ultimate
Home Premium	Professional, Ultimate
Professional	Ultimate
Starter	Home Premium, Professional, Ultimate

Wann erscheint Windows 7

- Top 10 Fragen zu Windows 7:
 - Wann erscheint Windows 7?
 - Wann erscheint Windows 7?
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 - Wann erscheint Windows 7?
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- Microsoft-Blog: RTM im Juli, Verkauf ab 22. Oktober
- Technet / MSDN seit 06.08.2009

GUI

- Startmenü und Taskleiste
- Aero
- Explorer
- Systemsteuerung
- Gadgets
- Libraries

GUI

- Taskleiste
- Vollbild Vorschaufenster
- Sprunglisten
- Verbesserter Desktop (ruetteln, schuettern und zentrieren – Aero Snap/Shake/Peek) 😊
- Wo ist die Sidebar?

Windows Troubleshooting Plattform

Windows Troubleshooting Packs

Windows Troubleshooting Engine

Windows Troubleshooting Wizard

Windows Troubleshooting Prozess

Troubleshooting, Resolution, Verification

Built In Troubleshooting Packs

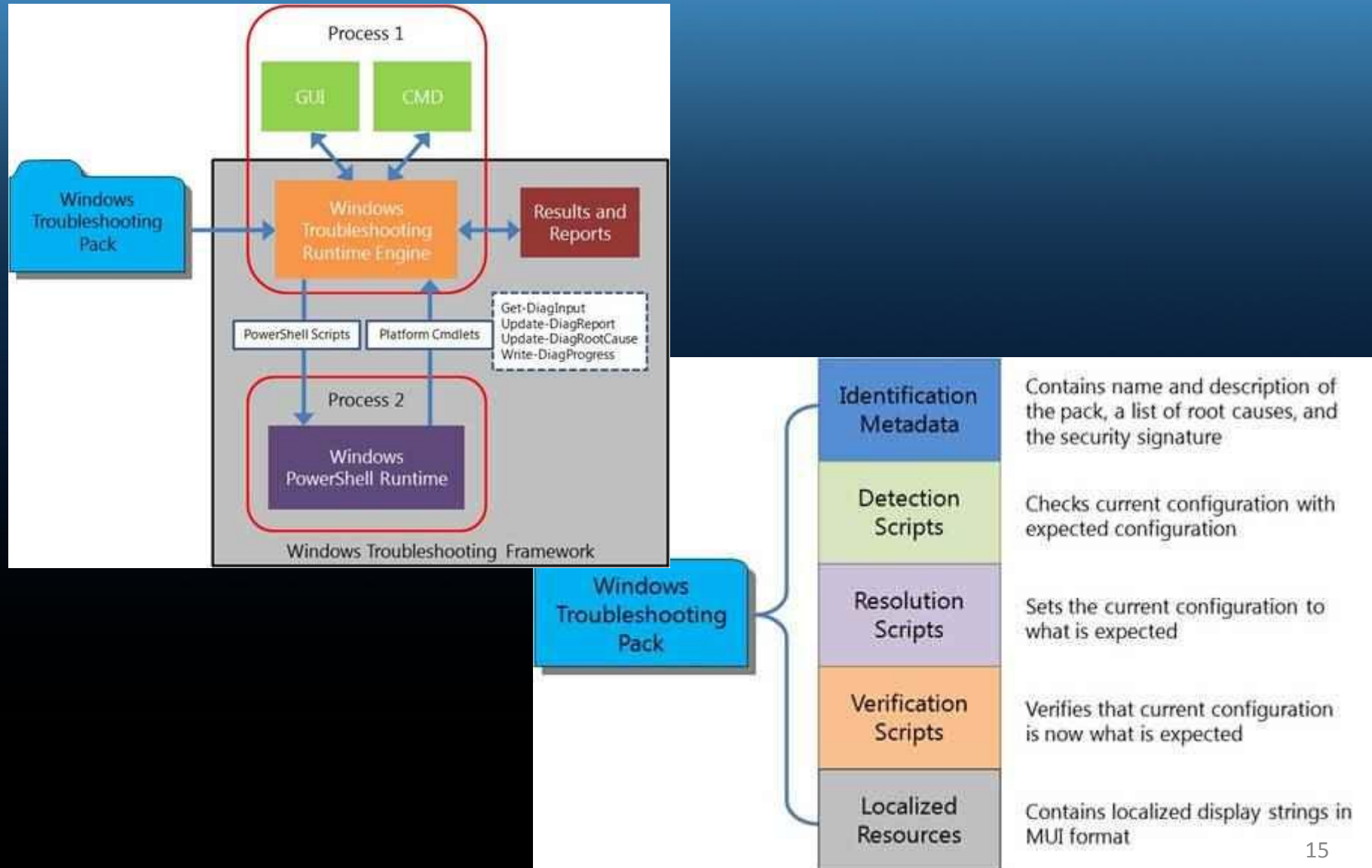
Aero, Printer, Power, Hardware und mehr

Steuerbar mit Hilfe von Group Policies

Erweiterbar

Windows 7 SDK, Windows Troubleshooting Pack Designer

Windows Troubleshooting Platform



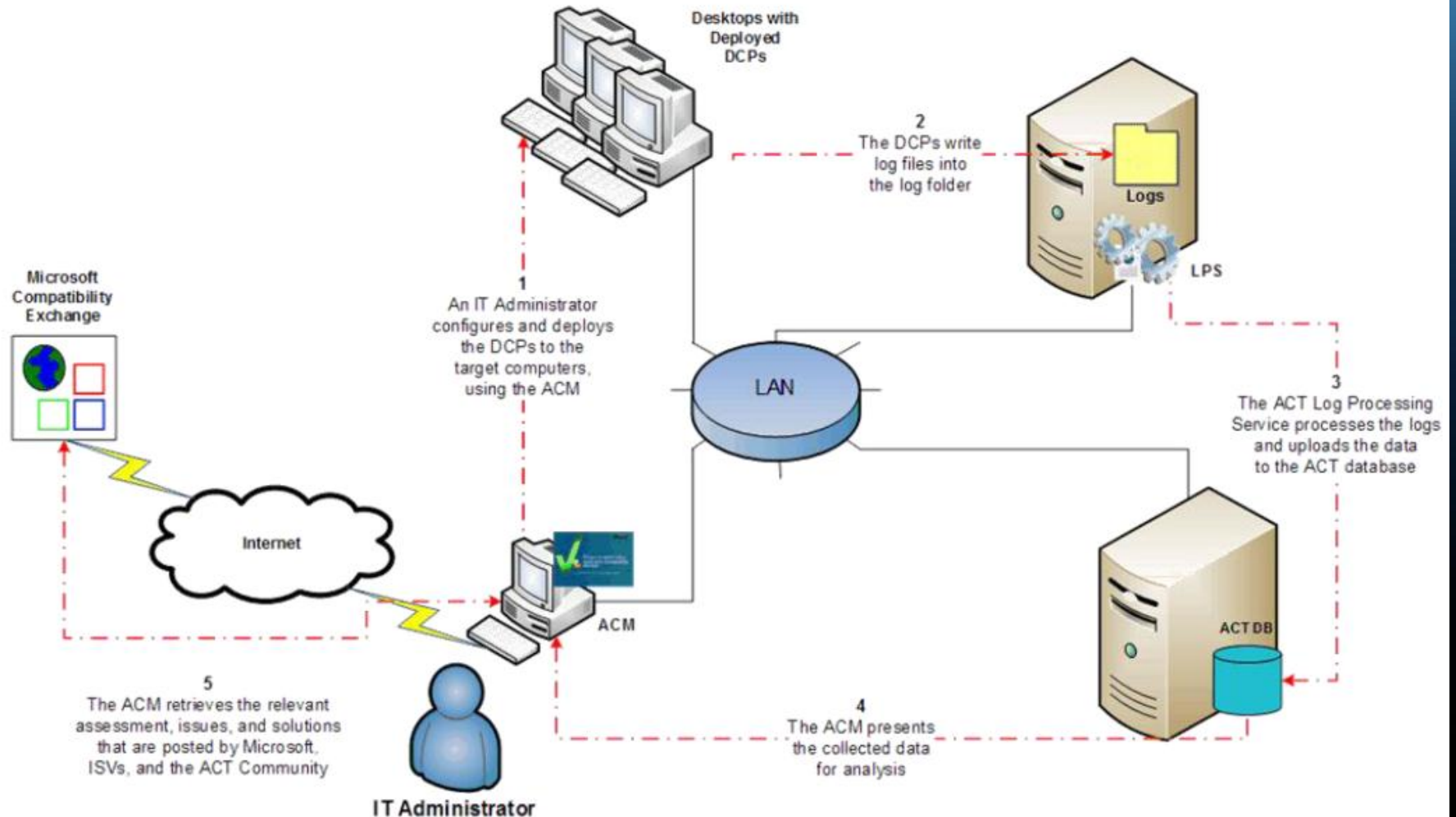
Windows Troubleshooting Platform

- Problem Steps Recorder
- System Restore
- Reliability Monitor
- Resource Monitor
- Action Center

Kompatibilitaet

- Windows 7 ist kompatibel zu Windows Vista
 - Kompatibilität mit XP ist nicht das Ziel
- Kompatibilitätshilfen
 - Shims
 - XP Mode
- Umfassende Treiberausstattung
 - Per Setup enthalten
 - Windows Update
 - Drittanbieter
- Microsoft Assessment and Planning Toolkit
- Application Compatibility Toolkit

ACT



Welten kombinieren

- Migration nach Windows 7
 - Direkt von Windows Vista
 - Indirekt von Windows XP
- User State Migration Toolkit
 - Für Unternehmen
 - Sammelt Benutzerdaten
 - In-placeUpdate oder Migration auf neuen PC
 - Hard-link Migration spart Zeit
- Windows Easy Transfer
 - Für Endbenutzer oder Einzelrechner
 - Funktionen ähnlich dem USMT

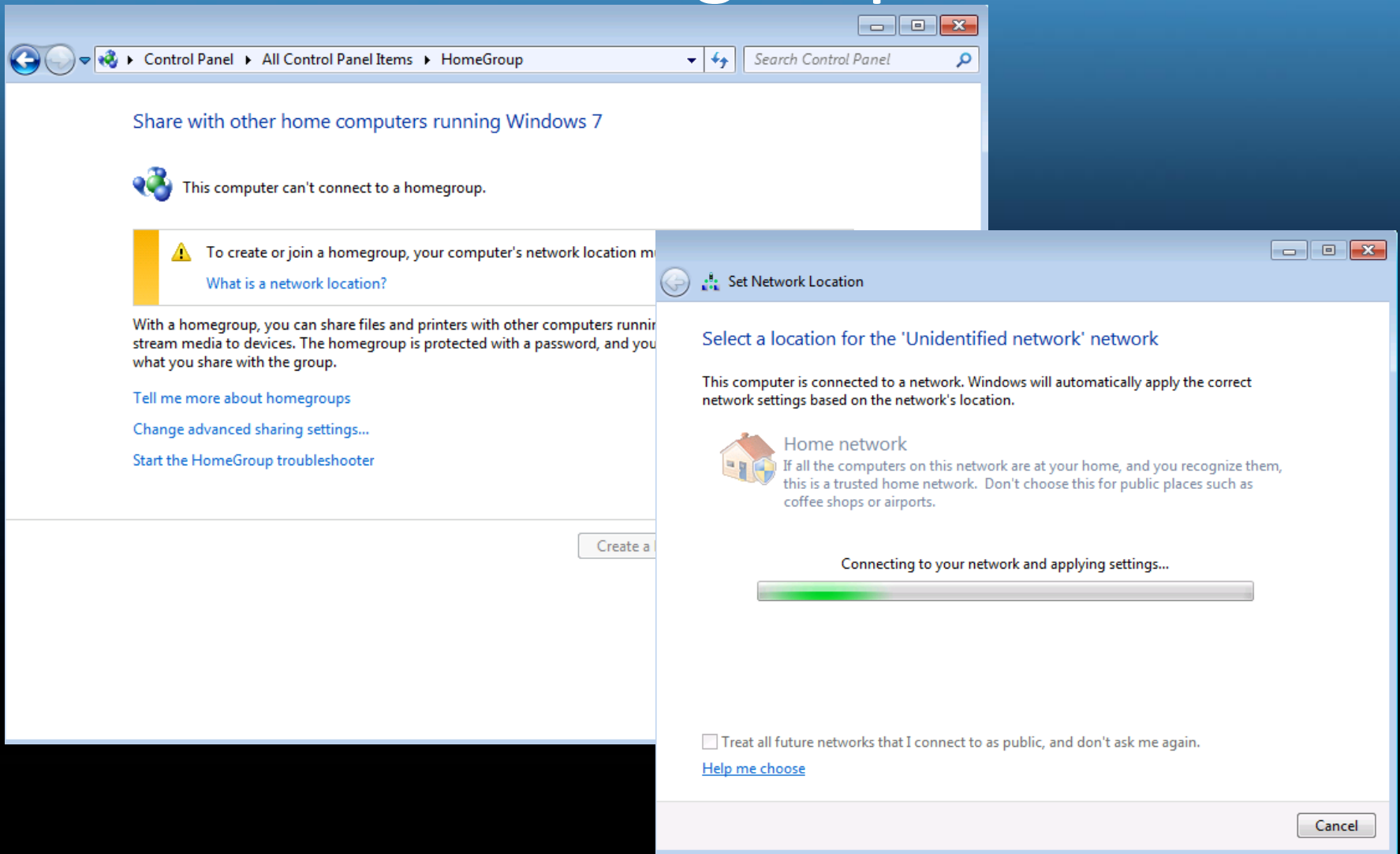
Sorgenfrei

- Wartungscenter
 - Sammelt Meldungen
 - Zentrale Anlaufstelle
- Troubleshooting Platform
 - Eingebaute Assistenten zur Problembehebung
 - „User Desired State“
 - Erweiterbar: Troubleshooting Kits
- Problem Step Recorder
 - Hilfsmittel für Helpdesk
 - Benutzer reproduziert Problem, Windows erzeugt Report
 - Helpdesk analysiert Report und behebt Problem

Demo

- Wartungcenter
- Troubleshooting
- Problem StepRecorder
- Homegroup

Homegroup



Was fuer Admins

- RSAT schon seit der Betaphase!
 - Erinnert sich jemand an XP?
 - ... oder gar Vista?
- PowerShell enthalten
- Gruppenrichtlinien und GPP

Coffee To Go – aeeh Bitlocker To Go

- Bitlocker Verschlüsselung auch fuer Wechselmedien
- Portable Nutzung der Verschlüsselung
- Runtime Environment fuer PC, auf welchem der USB Stick eingesetzt werden soll
- Standard 128 Bit AES + Diffuser
 - Aenderung per Group Policy auf AES 256 Bit
 - Computer Configuration, Administrative Templates, Windows Components, and BitLocker Drive Encryption

Genug der Worte

Demo

[Bitlocker in Action](#)

Applocker

- Weiterentwicklung der Software Restriction Policies
- Verhindert die Ausführung von Anwendungen
- Anwendbar auf bestimmte Benutzer und Gruppen
- Client muss Windows 7 sein
- Applocker Powershell Cmdlets
- Audit Mode

Applocker

The screenshot displays the Windows Local Computer Policy console on the left and a detailed AppLocker configuration window on the right.

Local Computer Policy Console (Left):

- Local Computer Policy
 - Computer Configuration
 - Software Settings
 - Windows Settings
 - Name Resolution Policy
 - Scripts (Startup/Shutdown)
 - Deployed Printers
 - Security Settings
 - Account Policies
 - Local Policies
 - Windows Firewall with Advanced Security
 - Network List Manager Policies
 - Public Key Policies
 - Software Restriction Policies
 - Application Control Policies
 - AppLocker**
 - Executable Rules
 - Windows Installer Rules
 - Script Rules
 - IP Security Policies on Local Computer
 - Advanced Audit Policy Configuration
 - Policy-based QoS
 - Administrative Templates
 - User Configuration
 - Software Settings
 - Windows Settings
 - Administrative Templates

AppLocker Configuration Window (Right):

AppLocker provides access control for applications

Getting Started

AppLocker uses rules and the properties of files to provide access control for applications. If rules are present in a rule collection, only the files included in those rules will be permitted to run. AppLocker rules do not apply to all editions of Windows.

[More about AppLocker](#)

[Which editions of Windows support AppLocker?](#)

Configure Rule Enforcement

For the AppLocker policy to be enforced on a computer, the Application Identity service must be running.

Use the enforcement settings for each rule collection to configure whether rules are enforced or audited. If rule enforcement has not been configured, rules will be enforced by default.

[Configure rule enforcement](#)

[More about rule enforcement](#)

Overview

[Executable Rules](#)
Rules: 0
Enforcement not configured: Rules are enforced

[Windows Installer Rules](#)
Rules: 0
Enforcement not configured: Rules are enforced

[Script Rules](#)

Applocker vs. Software Restriction Policies

Feature	Software Restriction Policies	AppLocker
Rule scope	All users	Specific user or group
Rule conditions provided	File hash, path, certificate, registry path, and Internet zone rules	File hash, path, and publisher rules
Rule types provided	Allow and deny	Allow and deny
Default rule action	Allow or deny	Deny
Audit-only mode	No	Yes
Wizard to create multiple rules at one time	No	Yes
Policy import or export	No	Yes
Rule collection	No	Yes
PowerShell support	No	Yes
Custom error messages	No	Yes

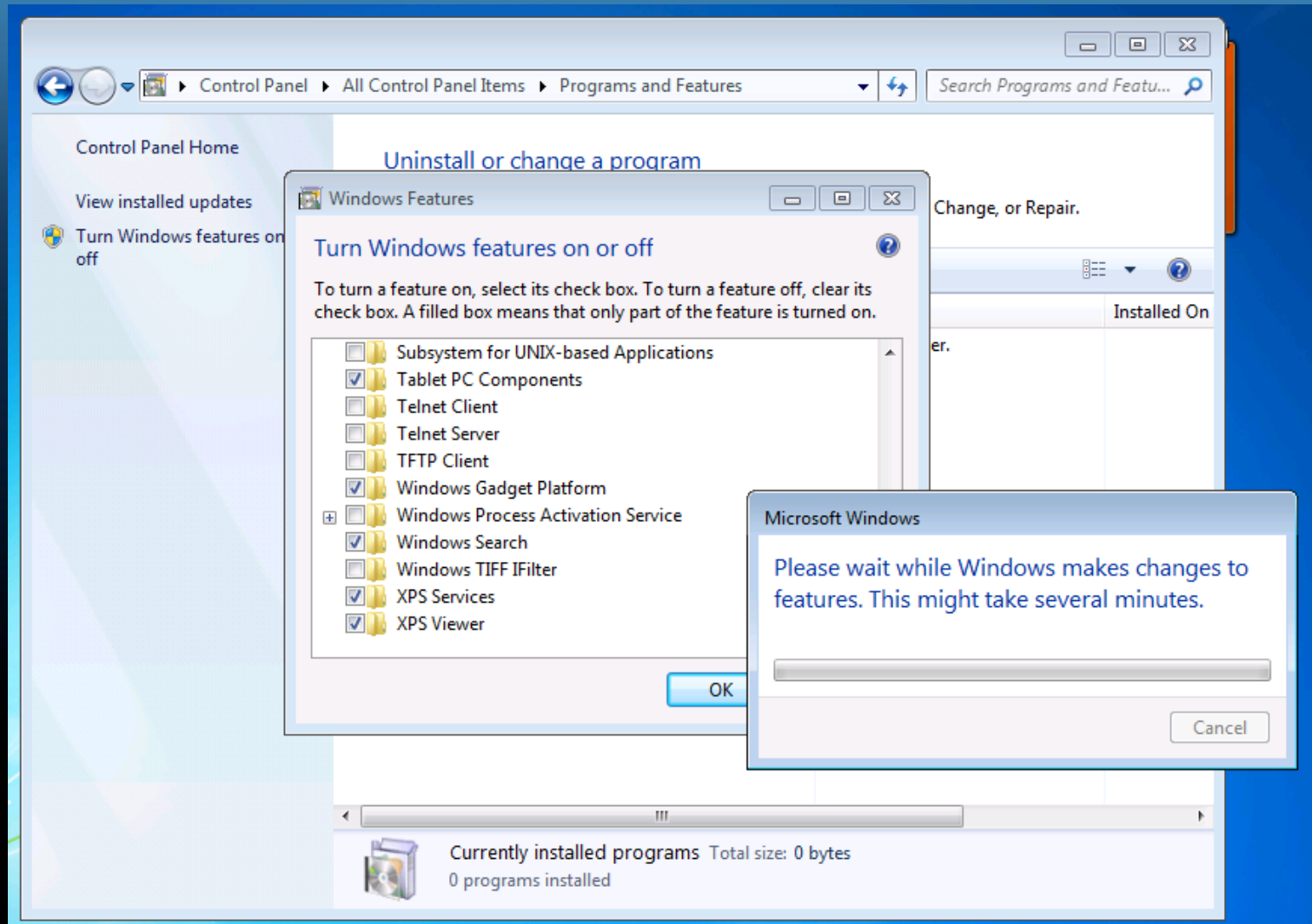
Genug der Worte

Demo

Demo

- RSAT
- Gruppenrichtlinien

RSAT

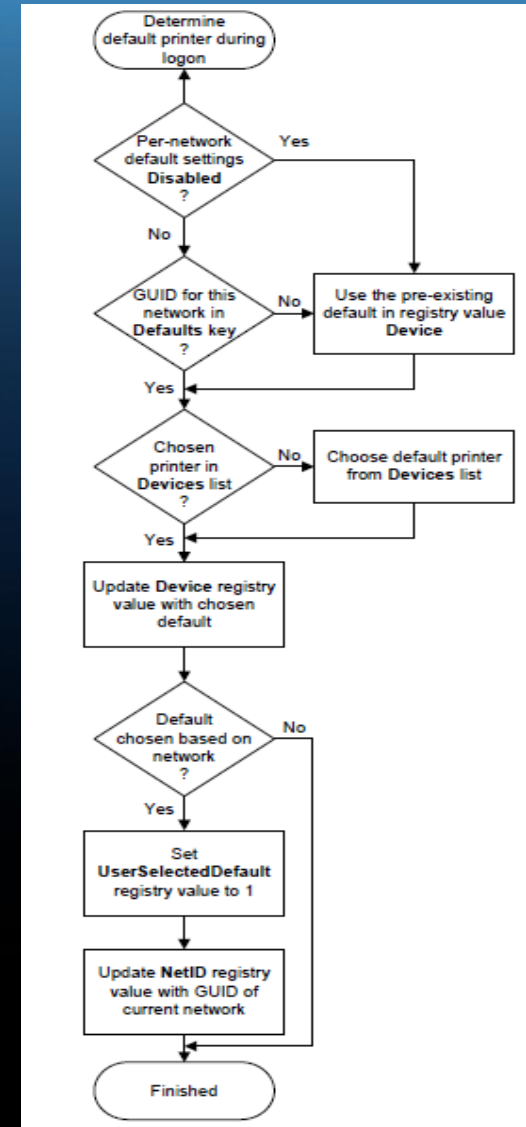


Djoin

- Auf dem DC
djoin /provision /domain <domain to be joined> /machine <name of the destination computer> /savefile blob.txt
- Auf dem Client
djoin /requestODJ /loadfile blob.txt
/windowspath %SystemRoot% /localos

Printer Location Awareness

- Auch bekannt als Smart Default Printer
- Ab Home Premium
- Erfordert ein Geraet mit einer „Batterie“ aka Notebook
- Abhaengigkeit von NLA und NLIST Service



Direct Access

- VPN Lösung
- Vereinfachte Benutzung durch Enduser
- Always on
- Nahtlose Integration
- Bidirektionaler Zugriff
- Erhoehte Sicherheit
- Integrierte Lösung

Direct Access Technik

- Permanente IPv6 Verbindung
 - Transitionstechnik integriert (Teredo, 6to4, ISATAP)
- IPSEC Verbindung als Basis
 - Zwei IPSEC Tunnel (Client zu DNS und DC und Client zur Auth. und Intranet Access)
- IP-HTTPS
 - Tunneling von IPv6 Paketen in IPv4 HTTPS
- Split Tunneling ist Grundlage von DA
 - Force Tunneling ist moeglich
 - IP-HTTPS wird verwendet, wenn Split Tunneling aus ist
- DA Client Verwaltung erfordert IPv6
- DA Client Kommunikation untereinander ist moeglich
- Verwaltung ueber DA MMC
- Monitoring ueber DA Monitoring MMC

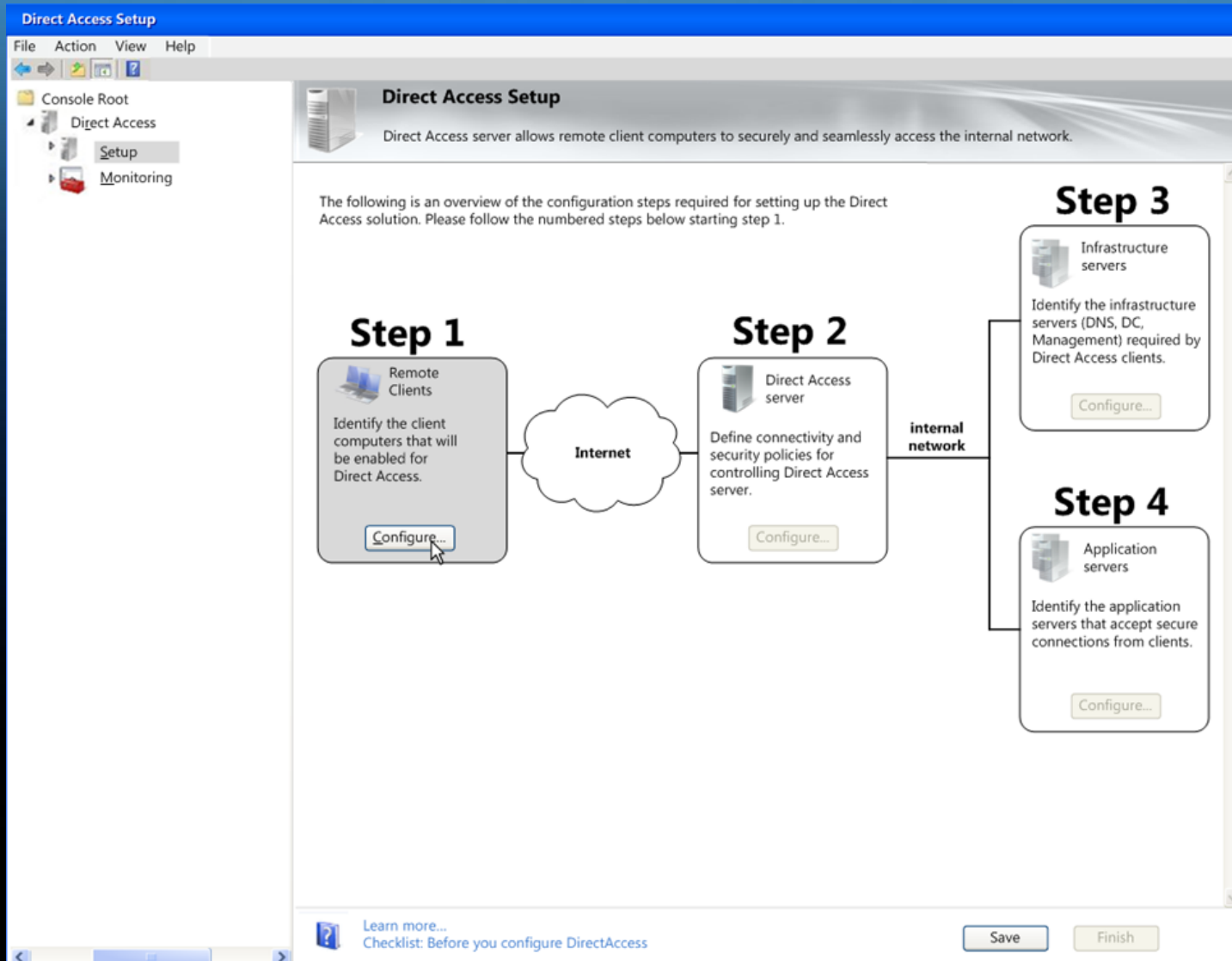
Direct Access

The screenshot displays the 'DirectAccess Monitoring' console window. The title bar reads 'DirectAccess Monitoring'. The menu bar includes 'File', 'Action', 'View', and 'Help'. The left-hand tree view shows a hierarchy starting with 'Console Root', followed by 'DirectAccess', which contains sub-items for 'Setup' and 'Monitoring'. The main content area has a header with a server icon, the title 'DirectAccess Monitoring', and a description: 'DirectAccess allows remote client computers to securely access the enterprise network.' Below this, the 'DirectAccess server status' is shown as 'Healthy' with a green checkmark icon. A message states: 'The networking components of the DirectAccess Server are currently functioning correctly.' The 'Direct Access server components' section indicates activity in DA Server components and lists the following components, each with a green checkmark and a 'Details' button:

Component	Status	Action
Teredo Relay	✓	Details
Teredo Server	✓	Details
6to4	✓	Details
IP HTTPS	✓	Details
ISATAP	✓	Details
Network Security	✓	Details
DNS Server	✓	

At the bottom of the console, there is a status bar with a help icon and two links: 'DirectAccess Overview' and 'DirectAccess Monitoring'.

Direct Access



UAC

- File operation prompts are merged
- Internet Explorer prompts for running application installers are merged
- Internet Explorer prompts for installing ActiveX controls are merged
- The default UAC setting allows a standard user to perform the following tasks without receiving a UAC prompt:
 - Install updates from Windows Update
 - Install drivers that are downloaded from Windows Update
- View Windows settings. (However, a standard user is prompted for elevated privileges when changing Windows settings.)
 - Pair Bluetooth devices to the computer
 - Reset the network adapter and perform other network diagnostic and repair tasks

UAC

Choose when to be notified about changes to your computer

User Account Control helps prevent potentially harmful programs from making changes to your computer.

[Tell me more about User Account Control settings](#)

Always notify



Never notify

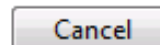
Notify me only when programs try to make changes to my computer (do not dim my desktop)

- Don't notify me when I make changes to Windows settings

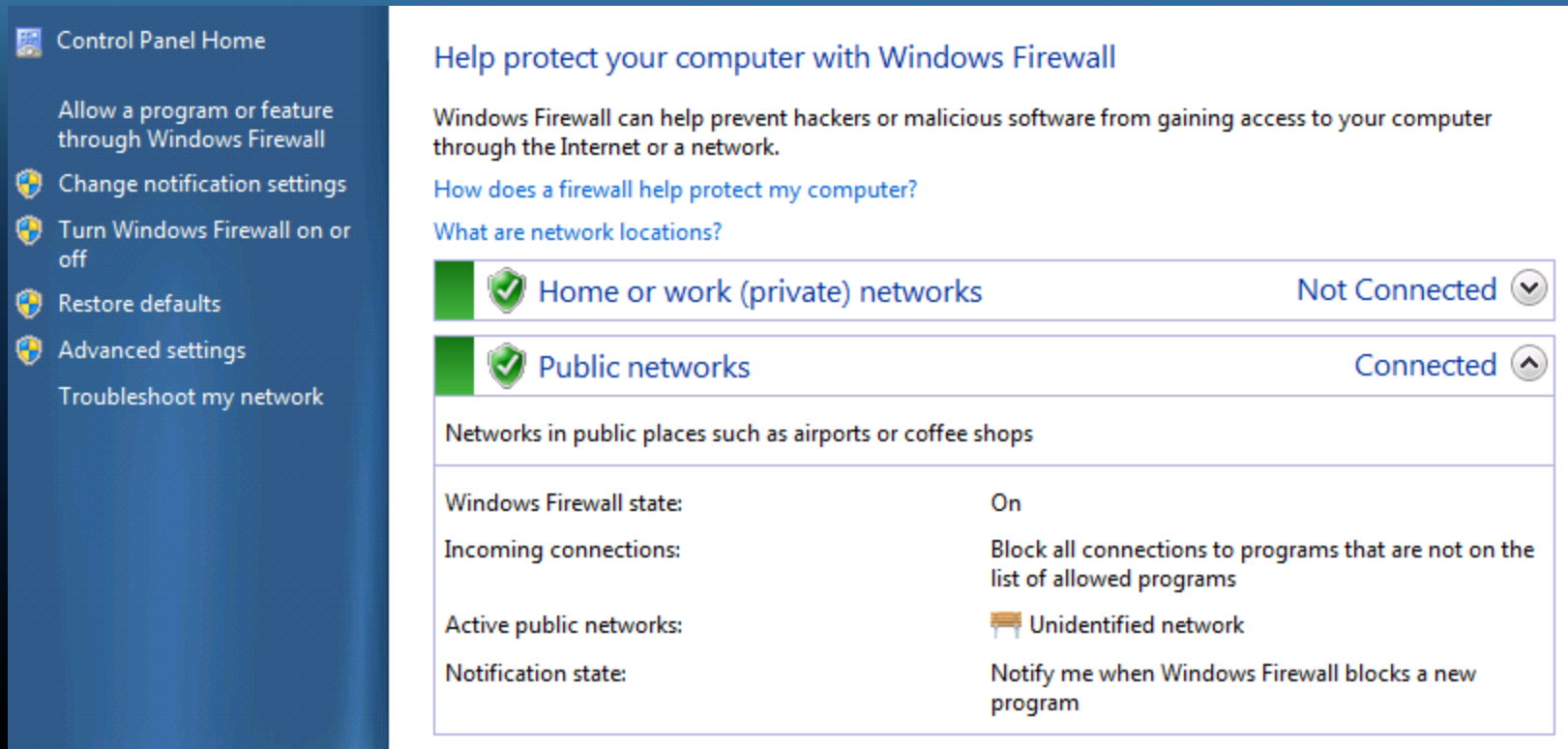


Can be selected if you use familiar programs and visit familiar websites

Not dimming the desktop might allow programs to interfere with the User Account Control prompt



Windows Firewall



- Multiple Active Firewall Policies
- Unterschiedliche Firewallregeln pro Netzwerkprofil

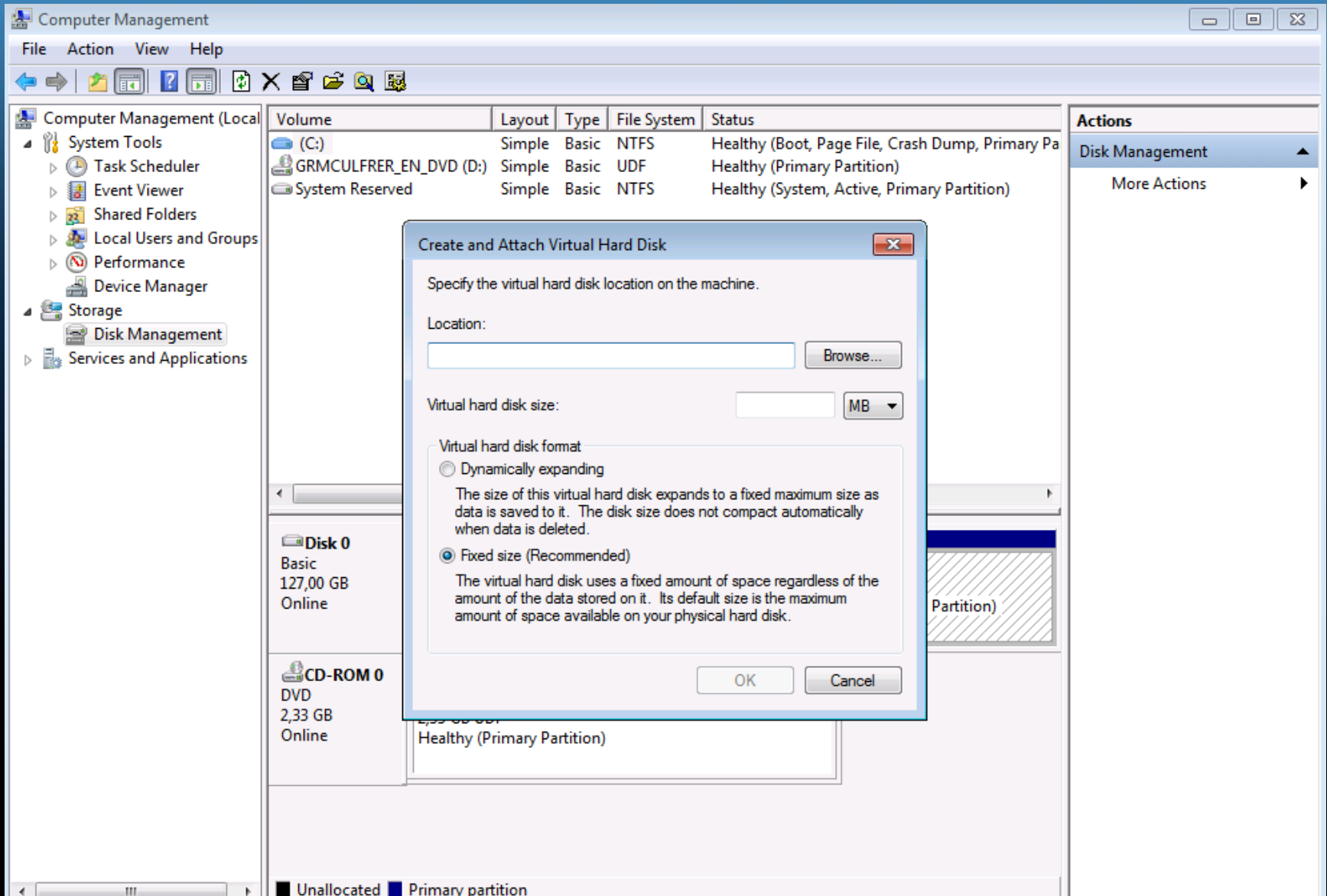
Viele Windows 7 verteilen

- Automatische Installation
 - Image-basierte Installation (WIM)
 - Angepasste Images und Automatisierung
 - DISM: Offline-Pflege der Images
 - Dynamic Driver Provisioning
- Boot from VHD
- Support für virtuelle Desktops
 - AeroGlass per RDP
 - Multi-Monitor
 - Multimedia bidirektional

Demo

- VHD-Integration
- Boot from VHD
- XP Mode

VHD



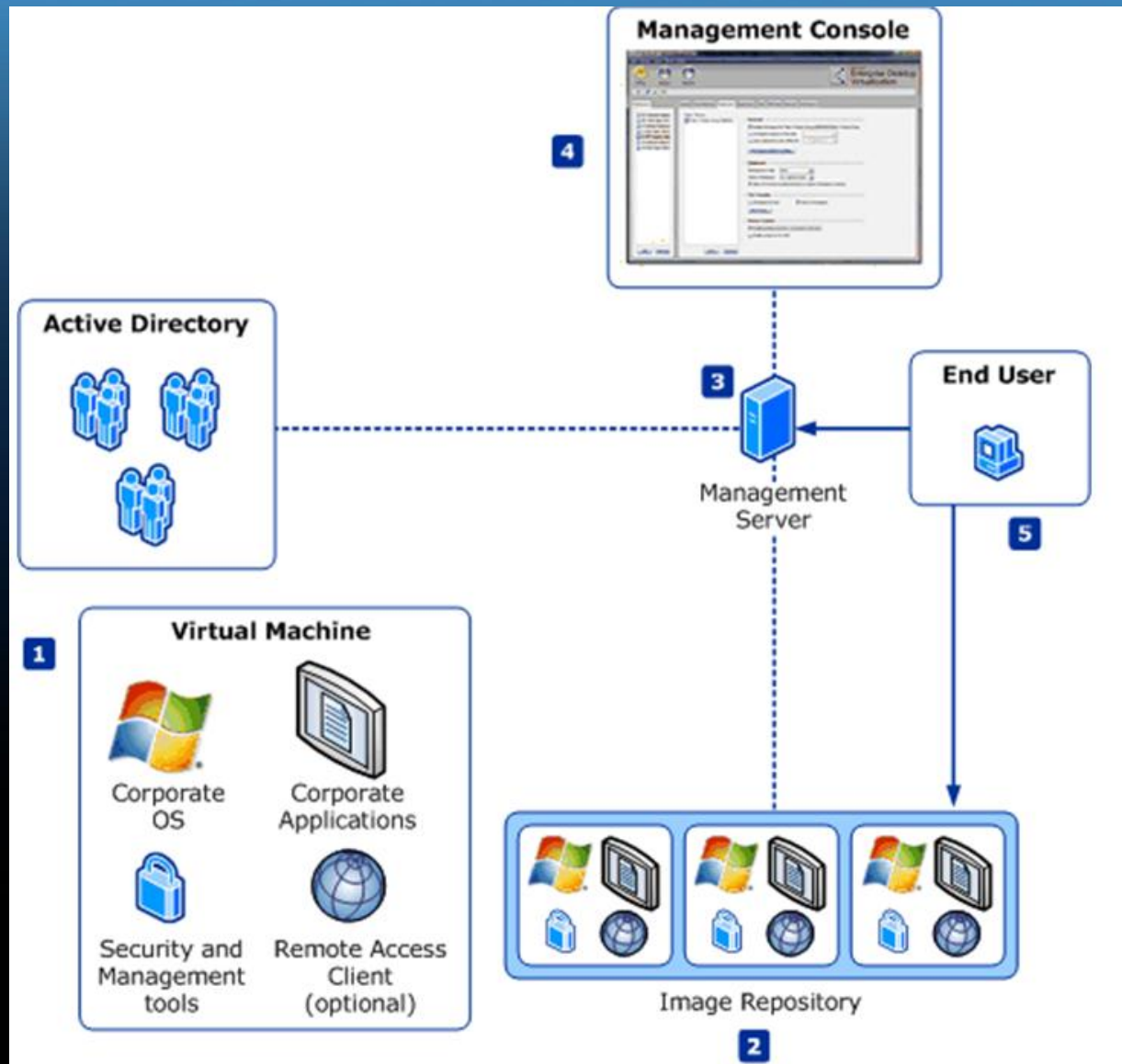
VHD

- Diskpart list disk // Bei mehreren Platten list volume // Um die Pfade herauszubekommen//nächste Zeile nur dann, wenn man noch keine VHD hat.
- create vdisk file=d:\\VHD\\Meinw7.vhd type=fixed maximum=20000
- select vdisk file=d:\\VHD\\MeinW7.vhd
- attach vdisk
- exit // beendet diskpart
- exit // beendet die cmd

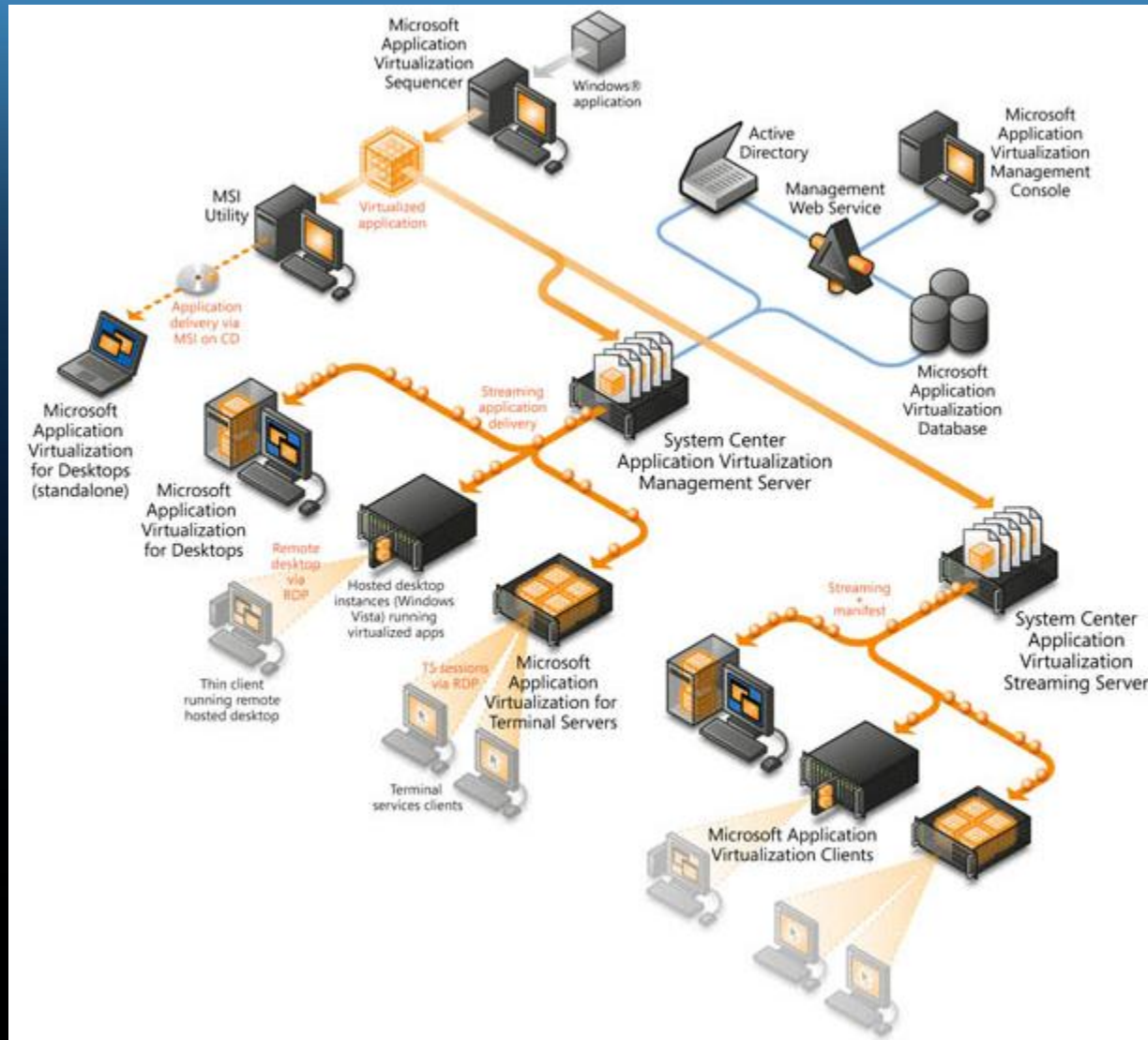
XP Mode

- In Action

MED-V



APP-V



Fragen?

The word 'Fragen?' is written in a bold, sans-serif font. The letters 'Fragen' are orange, and the question mark is blue. Behind the blue question mark is a larger, semi-transparent blue question mark, creating a layered effect.

Das Ende

Vielen Dank fuer Eure Aufmerksamkeit

