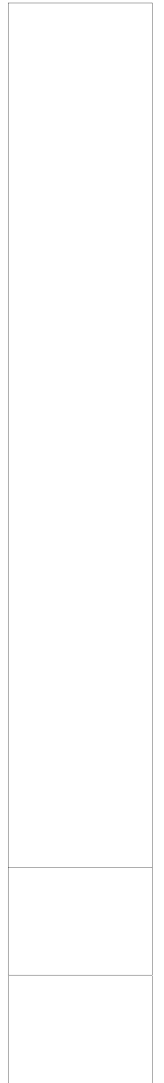


Virtualisation

Foundations of computer networks



Gartner's Top 10 Strategic Technologies for 2009 - Windows Internet Explorer

http://blogs.gartner.com/david_earley/2008/10/14/gartner%E2%80%99s-top-10-strategic-t

Plik Edycja Widok Ulubione Narzędzia Pomoc

Ulubione Sugerowane witryny Pobierz więcej dodatk

Gartner's Top 10 Strategic Technologies for 2009

Gartner.

David Cearley
A MEMBER OF THE GARTNER GROUP

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Technologies You Can't Afford to Ignore

Top 10 Strategic Technology Areas for 2009

1. Virtualization
2. Business Intelligence
3. Cloud Computing
4. IT for Green
5. Reshaping the Data Center
6. Social Computing
7. Security — Activity Monitoring
8. Flash Memory
9. Virtualization for Availability
10. Mobile Applications

Top 10 Strategic Technology Areas for 2010

1. Cloud Computing
2. Advanced Analytics
3. Client Computing
4. IT for Green
5. Reshaping the Data Center
6. Social Computing
7. Security — Activity Monitoring
8. Flash Memory
9. Virtualization for Availability
10. Mobile Applications

2016

Legend:
New for 2010 New for 2010
Dropped for 2010 Dropped for 2010

How Gartner Creates The Top 10 Strategic Technologies List
 Gartner's Top 10 Strategic Technologies for 2009
 Dave's Blog

CATEGORIES

Top 10
Uncategorized

Gartner Recommended Reading

8. Enterprise Mashups
9. Specialized Systems
10. Servers — Beyond Blades

Internet | Tryb chroniony: włączony

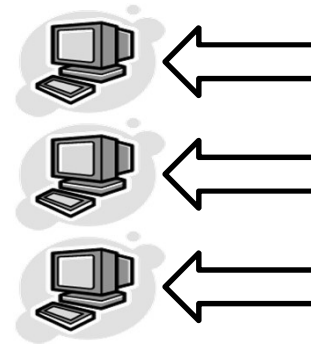
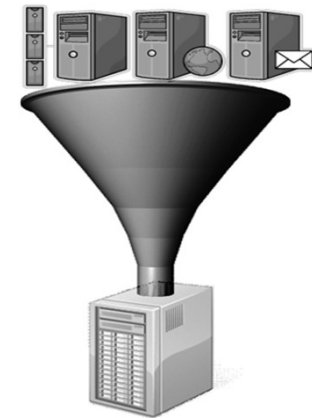
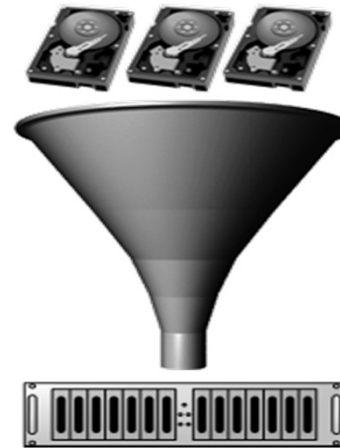
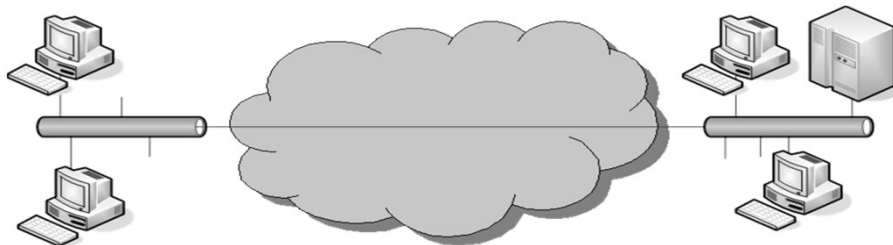
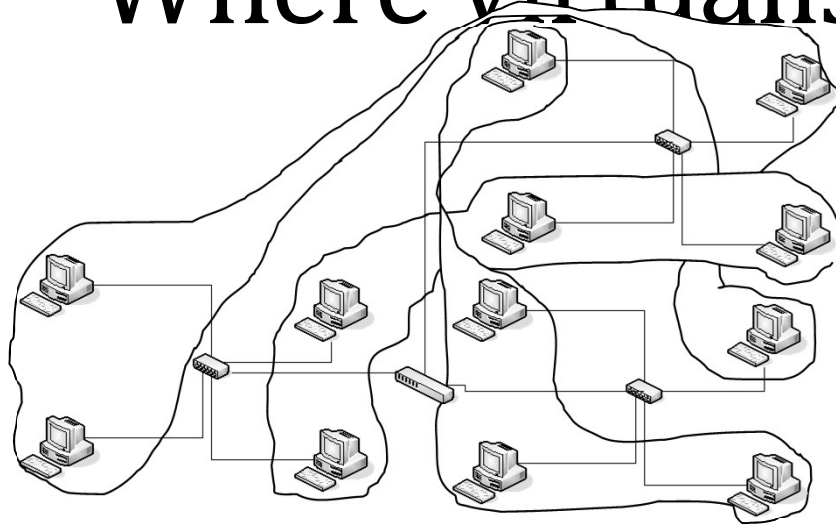
Why virtualisation?



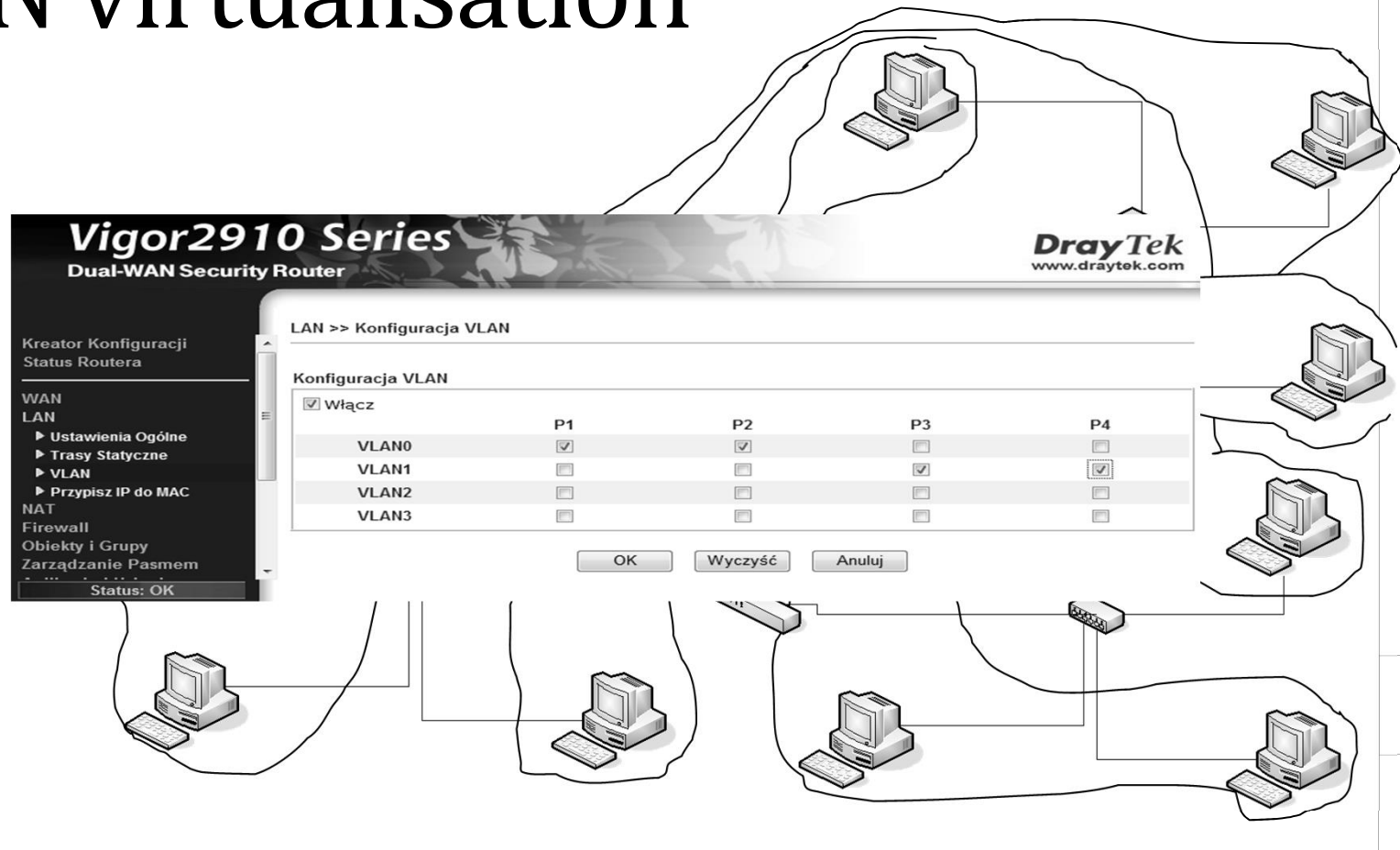
Kadr z filmu "Matrix"

scenariusz i reżyseria: The Wachowski Brothers

Where virtualisation?



LAN virtualisation



LAN virtualisation

The screenshot displays the D-Link Smart Wizard configuration interface for a DES-1252 switch. The interface is divided into two main sections, 01 and 02, each showing a different configuration window.

Section 01: IEEE 802.1Q Asymmetric VLAN Configuration

The left sidebar shows the configuration tree with the following items:

- DES-1252
 - System
 - Configuration
 - 802.1Q VLAN
 - 802.1Q Management VLAN
 - Trunk
 - IGMP Snooping
 - 802.1D Spanning Tree
 - Port Mirroring
 - QoS
 - Security
 - Monitoring
 - Statistics
 - Cable Diagnostics

The main configuration area for IEEE 802.1Q Asymmetric VLAN Configuration shows the following options:

- Asymmetric VLAN [Example] ☒ Enabled ☐ Disabled
- Note: After enabling Asymmetric VLAN by clicking the "Apply" button, users can configure PVID in the following window.
- Buttons: Apply

Section 02: Trunk Configuration

The left sidebar shows the configuration tree with the following items:

- DES-1252
 - System
 - Configuration
 - 802.1Q VLAN
 - 802.1Q Management VLAN
 - Trunk
 - IGMP Snooping
 - 802.1D Spanning Tree
 - Port Mirroring
 - QoS
 - Security
 - Monitoring

The main configuration area for Trunk Configuration shows a table for configuring trunk ports. The table has two sections, one for ports 01-26 and another for ports 27-52. Each section has columns for ID, Trunk Name, and a grid of checkboxes for each port.

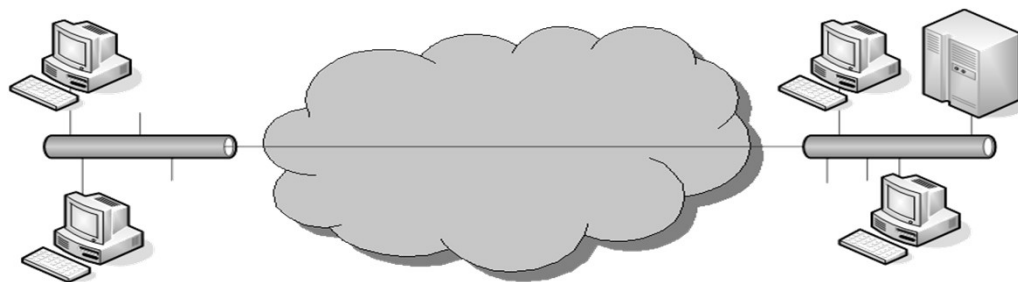
ID	Trunk Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	Plen	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
02		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
03		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
04		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
05		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
06		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

ID	Trunk Name	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
01	Plen	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
02		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
03		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
04		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
05		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
06		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Note: Trunk name should be less than 20 characters.

Buttons: Apply

Tunels - VPN



Łączenie z KIK VPN



Nazwa użytkownika:

Hasło:

Domena:

☒ Zapisz tę nazwę użytkownika i hasło dla następujących użytkowników:

☒ Tylko ja

☐ Dowolny użytkownik tego komputera

Połącz Anuluj Właściwości Pomoc

Mass memory virtualisation

- reliability
- flexibility
- costs reduction
- heterogeneity of resources
- logical unit number (LUN)
 - size and localisation flexibility
- mirroring
- replication
- snapshots
- hierarchical storage management (HSM)

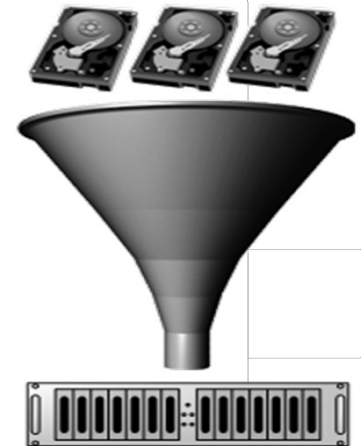
RAID

redundant array of
independent disks

SAN

LVM

logical volume
management



RAID

- RAID 0 – striping
- RAID 1 – mirroring
- RAID 2 – bit striping with parity
- RAID 3 – bit striping with parity (not in common use)
- RAID 4 – block striping with parity (faster than RAID 2 and 3 due to multiple/parallel I/O operations)
- RAID 5 – block striping with distributed parity (at least 3 HD, 1 HD can fail, rebuild is needed)
- RAID 6 – block striping with double distributed parity (at least 4 HD, 2 HD can fail)

Hybrid RAID

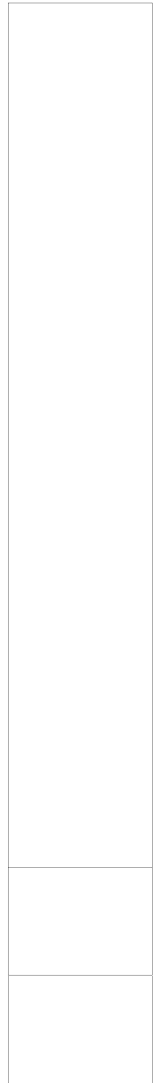
RAID 10 – striping on mirrored set

RAID 01 – mirror applying two striped sets

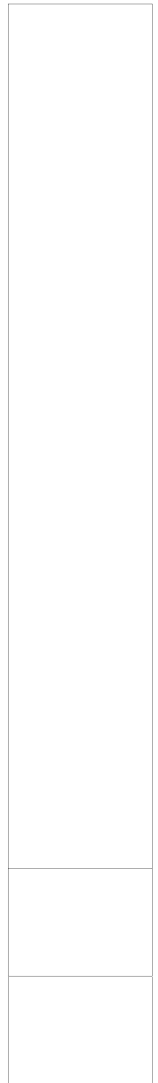
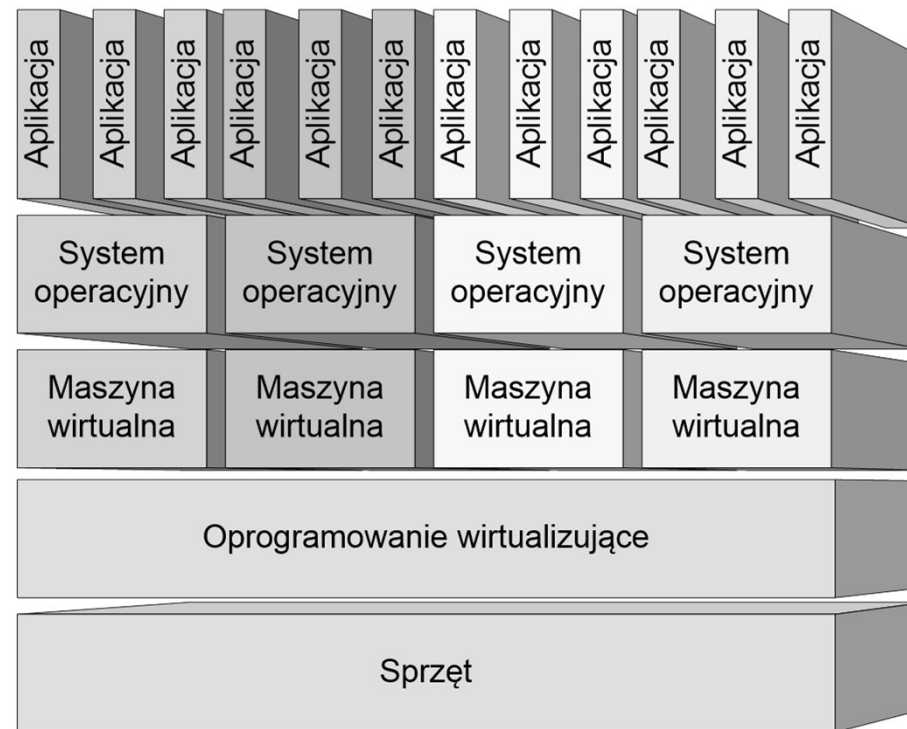
RAID 50 – RAID 0 striping on RAID 5 striping sets

Server virtualisation

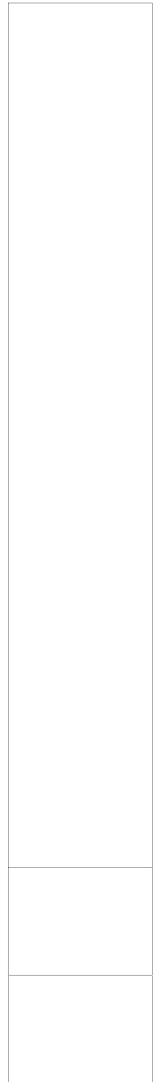
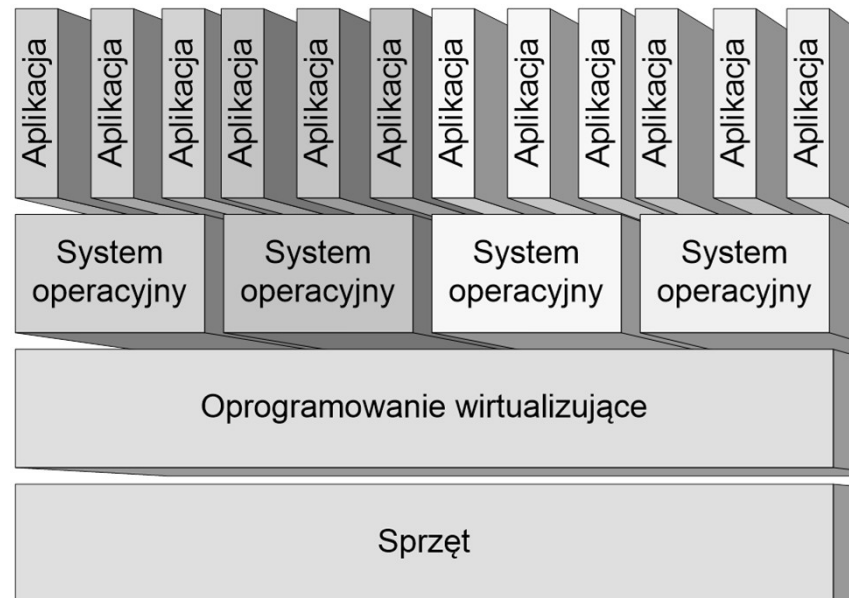
- Full virtualisation
- Paravirtualisation
- Operation system partitioning



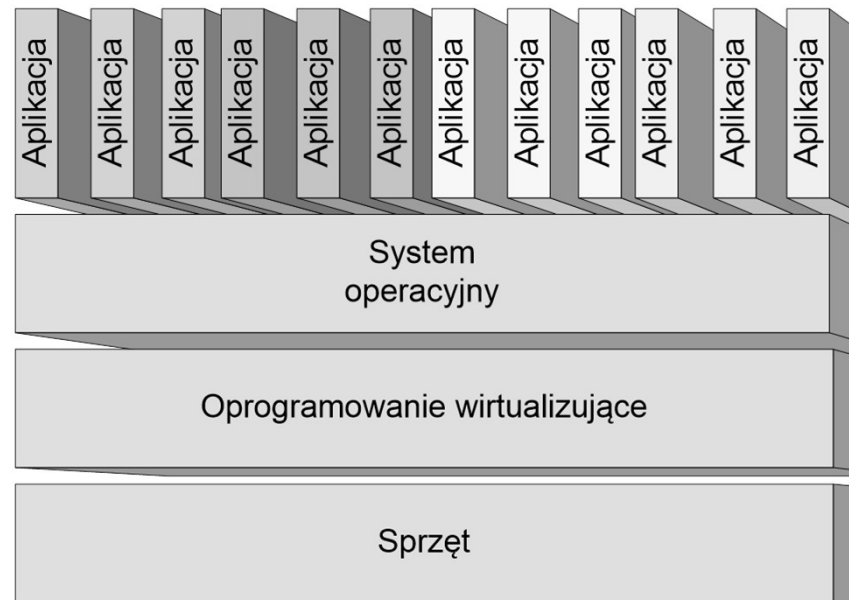
Full virtualisation



Paravirtualisation



Operation system partitioning



Solutions

- VMware
- Sun xVM Server
- Parallels –Virtuozzo
- XEN – Citrix
- Microsoft

CITRIX®



Microsoft®
Hyper-V™ Server 2008 R2

CITRIX XenServer™

XenServer 5.5.0

Configuration

Customize System

- Status Display
- Network and Management Interface
- Authentication
- Virtual Machines
- Disks and Storage Repositories
- Resource Pool Configuration
- XenServer Details and Licensing
- Hardware and BIOS Information
- Keyboard and Timezone
- Remote Service Configuration
- Backup, Restore and Update
- Technical Support
- Reboot or Shutdown
- Local Command Shell

Dell Inc.
PowerEdge 2970

XenServer 5.5.0-25727p

Management Network Parameters

Device	eth0
IP address	192.168.42.10
Netmask	255.255.255.0
Gateway	192.168.42.2

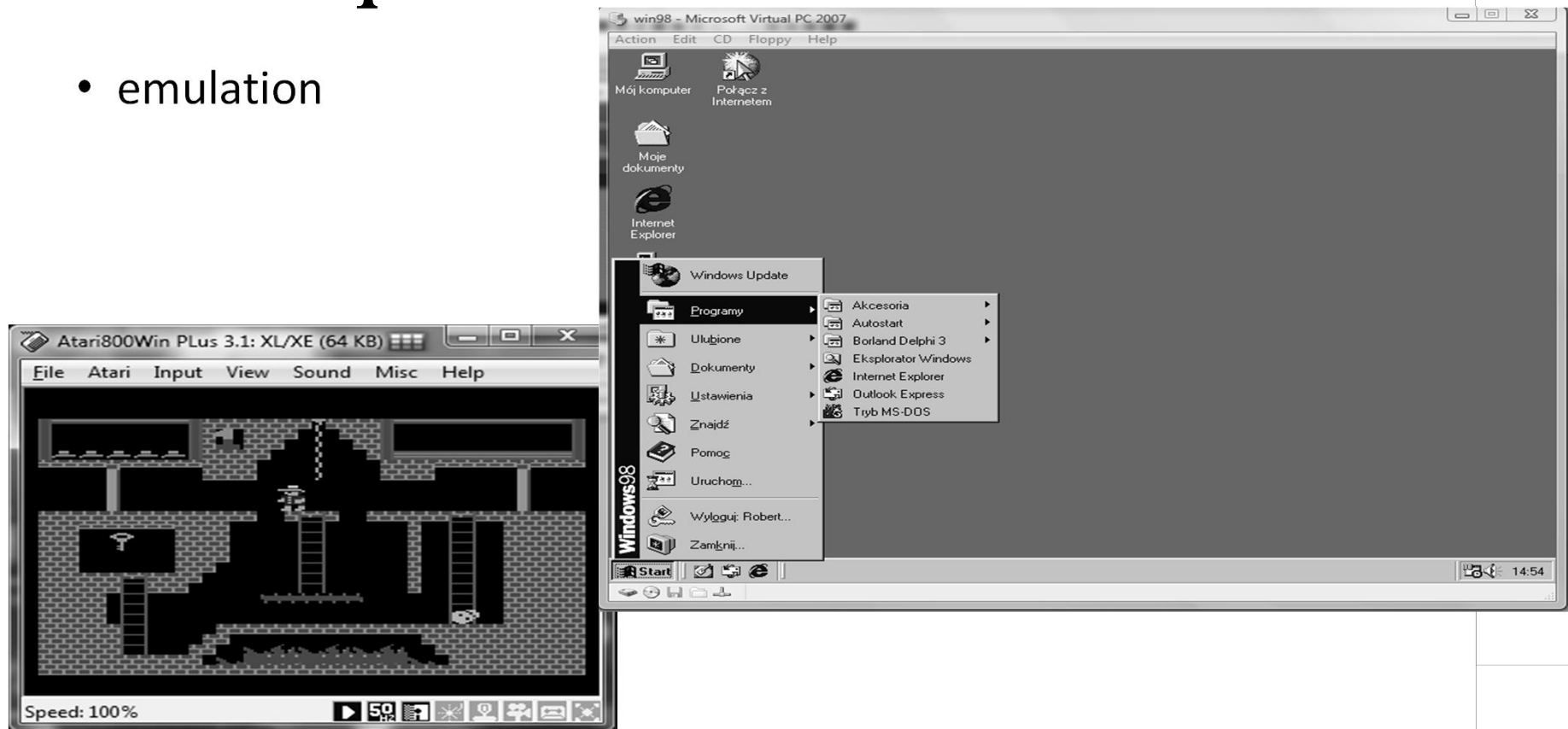
Press <Enter> to display the SSL key fingerprints for this host

<Enter> OK <Up/Down> Select

<Enter> Fingerprints <F5> Refresh

Desktop virtualisation

- emulation



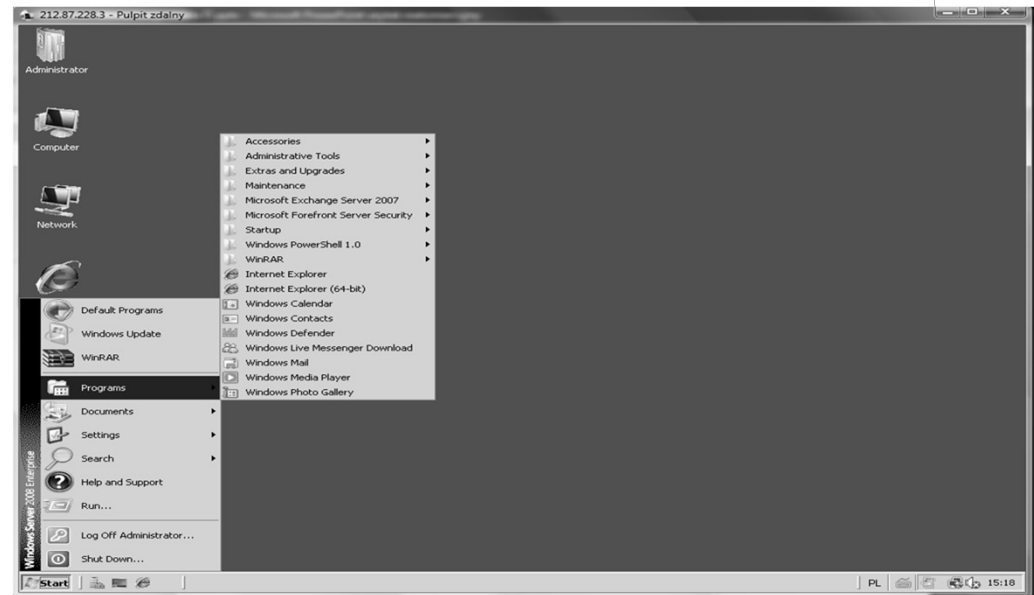
Desktop virtualisation

- remote desktop
- terminal services
- BladePC

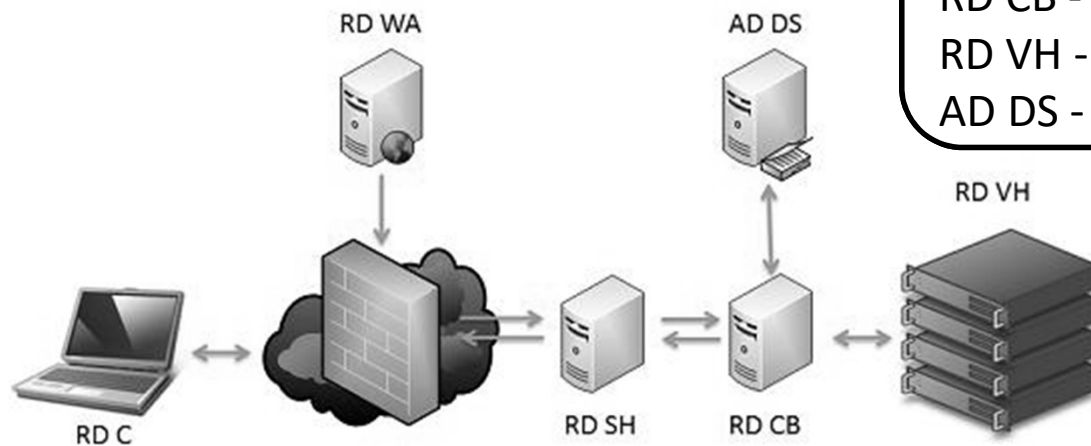
Wyse S10



www.wyse.com



Virtual desktops infrastructure



RD C - Remote Desktop Client

RD WA - Remote Desktop Web Access

RD SH - Remote Desktop Session Host

RD CB - Remote Desktop Connection Broker

RD VH - Remote Desktop Virtualisation Host

AD DS - Active Directory Domain Services

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Dziękuję za uwagę
