



Adm & Segurança de Redes

C. T. Inf. para Internet
Prof. Vinícius Alves Hax



Na aula anterior

- Firewall com iptables



Na aula de hoje

- História do Windows
- Características do Windows 2000 e sucessores



História da Microsoft

Origem da Microsoft

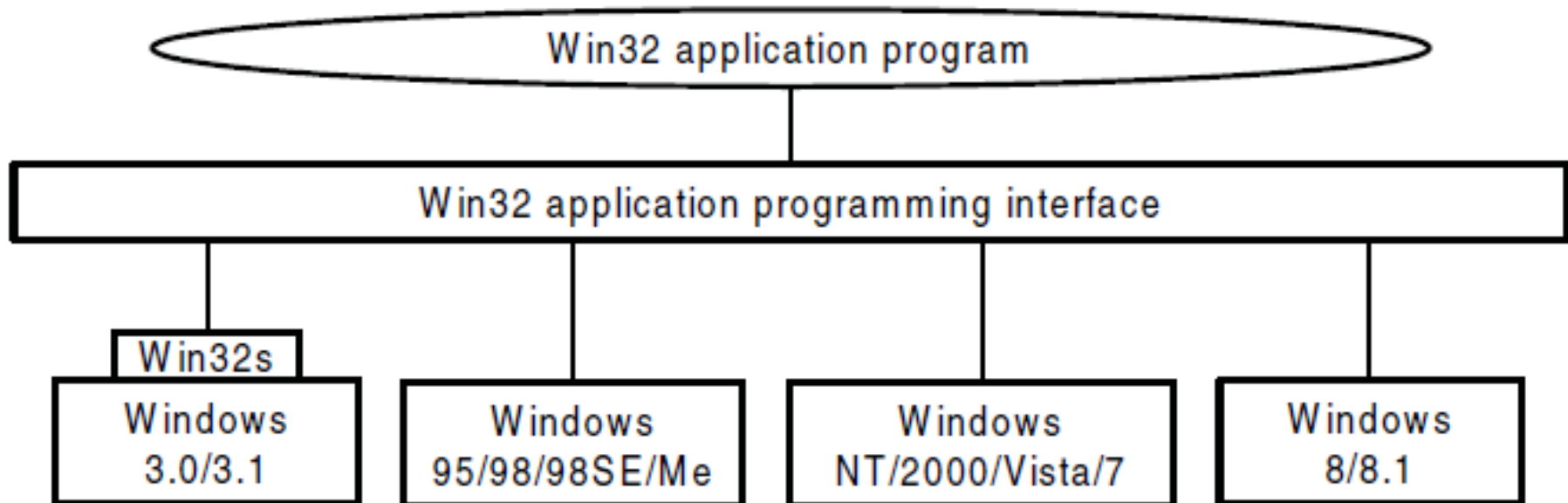
- IBM era um grande fabricante de hardware
- Microsoft tinha desenvolvido um interpretador de BASIC
- IBM precisava de um sistema operacional
- Microsoft comprou o DOS (\$75k) de Tim Paterson e fechou um contrato de \$450k com a IBM



História do Windows

Year	MS-DOS	MS-DOS based Windows	NT-based Windows	Modern Windows	Notes
1981	1.0				Initial release for IBM PC
1983	2.0				Support for PC/XT
1984	3.0				Support for PC/AT
1990		3.0			Ten million copies in 2 years
1991	5.0				Added memory management
1992		3.1			Ran only on 286 and later
1993			NT 3.1		
1995	7.0	95			MS-DOS embedded in Win 95
1996			NT 4.0		
1998		98			
2000	8.0	Me	2000		Win Me was inferior to Win 98
2001			XP		Replaced Win 98
2006			Vista		Vista could not supplant XP
2009			7		Significantly improved upon Vista
2012				8	First Modern version
2013				8.1	Microsoft moved to rapid releases

API Win32



O registro


Hive file	Mounted name	Use
SYSTEM	HKLM\SYSTEM	OS configuration information, used by kernel
HARDWARE	HKLM\HARDWARE	In-memory hive recording hardware detected
BCD	HKLM\BCD*	Boot Configuration Database
SAM	HKLM\SAM	Local user account information
SECURITY	HKLM\SECURITY	Isass' account and other security information
DEFAULT	HKEY_USERS\DEFAULT	Default hive for new users
NTUSER.DAT	HKEY_USERS\<user id>	User-specific hive, kept in home directory
SOFTWARE	HKLM\SOFTWARE	Application classes registered by COM
COMPONENTS	HKLM\COMPONENTS	Manifests and dependencies for sys. components

- Editável com os programas regedit ou regedit32



Sistema de Arquivos

- Conceito de múltiplos fluxos para um mesmo arquivo (ex: trilha de áudio em inglês e em pt-br)
- NTFS substituiu o FAT32
- Tamanho de volumes de até 8PB

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- Família NT
 - Vários detalhes apontam para uma priorização de performance, ao custo de um maior uso de memória e disco
 - Possui a versão server e a versão desktop
 - A versão server mais recente é a 2025



Microsoft x Linux

- Nos anos 90 e começo dos anos 2000 havia uma disputa muito grande entre MS e Linux
- Atualmente MS é muito mais “aberta”: dona do Github; uma das patrocinadoras do Linux



WSL

- Windows Subsystem for Linux
 - Praticamente o inverso do projeto Wine: tenta rodar softwares do Linux no Windows



Azure

- Nuvem da Microsoft
- Suporta outros sistemas operacionais



Gerenciando Windows Server



Windows Server

- Muito usado como:
 - Servidor de autenticação (AD)
 - Servidor de arquivos
 - Servidor de impressão
- Utiliza interface gráfica

Gerenciando um Windows Server

The screenshot displays the Windows Server Manager Dashboard. The top navigation bar includes 'Server Manager' and 'Dashboard'. The left sidebar shows the 'Dashboard' selected, with other options like 'Local Server', 'All Servers', 'File and Storage Services', and 'Print Services'. The main content area is titled 'WELCOME TO SERVER MANAGER'. It features a 'QUICK START' section with a numbered list of tasks: 1. Configure this local server, 2. Add roles and features, 3. Add other servers to manage, 4. Create a server group, and 5. Connect this server to cloud services. Below this is the 'ROLES AND SERVER GROUPS' section, which shows a summary of roles (2), server groups (1), and servers (1). It then lists four categories: 'File and Storage Services', 'Print Services', 'Local Server', and 'All Servers', each with a 'Manageability' status and a count of 1.

Server Manager ▸ Dashboard

Dashboard

- Local Server
- All Servers
- File and Storage Services ▸
- Print Services

WELCOME TO SERVER MANAGER

QUICK START

- 1 Configure this local server
- 2 Add roles and features
- 3 Add other servers to manage
- 4 Create a server group
- 5 Connect this server to cloud services

LEARN MORE

Hide

ROLES AND SERVER GROUPS
Roles: 2 | Server groups: 1 | Servers total: 1

File and Storage Services 1	Print Services 1	Local Server 1	All Servers 1
Manageability	Manageability	Manageability	Manageability
Events	Events	Events	Events
Services	Services	Services	Services

Gerenciando um Windows Server (2)

Server Manager ▸ Local Server

Dashboard
Local Server
All Servers
File and Storage Services
Print Services

EVENTS

All events | 1 total

Filter

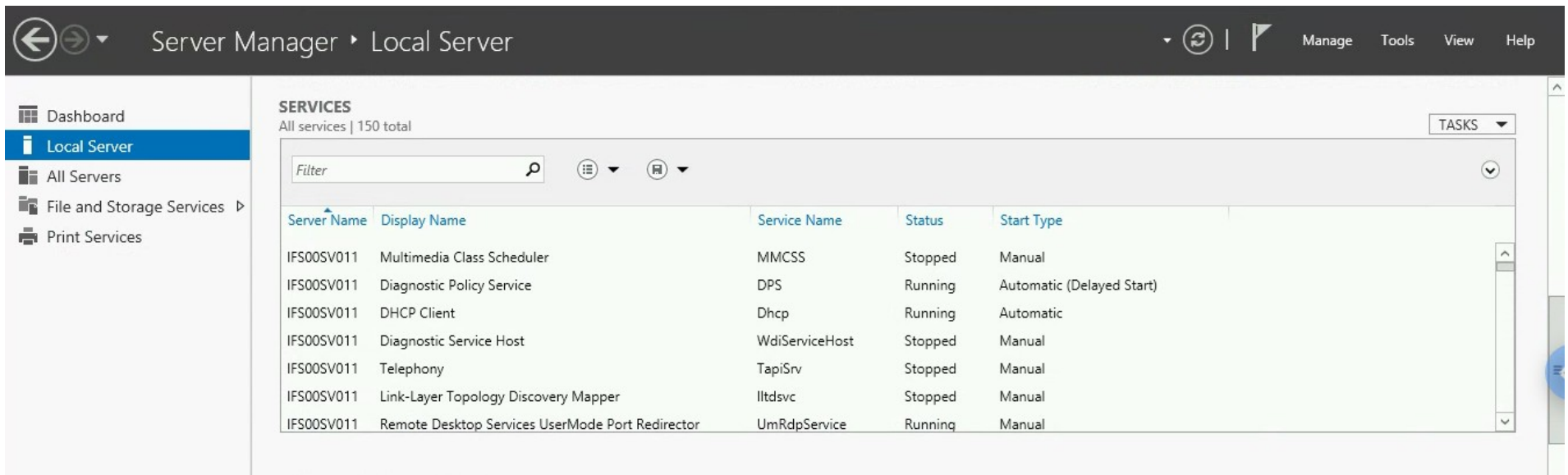
Server Name	ID	Severity	Source	Log	Date and Time
IFS00SV011	8018	Warning	Microsoft-Windows-DNS Client Events	System	05/04/2020 03:24:59

SERVICES

All services | 150 total

Filter

Gerenciando um Windows Server (3)



The screenshot displays the Windows Server Manager interface. The top navigation bar shows 'Server Manager' and 'Local Server'. On the left, a sidebar contains links to 'Dashboard', 'Local Server' (selected), 'All Servers', 'File and Storage Services', and 'Print Services'. The main area is titled 'SERVICES' and indicates 'All services | 150 total'. A 'Filter' input field and a 'TASKS' dropdown are present. Below, a table lists several services with their IDs, display names, service names, current status, and start types.

Server Name	Display Name	Service Name	Status	Start Type
IFS00SV011	Multimedia Class Scheduler	MMCSS	Stopped	Manual
IFS00SV011	Diagnostic Policy Service	DPS	Running	Automatic (Delayed Start)
IFS00SV011	DHCP Client	Dhcp	Running	Automatic
IFS00SV011	Diagnostic Service Host	WdiServiceHost	Stopped	Manual
IFS00SV011	Telephony	TapiSrv	Stopped	Manual
IFS00SV011	Link-Layer Topology Discovery Mapper	lltdsvc	Stopped	Manual
IFS00SV011	Remote Desktop Services UserMode Port Redirector	UmRdpService	Running	Manual

Gerenciando um Windows Server (4)

The screenshot displays the Windows Server Manager interface, specifically the 'File and Storage Services' > 'Shares' section. The left-hand navigation pane shows a tree view with 'Servers', 'Volumes', 'Disks', 'Storage Pools', 'Shares' (selected), 'iSCSI', and 'Work Folders'. The main area is divided into two panels: 'SHARES' and 'VOLUME'.

SHARES Panel: Shows 'All shares | 11 total'. A table lists the shares for the volume IFS00SV011 (11).

Share	Local Path	Protocol	Availability Type
Dados	C:\DFSRoots\Dados	SMB	Not Clustered
Dados1\$	D:\Dados1	SMB	Not Clustered
Dados2\$	E:\Dados2	SMB	Not Clustered
Dados3\$	F:\Dados3	SMB	Not Clustered
Dados4\$	G:\Dados4	SMB	Not Clustered
Dados5\$	G:\Dados5	SMB	Not Clustered
Dados6\$	I:\Dados6	SMB	Not Clustered
PCCClient	C:\Program Files\PaperCut NG\cli...	SMB	Not Clustered
PCRelease	C:\Program Files\PaperCut NG\rel...	SMB	Not Clustered
print\$	C:\Windows\system32\spool\driv...	SMB	Not Clustered
prnproc\$	C:\Windows\system32\spool\prt...	SMB	Not Clustered

VOLUME Panel: Shows 'Dados on IFS00SV011'. It displays the capacity of the (C:) drive as 39,7 GB. A progress bar indicates 55,9% is used, with 22,2 GB of used space and 17,5 GB of free space. A link 'Go to Volumes Overview >' is present.

QUOTA Panel: Shows 'Dados on IFS00SV011'. It contains a message: 'To use quotas, File Server Resource Manager must be installed.' and a link: 'To install File Server Resource Manager, start the Add Roles and Features Wizard.'



Segurança Windows Server

- Não use software pirata
- Mantenha o sistema atualizado

Atividade sobre Windows Server

- Configurar duas máquinas Windows, uma com servidor de domínio D e a outra como servidor de arquivos A. A deve usar D como servidor de domínio e vice-versa. Peso: 2 pts
- Relatório do processo necessário para a configuração. Peso: 2 pts
- Presença e participação em aula. Peso: 1 pt.