

### Managing Diske

MBR	Master Boot Record
GPT	GUID Partition Table
Basic Disk	Limit til 4 partitioner
Dynamic Disk	Kan ikke installeres styresystem på disken

MBR:  
4 partitioner på hver 2 TB, 2 gb filer

GPT:  
128 partitioner på hver 128 TB, 8 gb filer

### Hypervisor

Host OS	Hyper-V på Windows Server 2016
Server OS	Windows Server 2016
Klient OS	Windows 10 Pro
Install CentOS (Linux)	Kun generation 1 supportet

### System State Data

Standard størrelse	9-11GB
Backup af opstartsfiler	Systemfiler og filer beskyttet med WFP inkl.
Backup af AD	Kun på Domain Controller
Certifikater	Kun på CA server
IIS-data	Kun på IIS server
Cluster database	Kun på et cluster

### Backuphåndtering

Direkte tilgængelig	Hurtig adgang, dyrere
I nærheden	Tilsluttes mekanisk efter behov
Offline	Fx. tape-backup, kræver fysisk tilslutning
Sekundær lokation	Et eksternt mirrored datacenter

### Windows Backup Service

Schedule Backup	Opsætning til at lave en planlagt backup
Backup Once	Kører en enkelt backup
Recover	Restore fra en backup
Configure Performance Settings	Ændrer performance indstillinger for backups

### Metadata

Systembeskrivelse	Dokumentation for systemkonfiguration
Boot sector	Plads på disk til systemopstart
Partition layout	Oversigt over partitionstabeller
Filbaseret metadata	Filrettigheder inkl. accesslister
Systembaseret metadata	Info fra registreringsdatabasen (fx keys)

### Opbevaringsmuligheder

Full	Fuld backup, ændrer archive bit
Copy	Fuld backup, rører ikke archive bit
Incremental	Fuld + daglig tillægs backup (fjerner archive bit)
Differential	Fuld + daglig fuld tillægs backup

### Software RAID

Cost	Low
Styring	Operativsystem
Disktype påkrævet	SCSI
Administration	Via software i operativsystemet

### Hardware RAID

Cost	High
Styring	Fysisk Controller
Administration	Eksternt fra host OS
Disktype	IDE, SCSI

### RAID-typer

Raid 0	Striped volume
Raid 1	Mirror volume
Raid 2	Striped with bit-level Hamming code for error correction
Raid 3	Striping with a parity disk
Raid 4	Striped with dedicated parity block level
Raid 5	Striped with distributed parity block
Raid 6	Striped with two distributed parity blocks
Raid 0 + 1	Block-level striping and mirroring without parity
Raid 10	Mirroring without parity and block-level striping

Only dynamic disks support extended, spanned, striped, mirrored, or RAID volumes.

### Backup Path

**Optimize Backup Performance**

If your backups contain full volumes, you can manage future performance by choosing one of the following settings. If the backup contains only the system state or a file or folder, these settings are not applied.

- Normal backup performance  
The time to create the backup is proportional to the size of the data being backed up.
- Faster backup performance  
Increase the backup speed by just tracking the changes between the last and current backup. This might reduce disk throughput on volumes included in the backup. This option is not recommended for servers with disk-intensive operations.
- Custom  
Configure each volume separately if you have certain volumes that have disk-intensive operations.

Volume	Backup Option
System Reserved	Incremental backup
Local disk (C:)	Incremental backup

OK Cancel

### Command Prompt - wbadmin

Enable backup	Create or modifies a backup schedule
Disable backup	Disable the schedule backups
Start backup	runs a one-time backup
Stop job	Stops the running backup
Get disk	Lists the disks that are currently online
Get items	Lists the items contained in a backup
Start system staterecovery	Runs a system state recovery
Start system statebackup	Runs a system state backup
Delete system statebackup	Deletes one or more system states backups
Delete backup	Deletes one or more backups

### Filsystemer

FAT32	HDD Ikke større end 8 TB, filer 4GB, bruges af Windows, Mac og Linux
exFAT	Bruges i flashdrev og SD kort
NTFS	Bruges kun i Windows, mulighed for kryptering
ReFS	Bruges til Windows Server, nemt at udvide
EXT4	Anvendes kun i Linux, Volumer op til 1 EIB, filer 16 TiB

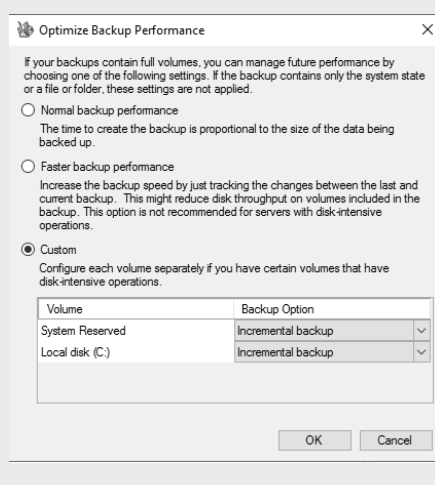
### Volume Shadow Copy

Versionstyring af filer	Op til 64 ældre versioner
Aktiveret på volumeniveau	
Snapshot-hyppighed	2 stk. alle hverdage (standard)
Del af disk afsat til backup	10% (standard)

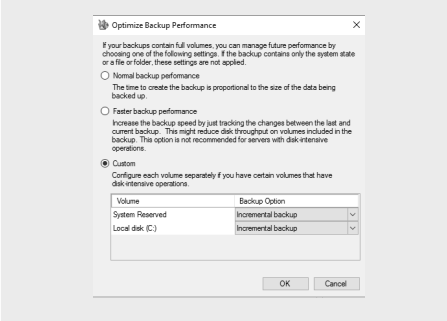
### Opbevaringsmuligheder (cont)

Differential	Fuld backup + en enkelt tillægsbackup (fjerner ikke archive bit)
Ustruktureret	Tilfældig backup, fx på cd'er
Kontinuerlig databeskyttelse	Realtime log af ændringer på block el. byte-niveau
System image	Backup af fungerende system til recovery el. nemlig udrulning
Reverse data-arkiv	Synk af fuld backup og live resynk af ændringer

### Optimize Backup Performance



### Backup Path



### Specify Backup Time

