BMDNTCS technical concept

➜ **Technical concept for >100 users**

Mailserver

SMTP access

Clients

- **Connection speed >= 1Gbit to application and database server**
- **When working with a WAN connection, a remote desktop server must be used**
- **Should run on computer with high clock speed CPUs for fast calculations**
- **Ideally eqipped with SSDs for fast reporting**

Client access via SMB and various BMD services

Applikationserver / Cluster

Windows 2022
File Server (Failover Cluster*)
Windows Search

16 GB Memory
>= 4 CPUs
Required space for program files 50GB
Required space for log files >= 50GB
Dedicated drive for DMS and Windows search catalog can hav several TB

Client communication directly
With database

Webserver communication for automatic update, accessing DMS, SOAP and SMTP forward

Please note

- **Windows Search is not supported on failover clusters, only on standalone servers**
- **A separate DMS server is neccessary to use full-text search for documents when a failover cluster is used as an application server**

Used services & ports

- **BMDNtcsSvc (TCP 81): for DMS and update of the web applications**
- **BMDNTCSSOAPSvc (TCP 1222): for scheduled tasks and SMTP forwarding**
- **SQL Server (TCP 1433) for a default instance, otherwise a dynamic/ configured TCP port**
- **SQL Browser (UDP 1434): only neccessary when working with a named instance or dynamic port**

Testserver

Windows 2022
SQL 2019
File Server

16 GB Memory
>= 4CPUs

Required space for program files and log files = 50GB
Required space for SQL database same as for database server

(Required space for DMS if needed on test system)

Web server communication directly with database

Webserver

Windows 2022
IIS
Load balancing (Microsoft ARR)

4 GB Memory per website
1 CPU per webslte (with high clock speed)
30-35 concurrent users per website

Databaseserver / Cluster

Windows 2022
SQL 2019
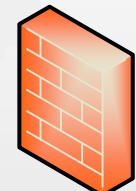**(Failover Cluster / SQL AlwaysOn)**

128 GB Memory
>= 8 CPUs with high clock speed
fast I/O system
>= 15k IOPS random write 8K
Dedicated drive for SQL formatted with NTFS 64k