

Proper maintenance of SQL servers - Considerations for Acumatica and Dynamics GP

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Environment

- Server - latest patches/updates for the OS checked and applied regularly
- Virtual is fine, but ensure BIOS switches are properly set
- Latest drivers for VMware or Hyper-V
- Virtual disks **MUST** be fully expanded when created
- Do not snapshot virtual machines during the work day

Environment

- Disks - must be local or SAN (not NAS)
 - Speed matters - 10K RPM minimum
 - Make sure space is available
 - Watch growth factor on databases
 - If you are using virtual servers, don't drive yourself crazy with file separation, it's not going to help.
- Processors
 - Allocate at least 4 processor cores
- RAM
 - SQL is RAM-intensive
 - 16GB Minimum on the server
 - Reserve at least 4 for the operating system
 - Move other apps to other servers (Management Reporter particularly)

External Considerations

- Network speed
 - 1GB/s minimum network speed
 - System specs call for a 1GB NIC, network speed is not mentioned
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- Antivirus
 - As a client/server application, Dynamics GP exclusions must be made on both server and client sides

Protecting

- Backing up your data:
 - Serves two essential purposes
 - Backs up your data, but place backups on different drives than data
 - Truncates the log (.ldf) file
 - Make sure backups are the correct type for the database recovery model
 - Simple and Full are the two common models used.
 - Know what Full and Transaction Log backups do
 - Check backup files daily
 - Test your restore scenario and make certain you have a one-source restoration chain

Other things to check:

- Backups
- SQL Agent running?
- Plenty of disk space?
- Reindex and other maintenance

Links for further information:

- <https://www.calszone.com/2017/12/important-sql-database-backup-procedures-for-microsoft-dynamics-gp-what-you-need-to-know/>
- <https://www.calszone.com/2018/05/slow-processing-issues-in-dynamics-gp-simplified/>
- <https://www.calszone.com/2018/01/important-dynamics-gp-should-not-be-run-over-a-wan-or-vpn-network/>
- <https://www.calszone.com/2018/03/guidelines-for-configuring-hardware-for-a-dynamics-gp-sql-database-server/>

...and when everything done right goes wrong:

Several troubleshooting tasks and tools:

- **SQL Management Studio**
- **SQL Activity Monitor**
- **Troubleshooting Queries**
- **Maintenance Plans**
- **Query Optimization**
 - Creating Sargable queries
 - Limiting Temp tables
- **SQL Traces**

Q & A

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- Thank you!