SQL Server

Evaluation Report

Created By: SQL Server Team
Date: 19/09/2016

Database Evaluation Overview

Program Goals

- Assess risks and evaluate health of the SQL Server environment.
- Identify key areas where the environment deviates from Microsoft best practices and configuration guidance.
- Establish assessment results that can generate a remediation plan used to complete improvements to the health of the environment and to resolve or mitigate risks.

Program Phases

- Environmental Assessment: The SQL Server Team collects data from the environment focusing on key known areas.
- Analysis and Reporting: The SQL Server Team analyzes the results to compare against best practices, identify risks and health related problems, and prepares a findings report.
- Remediation Planning: Once problems and risks have been discovered, a full remediation action plan should be established to assist in the effort to remediate and stabilize the environment.

Scorecard

The scorecards for the Evaluation Report are provided below. These show the state of the system with respect to health(current issues) and risk(potential for future issues).

Issue Severity Levels
Critical
High
Medium
Low
No Issues

The following legend will be used throughout the rest of this document:

✅   Indicates that there are no issues in this item

❌   Indicates that there are issues in this item

Consolidated Scorecard

This scorecard gives an executive level summary of the issues discovered.

SQL Server Instance	
Installation	
SQL Server Software Installation Drive	✅
SQL Server Version and Service Pack	✅
Configuration	
Max Degree Of Parallelism	✅
Memory	✅
Enable Traceflag 2371, 1117 and 1118	✅
Default Index Fill Factor	✅
Security	
Server Authentication	✅
SQL Server Network Port	✅

SQL Server Database	
Implemetation	
SQL *.MDF, *.NDF and *.LDF Log File Placement	❌
Configuration Options	
Recovery Model	❌
Compatibility Level	❌
Is RCSI Enabled (Read Committed Snapshot Isolation)	❌
Do All Tables have Clustered Indexes	❌
Database Auto Growth	❌
Auto Create Statistics	❌
Auto Shrink	❌
Auto Update Statistics	❌
Maintenance	
Daily Index Rebuild	❌
Daily Database Full Backup	❌
Security	
Blank SQL 'SA' Password	❌
Blank Server Administrator	❌
Domain Accounts used for SQL Services	❌

SQL Server

Issue: Daily database Full backup			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
A link to the past			
Reference 2			
Wayward sword			

Issue: Database Data File Configuration			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
A link to the past			
Reference 2			
Wayward sword			

Issue: Database Log File Configuration			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
A link to the past			
Reference 2			
Wayward sword			

Issue: NT AUTHORITY\SYSTEM Administrator			
Issue Type	Health	**Issue Severity**	Critical
Problem			

I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
A link to the past			
Reference 2			
Wayward sword			

Issue: Read Committed Snapshot			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
A link to the past			
Reference 2			
Wayward sword			

Issue: Recovery Model			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
A link to the past			
Reference 2			
Wayward sword			

Issue: Snapshot Isolation			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			

Reference 1
A link to the past
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Wayward sword

Issue: SQL Server Instance Installation Directory			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
A link to the past			
Reference 2			
Wayward sword			

Issue: SQL Server Version and Service Pack			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
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Wayward sword			

Issue: Default index fill factor			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
Reference 1			
A link to the past			
Reference 2			
Wayward sword			

Issue: Trace flag 1117

Issue Type	Health	Issue Severity	Critical

Problem

I have a big problem

Recommendation

I recommend you to solve your problem

Why

You know why...

Reference 1

A link to the past

Reference 2

Wayward sword

Issue: Trace flag 1118

Issue Type	Health	Issue Severity	Critical

Problem

I have a big problem

Recommendation

I recommend you to solve your problem

Why

You know why...

Reference 1

A link to the past

Reference 2

Wayward sword

Issue: Daily Index Rebuild - Index Optimizations

Issue Type	Health	Issue Severity	Critical

Problem

I have a big problem

Recommendation

I recommend you to solve your problem

Why

You know why...

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Issue: Max Degree Of Parallelism

Issue Type	Health	Issue Severity	Critical

Problem

I have a big problem

Recommendation

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Why
You know why...
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Issue: Memory - Min Memory			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
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Issue: Server authentication			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
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Issue: Auto Create Statistics			
Issue Type	Health	**Issue Severity**	Critical
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I have a big problem			
Recommendation			
I recommend you to solve your problem			
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You know why...			
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Issue: Auto Shrink			
Issue Type	Health	**Issue Severity**	Critical
Problem			
I have a big problem			
Recommendation			
I recommend you to solve your problem			
Why			
You know why...			
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Issue: Auto Update Statistics			
Issue Type	Health	**Issue Severity**	Critical
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Recommendation			
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Issue: Compatibility Level			
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Issue: Database Auto growth			
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Issue: SQL Server Network Port			
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Recommendation			
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Issue: Trace flag 2371			
Issue Type	Health	**Issue Severity**	Critical
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Issue: Blank SQL SA Password			
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Issue: Memory - Max Memory			
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Issue 1: Install SQL 2008 R2 SP2 CU11			
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