



Database Administration & Maintenance Case Study

Title: DB Administration
Domain: Energy
Client: Energy Infrastructure Services Provider
Location: Northville, MI

Project Description

This is an ongoing maintenance project where Reliable Software was asked to optimize the overall system performance of operational databases on the SQL Server platform and daily maintenance.

Environment

Windows, SQL Server 2008,

Tools

SQL Server Management Studio 2008, Case Studio, BIDS

Other Tools/ Languages

SQL, PL/SQL

Subject Area

Database Administration

CLIENT: Energy Infrastructure Services Provider

PROJECT DETAILS:

This client has several critical applications that are being accessed by SQL Server platform and are falling due to performance related issues. Reliable Software has been requested to provide database administration and maintenance services which included implementing an immediate strategy to maintain overall stability and improve the performance of the system and also provide a plan which will monitor the data growth factor and build a data archiving process that would best maintain the system stability and scalability.

Reliable Software has made an immediate impact on the overall performance and stability of the system by creating a maintenance plan which has been implemented on daily and weekly basis and ongoing basis. Below is a brief outline of the daily and weekly maintenance tasks that were implemented on this project

Indexing:

- Rebuilding the indexes depending on the size of the database.
- Analyzed the usage of the existing indexes which includes the number of scans etc.
- Created custom scripts to determine the unused indexes and drop them if not required.
- Created a missing indexes script to determine if there is a necessity to add any new indexes that are missing to improve performance.

Database Sizing and Archiving:

In addition to the above mentioned steps the DB size growth and archiving processes have been setup and performed trend analysis on various aspects of the database as are briefly mentioned below.

- Created a strategy to monitor the usage of disk space and sending alerts using T-SQL which warns us about the low disk space which is lower than the set threshold.
- Created T-SQL Jobs which executes a stored procedure on a daily and weekly basis which will determine the data growth factor for each database to define growth settings for each database appropriately.
- Constantly monitor the growth and usage of Tempdb space.
- Created and implemented a backup compression strategy which is new in SQLSERVER 2008 Enterprise Edition to avoid any out of disk space issue because of backup files stored on the drive.

In addition to implementing the above mentioned maintenance tasks, Currently Reliable Software is building a long term strategy on designing an optimal database and data partitioning techniques.

BENEFITS OF THE PROJECT

The immediate benefit of the project is enhanced performance of the operational databases which are managed and maintained 24 X 7 with a low TCO and maximum ROI. Also since this project is maintained using our off-site delivery model our client has the flexibility to control the overall scope of the project depending on their current and future requirements.

PROJECT TIMELINES & MILESTONES

Sr. No	Project Phase	Phase Period (Working Days)
1	Requirements gathering	2
2	Analysis for Technical Specifications	5
3	Maintenance & Support	Ongoing

PROJECT METRICS

Total team strength - 1

End User base - 2500

This project was completely executed at our off-site facility in Northville, MI from start to finish and our client was able to leverage our cost effective model for this project.

Our off-site model is an attractive alternative for our clients looking for more cost-effective solutions without compromising quality. Our off-site delivery program is unique with below highlights.

Offsite Delivery Model Highlights:

- Priced at approximately 50% of equivalent onsite services.
- Highly qualified certified consultants.
- Excellent communication and project control - Same country and same time zone.
- Flexible scalable model - the capability of scaling projects on demand for any duration.
- Flexing to your methodology - adapting to clients way of doing business and managing projects, instead of making you fit a standard methodology or process.

About Reliable Software Resources, Inc.

Reliable Software Resources Inc. is a leading provider of information technology consulting and provides high-value, industry-specific IT solutions and is a pure-play IT project implementation and system Integration Company with cost effective delivery model for its clients. Our project delivery solution emphasizes local accountability and a flexible mix of global resources. The result is more-practical and actionable recommendations and the right-sized services that tightly align to your needs. Reliable Software's services are offered on a project- or strategic-staffing basis, across all technology platforms, operating systems and infrastructures. Reliable Software Resources Inc., Consulting practice has national foot print in United States and has been recognized as one of the fastest growing companies by Inc. Visit us online at www.rsrit.com or follow us on Linked In, Facebook & Twitter.



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