IDERA® | SQL Server Tools Whitepaper

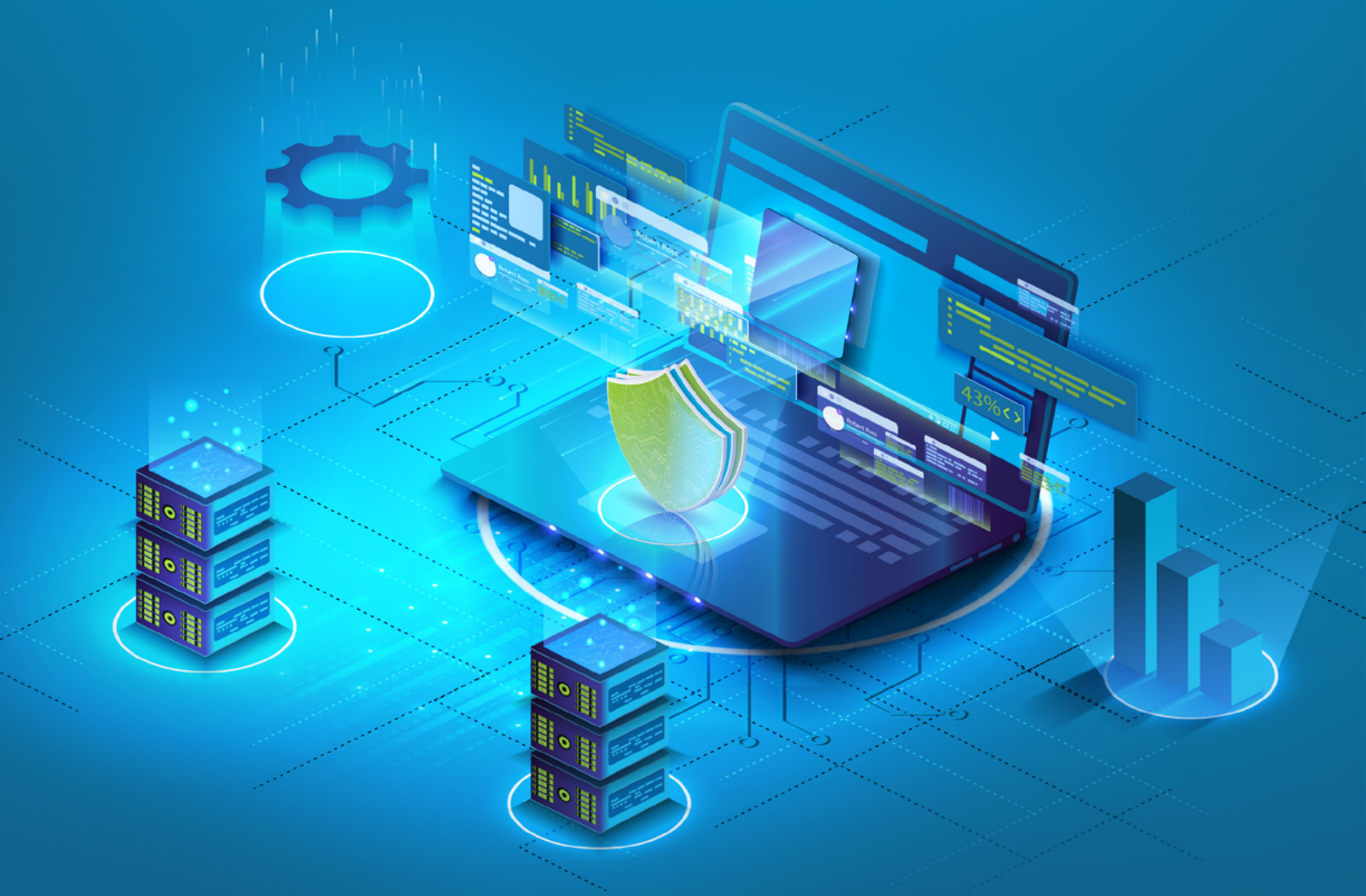
HEALTH MONITORING

HOW USERS OF A PERFORMANCE MONITORING TOOL CAN BENEFIT FROM AN INVENTORY MANAGEMENT TOOL

Database administrators (DBAs) must monitor their databases for factors such as availability, health, and performance.

However, monitoring also has costs associated with it that may exceed the benefits it provides.

One solution to this problem is to use an inventory management tool (IMT) besides a performance monitoring tool (PMT), since an IMT performs less monitoring than an PMT with a corresponding reduction in cost. And it is often better to perform limited health monitoring than no monitoring at all.



LIGHT MONITORING

A PMT is essential for mission-critical databases, but this may not be the case for non-critical databases — typically those used for archival, development, and testing purposes.

The best solution for this situation is often a dual-monitoring environment that uses both a PMT and an IMT.

DBAs can use a PMT that provides powerful, comprehensive monitoring for critical databases, while performing light monitoring on non-critical databases with an IMT. An IMT checks on database instances and provides metrics on critical environmental issues, including availability and health. Besides light monitoring, an IMT also provides inventory management. This type of solution typically monitors only a few percent of the metrics that a PMT monitors.

The following list describes the metrics that an IMT typically monitors:

Availability

- Database status
- Instance response time
- Instance status

Storage Capacity

- Drives at risk
- Databases at risk

Disaster Recovery

- Database never backed up
- Database not backed up recently
- Databases with no integrity check
- Databases with no recent integrity check

Configuration

- Database auto shrink enabled
- Instance privileged access enabled
- Database temporary database files not all the same size

DBAs also need a tool to identify the databases on their networks and place them into categories such as production, development, testing, and archiving — or mission-critical and not-mission-critical. DBAs must also ensure their databases are current with their patches and updates, which an IMT can do. It is also easy for DBAs to switch a database between light monitoring and no monitoring with an IMT.

Users typically pay only for databases that an IMT monitors continuously for health, not the ones that it merely discovers and manages. DBAs can thus manage their entire inventory of database instances, while only paying for the mission-critical instances they actually monitor for health. This pricing structure benefits current PMT users who also implement an IMT to perform light monitoring.

Data centers almost always have a group of database instances that do not require the cost of comprehensive monitoring with a PMT. However, an IMT can inform DBAs of failures such as a downed instance, full disk or a database that has not been backed up. These critical conditions are often all that a DBA cares about on a development, test, or archive server, although a PMT is still necessary for monitoring performance, including resources and queries.

Database instances almost always require some level of monitoring because they are critical to someone, even if they are not critical to the larger organization itself. An IMT can provide this minimum level of health monitoring for instances that do not need full-featured performance monitoring, while allowing an PMT to perform full-featured monitoring on instances that must remain fast and bulletproof. In this scenario, the IMT performs all the discovery, organization, licensing, and patching, although the PMT does tag instances.

This division of tasks shows the distinction between a PMT and IMT. A PMT monitors resource availability, health, and performance, while an IMT monitors availability and health — and manages inventory.

BENEFITS

The benefits of light monitoring include reductions in costs, time, and overhead.

EXPENSES

The monetary cost of monitoring is the license fee for the solution. A basic license for many IMT solutions typically requires one fee that covers inventory management for many instances.

Sometimes, a single license can apply to unlimited instances whereby the limit on monitoring is the underlying IT infrastructure, including computing resources like CPU, disk space, I/O, network capacity, and RAM. An IMT is a less expensive alternative to a PMT because it monitors far fewer metrics and provides only the basics in the way of alerts, diagnostics, and reports, even though it provides inventory management. The cost of an IMT per monitored instance can be one-tenth that of a PMT.

TIME

The time cost of monitoring is primarily the time that the DBA must spend reviewing data, including navigation of the GUI.

It also includes the time needed to learn the solution. A lighter monitoring tool has a lower time cost since it provides fewer metrics and fewer reports, alerts, and deep-dive diagnostics. A light monitoring tool (IMT) may provide only a few percent of the metrics of a comprehensive monitoring tool (PMT), making it much quicker to learn and use.

OVERHEAD

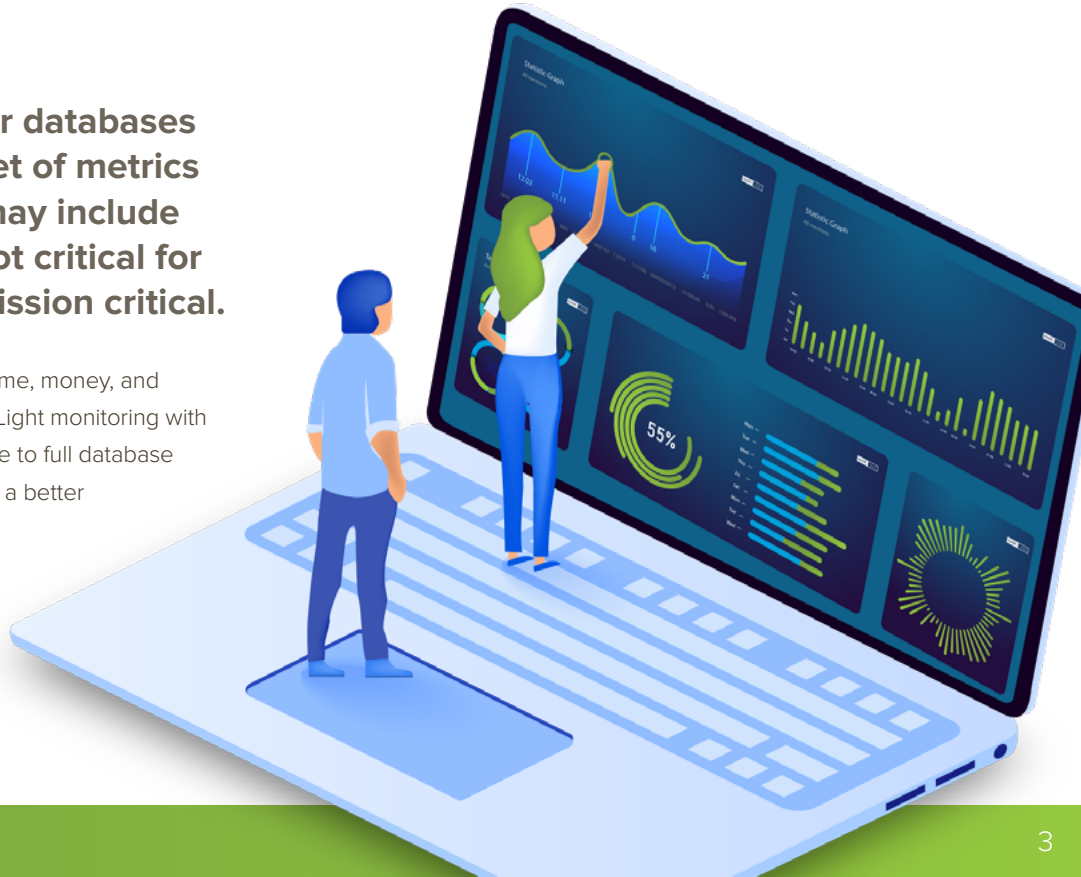
The overhead cost of monitoring is the additional load that it places on the monitored databases.

This burden is directly proportional to the amount of monitoring the solution performs, meaning an IMT that only monitors a few percent of the metrics that a PMT does may only incur a few percent of its overhead. Performance monitoring may not be worth the increased risk of an unnecessary database slowdown or the expense of buying more hardware for non-critical databases. Here, basic health monitoring may be the better option.

SUMMARY

DBAs often monitor their databases with a comprehensive set of metrics by using a PMT, which may include many metrics that are not critical for a database that is not mission critical.

This approach can incur costs such as time, money, and overhead without an adequate benefit. Light monitoring with an IMT can be a cost-effective alternative to full database monitoring. And light monitoring is often a better choice than no monitoring at all.



IDERA'S SOLUTION

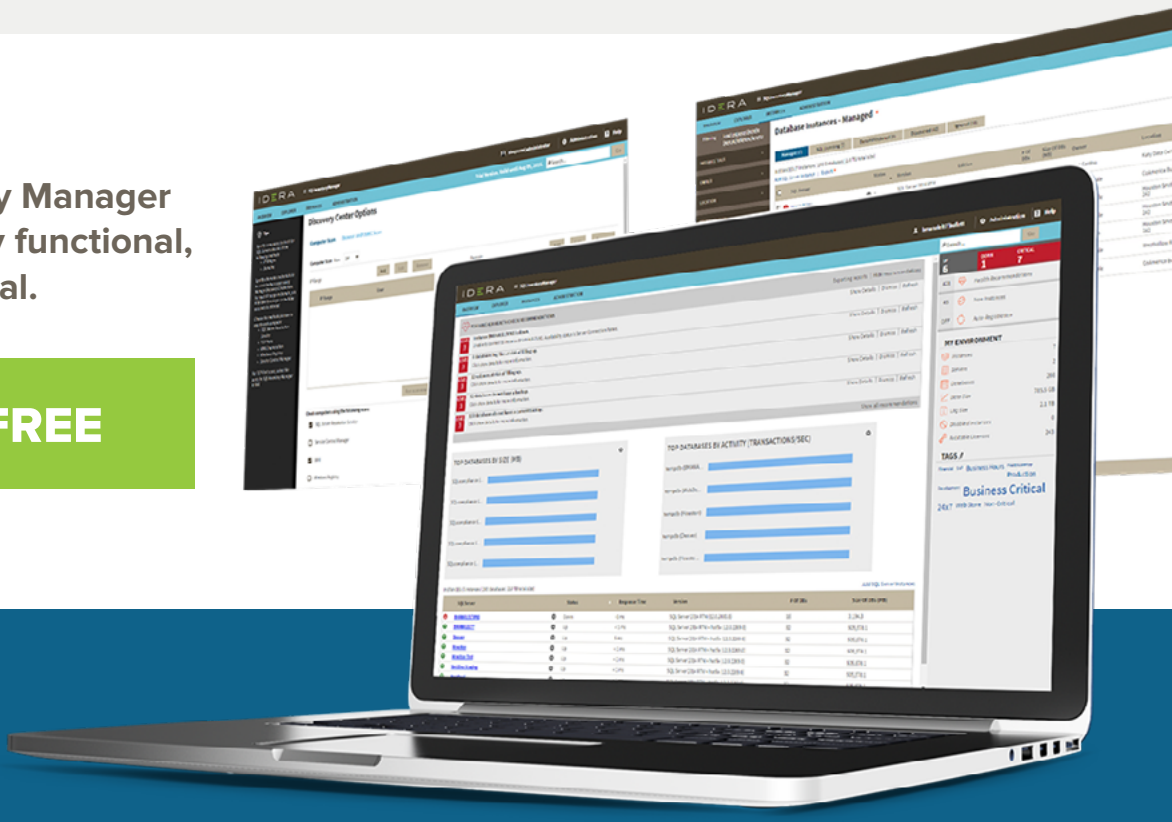
Database administrators need a simple, efficient way to discover, document, and manage their SQL Server environment as the organization changes. It is important to have a way to inventory and determine which SQL Servers need oversight and maintenance.

IDERA's SQL Inventory Manager offers an organized web-based dashboard that captures core information about the entire inventory of SQL Servers across the environment.

- View all SQL Servers: Know what you have where and who owns it
- Automatically discover new servers installed to better manage sprawl
- Create tags and custom fields to organize servers and databases
- Perform health checks to monitor server operation and capacity

Try SQL Inventory Manager for free with a fully functional, 14-day trial.

Start for FREE



Contact us to learn more.

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