

Maximize Performance and Reduce Costs Through an Infrastructure Health Check

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Have you ever wondered if your IT infrastructure is organized and managed for maximum benefit/return? Consider these questions:

- Do you have control over your Microsoft Windows, UNIX, Linux, and Novell servers?
- How about the clients connected to them?
- Do you really have a handle on what exists in this environment?

It turns out that many organizations do not have satisfactory answers to these questions. Many times servers and clients have grown with very little systems management or storage discipline, and the IT department is being asked to get it under control by reducing both infrastructure and operational costs. Many organizations are seeking ways to increase their ability to manage, eliminate security exposures, and plan for future growth.



But how do you accomplish this if you do not know what is out there? The IT staff in the typical organization often struggles in inventorying servers, clients, operating system licenses, storage allocation, security levels, and more. It is like the old saying: "If you don't know where you currently are, it's hard to know what direction to take."

There are ways to easily and affordably assess your environment on a continual basis to keep your infrastructure well-managed. Consider an "Infrastructure Health Check." The best kind of Infrastructure Health Check can be performed during production times without impacting your servers, clients, and/or performance, while providing you valuable information in order to lower costs and streamline operations.

A full-service solution provider like Datatrend can assist you with an Infrastructure Health Check. In fact, Datatrend recently introduced such an offering which quickly assesses the health of your infrastructure.

Consider the Datatrend offering: Using an "agent-less" tool, the Infrastructure Health Check does not run on your servers, therefore it does not impact your current environment. The tool runs on a Windows workstation using an SQL database to collect and analyze your data. It logs onto your servers and clients using a credentialed inventory methodology. Through a combination of IP scanning and SNMP discovery, it queries your servers and clients. The tool will multi-task and multi-thread, making data collection fast and easy while using minimal resources and network bandwidth.



Furthermore, the tool collects data from servers (Microsoft NT3.51 Advanced Server through Server 2003, Datacenter Edition). For Windows clients it supports NT 4.0 workstation, Windows 98, ME, 2000 professional, and XP professional. It also supports the major UNIX platforms, (HP OSF1/Tru64, HP-UX, IBM AIX, SGI IRIX, and Sun Solaris). For Linux, it includes support for Red Hat, SuSE, and Mandrake. Novell platforms are also supported from version 4.x through 6.x. More platforms will be added in future releases.

Rather than giving you the details of how the product works, here are some of the findings from over 1100 previous "Infrastructure Health Checks."

Under-Utilized Servers

- 98 % of Microsoft Windows servers have processor utilization of less than 10%, and 95% are utilized less than 6%

Many organizations "throw" servers at applications rather than taking advantage of CPU partitioning or virtualization which can lower infrastructure and operational costs by reducing the number of physical servers and increasing utilization.

Performance Issues

- At least 70% of Microsoft Windows servers are running unnecessary services
- 100% of the servers inventoried are running unnecessary applications

Many servers were found to be running hundreds and sometimes thousands of file-shares - causing poor application performance. By removing unnecessary services, file-shares, and applications, organizations can achieve reduced administrative and support complexity. It also increases server performance and can reduce software and support costs.

Storage Inefficiencies

- 80% of Windows servers are not sharing storage
- Storage utilization is typically less than 25% and in some environments less than 14%

By deploying networked storage, overall physical storage can be reduced, and operational costs can be greatly reduced. Storage can be more easily shared and can be re-allocated to other servers on an “as needed” basis.

Business Continuity Risks

- In over 90% of the health checks performed, at least 15% of the Microsoft Windows servers had no backup services
- Every health check found at least one Windows server without virus protection
- Many servers inventoried are using outdated and unsupported hardware and software

By finding these exposures, organizations can minimize risk and greatly increase availability of critical applications.

Licensing

- Many customers are still running non-supported operating systems
- Over 90% of the health checks have shown inconsistencies in service pack levels
- Almost two-thirds of Windows infrastructures have more instances of licenses than are necessary. Many customers are paying for unnecessary licenses.

By knowing that all the operating systems are current, supported, and consistent, organizations will reduce server down time and operational efficiency. They may also be able to reduce current licensing costs by downgrading licenses. A good Health Check ensures organizations also meet proper licensing compliance.

Security Risks

- Many environments were found to be running too many network domains
- Servers in remote locations were found to have disabled domain administrator functions preventing central site management
- Many Windows servers were found to be assigned to workgroups as opposed to domains which greatly complicates systems management
- Many servers were not utilizing DHCP, inviting security exposures

Workgroup servers are costly to administer and support because each must be individually accessed, managed, administered, and supported with local administrator security credentials. At the same time, limiting the number of domains and ensuring central IT management access will create a more secure and manageable infrastructure. Moreover, by minimizing security exposures, companies can increase server availability and reduce operational costs.

Operational Costs



- Operational costs are by far the greatest expense customers face managing distributed and open computing environments
- Many health check assessments discover multiple/disparate backup/restore procedures and database management and/or systems management methodologies

Moving to a single set of procedures and software will dramatically reduce the operational costs.



Better Systems Management... Better Decisions

This is just a sampling of the findings from an Infrastructure Health Check like the type Datatrend can perform. The best health checks should be quick to gather the data, flexible, affordable, and with a defined ROI. It should also be confidential and include easy to understand reports.

By getting a “birds-eye” view of your entire infrastructure, you will be able to plan for growth, make informed decisions, maintain business continuity, reduce costs, and operate more efficiently.

For more information about the Infrastructure Health Check offering from Datatrend, contact Charlie Cox at 800-367-7472 or charlie.cox@datatrend.com

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