Developing an IT Management Strategy for Success

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Executive Summary

Choosing an IT management strategy would seem to be a critical component of achieving both IT and, by extension, business success, but strangely, many enterprises have not embraced this powerful tool, instead relying on antiquated "wait and pray" approaches to IT administration that leave businesses vulnerable to risk, decrease business productivity, and dedicate IT support teams to perpetual reactive "firefighting."

To achieve true IT success, businesses must adopt an IT management strategy that is simple to use, cost-effective, allows for a non-impacting phased-in deployment, and provides a holistic view of the IT infrastructure. Included here are Enterprise Management Associates' (EMA's) recommendations for how to adopt and implement a successful IT management strategy.

Introduction

IT Management Strategies that actually enhance business productivity and drive profitability are not easy to develop, let alone implement. Many IT managers have attempted to put forward process enhancements only to be frustrated by unforeseen events and/or insufficient resources. Although the concepts behind the new processes are usually quite good, practical forces prevent their adoption, forcing IT support teams to fall back on manual solutions to immediate problems that are ultimately ineffective in the long run.

Commonly, the biggest mistake IT managers make in developing a strategy is in trying to resolve many or all problems at once. By adopting a phased-in approach – addressing one problem at a time – resources are systematically freed up to further support the business and address each subsequent problem. The key is in prioritizing the order in which pain points should be addressed. Those that provide the greatest return on investment should be chosen first and should achieve the following goals:

- Reduce complexity
- Halt the expansion of IT requirements

The next step is to identify a solution. Solutions should focus on proactive problem prevention, rather than reactive "firefighting." The steps for making this transition include:

- Identifying the applicable IT components (hardware, software, configuration settings)
- Analyzing the collected data to identify problems quickly or before they occur
- Managing risk with security processes

Given the level of complexity inherent in today's IT infrastructures, performing these transition steps can only be accomplished through the utilization of automated tools. Choosing which tools will provide the greatest benefit while still being cost-effective can be quite a challenge. Critical to the selection process is:

- Understanding the Business IT Requirements
- Developing a Holistic View of the IT Infrastructure
- Anticipating Business Growth

With the right tools in place, an IT management strategy can be implemented that will significantly improve both IT and business productivity, enabling the business to compete successfully in a modern marketplace that has adopted new methodologies for achieving profitability.

The Need for an IT Management Strategy

As little as ten years ago, it was possible to manage IT environments with purely manual processes. Network topologies were relatively simple and most IT components functioned well when deployed with default parameters. IT administration primarily involved hoping everything would run smoothly and responding to crises when they did not. Strangely, this "wait and pray" approach worked well in simple client/server environments that had little or no internet connectivity, uncomplicated network topologies and less pressure to maintain highly available services.

Times have changed, however. Internet commerce, managed services, messaging and telecommunications are just a few of the services institutions rely on that could result in severe financial and business impacts if faced with downtime or performance degradation. Even business functions that indirectly rely on IT availability – such as marketing, sales, development, accounting, and customer support – are directly impacted by IT failures. Responding to this need for IT assurance, businesses,

industries, and government bodies have instituted regulatory compliance standards that define best practices for IT quality assurance. IT managers are finding it difficult, if not impossible, to achieve the necessary level of IT reliability to satisfy both business needs and compliance mandates without incurring significant increases in operational costs.

Increased complexity in IT implementations has only exasperated the problem. The need to maintain secure environments while providing accessibility has created some very complex network topologies that include isolated domains, DMZs, remote access, SharePoints, tunneling, and specialized Web implementations. Each component of these complex environments contains thousands of configuration files and settings, and each configuration item is subject to change at any time. Using purely traditional manual methods of administration, IT support staff simply cannot keep track of all elements in a modern IT infrastructure and it is taking increasingly longer to determine the actual cause of IT failures.

To face the broad business impacting problems of increasing complexity and expanding IT requirements, an IT management strategy needs to be developed that goes beyond traditional manual practices and helps IT managers regain control over their IT infrastructures so that they are reliable, efficient and cost effective.

Avoiding the Break/Fix Cycle of IT Management

For an IT administrator, there is a real temptation to maintain a break/fix IT support model. Business- impacting problems happen and the administrator swoops in like Superman to save the day. Since recognition is more often given for resolving problems, rather than preventing them, IT support personnel are less motivated to extend the extra effort necessary to perform true root cause analysis. Clearly, however, this method is not the most conducive for maintaining a stable IT environment. In fact, falling into a cycle of only addressing the symptoms of a problematic IT condition, rather than the root cause, virtually guarantees a persistent string of failures.

IT support teams can also fall into the break/fix trap because they simply do not have the time and resources necessary to properly diagnose problems. By spending the bulk of their time with reactive "firefighting," very little attention is actually given to proactive problem prevention. Not only does this increase risks to both IT stability and security, it usually also imparts financial impacts. As has already been discussed, lost productivity can decrease profitability, but there are additional costs associated with the need for purchasing additional tools and resources necessary to compensate for the decreased performance.

Recognizing the difficulty of managing brake/fix support environments, many IT managers attempt to alleviate the flood of impacting problems by implementing what are called "point product" solutions. These are commercial packages with independent interfaces that are designed to address only one or a few specific IT problems. Essentially, it is the same philosophy the little Dutch boy used to repair the dam – and would have similar successful results if not for the fact that IT environments rarely have only one hole to plug. Although point products often provide quick and easy resolutions to particular IT problems, they can just as quickly add up to a very complicated support environment that requires IT administrators to jump back and forth between an array of applications to support a single platform. This "swivel chair approach" to IT administration can actually increase, rather than decrease, response and resolution times because of the necessity of having to interact with multiple disparate tools that do not share data and require specialized knowledge for each unique interface. The more IT components that are deployed, the more management points need to be administered, and each individual process (adding users, networks, policies, etc.) must be manually replicated on each server independently. It's like having the little Dutch boy constantly running around the dam to plug dozens of different holes simultaneously – it isn't long before the whole thing collapses. As the IT manager of a mid-sized digital marketing firm colorfully stated, "The idea of working on a single console is so (much more) appealing than mish-mashing multiple services."

The solution to avoiding break/fix support environments is to take a more holistic approach to IT management. Standardizing on a single, centralized solution with a common interface for all components of the IT infrastructure is the first critical step toward establishing a successful IT management strategy.

First Steps to Strategic Problem Solving

Motorcycle safety instructors encourage riders to "look through the curve." The idea is that by recognizing potential problems that are just coming around the corner in the distance, riders have far more time to respond to problems than if they just reacted to… say, an out of control Mack truck swerving ten feet in front of them. The same is true with IT management. By anticipating potential problems well in advance, sufficient time is available to facilitate an appropriate response. Three processes are necessary for achieving this: detailed information gathering, strategic evaluation and maintaining security to mitigate risk.

Visibility into the status of an IT environment begins with collecting detailed information on the configuration setting and status of each IT component. These include system files, kernel parameters, registry keys, application setting and firmware switches. Not only is it important to understand how each of these configuration items is set, it is also critical to monitor them for unexpected change. In fact, EMA has determined that, on average, over 60% of all outages are caused by inappropriate changes, so it is critical to promptly discover configuration changes so they can be addressed before they become a problem.

Collecting information about the IT environment is only half the battle. Given the vast amount of configuration and change information that must be collected to provide a comprehensive, end-to-end view of the IT infrastructure, it is simply not practical, or even possible, to manually review the data to determine which items require preventative attention. To accomplish this, some form of strategic evaluation must take place to discover potential problems from among the vast sea of inconsequential status information.

Security methods should also be employed to protect IT investments from unwarranted and unintentional violations. By preventing inappropriate activity in the environment, the risk of business-impacting damage is reduced and reliability improved.

Automated and analytics tools are available today that can perform the data collection, problem identification and security tasks. By utilizing these tools, IT support teams are empowered to break free of the firefighting trap and focus on actual proactive problem prevention.

Unfortunately, however, it is difficult for medium and large business to make this important leap. To continue the previous analogy, the problem comes from the necessity of taking their eyes off the pavement directly in front of them to focus further down road – the obstacles immediately in front of them absolutely demand their attention.

Transitioning to Proactive Management

The trick to moving to a proactive IT management strategy is to begin by tactically focusing on a single function or IT component. Ideally, this will be one that has proven to be a major pain point for IT support so that it provides the most "bang for the buck" coming right out of the gate. Once chosen, tools and processes can be implemented that will assist in performing root cause analysis on that function to reduce or eliminate the pain points. Although there will be a moderate investment in both time and money to take this critical first step, it will pay off exponentially. As each function or IT component is addressed, more stability is generated in the support stack, freeing up IT personnel to perform even more proactive preventative administration. The goal is to create an environment where problems are properly addressed once rather than only applied with a temporary band-aid that guarantees repeated disasters.

Choosing the best tools to assist in this process is a critical element to ensuring success. The product must be both easy to use to reduce impact on the IT support staff time, and comprehensive enough in scope to address all supported IT resources. A note of warning on the latter – since the ultimate goal is to implement a systems management solution that supports the entire IT infrastructure, it is important to keep that in mind when choosing the support tools even though the initial implementation will be intended only for a specific function or component. This means the tool or tools should be able to support all platforms in a heterogeneous environment; it must be able to support the number of supported nodes without incurring significant additional costs, and it must be able to scale with this phased-in approach, simply and with a modicum of impact on the existing IT and support resources.

Solutions that Grow with the Business

Delving further into the subject of selecting an appropriate system management solution, we would be remiss not to consider the importance of its ability to grow and evolve along with the business. This is particularly true for medium-sized enterprises that can anticipate rapid expansion as their business achieves success. Since the core of most modern businesses relies on a stable IT infrastructure to meet its operational and production requirements, there would be severe consequences if the scope of IT requirements grew beyond the operational support center's ability to support it. This could certainly happen if the support tools were unable to cost-effectively service all components in the IT infrastructure because there was a necessity to create more complicated network topologies, if there was a need to implement new operating platforms, or if there simply needs to be an increase in supported client nodes that exceeds the abilities of the tool.

If this scenario should happen, IT managers would have only two options – either make due with what they have already invested in and compensate for the insufficient functionality by purchasing additional tools, or else replace the solution with an entirely new and more robust one. Either outcome would be expensive, time-consuming and business impacting. Such a major miscalculation could inhibit a growing company's momentum as it struggles to achieve the same level of service provided by enterprises that have already developed successful IT implementations.

Understanding the Business Requirements

Of course, it's not always clear what an IT infrastructure will look like when the business reaches maturation. This can be a bit tricky for IT managers searching for a system management solution that isn't too small to scale with the business and isn't so large, complex and expensive that true return on investment can never be achieved. For IT managers, an understanding of the business goals of an institution is just as important as their understanding the current IT requirements. A Business Service Management (BSM) philosophy should be maintained to ensure business priorities are aligned with IT investments.

Developing a Holistic View

An important prerequisite to establishing a BSM process, as well as making any determinations about IT solutions, is having a complete, holistic view of the IT infrastructure. This is more than just maintaining detailed information about all components of the entire service stack. A holistic view also places each component in context with the total environment. For example, it is not enough to understand how a particular server is configured, but it must also be considered how that server would be affected by a performance problem on another server or remote storage device, and then by extension, how clients of that server would also be affected. Understanding how systems, applications, and services are integrated is the foundation of establishing a holistic view. Other factors include understanding how data is shared between systems in the environment and what factors are involved in system connectivity. Once these factors have been mapped, a holistic picture of the IT infrastructure emerges that will show how and where conditions of one component will affect others.

Anticipating Business Growth

Having established a holistic view of the IT environment, IT managers are much better positioned to make informed decisions about how business growth will affect the service stacks' ability to meet ongoing and new IT requirements. For instance, business growth might mean more customer or employee utilization of a particular server. Armed with a holistic environment view, an IT manager can pinpoint exactly which IT components will be affected by this expanded utilization. The server might have been engineered to handle the increased load, but was the network? How will that extra traffic affect other servers on the same domain? By anticipating these questions, an IT manager can design the environment to function effectively (say, by isolating the server in a DMZ in this example) before business growth impacts IT performance.

Successful IT management strategies are the ones that enable these holistic views of an IT infrastructure and allow businesses to take a more predictive and tactical premeditated approach to ensure IT environments are stable and continue to meet business requirements.

Success with an IT Management Strategy

The road to a successful management strategy is not nearly as difficult or costly as many managers fear – that is, as long as it follows a logical, phased approach that systematically reduces complexity and enables better IT agility to resolve changing business requirements and goals. For IT managers, this requires determination and dedication to implementing improvements along a strategic path, and the careful selection of tools that help, rather than hinder, the deployment process.

Fortunately, there are tools available today that have been specifically designed to empower businesses to adopt a successful IT management strategy. The best of these are automated, centralized solutions that are easy to deploy, simple to administer, feature rich, and provide the flexibility to grow with the business without incurring excessive additional costs.

As a case study, we spoke with an IT manager of a mid-sized financial institution that has seen significant growth in recent years. Roughly two and a half years ago, they had decided they needed a systems management solution to help them make that leap to a more proactive problem identification support platform. Three packages were chosen to evaluate: Microsoft's Systems Management Server (SMS), Altiris (since acquired by Symantec), and LANDesk Management Suite. SMS was rejected because it would not support their Linux implementations, and they perceived that Altiris was not a well-integrated product suite. Ultimately, they settled on LANDesk because it appeared to be the best integrated solution that could provide them with a truly holistic view of their IT infrastructure. A phased approach was performed to implement the LANDesk solution. Over a 2-3 week period, each night the application was pushed out to a new client. Since implementing LANDesk, their business has more than doubled, but with little affect on the supportability of the IT service stack. They are still using the same appliance that was originally deployed, and scaling the solution with the business has only meant purchasing additional client licenses – they are still well within the number of nodes supported by the LANDesk appliance. In terms of how LANDesk has helped the business improve competitiveness, this particular IT manager informed us, "Our business revolves around needing to react quickly. (LANDesk has) reduced downtime, helped to ensure we are patched on a regular basis, and helped us respond to problems quickly."

LANDesk's suite of System Management solutions is certainly ideal for both growing businesses and those with uncontrolled IT support implementations that are looking to achieve a more successful IT management strategy. Not only is implementation simple and facilitates a reliable, phased-in approach, it also provides the holistic insight into the entire breadth of an IT environment and is designed to grow with the business. Endpoint Security Management centralizes security, eliminating the need for multiple security point products. Manual efforts required for repetitive processes, like patching and asset tracking, are reduced or eliminated entirely; administration and training are simplified and far more cost effective; and LANDesk supports a broad range of platforms including UNIX, Linux, Windows, MacOS and even portable devices. LANDesk provides an excellent example of a system management solution that can enable a successful IT management strategy and help businesses gain control of their IT infrastructure.

Successful IT management strategies not only provide the ability to keep up with business growth, they will actually increase business competitiveness. Reliable IT environments facilitate faster time to market on new products, better customer support, and more efficient use of operational tools and resources – which, collectively, are the three primary components of increased profitability.

The EMA Perspective

The key to success in implementing an effective IT management strategy is adopting a phased-in approach that systematically resolves recurring problems, moving IT support away from a reactive break/fix IT management policy towards more proactive problem prevention. In the face of complexity and increasing IT requirement, automated tools must be implemented to collect infrastructure data, identify problems, and ensure security. These tools must be cost effective and yet provide the breadth of functionality to both address the existing IT needs and have the flexibility to grow with the business.

IT management solutions, such as LANDesk, provide the tools necessary to progressively implement proactive solutions. This concept has already been embraced

by the majority of large businesses. The EMA team has determined that 75% of the largest domestic U.S. firms have currently implemented automated systems management solutions. The same study, however, also determined that 90% of medium-sized businesses are still relying on manual processes for administration. If medium-sized businesses intend to compete successfully in the marketplace, they need to gain the same IT advantages their larger cousins have relied on for success.

Vendors of systems management solutions should keep this in mind as they develop new and enhanced products. Businesses need IT management solutions that scale with their customers. Even LANDesk, which scales very well from medium to large business, would do well to consider enhancements that would scale to very large business environments – such as improved support for multi-domain networks and a wider selection of supported Linux implementations. But, of course, the challenge for them would be to provide these enhancements without significant increases to the base cost or without increasing the simplicity of deployment and administration.

For the consumer, the best advice is always to consider your IT environment, business requirements, and growth potential very carefully before settling on an IT management solution. Medium-sized business IT managers in particular should pay particular attention to the necessity of allowing for business growth so they can choose a reliable solution, such as LANDesk, that can propel their operations from a reactive "firefighting" team to a proactive, strategic response organization that facilitates, rather than hinders, profitability.

About LANDesk Software

LANDesk Software, an Avocent company, is a leading provider of systems, security, and process management solutions for desktops, servers and mobile devices across the enterprise. LANDesk enables thousands of organizations to easily deploy and use end-to-end management solutions. LANDesk is headquartered in Salt Lake City, Utah, with offices located in the Americas, Europe and Asia, and can be found on the Web at www.landesk.com or by calling 1-800-982-2130.

About Avocent Corporation

Avocent (NASDAQ: AVCT) delivers IT infrastructure management solutions that reduce operating costs, simplify management and increase the availability of critical, "always on" IT environments via integrated, centralized in-band and out-of-band hardware and software. Additional information is available at www.avocent.com.

About Enterprise Management Associates, Inc.

Enterprise Management Associates is an advisory and research firm providing market insight to solution providers and technology guidance to Fortune 1000 companies. The EMA team is composed of industry respected analysts who deliver strategic awareness about computing and communications infrastructure. Coupling this team of experts with an ever-expanding knowledge repository gives EMA clients an unparalleled advantage against their competition. The firm has published hundreds of articles and books on technology management topics and is frequently requested to share their observations at management forums worldwide.

Corporate Headquarters:
5777 Central Avenue, Suite 105
Boulder, CO 80301
Phone: +1 303.543.9500
Fax: +1 303.543.7687
www.enterprisemanagement.com

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