



Why Every IT Practitioner Should Care About Network Change & Configuration Management

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Introduction

Amazon, April 2012. Intuit, March 2011. Google, February 2011. Many of last year's most publicized service outages were caused by configuration errors, and would have likely been prevented with better network change and configuration management tools. These tools allow administrators to easily reconfigure and change elements in their networks, backup device configurations, compare configurations and receive real time alerts when configurations change. Often easy to deploy and able to be used within hours of setup, NCCM tools are cost-effective and time-saving resources that most companies simply shouldn't be without.

In the past, network change and configuration practices required distinct knowledge of network devices, command line interface (CLI) scripting and long hours of often-tedious work. With today's toolset, however, network changes and configurations can be nearly effortless in terms of deployment and upkeep. Network change and configuration tools have a substantial and rapid return on investment - most businesses see a payback within months.

Less Downtime

Network administrators know that downtime can cost their company dearly. On average, businesses lose between \$84,000 and \$108,000 for every hour of IT system downtime, according to recent estimates from Gartner, Forrester and IT analysis firms. On average, a business loses approximately \$5,600 for every minute of downtime, according to a study conducted by the Ponemon Institute.¹ These figures don't get any better when considering the average business suffers from 14 hours of IT downtime per year, according to CA Technologies.

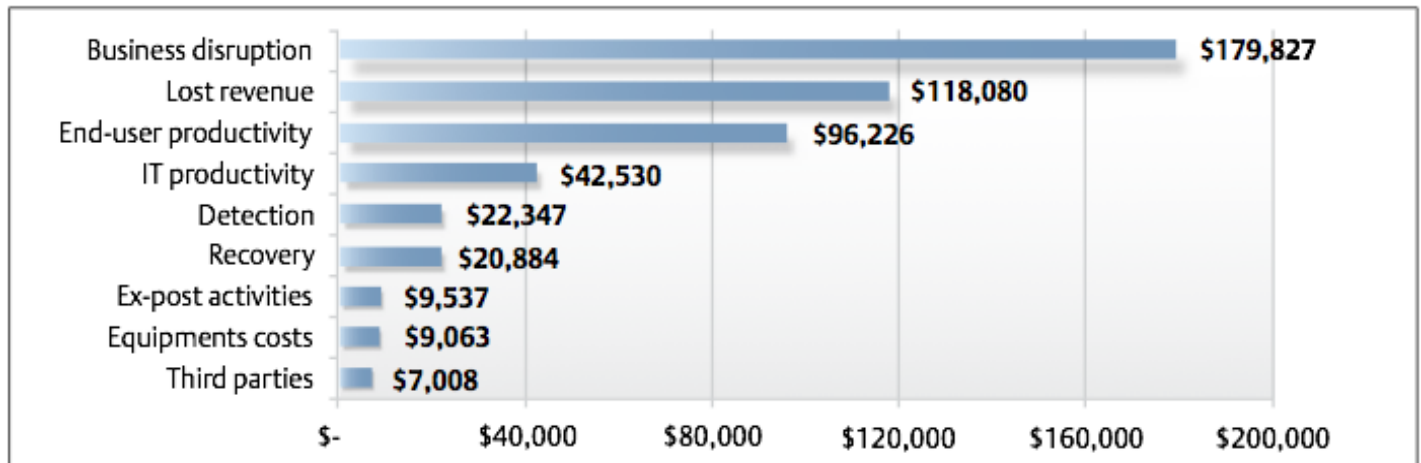


Figure 1: Average cost of unplanned data center outages for nine categories

By adding an NCCM solution to its IT assets, a business could be saving literally thousands of dollars by avoiding mistakes and other incidents that could have easily been prevented with the right technological tools.

¹ *Understanding the Cost of Data Center Downtime: An Analysis of the Financial Impact on Infrastructure Vulnerability*, Emerson Network Power, May 2011, http://emersonnetworkpower.com/en-US/Brands/Liebert/Documents/White%20Papers/data-center-uptime_24661-R05-11.pdf

Outages can cost a business much by way of user trust as well, and this is an asset that is difficult to monetarily calculate. Patience is not something most individuals have for technology today. The average PC user will wait two to three seconds for a page to load, although a recent article in The New York Times stated that 400 milliseconds is too long for many².

Even companies that specialize in mobile device applications will have to invest in better tools to increase their speed. Although users are statistically more patient with slower page loads on their smartphone or tablet, this is likely to change as mobile device technology grows in sophistication.

Fewer Human Errors

IT experts currently estimate that more than 80 percent of network outages occur due to configuration errors. No matter how attentive a network administrator or manager may be, mistakes like incorrect device configuration, or even faulty setups, will always surface. By using configuration management tools, companies can reduce these errors, as well as correct previous misconfigurations quickly and painlessly.

The automation of backups through the use of NCCM software allows network administrators to bypass a number of small errors that are much more common when completing bulk changes through manual means.

Automation additionally allows network administrators to work on more important tasks at hand. While manual bulk changes can often require hours of tireless work, quality automation capabilities can allow skilled workers to bypass these hours of tedium with a few quick clicks. No more worrying about knowledge of particular scripts, no more overlooked backups.

Increased Efficiency, Continuity and Control

Network administrators enjoy using technology they can depend on. Many administrators have known the frustration of dealing with management tools that work with only one vendor's product or one device type. Traditional access control requests often require several configuration changes, many times on multiple routers. Through the use of NCCM tools, companies can provide more consistent access control without any hassle, as well as more consistently support backups.

NCCM tools that allow for multi-vendor device support give network administrators and other personnel the power to easily monitor device configurations, even if each device comes from a separate vendor. Some current NCCM tools allow companies to manage a near-limitless number of database-driven devices, as well as have up to 100 simultaneous TFTP sessions.

Better network change and configuration tools can also give IT departments the power to address problems much more quickly. Upon deploying NCCM solutions, many companies saw their assessment and deployment timelines for correcting network configurations go from multiple hours of work to easy tasks that could be completed in mere minutes, or even automated.

Similarly, time to assess the impact of change on the network could in many cases be reduced significantly. Operational advantages created through NCCM tools enable tasks that often require multiple changes or updates, such as patches or backups, to be performed

² New York Times, *For Impatient Web Users, an Eye Blink Is Just Too Long to Wait*, Feb 29, 2012, <http://www.nytimes.com/2012/03/01/technology/impatient-web-users-flee-slow-loading-sites.html?pagewanted=all>

with dramatic efficiency. Some businesses have seen the number of patches they could complete go from 20 per hour up to 10,000 in the same time frame.

Network change and configuration management tools give IT personnel real-time notifications and monitoring abilities, allowing network changes to occur within minutes, or even seconds.

The toolset additionally provides network administrators to manage network configurations and backups to expedite disaster recovery. This means if a system is compromised, it can be restored to a known good state easily.

Optimal network security

Quality NCCM software can make your network a more secure place to upload and change data. Poor change management processes is considered the greatest challenge to network security by 15.6 percent of IT personnel according to a recent survey from AlgoSec. The same survey found that 77 percent of IT experts said an out-of-process change caused a system outage, data breach or an audit failure, all of which put a company's security at risk. By integrating NCCM software into a system, network configuration changes will have a much smaller chance of creating big issues for a business's security.

NCCM software and system technologies can improve IT personnel's visibility, allowing a department to both see and act on real-time changes, largely stopping security threats as they come about. According to AlgoSec, approximately 28.7 percent of IT personnel stating their workplace security suffers from lack of visibility, simply "seeing" threats will provide companies with much more than peace of mind.

Conclusion

Networked devices will continue to grow in number and complexity. Manual configurations can leave you spending hours looking for one trivial error that could be causing your company hours of downtime, leaving it vulnerable to outside attacks, and otherwise damaging your company's reputation, resources and bottom-line. To keep accountability, continuity and security in check, the only real solution that will allow a business to flourish in the 21st century is better network change and configuration management.

How Can SolarWinds Help

SolarWinds (NYSE: SWI) provides powerful and affordable IT management software to more than 93,000 customers worldwide – from Fortune 500 enterprises to small businesses.

[SolarWinds Network Configuration Manager \(NCM\)](#) delivers affordable, easy-to-use network configuration management through a full featured, rich web-based console that offers point-and-click simplicity and easy access to configuration data. NCM simplifies managing network configuration files in multi-vendor network environments by continuously monitoring device configurations and providing immediate notification of configuration changes to help resolve problems before they impact users.

With NCM, you can quickly fix issues without having to manually Telnet or SSH into devices to change configuration parameters. NCM also makes it easy to generate and analyze compliance reports to confirm that your devices are meeting regulatory and corporate standards.



Figure 2: SolarWinds NCM Web Console

NCM can be a valuable asset to companies in need of an affordable, scalable solution. From real-time change notifications to bulk change management options that require only a simple point and click from network administrators, few configuration and change management tools are as comprehensive, flexible and accommodating as this. The software allows administrators to manage and standardize multiple devices from most leading hardware vendors and keeps routers, firewalls and WAPs in compliance. [Given five stars by SC Magazine](#) and considered one of the best values in NCCM software currently on the market, SolarWinds Network Configuration Manager offers network administrators essential capabilities at a competitive price point. [Download your free 30-day trial today.](#)