

Effective compliance through a one-click flexible automation tool



Technology auditing is a tried and real activity. Growing demands for technological advancements along with the increasing number of applications have changed the infrastructure components and management efforts. Managing the technological landscape and auditing them for compliance has become an uphill task.

A company in most cases has the choice between manually auditing infrastructure servers, end-user computers and purchasing automated audit compliance solutions to reduce the time. The decision to deploy automation tools can be influenced by many factors, some specific to the company and others related to the specific IT function within the company. The primary purpose is to help and ease out the IT and business by reducing the downtime through faster automation techniques, reduced admin efforts and thereby cost savings through the efficient use of available resources. A well-designed risk and governance function can ensure that smart automation programs are implemented with minimal business disruption and noncompliance and that the associated risks are effectively identified, evaluated, and mitigated. Non-compliance can eventually lead to program instability and operational failures.

Client

Our client has over 2,000 global customers encompassing a wide range of industries including software, healthcare, retail, media and entertainment, financial services and technology. They protect nearly four trillion files and applications and apply more than eight million security patches each year. They own and operate six strategically located data centers under an ITIL-based control environment validated for compliance with HIPAA, PCI DSS, and SOC (formerly SAS 70) frameworks.

Challenges

Our client embarked on an initiative to fully comply with all the necessary regulations and compliance tasks. The risk managers struggled to perform compliance work on a continual basis, and periodically assure the effectiveness of internal controls due to the vastness and complexity of the business infrastructure and functions. Furthermore, the company could not accurately report and analyze data, leading to different and inconsistent reports. This

lack of visibility hindered the corporate-wide risk and compliance initiatives. On that note, they were in search of an automation mechanism which addressed complex workflows with minimal human intervention. The Server and Web security demand high-level protection from hackers, intruders and attacks like masquerading and denial of service. Industry security standards demanded that the servers be hardened at the operating system level which requires changing multiple configurations that entail several maintenance hours. The challenge was to cut down the maintenance hours of manual hardening process and create an automated process that remediates several servers in one go. All these put together required an incredibly innovative approach, and automation was the optimal solution that could work. It was also necessary to have the entire hardening set done through the web interface by a non-login user. One other challenge was the multi-domain operating systems that ran across the data center ((Linux (RHEL 5/6) and Oracle Solaris (10/11)).access to business-critical data is always available.

Solution

The team adopted design thinking principles to provide a compelling end-to-end solution for automating the above challenges. We offered a consistent and repeatable process for compliance and security. A single web URL could carry out a robust 3 step process for all 2000 servers for 200-300 control auditing requirements. We then developed a centralized solution for the remediation of every server from a single web URL. The URL functions and performs three actions upon invoking

- 1. Scans the target server for potential fixes**
- 2. Apply fixes to the determined vulnerabilities**
- 3. Revert the changes done if required**

This condition required us to solve a combination of server-side technology (PHP) and set of Shell Scripts (Bash) in compliance with CIS (Center for Internet Security) standards. The solution automated the most complex and manual-heavy task of dependency analysis for each server across integrated landscapes



Benefits

This solution provided reduced the lead time for provisioning, downtime for systems and reduce operational cost.

- **4X reduction in the effort** – The entire setup was made possible with a single resource instead of a team, and this could be replicated for the next time as well
- **2. Rigorous and accurate** – The process required almost no manual intervention that resulted in zero defects
- **Rollback compatible** – Changes maybe reverted to original condition with one click
- **Streamlined Compliance Initiatives** – The solution delivered an automated, integrated and fully configurable solution that empowered the company to consolidate business intelligence across divisions, and provide management with global visibility into their risk and compliance initiatives.

Conclusion

The traditional management methods demand extra human bandwidth and amplified maintenance window, which in turn means lower availability at a higher cost. Though automation tools are available in the market, they are focused on specific technological areas and require much coordination between cross-functional teams. One can improve efficiency and mitigate operational risks across your enterprise systems with automation. We are experienced to deliver centralized governance, compliance audits and consistent security practices for infrastructure availability, uptime, and stability.

Excelencia Consulting

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