



SARBANES-OXLEY AND BIG OIL

– Scalable SSH Key Management for Customer Service Operations

The customer is a multinational energy company that deals in oil and gas. As one of the leaders in their sector, they are a household name across the globe.

Their service business segment supplies and markets energy products and provides associated services, through service stations for cars and trucks, and general retail operations for automotive fuels, fuel oil, lubricants, LPG, asphalt, special fluids and other products. The service business segment also includes their activities in the new energy market.

REQUIREMENTS

The customer's service segment operates a 500+ server ICT production environment that must comply with the regulatory requirements set forth in the Sarbanes-Oxley Act (SOX). The secure maintenance access and file transfers to the servers are handled with the ubiquitous Secure Shell (SSH) protocol. This environment employs a variety of SSH implementations from different vendors.

The customer was driven by regulatory requirements, but was also looking to improve their overall security posture and to ensure business continuity. They had made prior investments into privileged access management technology, and greatly appreciated solution proposals that leveraged these investments.

An ideal solution was the one that was able to cater for the multivendor environment and provided a path to SOX compliant management of privileged access to their infrastructure. The SOX mandates require controlled and auditable privileged access.

CHALLENGES

Imposing a centralized, interoperable, and robust SSH user key management solution that controls the privileged SSH access in a multivendor environment was not easy. The key management solution for this environment needs to be able to recognize and support the nuances and minute differences of all the deployed SSH server implementations – across the heterogeneous selection of versions and operating systems. The environment also utilized a number of privileged access elevation mechanisms and required a capability to track key sign-offs by application owners, both of which added to the deployment challenge. Furthermore, the deployment of the solution into the live production environment also required a transparent and non-disruptive installation process.

The aim of this ambitious deployment was to address the SSH key management challenge in a way that is:

- Compliant to requirements of both SOX and enterprise security
- Scalable to allow a growth path into enterprise-wide solution
- Non-disruptive and robust to ensure business continuity

SOLUTION

After a careful evaluation process, the customer chose Universal SSH Key Manager® as the solution for managing their SSH environment. The deployment project was staged so that after each stage, the solution benefits were measured, analyzed, and acted on. The customer’s security team worked closely with both SSH Communications Security and its local partner to ensure that all aspects of the customer requirements were noted, understood, and catered for in the deployed solution.

The final deliverable was a solution that:

- Discovers SSH keys in the environment – to find out who has access to what.
- Monitors SSH use – to gain visibility into when/where SSH authorizations happen.
- Remediates - adding, removing, and rotating SSH identities and keys to ensure SSH is used in compliance with policy.
- Manages SSH use – continuously controlling and reporting to meet audit requirements and to improve operational efficiency.

BENEFITS

The customer achieved their primary goal of compliance with SOX. The proactive approach in compliance and security work rendered subsequent audits effortless and easy. Proactively addressing the security, identity, and access management issues provided cost-effective improvement of the customer’s overall security posture and enhanced their operational efficiency as the automated management of keys reduced the manual workload of IT personnel. The multivendor support of Universal SSH Key Manager also allowed leveraging earlier IT security investments.

“Universal SSH Key Manager brings the business IT into compliance with SOX regulations and saves on costs.”

Network environment at the Big Oil customer

