

# Choice Case Study

## Network Security Audit for Helix

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### Audit Background

Choice Solutions Ltd. was approached by Helix, a financial company based out of Hyderabad for carrying out Network Security Audit. The audit comprised of an internal security audit and an external perimeter security audit.

The client carries out much of its business online, and felt that an independent view of their internal and external network security was required. They engaged Choice Solutions Ltd. to carry out the auditing. The Choice team for this audit service carried out an external penetration test, and then an on-site audit.

Three Choice solutions consultants carried out the internal audit, with one of them nominated as the lead auditor. This lead auditor liaised with the organization's Information Security Officer (ISO).

### Audit Challenges

The ISO was interviewed by the Choice team to gain an understanding of network, servers and LAN setup, along with other staff with the appropriate knowledge. This allowed an up-to-date network diagram to be created. Copies of existing network diagrams and the security policy were also taken.

The lead auditor then assigned consultants to audit the configuration of firewalls, routers, web servers, database servers, domain controllers, and some other workstations for which we needed to do the audit. Antivirus, email, network topology and physical security were also areas that were examined.

At the end of the on-site process, the lead auditor held a meeting with the Information Security Officer of Helix to provide an initial report of findings. The audit team's task was then to produce the final report.

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*Antivirus, email, network topology and physical security were also areas that were examined.*

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## Choice Audit Service

The report produced was a comprehensive, detailed report with an executive summary, a section for the external audit (Penetration Test), and another included the on-site internal audit. There was finally a technical summary of conclusions.

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*The report produced was a comprehensive, detailed report with an executive summary*

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The executive summary first specified that the security of the network represented medium risk. Most elements of the network were configured securely, and the recent introduction of a group security policy would reinforce and improve security awareness.

## Audit Benefits

The executive summary of the audit listed some of the following issues:

- i. The external security risk was low, although one of the firewall configurations would allow outbound connections if a server was vulnerable, an attacker could more easily compromise it.
- ii. Although external, email and server anti-virus was in place, the individual user workstations were not protected. There was also no patching for workstations, so if a virus or worm finds its way onto the internal network it would spread unhindered.
- iii. A domain user's password audit showed that many users had simple passwords, although the security policy gave guidance on choosing strong passwords. There was no mechanism enforcing strong passwords.
- iv. A number of internal SQL Server database users had blank administrator passwords and service pack levels that were not up-to-date.
- v. Further detail and recommendations was provided in the rest of the report.
- vi. The external audit section listed the external test results in detail, with a technical summary of issues and recommendations, for which there were few.
- vii. The internal audit section listed the areas audited, good security practices, and areas where security could be improved, such as antivirus protection, physical security, information security, wireless connectivity, database servers, firewall configurations, DMZs and perimeter security.
- viii. The internal audit section presented the audit findings, including diagrams and tables, such as the network topology.
- ix. Finally, the report showed a summary of conclusions with issues listed in order of risk, with the most critical first.

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*The external audit section listed the external test results in detail, with a technical summary of issues and recommendations.*

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## About Choice Solutions

Established in 1991 Choice Solutions Ltd. is a leading IT and Facilities solutions provider. Choice Solutions Ltd. business comprises of Six different practices, namely

### IMS

- Desktop, Server, Network, Storage, Support, OS, Assets, Apps, Non IT
- Hardware - A-Add, M-Modify, I-Install, C-Change, R-Repair
- Assets, Security, Software Distribution, Upgrades

### Networking

- Packaged Services Monitoring & Management
- Products, Security, Design, Deploy, Maintain
- Auditing & Compliance, SOC

### Datacenter

- DC Audit, Monitor & Manage, Training
- Assess, Design, Built, Deploy, Disaster Recovery

### Consulting

- Business Consulting, CIO & Technology Services, Physical Security, Power Devices, IT Consulting
- DC Consulting, ERP, CRM & Custom Apps

### Cloud Computing

- Cold Site – Backup, Disaster Recovery
- Hot Site – HaaS, Software, Manage
- Public Cloud, Private Cloud, Hybrid Cloud
- CaaS, License Software, IaaS
- Disaster Recovery

### Power

- Power Audit, Equipment Management
- Physical Security, Power Devices
- Power Saving Devices
- Design & Audit
- Renewable Energy Products