



Network Assessment Services

Information networks are arguably your most important IT assets, their speed and reliability are the foundations upon which your critical business systems and applications run. Ensuring your network infrastructure is available and performing to its optimum is a continual challenge.

This challenge however is one that is growing and increasing in pace driven by many factors such as:

- Massive growth in data volume, requiring processing and storage, and distribution over your network
- Convergence of voice, video and data traffic with IP telephony, peer to peer applications, video conferencing, and desktop collaboration technologies all requiring bandwidth with low latency
- Application and server virtualisation, leading to significant changes in traffic flows and patterns over the network with potentially 'bursty' application streaming traffic.
- Desktop virtualisation. Server-side desktop virtualisation relies on an 'always-on' network and the user experience is very sensitive to bandwidth and network latency, whilst client-side desktop virtualisation involves 'bursty' and bulky streaming traffic.
- Mobile devices - the prevalence of smart phones and tablets, and mobile applications means changes to how and where business data is delivered. Many wireless networks weren't designed for the 'new demand' - the number of connections, and the bandwidth requirements.

- Workforce decentralisation to support flexible working, or deploying workers close to the 'work-flow' and to customers, means that secure remote network access becomes an essential ingredient to the efficiency of increasingly distributed staff.

Maintaining the 'status quo' with consistently high network availability has always been a challenge in its own right, but with the pace of change and complexity steadily increasing, it merits a formal, structured, and regular review process.

Phoenix's comprehensive range of Network Assessment services provides you with a detailed understanding of:

- Your current network assets and architecture
- The issues and risks you face
- Remediation and improvement options

Whether you are:

- Looking to deploy a converged voice & data network
- Planning or changing a virtualised server environment
- Evaluating 10gb Ethernet options
- Experiencing performance issues
- Planning a network refresh or upgrade

- the essential first step is to establish the facts, and evaluate the options with a Network Assessment.

The Phoenix Network Assessment Services comprise a suite of four discrete components; Network Audit, Network Baseline, Network Healthcheck, and Firewall Healthcheck.

Our consulting engagements are tailored to incorporate any combination of these components as required

Phoenix Network Assessment Services

Network Audit

- Device discovery
- Topology and Configuration audit
- Equipment inventory
- Hardware and software EOL status

Network Baseline

- Capacity assessment of current traffic
- Traffic hotspot identification
- Impact analysis of network configuration changes
- Network performance and utilisation

Network Healthcheck

- Network topology and configuration review versus best practice standards
- Review of network issues contributing to application performance issues

Firewall Healthcheck

- Hardware & Software Version checks
- Firewall Rule Review
- Review for Configuration Best Practice
- Review Security enhancements

Network Audit

Gaining a detailed understanding of your network infrastructure, the software versions it is running, and how it is connected, is key to day to day support and is an essential pre-requisite for planning any network changes or investment.

How the Service Works

Phoenix consultants use a structured methodology and utilise automated and manual discovery tools to conduct the engagement in a consistent and thorough way.

Once the audit scope is agreed, Phoenix will conduct a structured workshop with key stakeholders, review existing network documentation, including LAN, WAN and structured cabling, and conduct physical inspections of network equipment at sites in scope.

Our consultants will use a combination of Discovery Tools, Network Analysers and Command Line Tools as appropriate to discover all network devices with an IP address, and to retrieve all available inventory data.

We will review the network inventory, topology, IP addressing scheme, and naming conventions against best practice to identify risks, including issues such as known security vulnerability exposure, and vendor end-of-life support withdrawal. Our consultants will rate the issues in their findings report, and propose appropriate remediation options.

How you benefit:

- Document your network assets, providing a detailed inventory and topology baseline from which to assess and develop your network.
- Populate your CMDB with an accurate inventory to assist with on-going support
- Improve investment planning through identification of equipment at risk, e.g. as a result of vendor EOL withdrawal of support
- Identify any known security vulnerabilities
- Meet compliance and regulatory obligations through accurate inventory records and an associated risk register
- Gain an independent view from an expert team with a proven methodology, and analysis tool set
- Augment your own team, ensuring focus on urgent projects and support activities

Deliverables:

Network Audit report including details of the network topology and IP addressing, providing information by device, location and site (as agreed in the original audit scope):

- LAN / WAN Network diagrams, showing vlans, device IP addresses, hostnames, models, interfaces, and logical connections
- Other network diagrams (Remote access, IP Telephony, Security, Internet, QoS etc)
- Network inventory, showing network device hostname, IP address, make, model, description, serial number, software version, location, critical uplinks, critical downlinks, and End of Life date
- IP addressing scheme
- Naming convention
- Vendor End Of Life Assessment (R/A/G)
- Audit findings, conclusions and recommendations

Presentation:

To the sponsor and key stakeholders on the findings of the audit, risks, priorities, options and next steps.

Phoenix Network Audit Service

Discover

- Pre-Audit workshop
- Review existing documentation
- Establish device access methods
- Physical inspection
- Network device discovery
- Interconnectivity mapping
- Configuration collection

Assess

- Information analysis
- Hardware and software EOL status
- Findings: Issue and risk identification

Review

- Produce network inventory documentation
- Finalise audit report- findings and recommendations
- Present/review audit report with key stakeholders

Network Baseline

Gaining a detailed understanding of your network loading and traffic profiles, at six or twelve month intervals, provides an insight into the health of key network segments carrying your business critical applications. Network baselining enables pro-active capacity planning, and provides the basis for new application impact assessment.

How the Service Works

The Baseline service requires Network Audit data to be established prior to review of the network traffic.

Once the Baseline scope is agreed, Phoenix will conduct a structured workshop with key stakeholders, review existing network documentation, and establish an understanding of the key business applications, and identify the appropriate measurement points on the network.

Phoenix consultants use a structured methodology and utilise 'sniffer' traffic analysis tools deployed at the selected measurement points to gather traffic data in a consistent and thorough way.

We will review the traffic analysis data to establish utilisation, broadcast levels, error levels, traffic peaks, and protocols used, and produce trending analysis over the agreed measurement period. Our consultants will identify issues in a findings report, and propose appropriate remediation options.

How you benefit:

- Obtain an independent, fresh perspective on your network performance
- Identify Traffic Hotspots
- Establish network baselines that enable impact assessment of network changes, planned network configuration changes or application changes on the network.
- Analyse against historical "baselines" in order provide long term network performance and utilisation trending
- Identify Applications and Protocols that should be on the network
- Identify applications that should not be on the network consuming valuable bandwidth

Deliverables:

Phoenix consultants will complete a network baseline report and deliver a presentation to key stakeholders. The network baseline report will contain the following details (as agreed in the original Baseline scope) for key network segments and WAN links:

LAN Baseline Service

- Ethernet Segment Utilisation
- Ethernet Segment Broadcasts Levels
- Ethernet Segment Error Levels
- Trending of Utilisation
- Protocol distribution for Key segments

WAN Baseline Service

- WAN Link Utilisation
- Peak and average traffic levels
- TCP flow health
- Application and protocol discovery across the WAN link
- Application Top Talkers / Listeners
- Trending of Utilisation

Presentation:

To the sponsor and key stakeholders on the findings of the baseline review, options and next steps.

Phoenix Network Baseline Service

Discover

- Pre-Baseline workshop
- Review existing documentation
- Establish device access methods
- Deploy baseline tools at relevant measurement points on the network
- Network device discovery
- Span ports or test SNMP access
- Data collection

Assess

- Information analysis
- Document baseline profiles
- Findings: Issue and risk identification

Review

- Produce baseline traffic analysis
- Finalise baseline report- findings and recommendations
- Present/review baseline report with key stakeholders

Network Healthcheck

Making sure that your network is available and performing to its optimum capabilities is essential to minimising user downtime and averting adverse business impacts. Our Network Healthcheck finds the underlying causes of network problems, and provide a detailed report that describes the issues and what is required to resolve them.

How the Service Works

The Healthcheck service may require a Network Audit data to be established prior to review of the network assessment.

Once the Healthcheck scope is agreed, Phoenix will conduct a structured workshop with key stakeholders, review existing network documentation, and establish an understanding of the key business applications, physically inspect the network areas, and identify the appropriate measurement points on the network to deploy automated tools.

Phoenix consultants use a structured methodology and utilise network discovery, and 'sniffer' traffic analysis tools deployed at the selected measurement points to gather traffic and performance data.

We will review the network design and implementation against industry / vendor best practices and rate the risk of issues found using a red/amber/green classification. Our consultants will document issues in a findings report, and propose appropriate remediation options.

How you benefit:

- Obtain an independent, fresh perspective on your network health
- Ensure your network is designed and configured to industry or Vendor best practices
- Ensure your network is working optimally
- Identify design issues
- Identify resiliency, scalability and flexibility issues on the network to meet business Service Levels
- Identify problematic network performance or reliability issues affecting business critical applications
- Identify if the network is ready for new applications such as IP Telephony

Deliverables:

Network Healthcheck report rated against industry and vendor best practice with Red/Amber/Green classification of issues found. The report will typically include the following (as agreed in the original assessment scope):

- LAN / WAN design
- Other design aspects (Remote access, IP Telephony, Security, QoS, IPT Readiness etc.)
- LAN / WAN implementation
- Other implementation aspects (Remote access, IP Telephony, Security, QoS etc.)
- Spanning tree
- Routing schemes
- VLAN and VLAN trunking
- Naming conventions
- Network Management
- Device Labelling system
- LAN / WAN traffic analysis using performance analysis tools
- Healthcheck findings, conclusions and recommendations

Presentation:

To the sponsor and key stakeholders on the findings of the Healthcheck, risks, priorities, options and next steps.

Phoenix Network Healthcheck Service

Discover

- Pre-Audit workshop
- Review existing documentation
- Establish device access methods
- Physical inspection
- Network device discovery
- Interconnectivity mapping
- Configuration collection
- Traffic profile data collection

Assess

- Information analysis
- Evaluate network design and implementation against best practice
- Findings: Issue and risk identification

Review

- Produce network healthcheck documentation
- Finalise report- findings and recommendations
- Present/review audit report with key stakeholders

Firewall Healthcheck

Firewalls are your first line of defence in the interface between your network and the outside world. Security depends upon the perimeter of your network being configured to the latest standards so that your critical business information and systems are not compromised.

How the Service Works

Phoenix will conduct a structured workshop with key stakeholders, review existing Firewall documentation, and establish an understanding of the overall network topology, security architecture and key business applications transiting the firewall.

We will review the Firewall hardware, software version, performance, implementation and configuration against industry security / vendor best practices and identify real or potential security issues. Our consultants will document issues in a findings report, and propose appropriate remediation options.

Phoenix Firewall Healthcheck Service

Discover

- Pre-Audit Security/Firewall workshop
- Review existing documentation
- Review non-firewall Security Layers
- Establish Firewall access methods
- Firewall Topology, Hardware and Software discovery
- Firewall Rule/Configuration collection
- Firewall Performance Metrics Collection

Assess

- Collected Information analysis
- Evaluate Firewall Solution, Ruleset and implementation against best practice
- Findings: Issue and risk identification

Review

- Produce Firewall healthcheck documentation
- Finalise report- findings and recommendations
- Present/review audit report with key stakeholders

How you benefit:

- Obtain an independent, fresh perspective on your Firewall security and health
- Ensure your Firewall systems are running in the optimal way
- Ensure that your Firewall configuration adheres to the evolving industry security 'best practices'
- Identify configuration anomalies and issues that could lead to information leakage and perimeter breaches
- Identify hardware and software version issues, including vendor end-of-life milestones

Deliverables:

Firewall Healthcheck report rated against industry and vendor security best practice. The report will include the following (as agreed in the original assessment scope):

- Perimeter security network diagram
- Review of current implementation and configuration
- Review the Firewall hardware performance
- Review of current policies, rules and NAT Tables
- Hardware and Software EOL status
- Assessment of security risks identified
- Healthcheck findings, conclusions and recommendations

Presentation:

To the sponsor and key stakeholders on the findings of the Healthcheck, risks, priorities, options and next steps.

About Phoenix Professional Services

We can support you at every stage of your journey, with highly qualified personnel available for short and long-term engagements to question, learn, share, manage and deliver.

We have accumulated a wealth of knowledge and expertise working with UK businesses of all sizes and across all sectors. This means Phoenix can provide you with detailed assessments and advice covering every aspect of optimising your IT operations and services, from feasibility studies to procurement and deployment.

Phoenix can help you:

- Through innovation and expertise ensure a first class experience for your IT users
- Efficiently plan for future growth
- Ensure a smooth project from start to finish
- Benefit from qualified, accredited and experienced IT specialists
- Migrate IT infrastructure, applications and data effectively and quickly
- Augment your team with specialist skills, or when additional resource is required to meet short term objectives
- Develop your team through knowledge sharing

Phoenix can help you:

- Windows Migration Readiness
- Active Directory Healthcheck
- Active Directory Security Assessment
- Exchange Healthcheck
- Exchange Migration
- Desktop virtualisation
- Application virtualisation
- Server virtualisation
- Storage solution design and implementation
- Network design and deployment
- Structured cabling
- Prince2 Project Management



About us

Phoenix is one of the leading providers of hosting, Cloud, business continuity and managed IT services in the UK. We've been delivering IT services and technology to UK businesses since 1979. We're a complete end-to-end provider. One moment we're cabling a data centre, the next we're helping clients migrate to the flexibility and availability of the Cloud. Our managed services help customers take back control of their desktops. We ensure business continuity. We monitor and optimise some of the biggest UK networks 24/7. Whatever the project, we advise, guide and provide from conception to execution. We understand how important it is to optimise day-to-day operations. But we go further. We help our customers embrace innovation and drive growth. We do that by showing them how to cut risk and costs even further, and create the right infrastructure for change.

Wherever you are, we are. We have 28 regional sites with 18 business continuity centres across the UK, and a network of local engineers ready for your call. We employ 2,300 people and more than 1,300 are technology specialists. We're proud to be working hand-in-hand with more than 3,600 growing UK enterprises across many sectors. Our customers include well-known names like Accenture, Atos, Barclaycard, BT, Capgemini, Capita, Commerzbank, Costain, Diageo, Experian, First Choice, HP, Jaguar Land Rover, Marston's PLC, Nomura, Stobart Group and Wipro.

More Information: If you would be interested in learning more about Phoenix and how we could support your business, please contact us.