10 Simple Steps to ITIL Network Compliance

Corporate IT has come a long way in its first few decades. Modern business is empowered and supported by a secure digital nervous system, a vast network of computers, devices, and services that enable instantaneous, round-the-clock information sharing and transactions.

That is all good news, and a testament not just to the power of technology, but also to the IT professionals in every business who make it work. By any measurement, business and public administration is far more effective than it has ever been.

But there is, and always has been, another side to corporate IT. In spite of all the achievements, IT has also been dogged by a reputation for unreliability, for poor communication, for poor self-management. IT isn't just in the front line—it's very often in the firing line too.

All of this helps to explain the remarkable rise in recent years of a set of principles and processes that were first put together way back in the late 1980’s. Struggling with quality and service problems, the British government introduced and disseminated a framework of best practices for delivering and supporting corporate IT services, known as ITIL—the IT Infrastructure Library.

ITIL is not the only set of best practices available to IT managers, but with over twenty years of constant development, it has become both the most comprehensive, and the most widely adopted—according to research from Forrester, ITIL is now used by 51% of IT organisations around the world. ITIL has been popular in Europe for more than ten years, and in the past five years, thousands of US organisations have joined their counterparts in adopting it as the de facto cookbook for delivering effective IT.

Some are adopting it with the zeal of new converts—and they are not just from the Service operations side of IT. Business managers, too, are now urging their IT managers to adopt ITIL.

The Appeal of ITIL

Why is ITIL so popular? There are several reasons:

- ITIL is an open set of rules—anyone can adopt it to improve their IT. The British government still owns ITIL and charges for the books, but otherwise does not seek to profit from it. Consultants can be accredited, but products and end user organisations are not.
- ITIL is comprehensive. ITIL brings a common set of guidelines, processes, and vocabulary to almost everything that an operational IT department ever does. It covers service-level management, capacity management, contingency planning, availability management, cost management for IT services, configuration management, problem management, change management, help desk, and software control and distribution. Recently, its scope was expanded further with the introduction of ITIL v3, which encourages managers to design and deliver IT services with a business perspective (see below).
• ITIL is flexible. Managers don't have to adopt all of ITIL at once—they can focus on the areas that are most useful to them. Those businesses who think their biggest problems lie in persistent network downtime can just focus on network configuration, and change and problem management, leaving help desk or service level management until later.

• ITIL is neutral. The tone of ITIL is to help businesses solve problems. It doesn't prescribe products, configurations, or even strict processes; rather, it suggests procedures and approaches that work.

• ITIL works. ‘Clients have identified improved customer satisfaction with IT services, better communications and information flows between IT staff and customers, and reduced costs in developing procedures and practices within an enterprise,’ said a report from Gartner, the IT analysis company.

In surveys, between two-thirds and three-quarters of organisations that have adopted ITIL said it helped them deliver improved IT services. According to Forrester data, 81% of ITIL adoptions improved quality of service delivery.

**ITIL v3**

In June 2007, a major new revision of ITIL was published which many practitioners think will extend its popularity still further. With v3, ITIL has been expanded to encourage business managers to become more actively involved in the design, development, and delivery of IT services.

In fact, while the underlying principles of ITIL remain unchanged, the entire focus has shifted to encourage all IT staff to view what they do in terms of services to the business. ‘The only value that matters is that perceived by the customer,’ says the service operation book.

The ITIL principles are now condensed into five textbooks, with Service Strategy and Service Design complementing the better known areas of Service Transition, Service Operations, and Continual Service Improvement. Managers are encouraged to view the entire process of delivering IT services as parts of lifecycle.

The experts who collaborated on these five books over several years are as keen as ever to emphasize that ITIL's core principles remain unchanged. Practitioners, they say, should not think about specific technologies, but about taking control of the processes in IT service delivery, improving them and formalising them in the service of the business.

As ever, ITIL is agnostic about particular products or tools that can be used in support of ITIL's goals. It doesn't prescribe any products or architectural approaches—it is only interested in results. Even so, some products clearly stand out because of the way they can be used in support of ITIL objectives. In network management, this is clearly the case.
ITIL and the Network

ITIL does not specifically separate out network management, nor indeed any technological area, for special attention. Rather, it sets out management principles that can be applied to ensure effective delivery of IT services. But ITIL’s guidelines have become popular in network management, where it is proving highly effective.

This is not surprising. Networks have become so complex, with so many interdependencies, and such a variety of equipment and software involved, that businesses can barely manage their networks without clearly defined processes and principles. ITIL sets out these processes, helping to improve responsiveness and save money.

Network management is an area where ITIL compliance, aided by the right tools, can provide a rapid return on investment. Network problems are a major cause of business disruption and financial loss (more than 3.6% of the annual revenues of medium and large organisations are lost to downtime each year, according to a study by Infonetics), and any method, framework or tool that can effectively reduce downtime or network degradation is worthy of serious consideration. ITIL, with its focus on producing better, more predictable service management, does exactly this.

The following ten points explain some of the objectives outlined in ITIL v3, and how one product in particular—Infoblox’s NetMRI network analytics engine—is uniquely positioned to help organisations comply with ITIL with minimum preparation and investment.

Infoblox set out with the objective to help managers deliver a consistently effective service to the business, minimising, as much as possible, the need for anyone to become bogged down in the underlying complexities and interdependencies of the equipment.

1. Early detection of incidents

ITIL specifies that a process should be in place to detect ‘events’ before any actual downtime or outage occurs. An event is any notification or occurrence that might be of significance to the management of the IT infrastructure.

NetMRI collects information on network performance, configuration, and utilization, and checks every data point against a database of expert rules and industry best practices. It issues warnings proactively about potential problems that could impact the business.

2. Improve downtime and increase service availability

ITIL is specifically concerned with what it calls ‘availability management’—the ability of organisations to cost effectively ensure sustainable levels of availability. That means preventing downtime by detecting problems early, and having a process to resolve any problems as fast as possible.

NetMRI is designed to help organisations avoid downtime and increase availability of services by providing advanced notice of any performance issues or incidents that may indicate problems are developing, and provides configuration and processes for resolving these.
3. Reduce the cost of workarounds and fixes that do not work

Studies show human error—in the form of mismanagement and misconfiguration—are the biggest causes of network downtime. According to Gartner, 60% of all configuration issues are caused by human error. ITIL is intended to improve reliability by ensuring that systems are configured correctly, and that there are clear processes in place to ensure service is maintained or restored quickly.

Built-in best practices in NetMRI stop the ‘let’s try this’ mentality. Using NetMRI, organisations can reduce the cost and effort of fire-fighting or resolving repeat incidents. NetMRI tells managers what the problems are, what needs to be done to correct them now, and how to reduce or prevent recurrences.

4. Identify potential improvements to service

It is sometimes said that there is no such thing as a stable network; at any given time, it is either improving or degrading.

ITIL stipulates that managers set out to improve the services they deliver by managing, measuring, controlling, and feeding back improvements in day-to-day operations.

Each day, NetMRI provides a high-level Scorecard and a list of issues that network managers can use to identify problems and areas where improvements can be made. The analysis is done automatically and the list is generated on a daily or hourly basis.

5. Automate operations

ITIL is careful not to prescribe technology as a solution to problematic service management; the key to a successful operation is for organisations to follow well-thought out processes using the best available information. But ITIL also stresses timely and cost-effective prevention or resolution of problems. In practice, that means automation is necessary.

Management of network operations is a time-consuming process, and it takes a lot of effort to ensure that policies are correctly set down and consistently followed. NetMRI enables users to create rules and templates that can be used to enforce policy and to make corrective changes automatically. This saves time and money, and reduces duplication of effort and inconsistencies in the network.

6. Align IT activity to real-time business priorities

Businesses depend heavily on services that IT provides, such as voice, key applications, and other time-sensitive services. Any loss in performance in these services will directly impact the business, very often in hard financial numbers.

The architects of ITIL v3 were particularly concerned that business managers do not have sufficient input and visibility into IT services. Conversely, they want to ensure that IT service managers align the services they provide to business goals.
It is critical that IT understands the importance of each service provided to the business, and that this knowledge is used when planning any activities that could affect the business. Through its reports and analytics, NetMRI provides this visibility across the different services that IT provides, measuring how IT is performing in delivering these services.

7. Increase productivity of the business and IT staff

ITIL says nothing about the productivity of either the business as a whole, or about IT staff in particular, but cost-effective delivery of services is a constant theme. Financial management is one of the key components of its ‘service delivery’ discipline, where one of the goals is to ‘foster an environment of control to ensure IT services are effectively and efficiently used’.

NetMRI is a powerful tool for improving IT staff productivity. As part of its core functionality, it creates a list of issues that act like a daily ‘to do’ list, helping organisations achieve increased productivity. The automated analysis takes the guess work out of the daily tasks, and provides the network engineers an exact list of what needs to be corrected. This allows managers to concentrate on immediate issues, and to divide the workload among the teams—without the need to figure out what needs to be done in the first place.

8. Continuous service improvements

ITIL sets out to engender a culture of continuous improvements—ongoing service improvement is at the core of the new ITIL v3 service lifecycle model. This involves monitoring performance, assessing metrics, and gathering data to feed back into the continuous service improvement process.

NetMRI’s ability to measure network performance over time gives managers a clear idea of how the network is performing today, and how it has performed in the past. The Scorecard, the issues list, and the ability to see network improvements immediately and recalculate its analysis all help users to monitor continuous improvements. They can also compare the effect of the improvements on a daily basis, with a powerful Scorecard.

9. Monitor by exception

As part of its service operation volume, ITIL v3 identifies how exception monitoring can be used as a means of managing incidents. Monitoring by exception means that in some cases only certain incidents are reported back to the manager, removing the need for expensive and resource intensive monitoring.

NetMRI offers a way to collect more data when there is a special ‘event’ or situation. This automatic data collection and issue generation is triggered when there is a problem on a network device. NetMRI also goes further, with the exceptional event kick starting data collection not just on the network device itself, but also on application flow data. This gives the person diagnosing the problem a complete picture of what was happening at the time of trouble.
10. Trusted source of analyzed data for the CMDB

The CMDB (Configuration Management Database) is a core repository of operational data in ITIL. It provides a pointer to the numerous enterprise data, designed for the purpose of data consolidation and to help reduce duplication in efforts.

The importance of configuration management in ITIL cannot be overstated. Change management, problem management, incident management, security, and compliance all rely, to some extent, on the accuracy and scope of the underlying configuration management data.

The CMDB will ultimately point to information about an asset, its importance and role, and critical operational details such as the interdependencies among other assets and services. Ideally, configuration changes should be automatically captured when they are made, possibly using integrated tools.

NetMRI is a trusted source of analyzed network data for ITIL. The data can be used to enhance the CMDB and provide pointers to data that can be used to proactively solve problems.

Summary

ITIL is emerging as the standard way of managing IT service delivery; the latest v3 has extended this, aligning service design, development, and delivery more closely with business goals. Organisations implementing ITIL usually get good results, in terms of service design, delivery, and reliability.

ITIL does not specify the use of any particular technologies, but in practice, effective implementation relies on the use of appropriate tools.

Vendors of all kinds are marketing their products as ITIL compliant, and many are. A few, however, clearly stand out because of their ability to make ITIL compliance much easier and more cost-effective on an ongoing basis. Infoblox's NetMRI should be at the top of the list for anyone concerned with managing their network in accordance with ITIL principles.

About Infoblox

Infoblox (NYSE:BLOX) helps customers control their networks. Infoblox solutions help businesses automate complex network control functions to reduce costs and increase security and uptime. Our technology enables automatic discovery, real-time configuration and change management and compliance for network infrastructure, as well as critical network control functions such as DNS, DHCP and IP Address Management (IPAM) for applications and endpoint devices. Infoblox solutions help over 6,500 enterprises and service providers in 25 countries control their networks.