Managed Services Solution Brief

Contents

Managed Services Overview

Managed services in today's world are vastly more complex than ever previously imagined. Many platforms hosting applications for large, small enterprise corporations and public/private sector services now exist and are rapidly expanding at exponential rates. Complexity around cloud and hosting services with virtualization, and more recently the introduction of SDN (Software Defined Networking), makes it even more difficult to manage and understand exactly how these environments are performing and operating.

The legacy way of managing these environments was to stack up individual framework management systems that performed specific functions, for example, performance management, node management, etc. This approach is not only costly from a multiple element software license requirement, but also requires separate hardware for each element framework management function thus increasing annual platform and license annuity maintenance support costs. The multi-element framework management approach can also suffer from a number of operational issues, for example; unsynchronized delta times around service events and alarms thus making troubleshooting almost impossible to pinpoint root cause, or more importantly never actually knowing what occurred due to the lack of control and functionality around the environments being managed. Managed Services Providers that take this approach invariably, never provision a fully integrated framework of functional technology because it is costly to procure, provision, and operate. What they do not foresee though is that their profit margins will erode due to the lack of control around the services they are managing, as they will continually breach contractual SLAs that will incur service credits that will erode profit margins and more importantly loose customer credibility and customer retention.

StableNet® provided by Infosim® is a Unified Management Framework, that means it is a single management platform with an integrated suite of infrastructure management functionality that provides the control and governance required for assurance of End-to-End networks and hosting environments. For the first time ever, Managed Services Providers can procure and provision a single management tool that will maximize their revenues, provide their customers with a differentiated service experience, significantly reduce SLA breaches that incur service credits, and more importantly maximize customer retention.

For Managed Service Providers today it is not just about cost, it is about proving and demonstrating that you have a grip that encompasses customer's networks and hosting environments, prove and demonstrate how your management systems visualize service operation, control, govern, reduce threats through vulnerability and compliance management, and maintain consistent high-levels of service availability. These functions are key ingredients for maintaining sustained levels of service assurance.

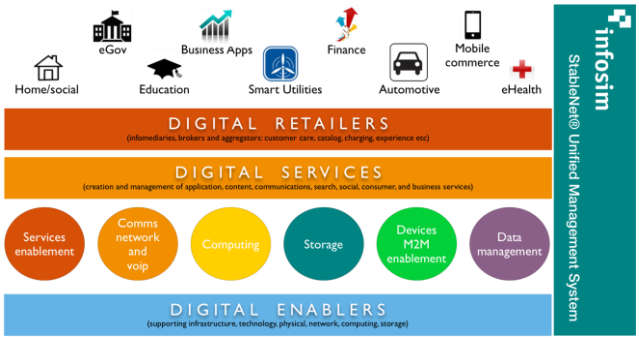

Figure 1. Simplified View of the Digital Eco System

1. Managed Services

A Managed Services Provider (MSP) manages and assumes responsibility for providing a defined set of services to its clients. Most MSPs bill an upfront setup or transition fee and an on-going flat or near-fixed monthly fee, which benefits clients by providing them with predictable IT support costs. MSPs typically use Vendor Management Systems (VMS) as software tooling to provide transparency and efficiency — along with detailed metrics to the user — related to every aspect of the services being managed.

1.1 Historic View of Managed Services

Networked Managed Services (NMS) historically focused on the operation of two primary services, that being data services and voice services. Traditionally, Wide Area Network (WAN) services were the most typical data outsourced managed service offering although, Local Area Networks (LANs), whilst being more under the control of the customer, were beginning to be outsourced as part of an overall WAN/LAN combined managed service, or as separate WAN/LAN services. Management of the services tended to focus on performance and topology RAG (Red, Amber, Green) status monitoring only. The second most common service type was voice services, which were traditional PBX-based voice solutions managed with vendor-specific management tools. Both service offerings were sold and managed individually and the differentiation between MSPs was typically more focused on cost.

1.2 Today's Managed Services Landscapes

The evolution and landscape of managed services today is very different. Converged networking has seen an explosion of services and applications that will all reside on infrastructures that are interconnected within private and public networks. If you look at the End-to-End communication delivery path of an application or service, for example, email, then, whilst you may not consider email to be necessarily a mission-critical app, it is still a necessity to your business and should therefore be managed in a way whereby you can ascertain the performance and operation of the infrastructure.
Management of the End-to-End infrastructure of all business services is a prerequisite in the assurance of sustained consistent levels of service availability and service experience.

1.3 Customer Requirements

MSP customer requirements have changed. Market trends see more and more customers demanding 24x7 operational SLAs for both network and application services. Business enablement, Business-to-Business (B2B) integration is a requirement for partner interworking. Services to be managed proactively and not just reported upon, greater visibility and service transparency for you-see-what-we-see service operation. Control and compliance to achieve less change-induced incidents, single-pane-of-glass dashboards and self-service portals are now what customers demand and expect.
At the same time the service provider has internal drivers that are demanding they deliver a greater service experience that provides more functionality, integration, automation, faster customer responses with a first-time-contact-first-time-fix improvements that meet contractual SLAs, realize reductions in CAPEX and OPEX and differentiate their service portfolios into deal-winning propositions.

1.4 Management Capability Analysis

MSPs have management tools in place today for performing a number of functional tasks around the contractual monitoring of the services they provision and operate for their customers. For tooling improvement to be successful you should kick-off a process whereby you start the audit analysis of your entire toolset to determine the following:

- Identify all vendors tooling in operation.
- Identify exactly what functional task each tool is providing, and to where each tools capabilities extend.
- How each tool is provisioned including hardware requirements.
- Cost of licenses used on a customer managed service solution.
- Annual cost of hardware support.
- Annual cost of software license maintenance support.
- Operational support costs for each tool.
- Benefits that each tool brings to your managed service solution.
- Does the identified tooling in use provide the expected End-to-End management requirements? Identify any gaps in your management service-tooling portfolio.
- Identify where service credits have been invoked and total service credit cost to date.
- Does the tooling in place today complement your roadmap strategy of tomorrow?

Essentially when you look into the cost of procuring and operating what you have in place today, ask yourself the question; is it fit for purpose? Does it police my SLAs, does it differentiate, or more importantly, can it differentiate my managed service portfolio whereby I can offer customers a proven sustained high availability and service performance experience with greater upsell functionality that increases customer retention, and attracts new customers?

The following Gartner maturity model will assist you in determining where your tooling resides today and whether it fits the objectives of where your roadmap dictates you want to be in the future.

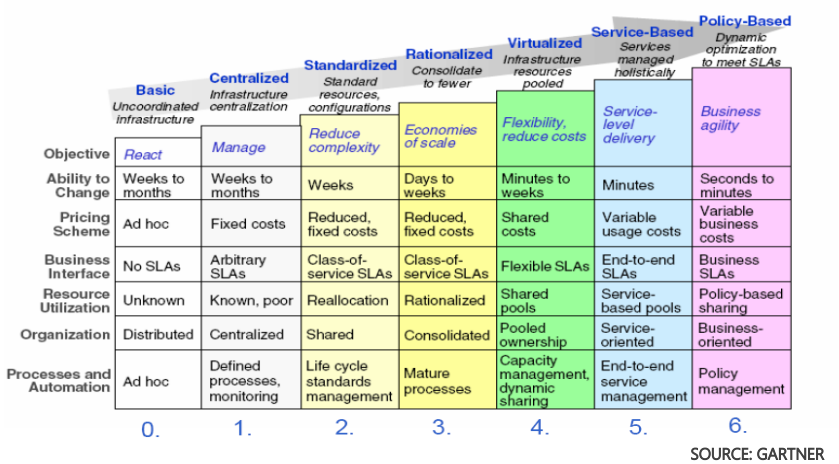

Figure 2. The Gartner Maturity Model

1.5 The Challenge for MSPs and CSPs

The challenge for MSPs (Managed Service Providers) and CSPs (Communication Service Providers) for providing a better customer service experience can effectively be broken down into four areas:

1. ***Identify what the benefits are to the customer*** – For example: demonstrating how your tooling reduces the threat of service affecting incidents through greater visibility and control around configuration change management, and how compliance policing on critical areas of the network reduces mean time to resolution. Demonstrate how your service operation is transparent to your customers through service experience visibility portals.
2. ***Customer retention*** – Demonstrate how your managed service tools provides greater control around your service operation by providing enriched management functional capability that spans multiple End-to-End services, provides customer-centric service dashboards that creates greater proactive management through wider visibility.
3. ***Operational benefits*** – There is always a challenge in the operation of managed services to balance operational costs whilst maintaining high levels of service assurance. Being smart about the tooling that is provisioned in terms of both cost and functionality is the key driver in the success of your customer experience and retention. Employing tools that have great functional capabilities with the ability to enable automation for self-heal and triage will bring greater benefits to your operations and naturally drive a proactive culture.
4. ***Differentiation*** – Ensure the tooling you provision is capable of integrating with customers tooling, for example: B2B or trouble-ticketing, etc. Flexible dashboarding capability allows you to create your own differentiation through provisioning customer-specific views that enables empowerment and enhances customer confidence through service transparency.

1.6 Meeting the Challenge

The challenge for MSPs/CSPs is in the identification of the towers of technology required for the infrastructure management of customer's managed networks. Each identified tower of technology needs to have a suite of functionality that enriches the towers capabilities and has a flexible integration interface for both feeding and extracting specific data source.

1.7 Network Management

Network management is a term many people associate with visualization of the wide and local area network topologies. It is of course so much more than just a pretty picture. Managing a network should take into consideration all entities in the End-to-End communication delivery path of a given network, or indeed service. Infrastructure hosting LAN interconnectivity at both layer 2 and 3 to WAN/MAN handoff to end-user delivery all need managing from a network management perspective. Visualization of the End-to-End paths is essential, and understanding the operational node status of each component along the communication delivery path for system events or alarming is of equal importance. Being able to pinpoint the root cause of a network failure, or service degradation, in a fast, accurate, and timely manner is paramount to maintaining consistent high levels of service assurance.

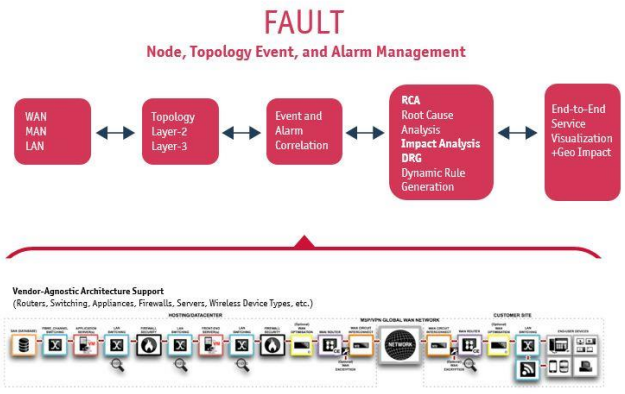

Figure 3. Fault – Node, Topology, Event, and Alarm Management

1.8 Network Configuration and Change Management

A network configuration and change management system is NOT a suite of Perl scripts some smart engineer has coupled together that backs up the configuration of a customer's network on a daily basis. This approach is not only dated, but is riddled with risks around continued support and operation. NCCM is a key functionality around the control and governance of the network node configuration that resides on all of the components delivering End-to-End network services. Having the ability to auto-discover the inventory of a given network in a vendor-agnostic way in order that you can collect key vendor component data is a prerequisite for an NCCM asset discovery inventory system.

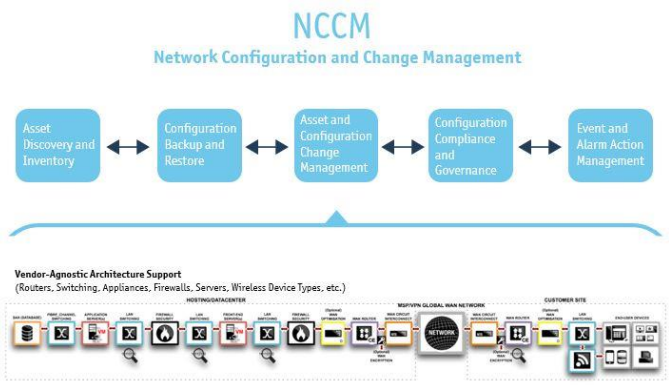

Figure 4. Network Configuration and Change Management

NCCM capabilities should extend beyond the vendor-agnostic asset discovery function to include configuration backup and restoration functionality, configuration, policy compliance, and governance with alarm and event notification for tracking both authorized and non-authorized configuration changes.

Configuration policy compliance and governance policing will drive high-levels of service availability through the knowledge of knowing what has been changed, where, or on what components has the change been made to, and who made the change, provides the control around the customer's networks required to police and maintain contractual service levels.

1.9 Lifecycle Management

Lifecycle management in any environment is critical to maintaining a consistent level of operation and performance however, in a managed services environment it is critical that you firstly, know the status of the managed components from a hardware and software inventory viewpoint for EOL (End-of-Life) EOS (End-of-Sale) and EOSS (End-of-Service-Support) status, and secondly, that you mitigate vulnerabilities announced by vendors in the configuration or software o/s elements to police security risks and maintain the levels of support required in the managing of customers networks. An MSP/CSP does not want to be paying service credits on a failed network component that has gone End-of-Life and is now unsupportable from a hardware or software replacement/support viewpoint.

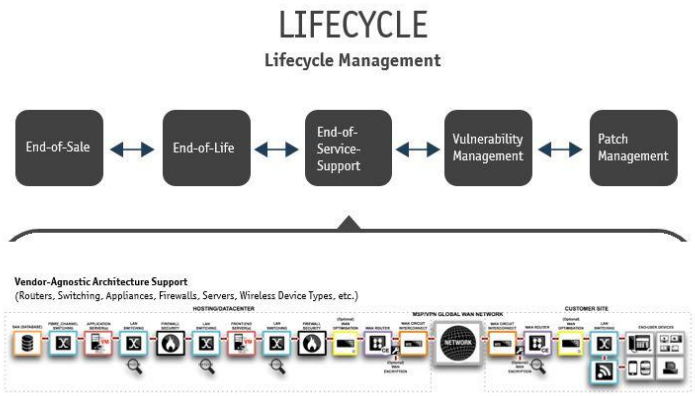

Figure 5. Lifecycle Management

That is why lifecycle management is another key ingredient to the successful management of customer's networks, customer retention, and maximization of profit margins. Lifecycle management systems must integrate with the CMDB,

or asset inventory database, in order that accurate up-to-date reporting can be visualized. Auto-discovered dynamic asset management CMDBs is crucial in maintaining accuracy around the inventory database.

1.10 Performance Management

Performance management has always been a prerequisite for any managed services environment but enriched capabilities available today mean that the investments in legacy systems need to be re-looked at as they are no longer fit for purpose in most cases from a customer's requirement perspective.

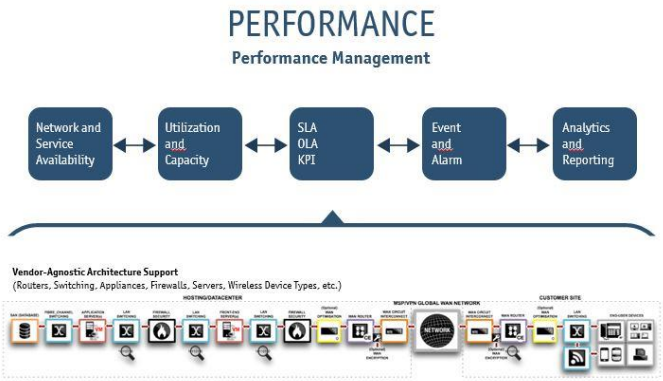

Figure 6. Lifecycle Management

Network and availability performance measurements now need to be overlaid with contractual SLA metrics that report and alarm when thresholds are being breached, capacity utilization performance indicators with predictive capacity planning functionality that allows a capacity management team to visualize when capacity thresholds will be breached in the future based upon historic trending information allowing teams the time to mitigate future performance issues before they become service-affecting. Enhanced application performance with the use of IP SLA, application awareness and usage via Netflow, and media scripting with enriched analytics and real-time reporting.

1.11 Technology Towers of Integrated Functionality

The four towers of infrastructure management technology are:

1. ***Fault Management***
2. ***Network Configuration and Change Management***
3. ***Lifecycle Management***
4. ***Performance Management***

Each key function should have a suite of integrated functionality that complements its technology tower; all of the towers of technology should be fully integrated so that functional correlation between all towers, and accuracy around the usage of the same delta time are fully synchronized.

The difficulty now comes in selecting the right tools for the right

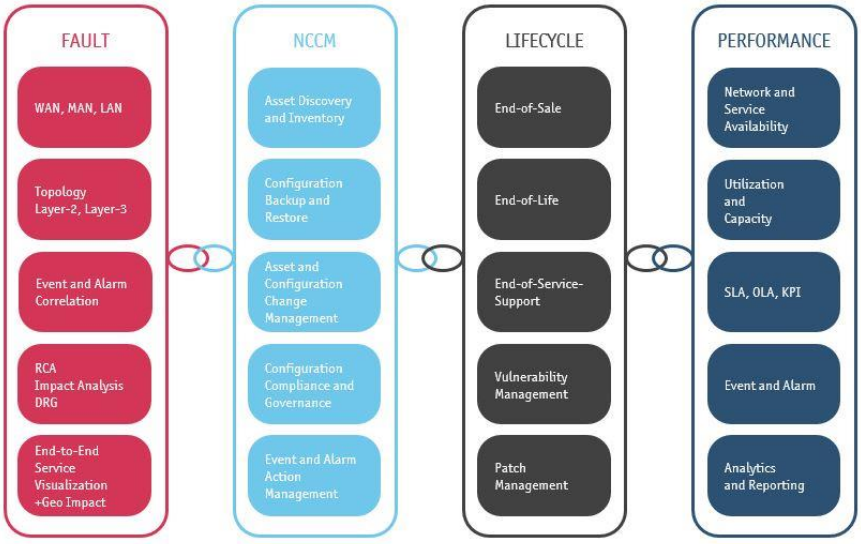

Figure 7. The Technology Towers of Integrated Functionality

towers of technology as firstly, ensuring they have the correct functionality within each tool is of key importance, and secondly ensuring the tool selected also has the capability to integrate fully with the other technology towers.

This is where StableNet® is unique because it has been designed and architected from the ground up to incorporate all of the above towers of technology in a single unified management product that makes it a compelling proposition for both MSPs and CSPs alike due to its enriched capabilities, cost-effective platform footprint, lean operating support model, and flexible deployment options.

1.12 Creating a Differentiated Service

Many organizations face existing IT systems that are unable to deliver on the transformation agendas that their businesses require. Large or small to medium-size companies are looking to trusted Managed Service Providers to address a range of issues around increased efficiency, cost reduction, CAPEX reduction, with improved service levels and reduced risks.

These services typically include event and alarm, patch management, proactive problem prevention, performance and configuration management with responsibilities for preventing service downtime and improving IT performance, as measured by contractual service level agreements.

To differentiate your service portfolio, you need to look to extending beyond the multi-vendor element management towers of functionality. Full control of the End-to-End infrastructure that includes storage, servers, networks, desktop devices, security systems, mobility, and technical service desk support cannot be delivered in an effective, timely, cost-efficient way by operating multi-vendor Operational Support System (OSS) platforms. A huge percent of IT budgets go on maintaining the existing infrastructure and therefore do not differentiate any business value whatsoever… it is just the same status quo.

Organizations are looking for Managed Service Providers offering differentiation that demonstrates controlled policy-based End-to-End infrastructure management with improved security monitoring, which is rich in compliance and governance, provides greater service visibility, proactivity, resilient, flexibility, and more importantly scalable in order to adapt to today's fast changing business conditions.

StableNet® is a Unified Management tool that differentiates a Managed Service Provider's service portfolio through its extensive End-to-End infrastructure management capabilities, resiliency, scalability, flexibility for integration, service visualization, and cost efficiencies. StableNet® addresses the challenges organizations look for when selecting a Managed Service Provider:

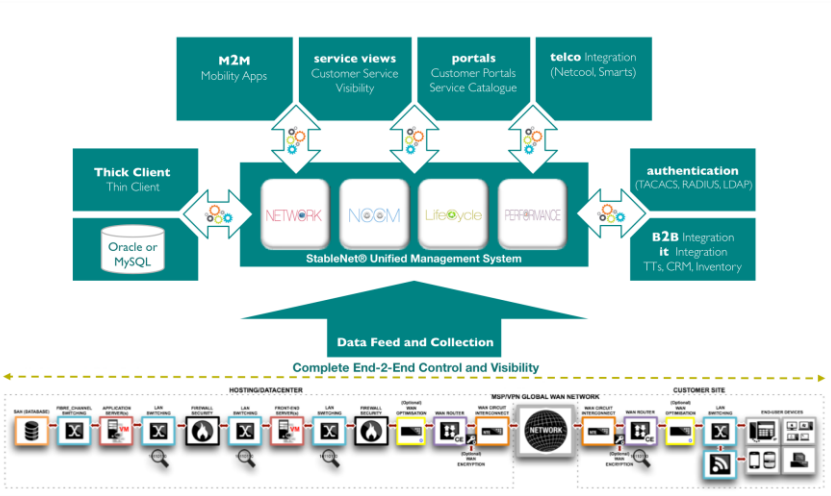

Figure 8. The Differentiated Framework

- **Proactive Service Management** – Achieved through the StableNet® unique Root Cause Analysis (RCA) technology that naturally has a proactive break/fix emphasis that focuses on problem prevention and rapid remediation through self-heal action scripting and triage.
- **ITIL® Alignment** – A key to achieving sustained high-levels of IT infrastructure service availability is to optimize IT management. ITIL® best practices encompass problem, incident, event, change, configuration, lifecycle, inventory, capacity, performance management, and reporting. StableNet® not only fully aligns to all ITIL® best practice standards, it is a unified management system that encapsulates all of the ITIL® best practice IT infrastructure functional capabilities making it a compelling proposition for MSPs and CSPs as it enables rapid transitioning from in-house to provider management with less risk, greater control, and cost efficiency.
- **Consolidated Service Visibility** – Consistent service visibility that provides consolidated views of each service being managed by the service provider. StableNet® provides visibility into the health and performance of each service being managed through the use of service Weather Maps. The service visibility Weather Maps can then be accessed by service teams or specific individuals focused on understanding the performance/customer experience of each service. Consolidated correlated views of service performance and experience can be provided at executive and customer levels for greater transparency and proactive awareness purposes.
- **Multi-vendor Support** – Today's IT infrastructures are typically heterogeneous environments comprised of multi-vendor hardware, software, and networking products. For a service provider this can represent a huge challenge in terms of tooling resource and cost efficiencies. StableNet® solves these challenges with multi-vendor support and unified capabilities thus addressing the cost efficiency and multi-vendor tooling resource requirements.

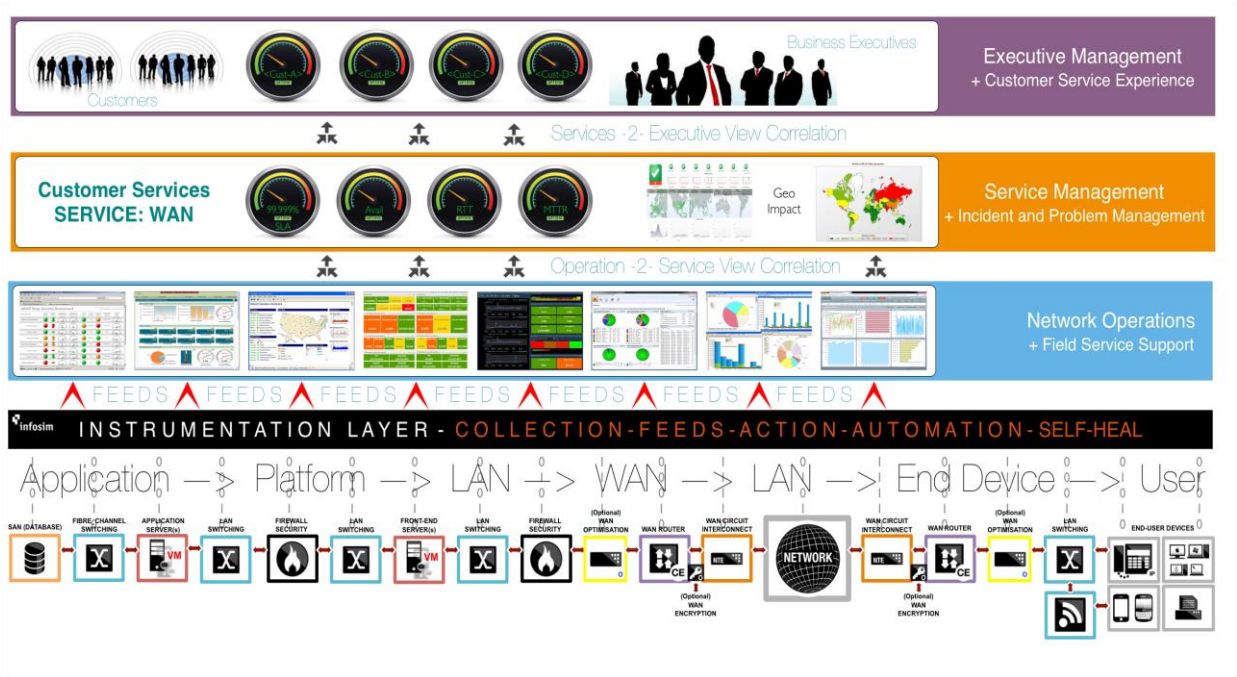

Figure 9. Flexible Customizable Creative Dashboarding

- **Performance-based SLAs** – Performance management clearly rests with the service provider. As a service provider, you will be responsible for meeting your contractual service level commitments. SLA commitments are usually backed up with financial penalties or other service credit recompense if the service levels are not met. Service providers clearly do not want to be in a position whereby penalties are invoked as this erodes margins, destroys credibility, and makes customer retention more difficult. The performance management capability of StableNet® has a very powerful SLA management and reporting feature that is closely integrated with the event and alarm capability to alert the service provider to potential future capacity issues, or SLA threshold breaches, so as to remediate and take action before service level agreements are breached, thus ensuring the customer is proactively notified of potential future bottlenecks, or capacity/performance issues with adequate timescales for controlled timely changes to the infrastructure thus mitigating risk and accurately planning structured upgrades.
- **Service Solution Focused** – Many organizations are finding that service fragmentation is occurring due to having multiple service providers. They are finding this approach is both complex and costly, creates siloed areas of service infrastructure, and hinders agility in making change due to the inflexibility of the environment. In order to differentiate and preserve your future flexibility service providers should start to employ infrastructure management tools that can manage areas of service whereby the infrastructure tooling can be extended, so as to create the necessary visibility customers are now demanding. StableNet® has been designed for exactly this kind of requirement. Through the use of its flexible agent technology extending the reaches of the entire service to visualize the End-to-End infrastructure performance can be realized. StableNet® truly differentiates and compliments a service provider's managed service, its flexibility and enriched capabilities provides customers with an exceptional service experience that enhances service provider customer relationships, drives greater value-add business, and maximizes customer retention.

Managed Service Providers need to look at strategic partnering and sourcing relationships that can assist them with the necessary innovation and transformation alignment of the business strategy. The extensive R&D of StableNet® is also a key attribute in assisting service providers and customers with access to the necessary expertise, assets, and resources to enable and help you develop new business models and market expansion. The Infosim® customer relationship management enables agile flexibility in the development requirements of our customers and partners.

2. StableNet® Unified Network Management – The Intelligent Way to Manage

StableNet® is a 3rd Generation (3G) Unified Network Management System. It is built on Service-Orientated Architect (SOA) and has a flexible integration suite of APIs that allow service providers to build and architect compelling service management propositions that differentiate their service portfolios and provide peace of mind on the assurance, governance and protection of customer contracted SLAs. Service providers using StableNet® today have realized the following benefits:

- Proven differentiator to winning premium customer bids.
- Enables Complete ITIL® Service Alignment across the organization.
- Provides complete infrastructure management control and cost efficiency.
- Greater customer visibility through the portal dashboards.
- Builds greater customer confidence of the service being managed through non-fragmented reporting.
- > Service Availability = < Service Credits & Happy Customers
- Reduced no of calls for information & service requests to the service desks.
- Assists with contract resigns.
- Has proven up-sell capabilities in additional functionality.
- Builds true proactivity through wider visibility.
- Customer feels more empowered & in greater control through visibility & functionality.
- Creates a better working relationship for our customers and their peers.

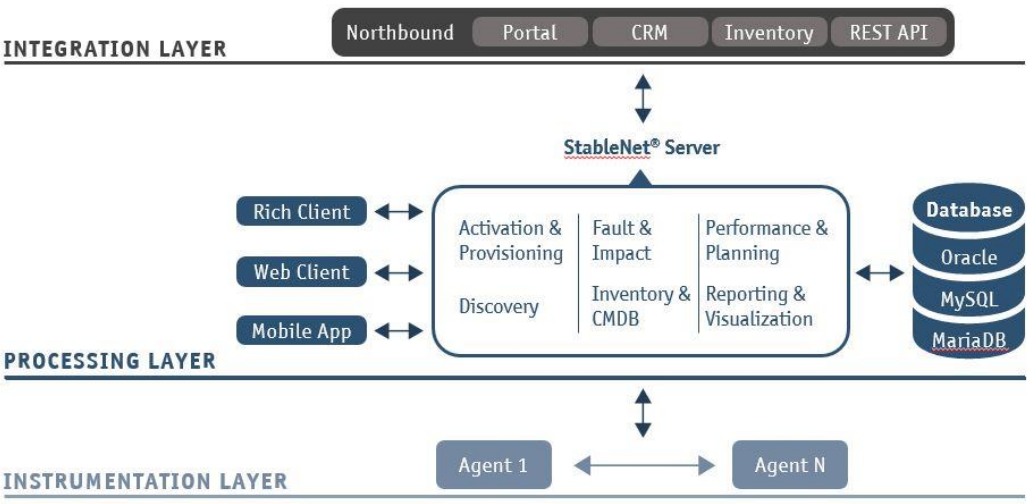

Figure 10. StableNet® Architecture Framework

2.1 About Infosim®

Infosim® is a leading manufacturer of automated Service Fulfillment and Service Assurance solutions for Telcos, ISPs, Managed Service Providers and Corporations. Infosim® develops and markets StableNet®, the leading unified software solution for Fault, Performance, and Configuration Management. StableNet® is available in two versions: Telco (for Telecom Operators and ISPs) and Enterprise (for IT and Managed Service Providers). StableNet® is a single platform unified management solution designed to address today´s many operational and technical challenges of managing distributed and mission-critical IT infrastructures.

2.2 About StableNet®

StableNet® Telco is a comprehensive unified management solution; offerings include: Quad-play, mobile, high-speed Internet, VoIP (IPT, IPCC), IPTV across Carrier Ethernet, Metro Ethernet, MPLS, L2/L3 VPNs, multi-customer VRFs, Cloud and FTTx environments. IPv4 and IPv6 are fully supported.

StableNet® Enterprise is an advanced, unified and scalable network management solution for true End-to-End management of medium to large scale mission-critical IT supported networks with enriched dashboards and detailed service views focused on both network and application services.

StableNet® is a 3rd Generation highly-automated Network Management System. The key differentiation of StableNet® to other legacy type Operational Support Systems (OSS) is that StableNet® is a unified OSS system with three integrated functionalities that focus on Configuration, Fault, and Performance Management, with automated Root Cause Analysis (RCA). StableNet® can be deployed on a multi-tenant, multi-customer or dedicated platform and can be operated in a highly dynamic flex-compute environment.

2.3 Infosim® Total Quality Management

StableNet® is a Total Quality Management solution that enables End-to-End automated Service Fulfillment and Assurance with flexible integration for service catalogue auto-provisioning. The Service-to-Provisioning-to-Customer process significantly reduces the Ready-for-Service (RFS) timescale and as a direct consequence enables Communication/Managed Service Providers (CSPs/MSPs) to reduce the time-to-bill on newly provisioned services thus maximizing revenues, whilst provisioning an automated repeatable quality customer service experience.

Disclaimer

Resources and further Information

Follow the links below for further information about Infosim® and StableNet®.

1. Infosim® Website: www.infosim.net
2. StableNet® Product Sheets: www.infosim.net/resources/product-sheets
3. StableNet® Case Studies: www.infosim.net/resources/case-studies
4. StableNet® Industry Reports: www.infosim.net/resources/industry-reports
5. StableNet® White Papers: www.infosim.net/resources/white-papers
6. StableNet® Solution Briefs: www.infosim.net/resources/solution-briefs
7. StableNet® Proof of Concept: www.infosim.net/resources/proof-of-concept
8. StableNet® Webinars: www.infosim.net/resources/webinars
9. StableNet® Videos: www.infosim.net/resources/videos
10. StableNet® Request Trial: www.infosim.net/support/trial

For any additional information, demonstrations or webinar requests: www.infosim.net/about/contact

EMEA (Headquarter)
Infosim GmbH & Co. KG
Friedrich-Bergius-Ring 15
97076 Würzburg
Germany
+49 931 20592 200
info@infosim.net
www.infosim.net

AMERICAS
Infosim, Inc.
3721 Executive Center Drive
Bldg 11, Suite 215
Austin, Tx 78731
+1 512 696 5711
info@infosim.net
www.infosim.net

APAC
Infosim Asia Pacific Pte Ltd.
8 Ubi Road 2
#08-04 Zervex
408538 Singapore
+65 6562 8286
info@asia.infosim.net
www.infosim.net