White Paper

Sterlite Tech

Managed Network Services

If Sterlite Tech has to realize its 10X dream, it is extremely important to enable a seamless broadband delivery with highly efficient telecom networks for our customers globally.

With Sterlite Tech receiving the APO for BSNL Wi-Fi, it is a matter of pride that we now have a fully integrated telecom solutions offering with products, services, software and applications. These projects will be executed through our partners but service support of 10 years+ during warranty and AMC will be critical for successful completion of all mandatory obligations and closure of projects.

The whitepaper talks about how these services can be effectively managed and throw light on the managed services models, how to choose a managed network services provider, best practices criteria for choosing an MSP, types of managed network services, challenges, advantages etc.

Introduction

Managed services are the practice of transferring day-to-day related management responsibility as a strategic method for improved, effective and efficient in built operations. Service providers have offered their business customers managed services for broadband connections,VPNs, security services, and IP communications for years. Managed network services are typically offered by a managed services provider (MSP) on a subscription basis, with some fee that reflects the network services, bandwidth, number of users, equipment, and service level agreement (SLA) performance levels covered by the customer contract.

The MSP staff monitors the health and availability of the subscriber's network equipment and services to ensure they operate smoothly and securely. A managed services provider also offers a single point of contact for network trouble reports and a fulltime help desk for user support.

What is a Managed Service Model?

A Managed Services model allows an organization to outsource the management, operations and delivery of processes effectively to lower the total cost of the business. This model is attractive to organizations as the pricing structure is based on regular monthly/ quarterly billing around service levels and volumes, rather than per diem fees associated with staff augmentation

Apart from this the most attractive reasons for organizations to adopt a managed service model is that the supplier assumes the risk of transition and future operations based on an agreed, committed scope and tenure. This is contrasted by the loss of control and possible security issues in a staff augmentation model.

However, like any pricing model one need to watch out for the following risks associated with this model and ensure that they are handled appropriately before signing the contract. The key risks include:

a) Ability to define and monitor service levels - Since the model heavily relies on service levels, it is a must that organizations should have ability to generate and monitor these service levels. Inability of an organization to monitor service level may result in a vendor overcharging due to lack of transparency

b) Single vendor dependency - Once a vendor is ingrained in the organization, they may be reluctant to increase scope.

c) May lead to loss of in-house capability.

How to move to a Managed Service Model?

Moving to a managed service will involve a systemic change in an organizations operating model. The organization needs to follow a four step process in order to implement the managed service model.

The below figure shows how these basic services support more advanced services and the typical large enterprise places in the network: headquarters, branch office, and remote access.

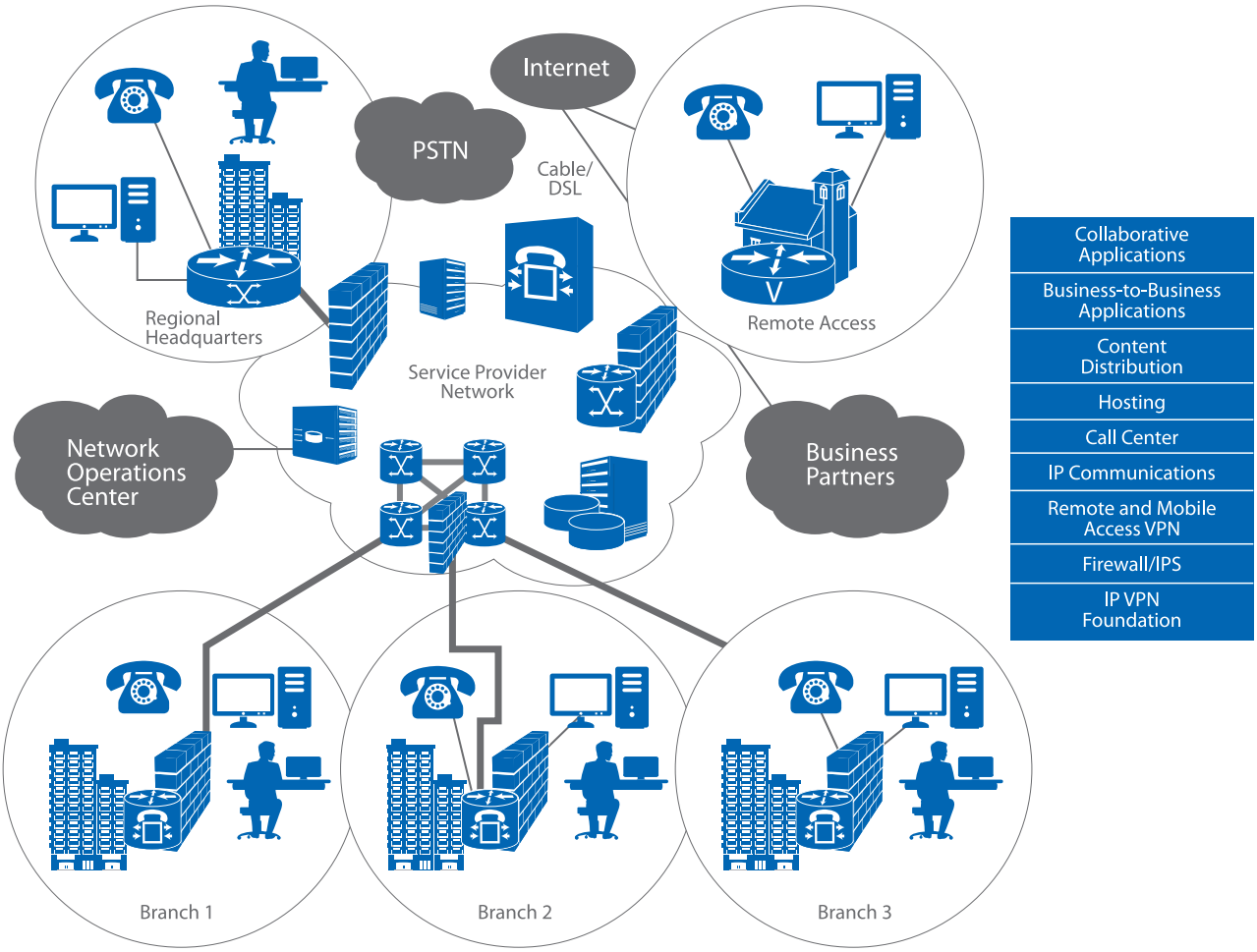
Best Practices Criteria for Choosing an MSP

When searching for an MSP, you will likely find several companies to consider. How do you evaluate these providers and their service offerings to make the best choice? The following best practices provide helpful decision-making criteria.

Service Offerings: The MSP should focus on understanding your unique service needs and meeting them with a business orientation that goes beyond offering all customers a "cookie cutter"solution. The provider should offer network connectivity in a variety of access speeds from DSL to DS3, allowing you to select the right speed for each user or remote location. The broadband access service should offer a high-speed "always on" connection in a nationwide connectivity solution that is easy to deploy, manage, and support. The MSP should also offer business-class hosted voice services in a range of equipment and feature packages with low start-up costs and affordable monthly fees. To ensure superior quality on voice calls, the MSP should maintain high QoS levels for voice traffic and guaranteed levels of service uptime.

Network, Voice and Security Operations Capabilities: The service provider should support and proactively monitor its data, voice, and security services on a 24/7/365 basis from multiple redundant Network Operations

Step 1 - Define 3 S Scope, SLA and Sourcing Strategy	Step 2 - Source Vendors	Step 3 - Transition	Step 4 - Governance
• Confirm organization's outsourcing objective-efficiently, enhancement or transformation • Define scope of service appropriate to managed services • Assess internal vendor mamagement competencies • Define key SLA's and the mechanism to capture & track • Evaluate potential service providers in the market	• Shortlist vendors based on organizations key objectives • Circulate Request for Information (RFI) • Invite vendors for detailed capability presentation • Citculate Request for Proposal (RFD) • Negotiate • Sign contract	• Create a transition roadmap - Includes transition requirements, vendor transition methodology and transition schedule • Knowledge transfer - For each application and areas • Shadow support - New vendor "observers" while internal / staff aug. acts as primary • Primary support - New vendor takes over applications • Steady state - New SLA in place	• Organisational comminication and change management • Establish supplier governance framework • Monito supplier's performance with respect to SLA during contract lifecycle • Target continous process and SLA improvement



Centers (NOCs) and Security Operations Centers (SOCs). A dedicated support infrastructure ensures that the network services perform to their maximum potential, and that customers receive timely and responsive technical support. The provider should also give customers complete visibility into network status and performance via a Web-based customer information portal, so great service is extended to self-service capabilities.

Certified Professionals and Industry Partnerships: Delivering high-quality managed network services requires highly knowledgeable and skilled network professionals, as well as partnerships with leading equipment and network capacity vendors. Ask a potential MSP about the professional certifications held by its employees and its participation in vendor partnership programs.

The Importance of Service Level Agreements: Service Level Agreements (SLAs) are a valuable tool for assessing how well a managed services provider maintains high levels of network performance and availability. These measurements guarantee overall network uptime, as well as response and resolution times for network problems. For greater confidence in the provider's performance, look for an MSP that backs its SLAs with customer credits when targets are missed.

How does Managed Network Services help?

In a managed network services

solution, we outsource the day-to day operation and management of your network to a managed services provider. Outsourced network management offers a viable option for most communications services, including:

- **Network connections:** Broadband Internet access—including T1, bonded T1, business Ethernet, DS3, DSL, cable, and wireless broadband
- **Remote access:** Virtual private networks (VPNs) based on Secure Sockets Layer (SSL) and Multiprotocol Label Switching (MPLS) that use the Internet to provide remote sites and users with secure access to an internal business network.
- **Voice:** Carrying voice and data traffic on the same circuits.
- **Network security:** Comprehensive management of security elements to mitigate network intrusions, attacks, viruses, spam, and other threats

A managed services provider can consolidate, integrate, and manage all of these network services—giving organizations cost-effective ways to connect their business locations to each other, the Internet, and business partners.

How to zero in on the right Managed Network Services Provider?

After deciding to explore managed services, the next step is finding the right managed network services provider. With so many types of providers offering a range of services and management models, the choices can be confusing. Understanding the different types of service providers is the first step in making the right decision for your organization.

IT managers may initially think of the large telecom carriers as potential managed network services vendors. It is important to note that although large carriers sell hosted network services to small and mid-size businesses; their real focus is on large enterprises networks. Even for large enterprises with geographically-dispersed locations, services, and network needs, the managed network services offered by large carriers may not be the best-fit or the most cost-effective solution.

At the other end of the managed services spectrum are small "boutique" providers that offer hosted services under a Bring Your Own Bandwidth (BYOB) model, where customers arrange for network links and equipment. This model does not provide the benefits of a provider's dedicated MPLS network or support for network-based QoS and managed security services.

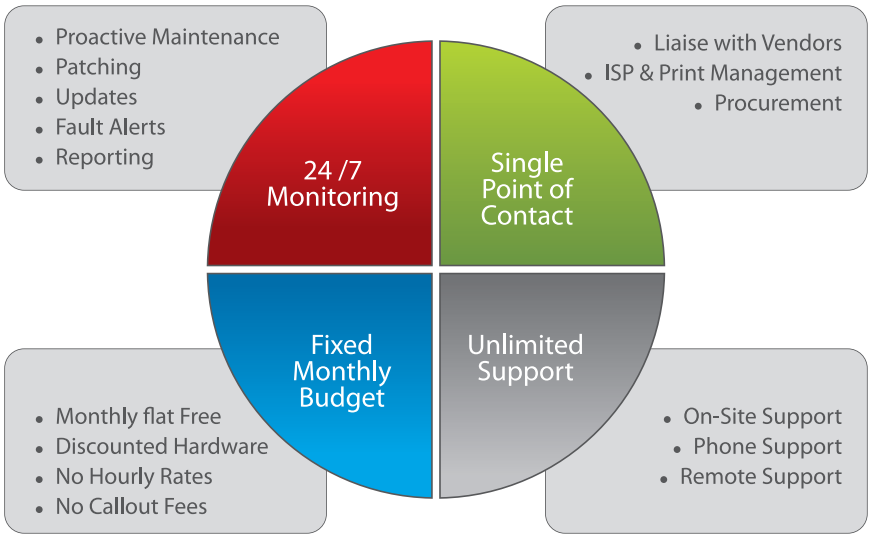
For most organizations, the right MSP can be found in the middle of the spectrum—in an MSP that maintains its own network and offers an extensive array of managed services. With this type of MSP, you can choose if you want fully managed network access, voice or security services, or a combination of individual services that match your business needs and internal network management resources. In addition, this type of MSP can scale its services to fit as your organization's needs evolve.

Conclusion

By outsourcing to an MSP, Sterlite Tech would be achieving increased operational efficiencies while lowering network costs by using managed data, voice and security services. Some of the benefits of relying on a managed services provider include as tabled below:

Criteria	Advantages
Better use of staff	**1.** Allows agencies to focus human resources on strategic planning and core mission support **2.** Access to leading network technologies and management expertise, without high capital expenditures or on-going investments in upgrades
Cost savings	**1.** A single point of contact reduces network costs and simplifies vendor management **2.** Predictable monthly fee for network and management services; pay only for the networking services used **3.** Using outsourced expertise avoids the costs of developing management and reporting capabilities
Simplified Management	**1.** Proactive management of network services through 24/7/365 monitoring of connectivity and equipment, **2.** Automatic fault notification, and responsive trouble management
Ability to use optimal technologies	Adjust types and mix of hardware, software, skilled labour, capital investment and technology to support changes in mission needs
Service Level Agreements (SLAs)	Well-defined SLAs guarantee response and resolution times for network problems to minimize impact on users
Rapid response to organisation and business changes	Supplier is measured by ability to produce solutions
Closure of projects as planed	Timely completions of PO obligations, realisation of payments without penalties and retrieval of BGs

The below figure shows model of managed services could work effectively in Sterlite Tech.



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