Sify:
Hyper Reach Network

July 2020

TABLE OF CONTENTS

Overview of Hyper Reach Network

With the rise in digitalization, increase in mobile users and low cost of the internet in India, deep penetration across geography for the consumption industry, has become critical for all enterprises. Hyper Reach is used to address such requirements for reaching out numerous sites with not so high bandwidth requirement for Cloud-centric traffic. It is primarily focused on enterprises participating in the domestic consumption economy in industries such as banking, insurance, retail (traditional/e-commerce), logistics, manufacturing and distribution.

How to ensure deep penetration across geography?

With digital services reaching every corner, peering between service providers and enterprises enables easy access to content on the internet. Peering facilitates a user experience, with low latency access to some of the widely accessed contents across the globe. Depending on the need, peering can be classified as:

Public Peering:
It's performed across a shared network where multiple carriers interconnect across a single physical port, commonly an internet exchange point or Ethernet switch.

Private Peering:
It's performed by creating a direct physical connection between two networks. It is usually done when large volumes of traffic are exchanged between two specific set of networks.

What enables multi-point network coverage?

Hyper Reach networks typically use enablers like Wireless, Site Connect, Express Connect, Internet Exchanges and Offnet Ecosystems, to make the geographically spread multi-point network coverage possible.

Wireless SMAC
The Hyper Reach wireless networks enable Social, Mobile, Analytics and Cloud (SMAC) for the demands of today's enterprise operation spread. Such a network is designed for robust enterprise connectivity with 'Nil' interference between the Radio Frequencies deployed for multiple customers and operates as access point/router for them. Hyper Reach wireless is scalable and can deliver high throughput with low latencies to the customer site. It helps commission high throughput point to point(s) connectivity within a short span and deliver higher order performance for voice, video and data applications.

Site Connect

Site Connect for Hyper Reach is a VPN service derived as an application for enabling MPLS technology, on the providers network backbone. It provides an end-to-end private communication network that securely interconnects geographically dispersed client locations within India, across the globe or even same cities, forming a robust Intranet which offers the performance, appearance and functionality of a dedicated Private network at a reduced cost.

Express Connect

Express Connect enabled Hyper Reach are primarily used by to connect wholesale carriers, Cloud service providers, Content Delivery Network (CDN) operators, enterprise customers to deliver the high-performance internet connectivity that suits their business. It is an 'always on' direct Internet access service to the Global Internet provided via dedicated ports. Express Connect enables applications such as Extranets, E-commerce, Web hosting, Public VPNs and Internet access for enterprises.

Secure Remote Connect

Offnet ecosystems are specially used to connect branches in remote sites, by utilizing Network inter-connects. They provide a One Stop Network approach, through which a single provider can implement multiple layers of redundant network, in the same branch aggregating to Sify's Core network. Therefore, enterprises need not to invest in Infrastructure, Inter-Connect infrastructure which can be used to deliver the same level of service. It enables delivery of multiple layers of network redundancy for branches where enterprises expect it.

Secure Roam Connect

Enable Mobile workforce to "Work from Anywhere" thereby increasing employee productivity and effectiveness. Secure Roam Connect allows users to securely access Intranet Applications / Corporate VPN without exposing VPN Cloud to public internet. Saving on IT Capex, Secure Roam Connect offers as low as 25 users plan with zero upfront investment and no additional effort required in technology deployment, skill sets and security issues. Seamless deployments are made possible using Sify's Internet / VPN domain expertise to get the solution working in just 24-48 hours.

Why Sify?

Sify Technologies is India's largest and most comprehensive ICT service & solution provider. With Cloud at the core of our solutions portfolio, Sify is focused on the changing ICT requirements of the emerging digital economy and the resultant demands from large, mid and small-sized businesses.

Sify's infrastructure comprising the largest MPLS network, top-of-the-line Data Centers, partnership with global technology majors, vast expertise in business transformation solutions modelled on the Cloud, make us the first choice of start-ups, incoming enterprises and even large enterprises on the verge of a revamp.

Sify is the market leader in the Enterprise MPLS market with over 150K Enterprise edge devices connected on Sify's network. Sify runs the largest MPLS network in the world (Department of Post). Sify's network presence spans 3000+ base stations covering 1600+ Towns. Mission critical networks of RBI and NSE have been delivered by Sify. Sify also has customers outside the country connected through 100+ Network to Network Inter-Connects with multiple Global Tier-1 providers and has customers in 10 countries through Global network partners and Global PoPs.

Additionally, Sify has carrier grade wireless access for hard to reach locations, interconnects with 3rd party telcos for high availability and redundancy, and maximum route diversity, complete with carrier-agnostic network backbone.

At Sify, we aim to provide customer-centric connectivity solutions on the most versatile enterprise network. Key differentiators of our Hyper Reach Wide Area Network are:

3000 + PoPs in 1600 Towns, providing true pan-India coverage

100,000+ operational enterprise customer connects

Maximum Route Diversity, Carrier-Agnostic Network Backbone

Multiple Local Access Options

- Sify's Fiber Access
- Carrier grade wireless access for hard to reach locations
- Interconnects with 3rd party Telco's for high availability and redundancy

More than 10000 businesses across multiple verticals have taken advantage of our unassailable trinity of Data Centres, Networking and Security services and conduct their business seamlessly from more than 1600 Towns in India. Internationally, Sify has a presence across North America, the United Kingdom and Singapore.

Sify's Hyperscale Product Strategy

Hyperscale strategy requires a significant network reach in connecting remote branches to a customer Cloud or a Cloud based application hosted in Data Centers. Developing a fully managed redundant network to fulfill customers' connectivity requirements, even in the remote branches and delivering network resiliency on secured layer is a challenge that any network service provider faces today.

Data Localization and focus of Cloud & Content providers in moving the Application Content closer to the Eyeballs will be the future of Data-centric network services. Data Localization and focus of moving content closer to the Eyeballs, requires an agile Network and Infrastructure strategy to ensure secured & resilient connectivity to remote branches of an Enterprise customer.

Sify's Hyperscale network strategy has been built keeping in mind the agility to scale a secured network beyond the reach of a service provider infrastructure.

Layers of Hyperscale Networks

1. **Sify's Own Infrastructure**
   - 3100+ PoPs covering 1600+ Towns
   - Hierarchically structured network, ensuring redundancy & resiliency on a secured network layer
   - Homegrown Wireless SMAC devices catering to Point 2 Point (P2P) and Point to Multi-Point (P2MP) connectivity options
   - Homegrown network management and monitoring tools ensure remote access & problem-solving skills

2. **Sify's Offnet Infrastructure**
   a. 200+ Network Inter-Connect in Tier-3 and Tier-4 Towns ensuring Sify's reach beyond 1600+ Towns
   b. Aggregation of Inter-Connect networks at Sify's Core PoPs

3. **Remote Branch & Roaming Users**
   a. Aggregated Inter-Connect with all the VSAT service providers, ensuring secured connectivity options, even in remote places like Ladakh & Port Blair.
   b. Gateway Connectivity options for Users on the go. Secured tunnel to MPLS Cloud & Content applications, irrespective of who the service provider is.
   c. Uses the ubiquitous mobile network provided by telecom operators, suits well for remote branches

Sify Hyper Reach portfolio

In line with the essentials and enhancers for the Hyper Reach, Sify has developed its product portfolio for easy and cost-effective solution to connect multiple sites.

Product	Features
Site Connect	- Domestic/Global VPN with L2/L3 services - Full mesh & Hub and Spoke topologies - Carrier Supporting Carrier - Multicast VPN deployments – Tunnel-based and Native Multicast - Compressed Real-time Transport Protocol (RTR) - Secure and managed low latency connectivity - Global locations with High availability - Destination-specific or non-specific - Point to Point or Point to Multi-Point connectivity options
Express Connect	- Dedicated Local access - Redundancy Routing - DNS Services - Dual Homing - Data Localization through Internet Exchange Ecosystem - Reduced Cost of Transit with High Availability
Secure Remote Connect	- Inter-Connect based Service offering - Establishes a secured connect over IPsec or SSL Based tunneling - Fully managed with complete view of monitoring and security - Deterministic network performance connecting to Cloud - Avoids the need for Enterprise to host a dedicated network hardware and spend on maintenance and administration
Secure Roam Connect	- Broadband/SIM based 4G connection turned into a VPN grade service - Highly secure access to roaming users connecting to corporate VPN / Intranet applications seamlessly from anywhere in the world - Multi-access VPN – SSL & IPsec - Web based SSL VPN & Client based IPsec VPN - Connected to Carrier Grade Internet Gateway - Apt for Work from Home Users wanting to connect from 3G/4G/Broadband connection from home to office VPN

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For more information about
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