sify

SD WAN Enablement for Global Network Service Providers Deployments in India

September 2020

Introduction

This document is intended to explain how non-licensed service providers outside of India may extend their own SD-WAN coverage into India, by leveraging a partnership with Sify Technologies Ltd.

This document can be considered as a framework to discuss and cover the various aspects that are required to set up an operating model between a non-licenced Indian Network services provider (partner) and Sify.

With the ongoing accelerated adoption of SD-WAN for enterprise networks across global geographies, the relevance of inter-operability and partnerships to build SD-WAN networks in various countries are quite relevant.

Deploying and operating SD-WAN services in India are broadly governed by the TRAI (Telecom Regulatory Authority of India) and the asset ownership clauses which effectively state that:

i. The WAN services (MPLS / Ethernet services/ DIA services) within the India geography need to be necessarily operated by a Licensed Telecommunication provider in India

ii. There is no regulatory requirement that the SD-WAN controllers need to be physically within the Indian geography – however for compliance requirements for certain customers (a customer requirement to have the control plane for the region to be within India) as well as platform performance aspects – there may be a reason to look at an in-region controller deployment.

iii. Customer premises equipment may only be owned by an organization, which has a registered entity in India

Sify operates its own SD-WAN network based on Versa and the Viptela (now Cisco) platforms. This domestic service is deployed using Universal Customer Premises equipment (uCPE) supplied by Advantech and Silicom. Cisco edge equipment is also supported with the Cisco ISR Series and Viptela software.

With these facts in mind, enabling a partner to extend their own SD-WAN service into India can be fulfilled by Sify providing and maintaining key elements such as the edge hardware and network connection on behalf of the partner. The basis of a service enablement is described as follows.

Universal CPE

a. Hardware assets must be owned by Sify and leased to a partner on a managed services model.

b. Equipment selection is limited to one of the original equipment manufacturers which Sify natively supports. i.e Advantech, Silicom or Cisco. This leverages higher support levels for break-fix which can align with the partner SD-WAN service.

c. Specification should be provided by the partner as bill of quantities (BOQ). Most standard builds are supported nationally across India. Bespoke builds may differ on support levels. Sify can provide the list of support levels available for various cities (within India) upfront.

d. The installation and commissioning, whilst executed by Sify, the operating software and licence must be provided by the Partner. This would typically be executed as part of a staged installation in collaboration with the partner by remotely uploading its own software image.

e. Both parties need to agree upon levels of hardware installation and break fix timeframes that will be guaranteed by Sify.

WAN Network in India

Connectivity to a private network or the public internet must be via a licenced operator. In this case this would be provided by Sify operated, under its telecommunication license. Sify has the capability and experience to provide the network to cater to a very high degree of provider diversity / access diversity, as required.

Gateway Controller (GC)

While the control plane presence in India is not mandated by regulation, the partner may choose to have a control plane in India. This may improve both the service efficiency and maintain low latency communication between the controller and edge devices.

Controllers may be hosted in any of Sify's national facilities of a partner's choosing. Sify can procure virtual appliances based on its infrastructure as a service model as required. Physical appliances may also be hosted in a Sify facility and leased to the partner under a services model. Where appropriate, physical installation and ongoing remote hands support would be provided by Sify.

In either case, depending on the SD-WAN platform which the partner operates the partner maintains full control and ownership of its SD-WAN software and licencing deployments.

Reference Model – GC located outside of India

Partner's SDWAN Manager – Gateway Controllers
- Geographically dispersed
- Orchestration
- Centralised provisioning
- Analytics

Sify - Transport Layer
Supporting multiple transport types
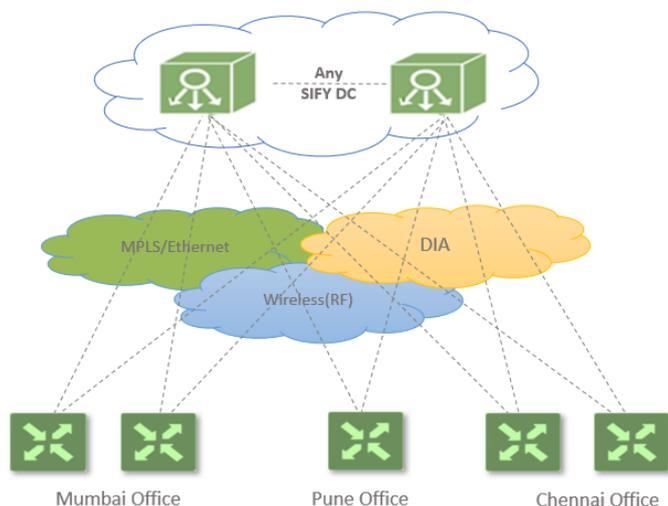- MPLS
- Ethernet
- DIA
- Wireless

Sify - Edge Devices(uCPE)
- Cisco ISR Series
- Viptela
- Advantech
- Silicom

* Software images on uCPE are the responsibility of Partner

This model illustrates the GCs being deployed in geographically dispersed locations globally.

Reference Model – GC Located within India

Sify - SDWAN Manager – Gateway Controllers
- Cloud based SD-WAN architecture
- Hosted in ANY SIFY DC in India
- Orchestration
- Centralised provisioning
- Analytics
* SD-WAN Software is the responsibility of Partner

Sify - Transport Layer
Supporting multiple transport types
- MPLS
- Ethernet
- DIA
- Wireless

Sify - Edge Devices(uCPE)
- Cisco ISR Series
- Viptela
- Advantech
- Silicom

* Software images on uCPE are the responsibility of Partner

GCs can also be deployed in any of the Sify DCs in India. Partners will be responsible for providing the software images for GCs and uCPEs.
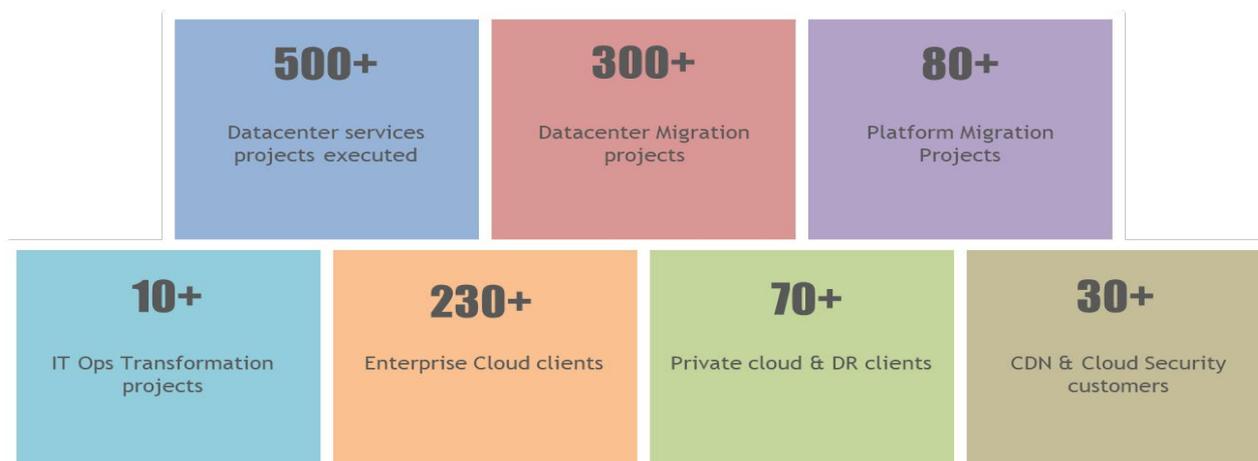
Service Scope

Indicative Scope of work is defined as follows:

- At Sify's discretion, the SD-WAN uCPE device may be shipped from Sify's inventory or directly from the manufacturer.
- As part of the installation function, Sify provides staging of the SD-WAN uCPE device wherein the device is configured and shipped to the designated Site.
- Staging of the uCPE device will be determined as either at a Sify location or on the customer premises by instructions in the Service Order form.
- Installation of the SD-WAN software licenses and operating system software will be procured and performed remotely by the partner.
- Test and call back the SD-WAN configuration as per the design and scope of work agreed with the partner.
- When on customer premises, connect the uCPE device to the network service (Internet or MPLS provided by Sify). Sify ensures that the device is activated and working as required.
- The scope of support and maintenance is limited to:
    i. Onsite investigation and diagnosis of the supplied uCPE; and
    ii. Repair or replacement of uCPE or modules if deemed faulty.
- Any in-building cabling from the network service demarcation point, to the CPE device installation point and additional equipment for extension of power outlets, mounting devices, etc. is considered as out of Sify's scope. Sify may opt to facilitate such work, upon request from the Service Provider, but such services shall be chargeable additionally.

Experienced Resource

The power and strength of any organisation is its staff resource. Sify has a loyal and experienced workforce, recruited from some of brightest talent available. Our staff are

500+ Datacenter services projects executed	**300+** Datacenter Migration projects	**80+** Platform Migration Projects

10+ IT Ops Transformation projects	**230+** Enterprise Cloud clients	**70+** Private cloud & DR clients	**30+** CDN & Cloud Security customers

highly experienced & skilled, and subject matter experts will have been independently certified for the task or roles that they do.

Sify resources by numbers

SIFY Managed CPE Standard T&Cs

1.   All pricing provided is exclusive of applicable taxes.
2.   The contract period for the managed SD-WAN uCPE will be for 1, 3 or 5 years (applicable as per the PO).
3.   The project delivery timelines will be 12 - 14 weeks from the date of Sify's acceptance of a customer PO. Any delays caused due to Customer premises or infrastructure not being ready will result in extension of delivery timelines.
4.   Additional Charges are applicable for any additional cabling requirements.
5.   Any physical hardware damage caused by an end customer will incur hardware charges for replacement of faulty hardware (OTC). Customer has to provide UPS Power and standard earthing for the CPEs.
6.   Early Termination charges are applicable for any services terminated within the contract period.
7.   Any changes to the Solution design and configuration resulting in the uCPE requirement change, will result in revised commercials.
8.   Cancellation or reschedule of site visits within 24 hours' notice from the agreed visit window will incur additional charges.
9.   All Payment will be as per Sify's payment terms and conditions.

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10. Only one site visit (2 Hours) is factored for all on-site deployments. Any additional site visits required will incur additional charges.
11. Installation SOW - basic rack & stack, uploading IOS/config file.
12. Field Engineering services are considered to be during business hours (9 AM - 5.00 PM Local Time).
13. Out of business hours, weekends and holidays will incur additional charges.

About Sify Technologies

We started our journey in 1995 as an internet service operator for our home market in India. NASDAQ listed in 1999 Sify has since grown its vast Data Network and Data Centre operations into a formidable ICT Solutions business. We are an organisation of more than 2,700 people serving over 100,000 clients with revenues of more than US $302M.

Today Sify is one of the largest service providers, systems integrator, and all-in-one network solutions company on the Indian subcontinent. We now have sales and operations globally in Singapore, United States, UAE, and in the UK.

In Europe we set up our sales operations from our London UK HQ in 2016, addressing the Learning Technologies markets as well as growing needs for European Wholesale Service Providers extending their reach into Asia. Sify now provides cost effective turnkey managed solutions for both of these markets, that continue to prosper and develop.

For more information contact us at
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