

# Sify builds a DC – DR Network with Max Resiliency Direct Connect.



## Case Brief

IDFC First Bank is an Indian Banking Company that focuses on serving corporate and private customers in India including the infrastructure sector that IDFC specialized in from its founding in 1997. The bank also aims to provide services to people in rural areas and to the self-employed. IDFC First is characterized by digitization, personalization, and customer-centricity, in addition to extensive physical reach, to achieve customer centric banking services backed by technology and analytics.

Their business focus on Digitalization and specific emphasis on the underserved and first-time borrowers, called for an IT infra that was scalable, dynamic, and secure. This case study focuses on Sify supporting their Digital Transformation as their Network Services Partner.

## The Challenge

- IDFC recently moved a few of their business applications to AWS from their on-Prem DC.
- IDFC First's DC and DR setups sit in two different cities to maintain geo-seismic redundancy. All their branches communicate with their DC to access the business applications. In the case of the DC site going down, the DR site would become the hub for maintaining the continuity of their business operations.
- With the migration of the IT infra from their legacy On-Prem DC to Public Cloud services – AWS, IDFC First has initiated the Phase 1 of their journey to the Cloud.
- As per RBI guidelines, IDFC branches cannot directly access the AWS workloads, therefore, the DC has gateway servers installed to transfer the branch traffic to AWS.
- As a part of the IDFC First's regulatory Compliance the data needed to surpass the Public Internet.
- IDFC First's Network routing Protocols are managed by their IT Team; therefore, they only needed a transport to AWS where the configuration changes were possible without involving the Network Service Provider.
- As these workloads were a part of their daily business operations, IDFC First needed a private network to these workloads with measurable Performance Metrics like latency, jitter and packet drops.

## Sify's GlobalCloudConnect Services

Sify proposed its GlobalCloudConnect (GCC) services over Sify's highly resilient MPLS Network Backbone. GCC, Sify's suite of Cloud Connectivity services, has been designed to keep an enterprise's network as agile as their Cloud. GCC enables enterprises to access their Cloud workloads from their on-premises Datacenters over a secure, deterministic, and reliable network. Thus, allowing enterprises to manage risk and data traffic as per their business needs. Enterprise grade performance networks provided by leveraging the country's one of the largest MPLS backbones and high-performance Datacenter networks makes GlobalCloudConnect a one-stop solution for Cloud Connectivity.

GCC supports AWS Networking services for connecting a customer's On-Prem DC and branch Network to their AWS services. These include support for Dedicated Direct Connect at all Connectivity Nodes, Hosted Direct Connect Services at all connectivity nodes (Delhi and Hyderabad are under implementation), Direct Connect Gateways, Transit Gateways and Transit VPCs. Sify's Internet services support IPSec Tunnel for VPN Networking deployed in cases as backup for DX links.

## IDFC First Bank Limited



IDFC First Bank is an Indian banking company with headquarters in Mumbai that forms part of IDFC, an integrated infrastructure finance company. The bank started operations on 1 October 2015. IDFC FIRST received a universal banking license from the Reserve Bank of India in July 2015. IDFC FIRST Bank was founded by the merger of Erstwhile IDFC Bank and Erstwhile Capital First on December 18, 2018.

## Sify's Solution for Network Connectivity

Key factors for this solution were resiliency, consistency, security, manageability, and cost.

IDFC First's datacenter is co-located at CtrlS DC in Mumbai and the DR site is co-located in STT DC in Ambattur, Chennai. The workloads are hosted in AWS Private VPCs that are accessed by their branches via the DC in Mumbai. The WAN network between the branches and the DC is Managed by multiple Network Services Providers but the Network from their DC and DR sites to AWS and other Public Cloud Service Providers is managed by Sify.

### Implementation Phase 1:

IDFC First's DC in Mumbai was connected to AWS Mumbai using Dedicated Direct Connect Services, as the bandwidth Requirement was 1 Gbps. This was a Layer link that served as a Transport Layer for the bank to manage their Network Configurations. The Layer 2 link was provisioned leveraging Sify's Datacenter Interconnect Metro backbone in Mumbai. This backbone is characterized by a service uptime of 99.9% for the customer and 1+1+R protection to provide a highly resilient link that mitigates outage risks caused by Fiber Flaps, cuts, etc.

IDFC First's DR site in Chennai was connected to AWS Mumbai via the Direct Connect Node in Chennai using Hosted Direct Connect Services because the Bandwidth required for the DR link was 300 Mbps. This, too, was a Layer 2 link provisioned using Sify's NNI with AWS at STT VSB Chennai. To support high resiliency Sify's Datacenter Interconnect backbone was used. The link was provisioned at Chennai to help the customer gain cost advantage – Local loops within Chennai are cheaper than a NLD link to Mumbai.

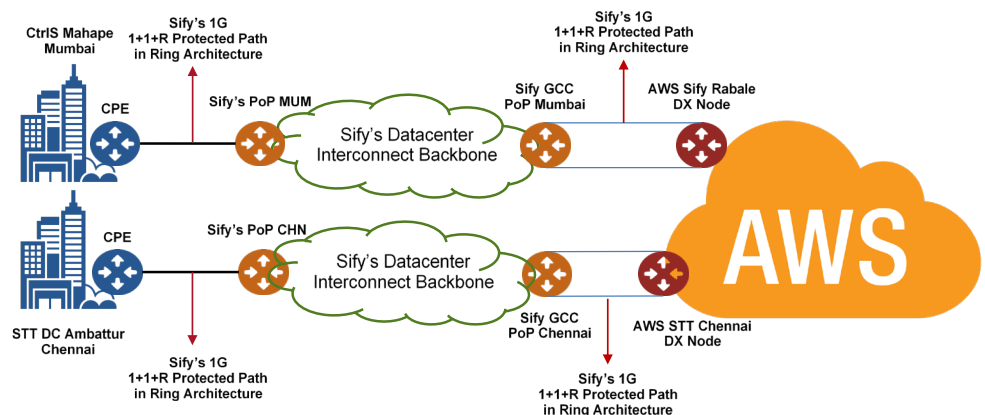
### Implementation Phase 2:

After the successful implementation of the Phase 1 setup, customer evaluated their business continuity plan and reached out to Sify to upgrade the DR link to 1 Gbps. The reason being the increased traffic flow to AWS and symmetric bandwidths at both sites for data flow. To provision the 1 Gbps link Hosted Direct Connect was deprovisioned and a Dedicated Direct Connect was subscribed at 1 Gbps for AWS. This migration was carried out with negligible impact on the customer's link. End – End connectivity, including the cross connect at STT, was deployed and managed by Sify.

Key service design features:

1. Availability Uptime – above 99.95%
2. Layer 2 services powered by a highly resilient Metro Backbone.
3. Compliant with RBI guidelines of security and data transfer.
4. High Resiliency with no single point of failure.
5. Flexible and easy to manage network for the Customer.

The Service Architecture deployed is as follows:



**Please Note:** The customer facility in Chennai (STT Ambattur) is different from AWS's facility in Chennai (STT VSB)



### Result and Benefits

The solution deployed for IDFC First Bank helped achieve the following objectives:

1. Successful Migration of their Business Applications to AWS private VPCs.
2. Highly secure, performance deterministic network between their on-prem Datacenter and AWS workloads without a single point of failure with an uptime of higher than or equal to 99.95%.
3. Ease of Network Management with the flexibility to manage their own Network configurations and performance reports.
4. Protected Layer 2 Services over Sify's Datacenter Interconnect backbone with a network latency under 2ms for each link on the Sify's Network. This does not include the uptime and latency experienced by the customer on AWS's network between Chennai and Mumbai.
5. Cost benefits provided by savings on the DR setup by provisioning the link in Chennai and leveraging the active passive setup.

Currently, we are working with IDFC as to upgrade their infrastructure to 10Gbps for the DC link in Mumbai.

### Sify Technologies

Sify Technologies, a Fortune 500 India company, is India's most comprehensive ICT service and solution provider, offering capabilities focused on cloud, data centre, networks, digital services, security, and systems integration. Operating one of India's largest MPLS networks, Sify owns 10 data centres and has another 48 interconnected data centres. Its network spans more than 3,100 points of presence covering more than 1,600 cities. With its Cloud@core portfolio of services, Sify is helping customers pursue their digital ambition with greater agility, flexibility, and choice.

