

# CAPABILITY PRESENTATION TO SAINT GOBAIN

July '18



# AGENDA

- 01** INTRODUCING SIFY
- 02** DATA CENTER AND CLOUD TRANSFORMATION CAPABILITIES
- 03** NETWORK SERVICES TRANSFORMATION CAPABILITIES
- 04** SECURITY SERVICE ENGAGEMENT MODELS
- 05** TOOLS & AUTOMATION CAPABILITIES
- 06** WHY SIFY FOR SAINT GOBAIN



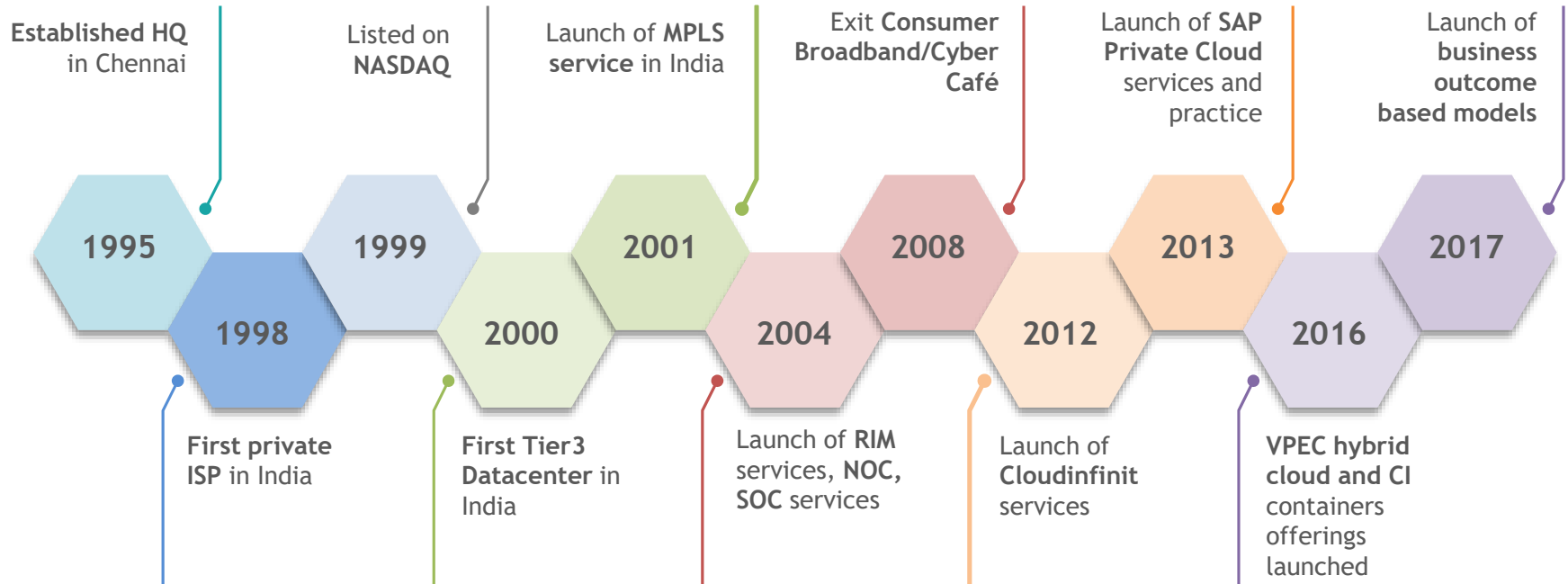
The SIFY logo is located in the top right corner of the image. It consists of the word "sify" in a lowercase, green, sans-serif font, with a small registered trademark symbol (®) to its upper right. The logo is set against a white, rounded rectangular background.

sify®

The text "INTRODUCING SIFY" is centered within a white horizontal band that spans the width of the image. The text is in a bold, dark blue, uppercase, sans-serif font. The background of the band features a faint, light-colored pattern of stylized leaves and branches, which is more prominent on the left side of the image.

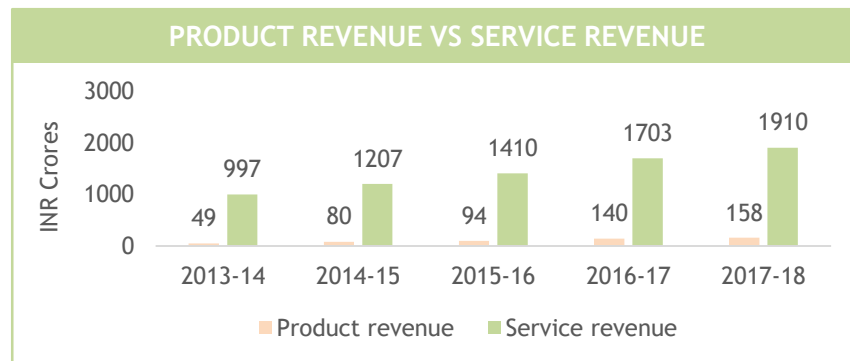
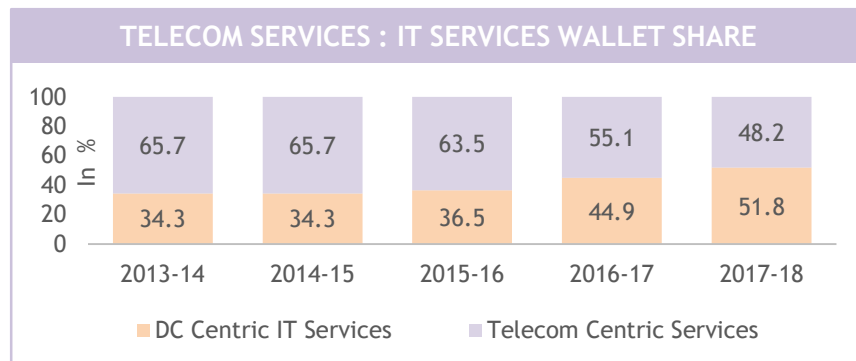
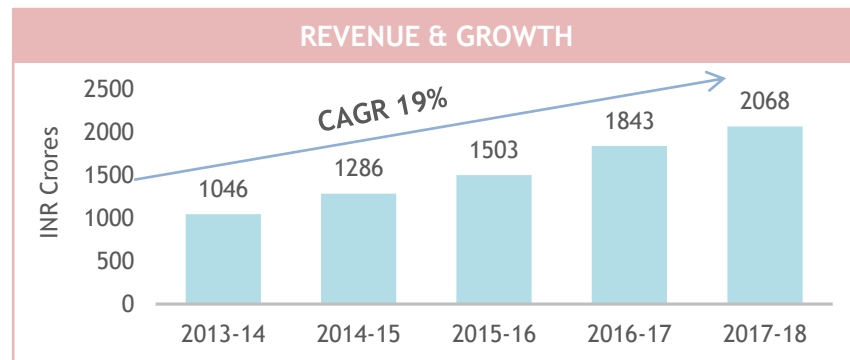
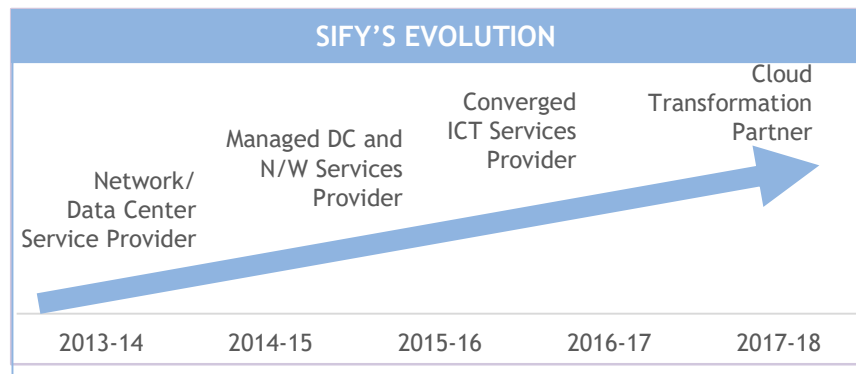
**INTRODUCING SIFY**

# SIFY'S JOURNEY SO FAR...



Sify has surfed the wave of technology disruption from its inception

# SIFY FINANCIALS





**35%+**  
Revenue from BFSI

## Data center Services



**300+** data center services projects executed in BFSI



**50+ & counting**  
Marquee logos in BFSI

Data center migration & transition projects executed

**100+** BFSI Private

**80+** BFSI PSU

Security services projects executed

**35+** SOC Services

**25+** Security Engagements

**20+** Security Projects

## Network Services



**15+**  
network & transformation project executed

## Network Services



**10000+**  
Public sector Bank offices



**5000+**  
Co-operative bank offices



**4500+**  
Private bank offices



**3000+**  
Public sector Insurance co. offices

# SIFY'S INVESTMENT IN DIGITAL AGE TECHNOLOGY



## TREND

Increased adoption of cloud services



Outcome focussed managed services



Increasing demand for Utility models



Increasing play for service providers



Converged services for IT & Telecom



## INVESTMENT

- Increase in number of cloud DCs from 4 to 6
  - Two new cloud DCs are under implementation; 100% growth in capacity by 2020
  - Cloud and Software Defined Network Orchestration IP developed by Sify
- 
- Service catalogue based Managed Services
  - Outcome focussed KPI driven SLA
- 
- All services delivered as pay-per-use in the following models
    - Component Aligned
    - Usage Aligned
    - Business Outcome Aligned
- 
- Competence built up of Service Provider-led transformation in areas such as Network Integration, Hybrid Cloud & DC outsourcing
- 
- Investment in all areas of ICT: Datacentre/Cloud, Network, IoT, Applications in service provider model built around productized services and delivered on utility models
-

# ICT SERVICES LED TRANSFORMATION LEADERSHIP IN BFSI (1/2)



**DC/ DR & CLOUD  
TRANSFORMATION**



- Transformation of DC & DR along with Infrastructure refresh
- Migration to Sify Data Center and Managed Services.



- Transform and private build cloud - Hyper converged infra for DC & DR. Migrate workloads to Private Cloud & Managed Services.



- Transform and build private cloud & Managed Services.



- Transformation of DC & DR along with Infrastructure refresh, virtualization & cloud set-up. Migration of applications from existing physical to virtualized environment and Managed Services.



- Consolidation and Refresh of infra for hosting the core insurance application & Managed Services.



- Strategic Green Field Data Centre / Disaster Recovery Site Build + Migration + Managed Services for 5 years.



- Hybrid Infrastructure - Private Cloud and Public Cloud - Sify CloudInfinitt and AWS



# ICT SERVICES LED TRANSFORMATION LEADERSHIP IN BFSI (2/2)



## NETWORK TRANSFORMATION



Design, supply, integration, operations and management of 44 RBI locations, 10 datacentres and 300+ Member banks secured network infrastructure in an outsourced model.



Design, implementation, integration, migration, operations and management of private network providing connectivity to members across the nation.



Design, integration, operations and management of 3,500 locations secured multi tower IT infrastructure in a managed services model.



Design, implementation, integration, operations and optimization of Security Operations Center solutions incl. SIEM, PIM, DLP, VAPT across DC & DR



Design, implementation, integration, operations and optimization of Security Operations Center supporting 30000 EPS & 1000 devices

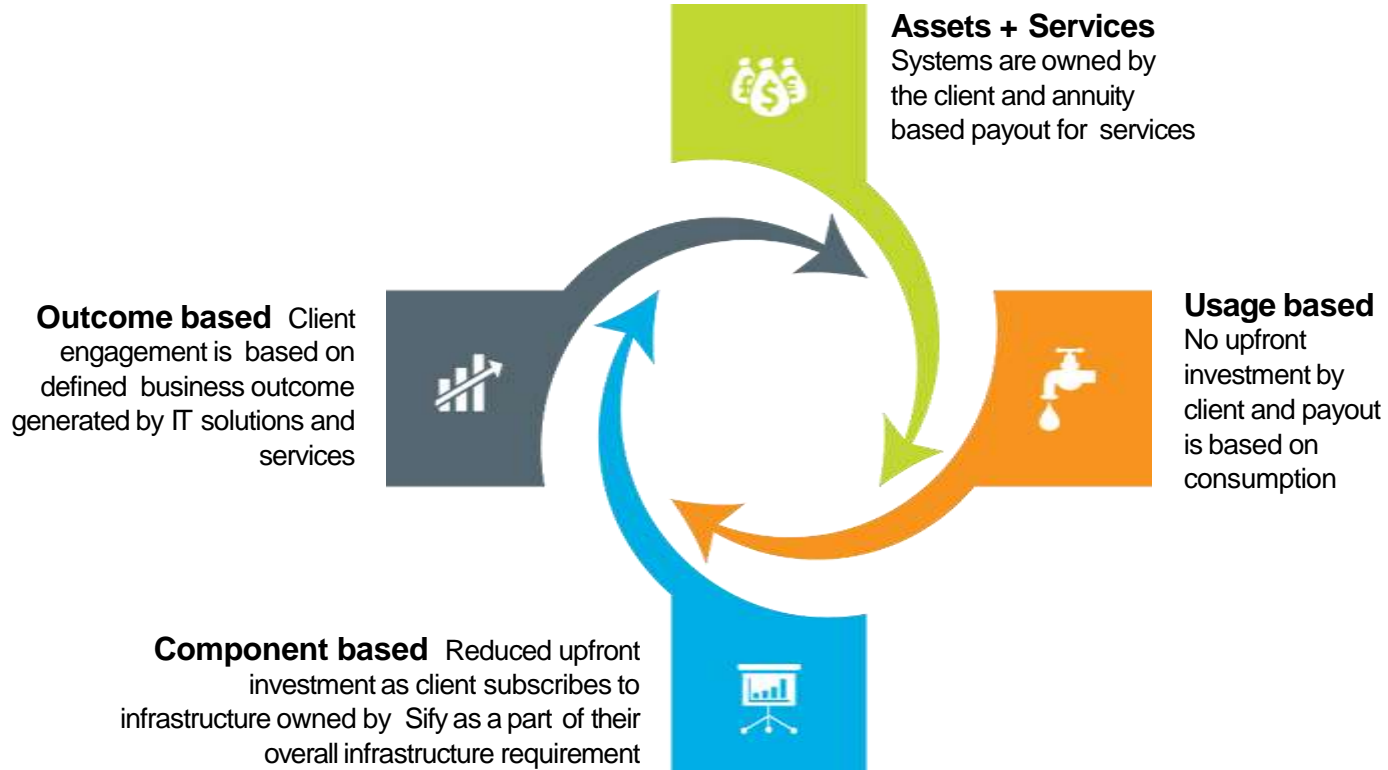


Design, implementation, integration, operations and optimization of Security Operations Center solutions incl. PIM, DLP, VAPT, AV, MDM, AD, APT etc. across DC & DR



## SECURITY TRANSFORMATION

# OUR ENGAGEMENT MODELS



# EXECUTION CAPABILITIES



## LARGE DATA CENTER TRANSFORMATION PROJECTS

Preferred over players like IBM, Wipro, HCL & TCS



## LARGE NETWORK TRANSFORMATION PROJECTS

Preferred over players like IBM, Wipro, Dimension Data, Tata Communications & Airtel



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## LARGE SECURITY SOLUTIONS PROJECTS

Preferred over players like Wipro, IBM, Dimension Data and Tata Communications



## BUSINESS OUTCOME BASED MODELS

Preferred over players like: TCS, Wipro, Netmagic



# STRATEGIC PARTNERSHIPS



## Technology Partners



## Cloud and Acceleration Partners



## Application Partners



## Security Partners



# OUR PEOPLE CAPABILITIES AND STRENGTHS



**550+**

DATA CENTER AND  
MANAGED SERVICES

**1800+**

NETWORK  
SERVICES

**70+**

SECURITY  
SERVICES

**225+**

APPLICATION  
SERVICES



## ALIGNED TO OUR CUSTOMERS' CLOUD TRANSFORMATION PURSUIT



### CLOUD ENABLING

- Cloud DC
- Hyper reach/Hyper scale transport  
Oracle FastConnect | ExpressRoute | DirectConnect | Partner Interconnect
- Software Defined Network services
- Cloud build  
Private | Hypercovered | Enterprise
- Security services for cloud
- Migration and Implementation services



### CLOUD INSPIRED

- Sify CloudInfinitt
  - Enterprise Multi-Tenant
  - Dedicated
  - Hosted SAP/S4 HANA
  - Azure Stack as a Service
- Edge Connect Services
- SD-WAN
- Collaboration services on Cloud



### CLOUD PURE

- AWS
- Azure
- OCI
- GCP
- Multi Cloud Management platform & services



### CLOUD ENHANCED

- Modern Applications
- Kubernetes-as-a-Service
- AI/ML
- Forum DIGITAL
- HCM Digital (iTest)
- Learning Management
- Internet-of-Things (IOT)
- Industry Solution-as-a-Service

## **DATA CENTER AND CLOUD TRANSFORMATION CAPABILITIES**



# DATA CENTER AND CLOUD SERVICES DRIVEN INFRASTRUCTURE TRANSFORMATION PARTNER



## Data center experience

- Over 250 man-years of experience in Data Centre build & operations
- Designed and built 12 Tier III DC's in India with 2 lakhs + sq. ft.
- Hosting major Enterprises, Govt, PSU, Global Cloud and Content Providers

## Cloud experience

- Own Cloud Orchestration & Management IP which is hosting 300+ customers
- Implemented Hybrid Managed Cloud for 100+ organizations
- MeitY certified CSP, STQC audit completed

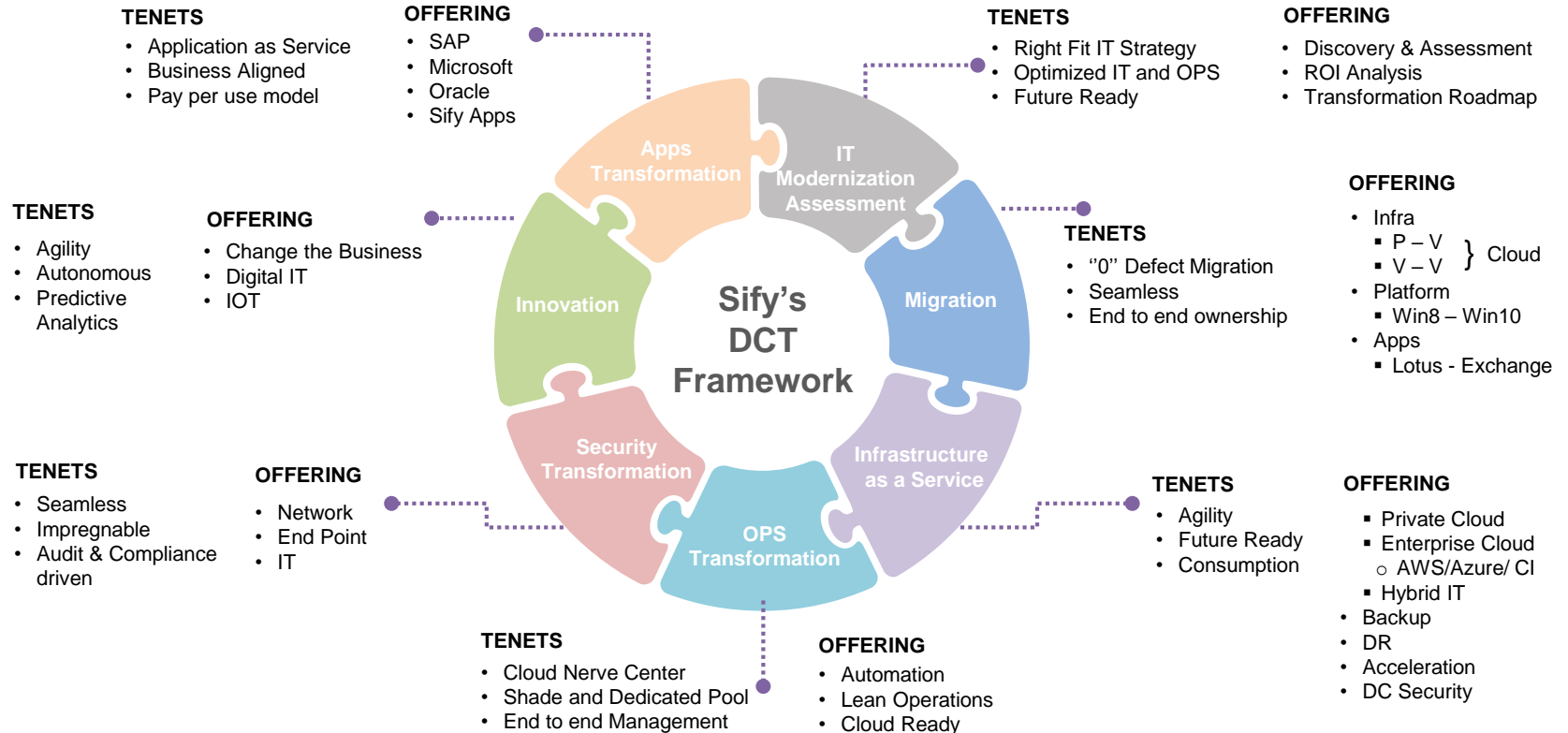
## DC IT and technology integration experience

- Extensive experience in delivering end-to-end Data Centre services from design, implementation, operations
- In house team of 400+ skilled and certified resources to deliver projects

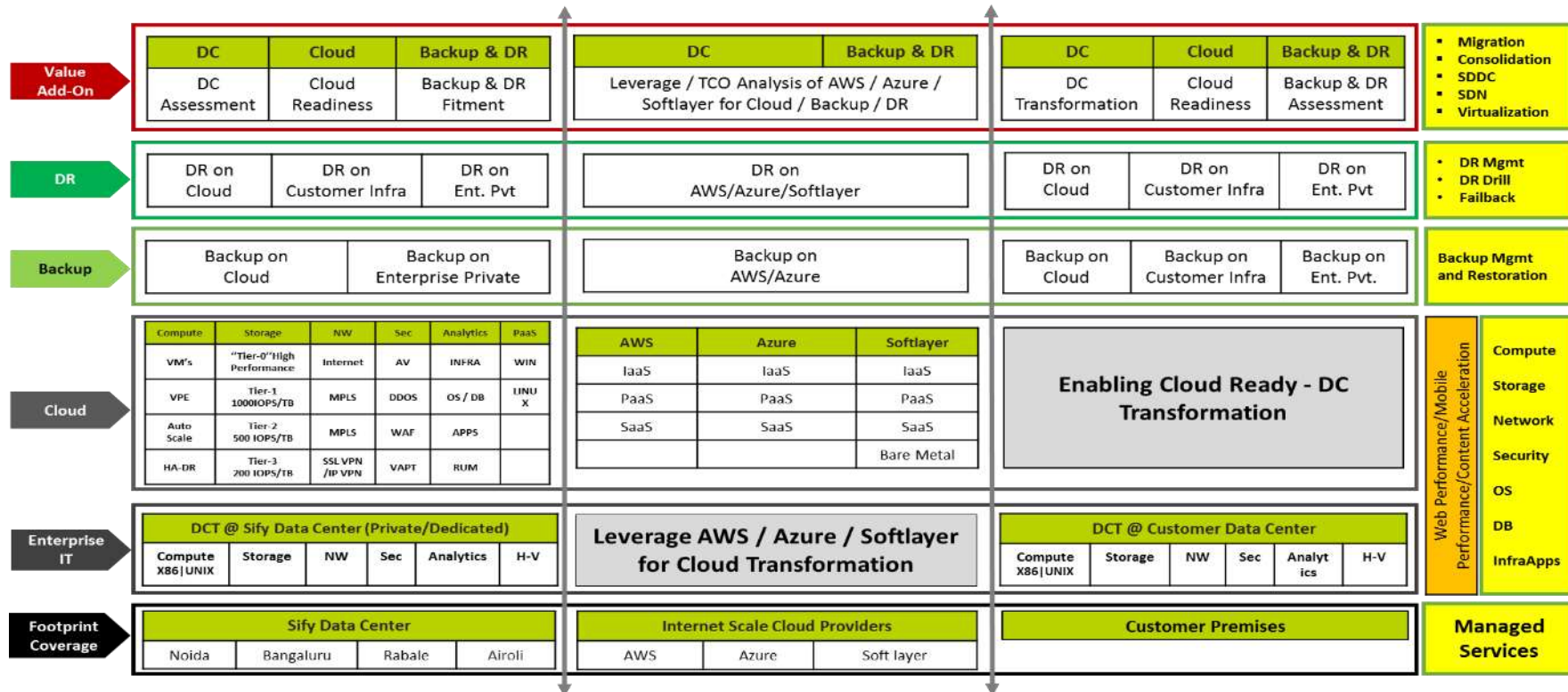
## Service provider experience

- Experience of providing IAAS/PAAS/DRAAS (300+ customers) on our Sify Cloudinfinite platform
- Our Cloud services offer industry-leading SLAs with guaranteed 99.95% uptime

# OUR DATA CENTER TRANSFORMATION FRAMEWORK



# DATA CENTER TRANSFORMATION ALIGNED SERVICES



# DR SERVICES: MODELS



## ON-PREMISE

- DRaaS
- DR Services through Sify's Pre-validated architecture and tools to fulfil required SLAs
- DR Build
  - DR delivery model build as per Customer environment and Business Demand
- DR Consultation
- Complete Assessment of environment to decide backup / DR Strategy
- Managed Services
  - DR Support Services for Customer's Existing/new Setup



## SIFY CLOUD

- DRaaS
- Pay-As-You-Go Disaster Recovery as a Service
- Protect the security and continuity of critical IT service delivery



## SIFY COLOCATION

- DRaaS
  - Pay-As-You-Go Disaster Recovery as a Service
  - Protect the security and continuity of critical IT service delivery.
- DR Build
  - DR delivery model build as per Customer environment and Business Demand
- Managed Services
  - Regular Backup & DR Support services | Profile/policy administration



## PUBLIC CLOUD (AWS/ AZURE)

- DRaaS
  - Pay-As-You-Go Disaster Recovery as a Service
  - Protect the security and continuity of critical IT service delivery.
- Protect, replicate, recover & convert seamlessly
- DR Build
  - DR delivery model build as per Customer environment and Business Demand

# DR SERVICES - GOINFINIT RECOVER



## KEY REFERENCES - PRIVATE (BFSI) (1/2)



VERTICAL	REFERENCE CUSTOMERS	TRANSITION	DC/DR HOSTING	DC IT INFRA/ PRIVATE CLOUD	DR IT INFRA/DRAAS	CLOUD	MANAGED SERVICES
Financial Institutions and Insurance	Max Bupa	✓	✓	✓	✓	✓	✓
	LIC housing finance corporation	✓	✓	✓	✓	✓	✓
	GIC Housing Finance	✗	✓	✗	✓	✓	✓
	Max Life	✓	✓	✗	✗	✓	✓
	Shriram Value Services Pvt Ltd	✗	✓	✗	✗	✗	✓
	DHFL	✓	✓	✓	✗	✓	✓
	Sonata Finance	✗	✓	✗	✗	✗	✓
	Muthoot Fincorp	✗	✓	✗	✗	✗	✓
	Hinduja Leyland	✗	✓	✗	✗	✗	✓
	Home Credit India Finance Pvt Ltd	✗	✓	✗	✗	✗	✗
Payment Gateway	India Post Payment Bank	✗	✓	✓	✓	✗	✓
	Paytm	✗	✓	✗	✗	✗	✗
	Amazon Pay	✗	✓	✗	✗	✗	✓

## KEY REFERENCES - PRIVATE (BFSI) (2/2)



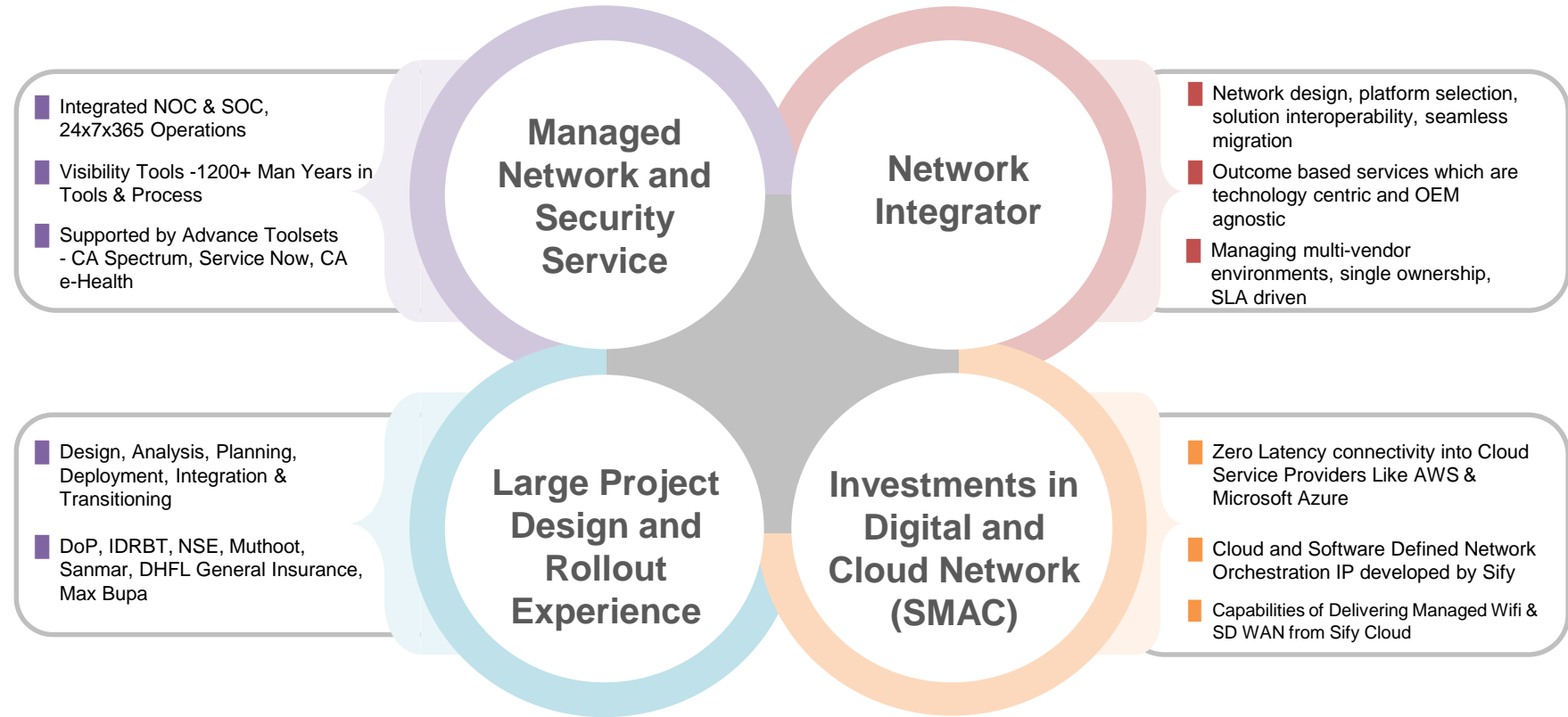
Vertical	Reference Customers	Transition	DC/DR Hosting	DC IT Infra/ Private Cloud	DR IT Infra/DRaaS	Cloud	Managed Services
Banking	Indialdeas.com Ltd (BillDesk Payment Gateway)	✓	✓	✗	✓	✓	✗
	The Thane District Central Co-op Bank Ltd.	✓	✗	✓	✓	✗	✓
	Fedbank Financial Services Ltd.	✓	✓	✗	✗	✓	✓
	Bombay Mercantile Bank	✓	✓	✓	✓	✓	✓
	Axis Bank	✓	✓	✗	✓	✗	✗
	J&K Bank	✓	✓	✗	✗	✗	✗
	Yes Bank	✗	✗	✗	✓	✗	✗
	The Hindustan Co-op Bank Ltd.	✓	✓	✓	✓	✗	✓
	Corporation Bank	✗	✓	✗	✗	✗	✗
	The Nagaland State Co-operative Bank Ltd.	✗	✗	✓	✓	✗	✓
	Bassein Catholic Co-operative Bank	✓	✓	✓	✓	✓	✓
Citizen Co-operative Bank	✓	✓	✗	✓	✓	✓	

The background of the slide features a collage of images. On the left, there are vertical panels with intricate, light-colored floral and leaf patterns on a brownish-gold background. On the right, there is a photograph of a modern office hallway with glass-walled rooms, recessed ceiling lights, and a dark blue carpet. In the bottom right corner, there are several green indoor plants in a wooden planter box.

## **NETWORK SERVICES TRANSFORMATION CAPABILITIES**



# NETWORK SERVICES TRANSFORMATION PARTNER



# NETWORK SERVICES - KEY STRENGTH

## Design Experience

- Inhouse engineering design team of Service Provider class network (Sify + Customer Networks)
- Experience of high availability and scale centric network design

## Deployment integration and transition

- Over 2 decades of Large Network Deployment, Integration and Transitioning experience
- Some marquee Large projects like DoP, IDRBT, Muthoot, New India Assurance

## Operation and maintenance

- Project Management, Operations with a Field Team of 1300+ Trained Engineers on the field manning 400 POP Location
- Deploy Personnel for Field & NOC Operations, Fault, Change & Vendor Management

## Service provider management

- 360 degree engagement with all carriers (buy, deploy, manage and sell)
- 99.9995% uptime on backbone achieved on the network

## NOC, SOC and Systems experience

- Integrated NoC and SOC operations for the last 12+ years
- Over 600 customers in dedicated/shared or hybrid mode of management
- Visibility tools - 1200+ Man Years Experience in Tools & Process

## Mature alliance and relationship with global leaders

- Sify Service Provider IP Network is built on Cisco Technologies (For last 2 decades)
- Many firsts Cisco technology implementation - CSR/WAAS/GETVPN/Optical 100G
- Over 200+ POP routers of the same family inhouse managed by Sify
- Sify Public & Private Cloud Setup on HP, Sify Storage on IBM Flash , Sify SAP ECC/HANA Platform on Cisco

# OUR NETWORK MANAGED SERVICES & OPERATIONS CAPABILITIES



## Integrated NoC and SoC

- 24x7x365 Operations
- Adherence to ITIL Framework supported by advanced toolsets
- Deployment of industry standard tools
- *CA Spectrum, CA eHealth, ServiceNow*
- *Detailed CRM Workflows in Oracle*
- *Customer Portal for near-real time view and reporting dashboards*
- Expertise in aligning to customer-owned monitoring & ticketing tools
- Expertise in API integration for infra-tools

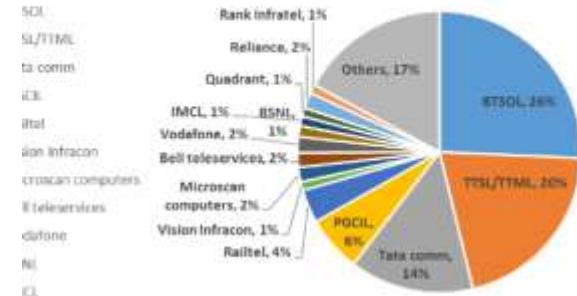
## Scale of Operations

- Over 600 managed Enterprise customers
- 1.35 Lacs+ Enterprise connections implemented
- 76,000+ managed customer links
- 44,650+ managed CPE
- Experience of managing Carrier Network Infrastructure

## Service Provider Management

- Engagement with over 10 NLD providers for backbone communication
- Collaboration with BSNL/MTNL, Bharti, Tata Communications, Vodafone, Reliance, PowerGrid, RailTel
- 360 degree carrier engagement
- Experience of managing multiple physical access media

Sify- Backbone and Network Suppliers Share



# OUR NETWORK EXPERTISE & SKILL SET



	Total Resources	Technical skill sets	Other Training
Network engineering and solution	47	CCNA + CCNP + CCIE	
SDN CoE	32	Dec Ops, Scripting, Tools, Network Management, ITIL	
Central NoC	150	CCNA + CCNP	
Service operations	40	CCNA + ITIL	
Service operations - Field	1317		Internal Training
PMO and project managers	32	PMP Prince and CCNA	
SDM	177		Internal Training
Service desk	115	ITIL	Internal Training
Infrastructure operations	80	CCNA	Internal Training

## Deep Engineering Expertise

- Deep Cisco expertise-CCNA, CCIE
- Integrated SDN CoE
- Advanced L2/L3 Engg
- L1 teams trained in FLT on diverse media
- Experience in deployment of Hybrid Management models

## Project Management

- PMI framework-based Project governance
- Dedicated Project team for planning & Control
- Integrated tools to track, monitor and report on the project
- Dedicated Project Execution team and logistic teams

## Extensive Field Teams

- 1300+ trained engineers on field, covering over 400 manned locations
- Project teams that deliver customer centric projects

## Business Relationship Management

- Extensive Quarterly Business & Service Reviews
- Proactive solution & service enhancement recommendations
- Proactive Network cost optimization

# SIFY'S MANAGED SERVICES - DIGITAL DISTRIBUTION ARCHITECTURE



	NETWORK MANAGEMENT	SERVICE MANAGEMENT
SLAS	<ul style="list-style-type: none"><li>• Network Uptime</li><li>• Link Uptime</li><li>• End-to-End Latency</li></ul>	<ul style="list-style-type: none"><li>• Response &amp; Resolution Times</li><li>• Change Management</li><li>• Capacity &amp; Utilization</li></ul>
SCOPE	<ul style="list-style-type: none"><li>• 24*7*365 monitoring of Network Infrastructure.</li><li>• Incident, Problem and Change Management.</li><li>• Software version and updates</li><li>• Spares and service support</li><li>• Inventory management</li><li>• Network configuration and change.</li><li>• Capacity and Availability management</li></ul>	<ul style="list-style-type: none"><li>• Tools for Network monitoring and performance management.</li><li>• Tools for tickets, support and reports</li><li>• Change, Incident and Problem records.</li><li>• Uptime/SLA and capacity reports.</li><li>• Provide monitoring feeds and reports to exchange.</li><li>• Periodic and on-demand reports on network health and ticket resolutions.</li></ul>

# WAN TRANSFORMATION WITH SIFY MANAGED SDWAN



- Deliver Customer Value, Not Just Cost Efficiency
- Unify Managed services
- Key enabler for Digital transformation

## AGILE & FLEXIBLE



- Carrier agnostic Overlay architecture.
- Multi-transport support.
- Centralized control & Monitoring.
- Unique topologies per segment.
- Encryption, segmentation and service chains
- Cloud off-ramping

## APPLICATION CENTRIC



- Application aware routing.
- Application based policies.
- Application visibility & recognition.
- Real-time enforcement of App SLA.
- Centralized policy control.

## PERFORMANCE AWARE



- Continuous quality assessment.& path liveness
- Consolidates multi provider WAN as a single fabric.
- Faster convergence of application traffic.
- Bandwidth augmentation with Active/Active utilization.
- TCP optimization

## SOFTWARE BASED



- Software platforms enabling physical or virtual CPE.
- Zero touch provisioning.
- Centralized configuration.
- Agility for operations with analytics.
- Interoperable with legacy.

# SIFY MANAGED SDWAN: VALUE PROPOSITIONS

## 1 Connectivity-centric to App centric

Discover, understand needs and manage performance

## 2 Cloud Enablement

Facilitate & manage performance

## 3 Difficult to simplified operations

Automation, programmability, consolidation and agility

## 4 Inflexible to Flexible

Hybrid WAN, Topologies, Physical/Virtual, convergence

## 5 Visibility & Analytics

Behaviours, Trends and feedback loops

## 6 Security

Cloud perimeter branch and user security.

Managed services to drive efficiencies, lead engagements through insights and value beyond cost economics.

# SIFY MANAGED SD WAN COMPONENTS



## BRANCH INFRA



### SD-WAN CPE

- Data plane component
- Deployed in each site to terminate WAN links - internet and MPLS
- Available as hardware appliance model or in VM form factor
- Standalone or HA deployment (Active-Standby)
- Various bandwidth subscription models

## CENTRALIZED CLOUD INFRA

### CONTROLLER



- Control plane component
- Deployed in DC/DR
- High availability mode
- Complete discovery of WAN
  - CPE devices
  - WAN links
- Enables discovery of other spoke sites and prefix exchange
- Facilitates in IPSEC key exchange and establishment

### DIRECTOR



- Management plane component
- Deployed in DC/DR
- High availability mode
- Initial on-boarding of CPE
- Configuration of WAN
- Link configuration
- IPSEC configuration
- Dynamic and performance routing
- App aware routing
- Northbound API

### ANALYTICS

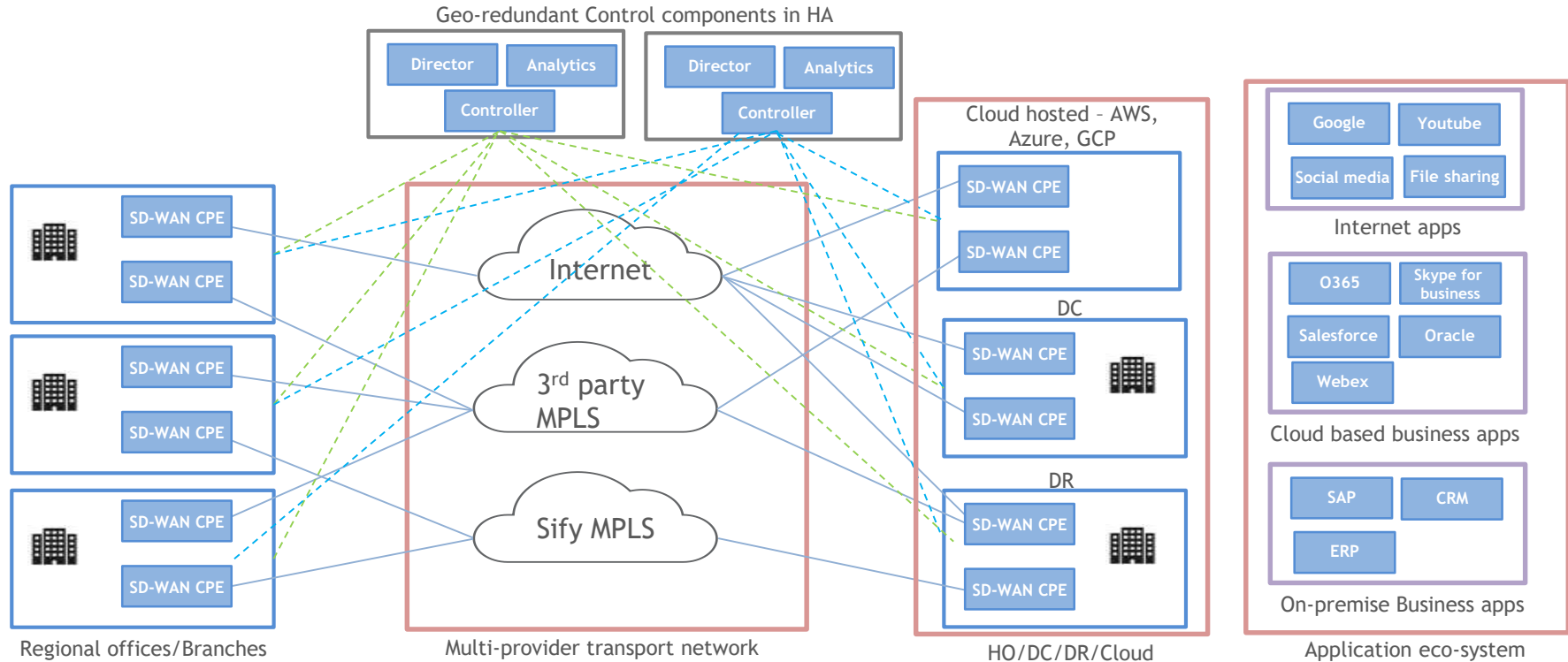


- Management plane component
- Deployed in DC/DR
- High availability mode
- Gathers visibility and reporting data of WAN
- CPE health and link monitoring
- Application fingerprinting
- Granular reporting - per site, per app, per user, user to app to WAN mapping

NOC SERVICES



# TYPICAL ENTERPRISE SD-WAN TOPOLOGY



# SIFY MANAGED SD-WAN FEATURES



## Transport independence

- MPLS
- Internet
- 3G/LTE
- DSL

## Any to any IPSEC VPN

- Native IPSEC VPN support
- Any to any IPSEC VPN between sites
- Automatic rekeying
- PSK and PKI support

## Real time performance monitoring

- Synthetic and inline measurement
- Uni-directional and bi-directional
- Latency, loss, jitter and MOS
- Identify performance issues on end to end WAN paths

## App visibility & app aware routing

- App and sub-app discovery
- Custom app fingerprinting
- Application performance based path selection

## Effective WAN load balancing

- Across multiple WAN types
- Active-Active
- Active-Standby
- Per flow and per packet

## WAN optimization

- FEC
- Packet striping
- Packet replication
- TCP optimization
- App optimization - in roadmaps

## Management

- Zero touch provisioning
- 2FA
- Template based configuration - similar sites, feature wise

## Visibility

- CPE health - CPU, RAM, IO
- Availability report - Site and link
- Link statistics
- End to end path performance
- App and sub-app performance
- Per link, per site, per app analysis

## Security

- Stateful firewall
- Web filtering
- IPS/IDS
- Anti-virus
- Segmentation and multi-VRF

## Subscription tier licensing and Cloud support

- Bandwidth and Feature based
- Pay as you grow model
- Public cloud presence - Azure, AWS

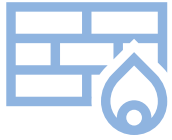
## Centralized controller

- Cloud based
- Geo-redundant HA mode
- IPSEC and Routing control plane
- Configuration, monitoring and analytics
- Multi-tenancy

## CPE

- White labelled device
- x86 based appliance
- Virtual appliance - ESXi and KVM
- Universal CPE

# SIFY MANAGED SD-WAN SECURITY FEATURES



## Stateful firewall

- L3 and L4 based stateful firewall
- Zone based firewall
- Application level gateway



## URL filtering

- Local lookup - faster processing
- Master central repository lookup
- Category, reputation, whitelist/blacklist, User-ID based integration
- Actions - deny, allow, inspect, bandwidth control, time of day, HTTP redirect to captive portal
- Security package updates - refresh local URL DB



## SSL inspection

- Inspect various attributes of SSL certificates and enforces security policy
- SSL inspection policy
- Expired SSL certificates
- Untrusted issuers
- Restrict cert extensions
- Unsupported ciphers/key lengths/versions
- Action
- Drop, allow, reject client, reject server



## Anti-virus

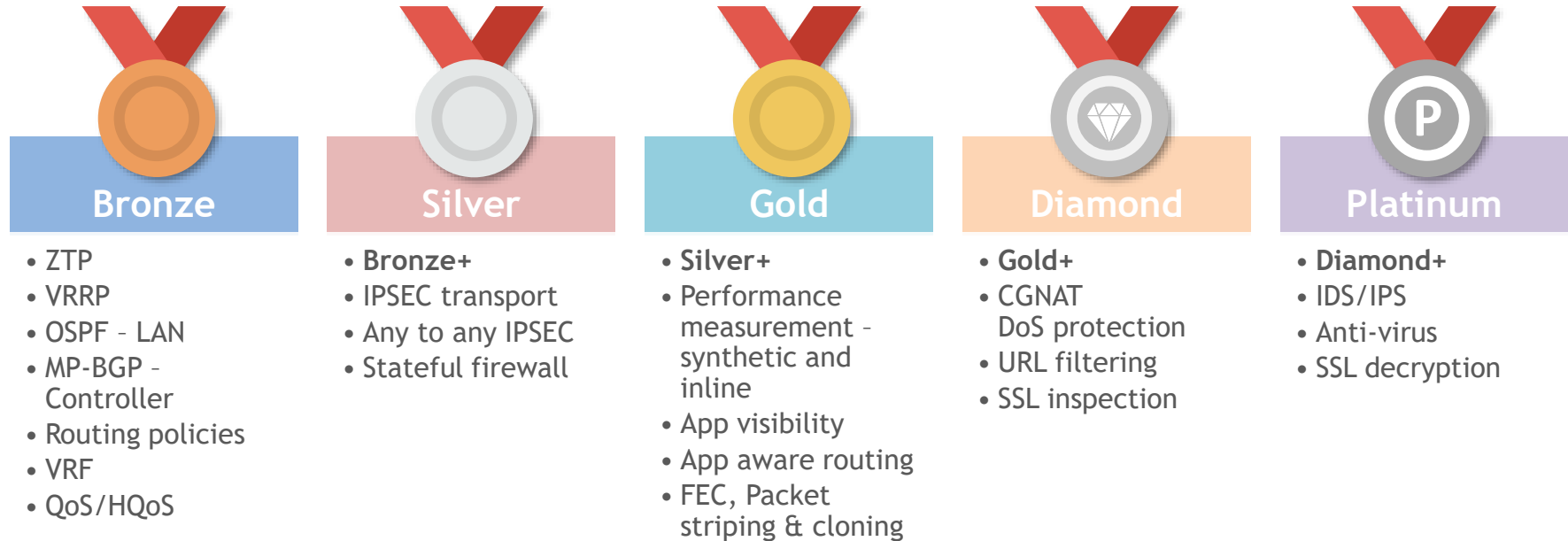
- Blocks unwanted apps
- Prevent malware and exploits into the network
- Signature, heuristics
- Signature based file type - FTP, HTTP, SMTP, POP3, IMAP



## IDS/IPS

- Blocks known and unknown network and application vulnerability
- Protocol anomaly, protocol decoder, heuristics based, malformed packets, Fragmentation attacks, signature based, custom vulnerability signatures
- Integrated DoS mitigation
- DoS profiles - Syn, ICMP and UDP flood

# SIFY MANAGED SD-WAN: SUBSCRIPTION TIERS



# NETWORK REFERENCES & TRANSFORMATION CAPABILITIES



Customer	Network Design	Network Build/Integration	Network Managed Services	Bandwidth Service Provider	Network Security	Network consolidation transformation	SDN	Managed Wifi
Department of Post	✓	✓	✓	✓	✗	✓	✗	✗
IDRBT	✓	✓	✓	✓	✓	✓	✗	✗
National Stock Exchange	✓	✓	✓	✓	✗	✓	✓	✗
New India Assurance	✓	✓	✓	✓	✗	✓	✗	✗
Oriental Insurance Company	✗	✗	✓	✓	✗	✗	✗	✗
Syndicate Bank	✗	✗	✓	✓	✗	✗	✗	✗
United Commercial Bank	✗	✗	✓	✓	✗	✗	✗	✗
United Bank of India	✗	✗	✓	✓	✗	✓	✗	✓
Oriental Bank of Commerce	✗	✗	✓	✓	✗	✗	✗	✓
Muthoot Fincorp	✓	✓	✓	✓	✗	✓	✗	✗
City Union Bank	✗	✗	✗	✓	✗	✗	✗	✗
Indian Overseas Bank	✗	✗	✓	✓	✗	✗	✗	✗

A white horizontal banner with a blue border contains the title 'SECURITY SERVICE ENGAGEMENT MODEL' in a bold, dark blue, uppercase, sans-serif font. The background of the slide is a photograph of a modern office hallway with decorative wall panels and indoor plants.

# OUR SECURITY SERVICES ENGAGEMENT MODELS



## Stage-1 Study, Assess, Develop & Report

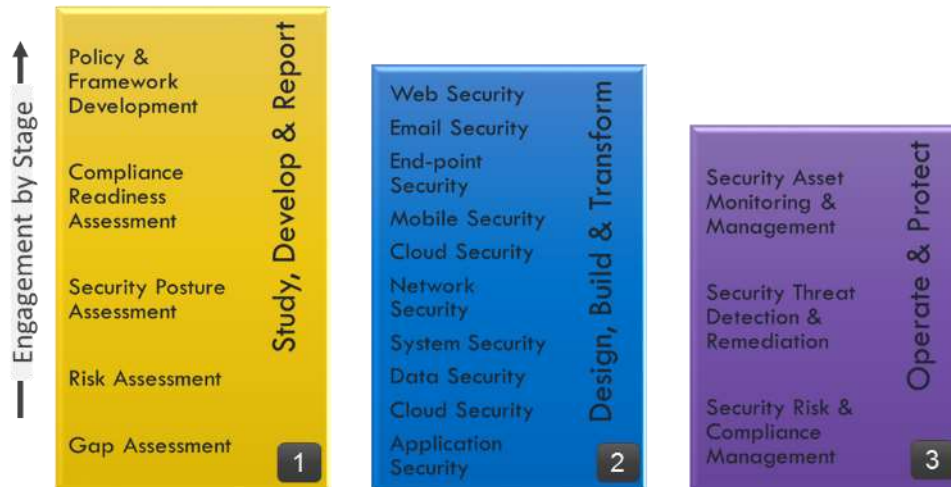
- Consultative Approach to take lead in an opportunity
- Gain visibility by way of assessment; position the right fit solution

## Stage-2 Design, Supply, Build & Transform

- Design and build security solution for customer business problem
- Add Sify's transformation and migration services

## Stage-3 Operate & Protect

- Security Asset Monitoring and Management
- Security Threat Assessment and Response
- Enable compliance with suitable standards



# SIFY DDoS CAPABILITIES



## Hybrid Solutions

Cloud based (volumetric attack protection)

On-premise (application layer protection)



## Geographic distribution

Scrubbing centres are located close to the attack origin



## Industry expertise

Own gateways  
Protecting a service which is a core offering for nearly 2 decades

← End-to-End Management & Mitigation →



# SECURITY SERVICES EXECUTION PROOF POINTS



Reference Customers	Information Security Consulting	Security Transformation	Professional Services	Security Operations	Incident Response	Solution Landscape
Syndicate Bank	✓	✓	✓	✓	✓	SIEM, PIM, DLP,VA PT, Network Forensics,
UBI	✓	✓	✓	✓	✓	AV, DLP,Web Security, PIM, MDM, AD, APT, DDOS, WAF
DHFL	✓	✓	✓	✗	✗	SIEM,WAF,DAM,PIM,DLP
CBI	✓	✓	✓	✓	✓	SIEM
PSB	✓	✓	✓	✓	✓	SIEM, PIM, WAF, APT
PNB	✓	✓	✓	✓	✗	DLP, PIM, Config Management
BOI	✓	✓	✓	✗	✗	Threat Protection
Max Bupa	✓	✓	✓	✓	✓	SOC, APT, Firewall, DRM
ONGC	✓	✓	✓	✗	✗	Web Security, Firewalls
IOCL	✓	✓	✓	✗	✗	Firewall, Web Security, SLB
NTPC	✓	✓	✓	✗	✗	SIEM, NIPS, PIM,

## TOOLS & AUTOMATION CAPABILITIES

# OUR TOOLS AND AUTOMATION CAPABILITIES



## APPLICATION MONITORING

- SAP
- Microsoft Exchange
- IBM WebSphere
- Apache Tomcat
- Microsoft IIS
- JBoss
- SharePoint
- Sybase EAServer
- Lotus Notes
- MS Lync
- MS Active Directory
- Oracle WebLogic

## VIRTUALIZATION MONITORING

- VMware
- Citrix XenServer
- Microsoft Hyper-V
- Oracle Solaris Zones
- IBM PowerVM
- Red Hat Enterprise Virtualization

## BIG DATA & CUSTOM APPS

- Hadoop, Cassandra, Mongo DB
- Customizable packages for open source applications or in house applications

## SERVER MONITORING

- Microsoft Windows Server
- Linux/Unix
  - Solaris, AIX, HP-UX, Linux, Sinix, Tru64 UNIX, Red Hat
- Cisco Unified Computing System (UCS)
- IBM Power Systems
- Novell Open Enterprise Server

## NETWORK MONITORING

- Router and Switch
- Network Response Time
- Cisco QoS
- Cisco IP SLA
- Flow Analysis

## STORAGE MONITORING

- EMC
- IBM System Storage
- NetApp
- Hitachi

## CLOUD MONITORING

- Private
  - Flexpod, Vblock
- Public
  - Amazon, Rackspace, MS Azure, Google App Engine, Google Apps, SFDC CRM
- Citrix CloudPlatform
- vCloud
- Cloud Monitor (Websites)

## DATABASE MONITORING

- Oracle DB
- Microsoft SQL Server
- Informix
- IBM DB2
- MySQL
- Sybase

## SERVICE DESK AS SERVICE

- Provide Service Desk in Multitenant Model

## VOIP / VDI MONITORING

- Cisco VoIP
- Citrix XenDesktop / XenApp

# OUR TOOLS AND AUTOMATION CAPABILITIES



## UNIFIED MONITORING OF PUBLIC AND PRIVATE IT ENVIRONMENTS

### FEATURES

- Multitenancy
- Dashboard & Reports
- Distributed Architecture
- Unified Trending
- Visual Alarms & Reporting
- Email Alerting
- 3<sup>rd</sup> Party Integration (Service Now for ITSM )
- Agent and Agent less Monitoring
- UMP (Portal ) available via Mobile

### Dashboards and Reporting

### Service Levels

### End User Response Time

### Performance and Availability

### Events and Faults

### WHAT CAN WE MONITOR

- Application Monitoring
- Server Monitoring
- Cloud Monitoring
- Virtualization Monitoring
- Database Monitoring
- Storage Monitoring.
- Data Center Monitoring
- Main Frame Monitoring
- Response Time Monitoring
- Big Data Monitoring
- Basic Network Monitoring



Power Efficiency



Network LAN & WAN



Server Physical & Virtual



Database IT & Business

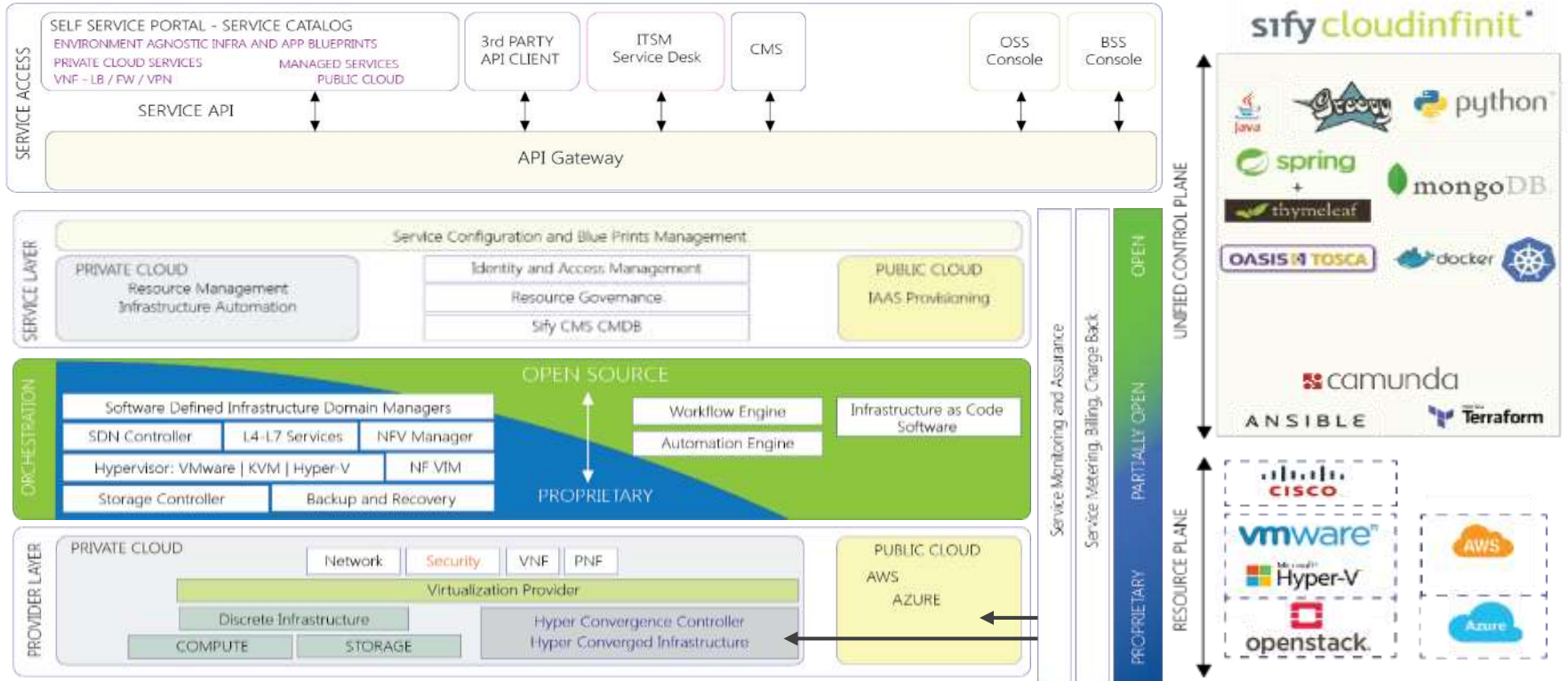


Application Commercial & Custom

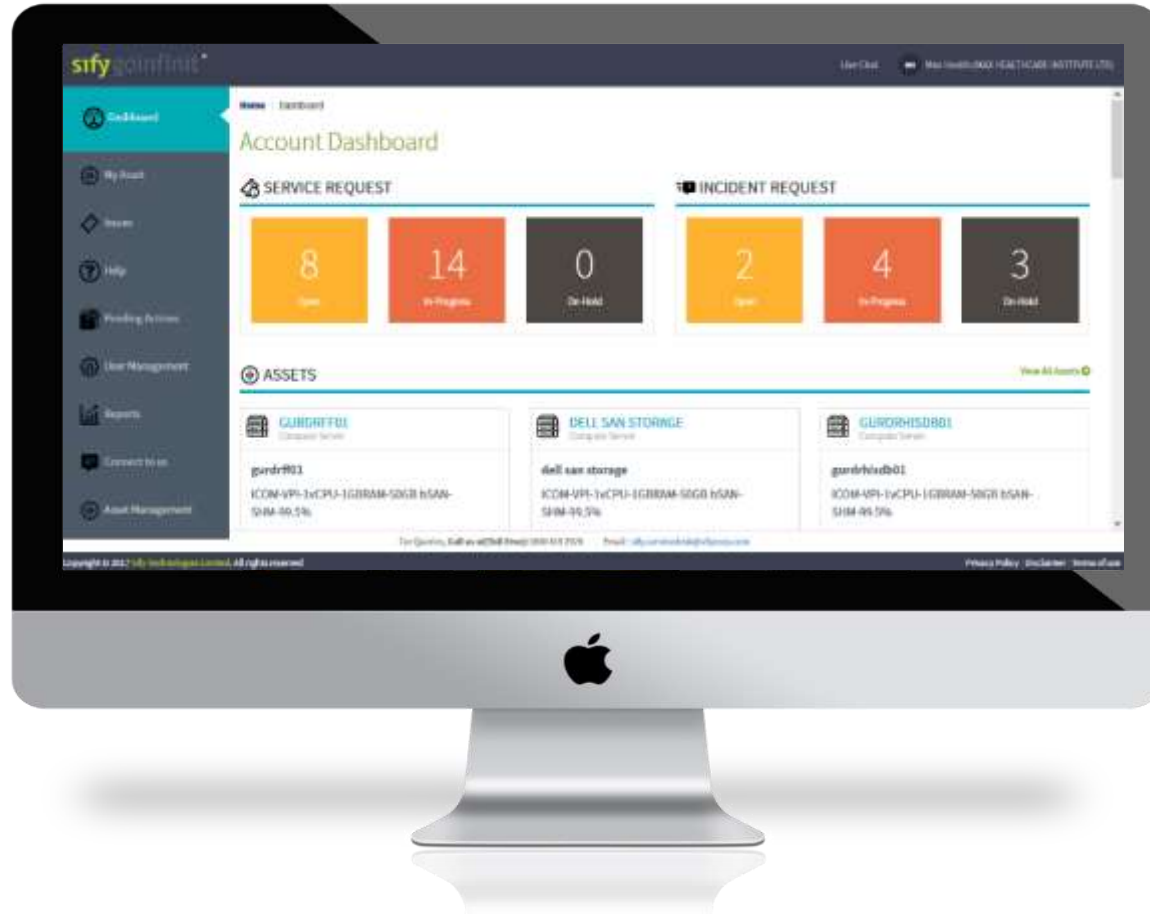


Cloud Public & Private

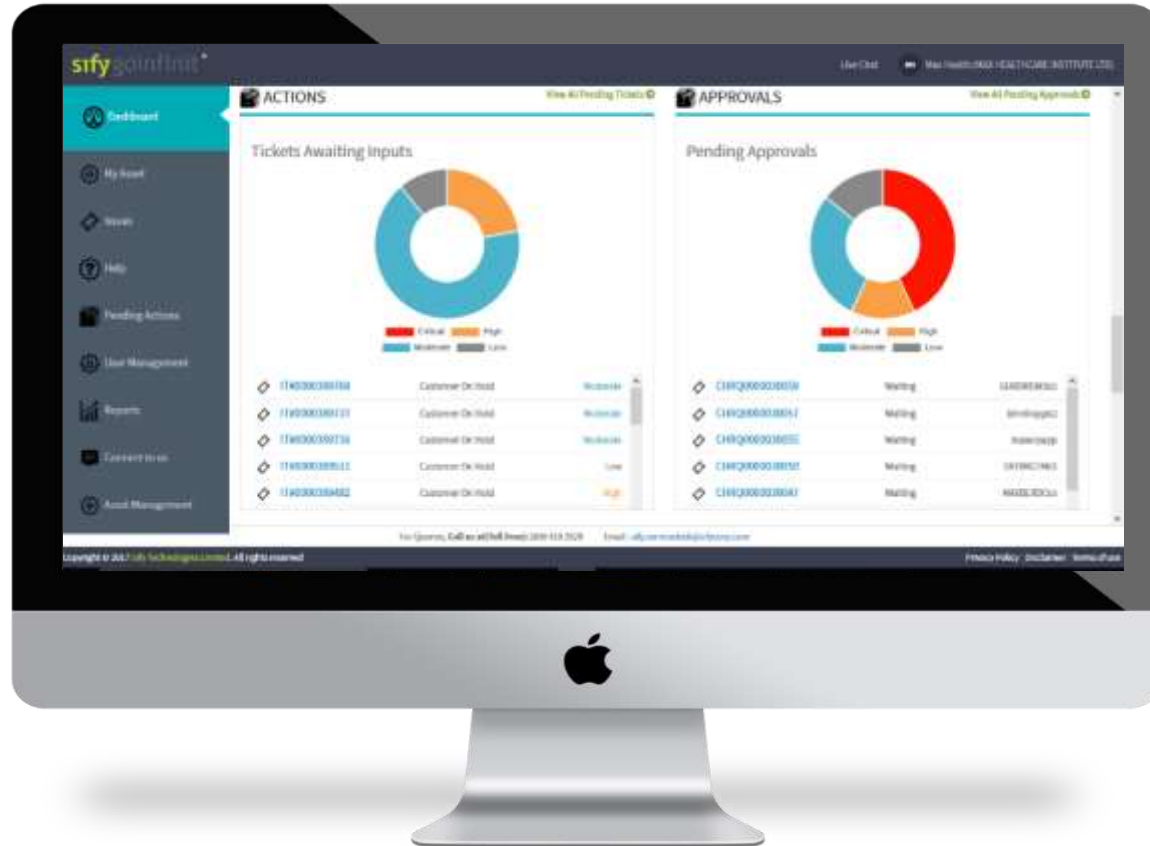
# OUR TOOLS AND AUTOMATION CAPABILITIES



# OUR TOOLS AND AUTOMATION CAPABILITIES



# OUR TOOLS AND AUTOMATION CAPABILITIES



**WHY SIFY FOR SAINT GOBAIN?**





# WHY SIFY FOR SAINT GOBAIN? (WIP - INPUTS TO COME FROM THE SALES TEAM)



Sify customer in BFSI

- *Data to be added*



DC partner for 5-10 years

- *Data to be added*



Network partner

- *Data to be added*



Security partner

- *Data to be added*



cloud@core

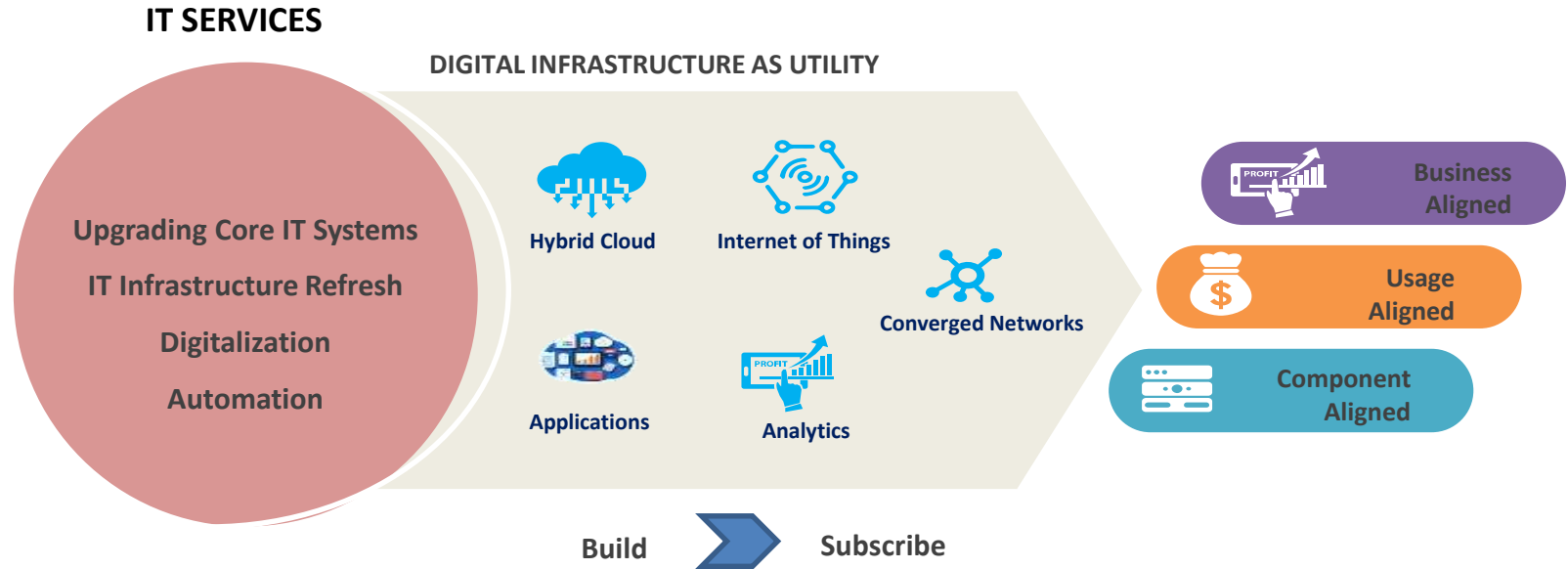
thank you



# OUR UNDERSTANDING OF YOUR REQUIREMENT / WE HEARD YOU

	Key Tenets
<p>“...Drive the transformation toward the future ready Hybrid IT (Private + Public)...”</p> <p>“...full spectrum of services from Traditional IT to Digital IT...”</p> <p>“...Flexibility for future changes...”</p>	Hybrid IT & Business Aligned Infrastructure
<p>“...deliver the performance of applications with effective utilization of resources... ”</p> <p>“...Secure the Applications &amp; IT across Private and Public...”</p> <p>“...Simplify IT infrastructure provisioning and availability “one face” to the consumers of IT...”</p>	Operations Modernization & Security
<p>“...Transition from current ‘Owned IT’ to desired ‘Outcome Driven IT’</p> <p>“.. Seamless transformation – with minimal or zero break ...”</p>	Risk Free Transition
<p>“...Innovation beyond the product...”</p> <p>“...Collaborate with SG on local test and enable innovative technology leverage...”</p> <p>“...Retained Cost Reduction...”</p>	Innovation & Collaboration

# SERVICE PROVIDER ROLE IN ENABLING DIGITAL TRANSFORMATION

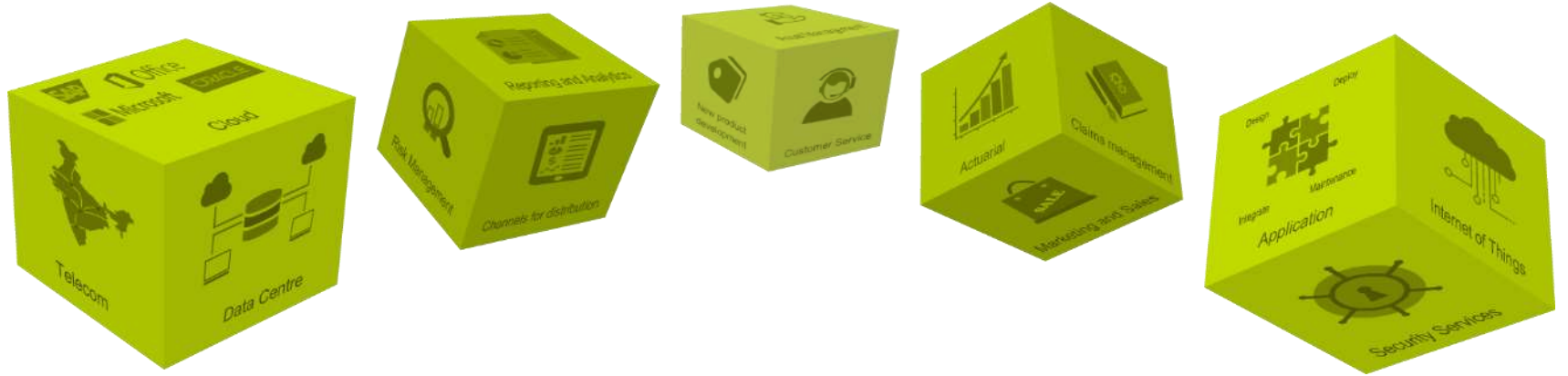


Less Hardware , Less People, Less License

# OUR PORTFOLIO OF SERVICES



## SPECTRUM OF SIFY'S PRODUCT AND SERVICES



DATA CENTER  
TRANSFORMATION  
AND  
INFRASTRUCTURE  
SERVICES



HYBRID CLOUD  
SERVICES



NETWORK  
TRANSFORMATION  
AND CONNECTIVITY  
SERVICES



APPLICATION  
AND PLATFORM  
SERVICES



TECHNOLOGY  
INTEGRATION  
SERVICES



MANAGED  
SECURITY  
SERVICES



INTERNET OF  
THINGS

# SIFY'S INNOVATIVE SOLUTIONS ACROSS IT SPECTRUM



## Data Center Transformation

*A full spectrum of data center and cloud solutions that build the foundation of flexible, scalable, reliable and agile IT Infrastructure*



## Network Transformation

*Enabling organizations to transit from its widely disparate and hybrid networks to an integrated cloud enabled networking platform*



## Applications Transformation

*High performance & secure business critical platforms engineered for today's cloud infrastructure*



## Service Integration

*Fully integrated Services/play across Network, DC, IT & Security*

# DATA CENTER TRANSFORMATION AND INFRASTRUCTURE SERVICES



## SIFY'S APPROACH AND FRAMEWORK

### PRINCIPLES OF DC TRANSFORMATION

HYBRID IT ALIGNED

FLEXIBLE, AGILE AND ROBUST

DIGITAL READY

SOFTWARE DEFINED & AUTOMATION

BUSINESS OUTCOME ALIGNED

TRANSPARENCY AND VISIBILITY



#### Drivers for transforming your data center approach

- Inorganic growth
- Alignment to business demand
- Hyper scale up or down
- Borderless IT
- Regulatory compliance

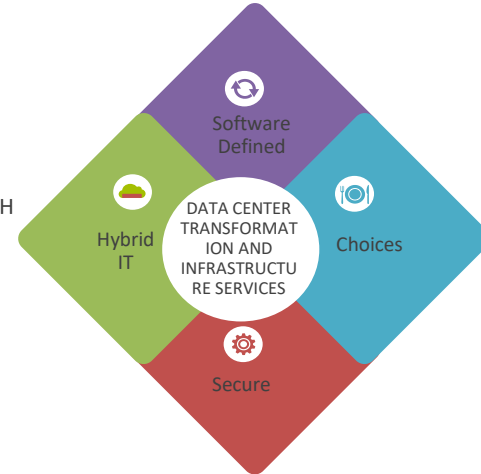


#### Strategic Choices

- Owned vs outsourced
- On premise vs Public/Private/Hybrid cloud
- Integrated /Homogenous vs best of breed
- Traditional deployment approach vs Agile
- Inhouse/Managed Services/Hybrid
- Centralized vs distributed

- Right Fit IT Architecture
- Future ready IT capability
- Borderless IT

- Public/Private/Hybrid Cloud
- Backup and DR transformation

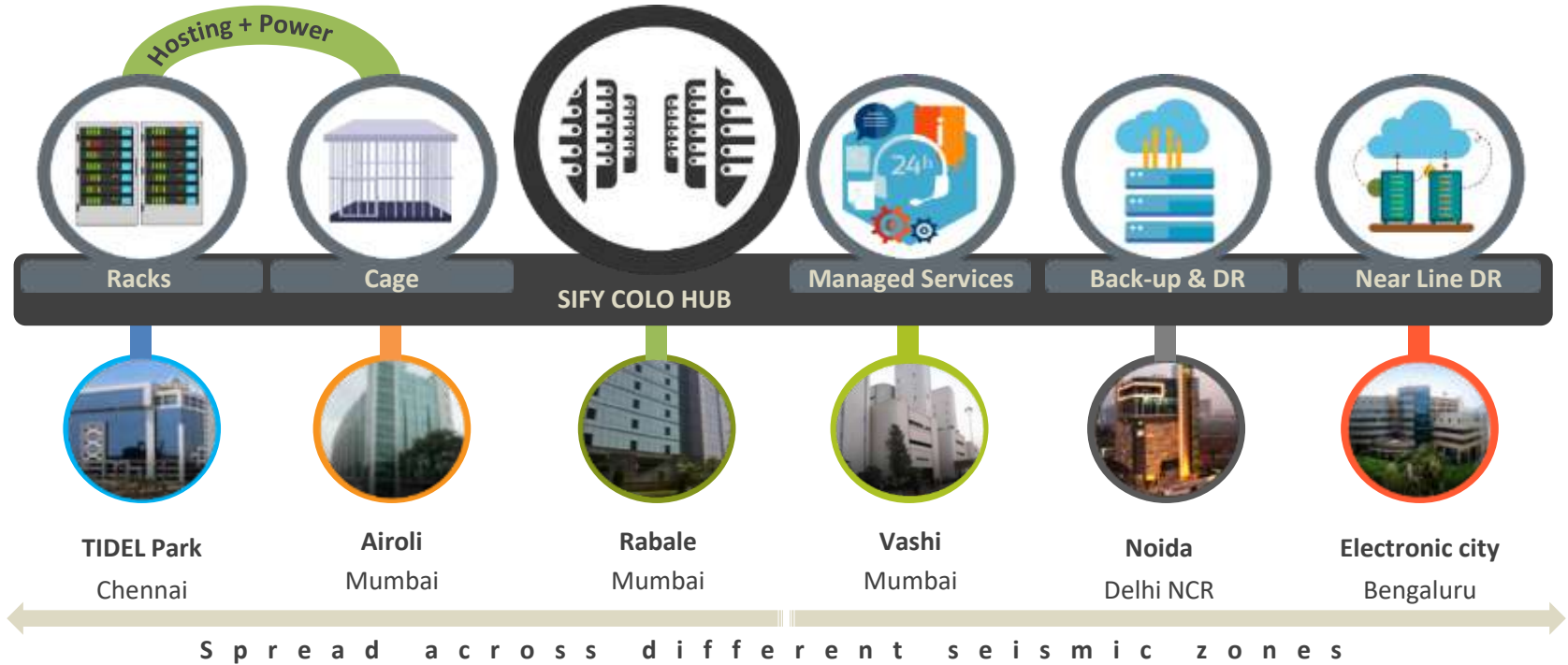


- Dynamic Scale
- Flexible Consumption model
- Extendable
- No Lock in

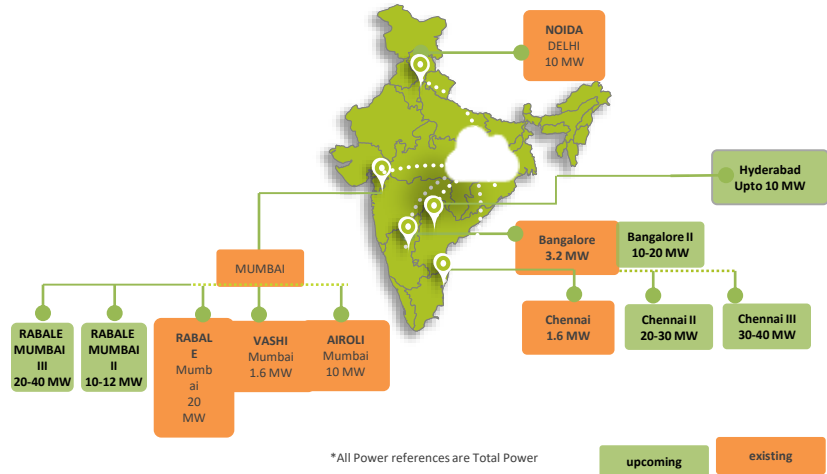
- Single cohesive monitoring for on-premises, public cloud or private cloud
- Smart device support for quick access to reports and dashboard



# SIFY COLO HUBS - FUTURE READY DC



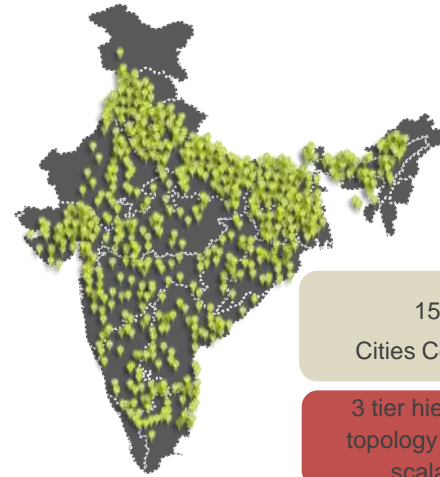
# OUR MAJOR DATA CENTERS /CLOUD CENTERS FOOTPRINT



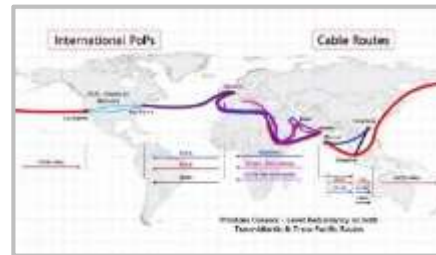
Location	Existing in sq ft	Future in sq ft	Readiness
Mumbai	120,000	250,000	June 18
Chennai	12,000	70,000	June 19
Hyderabad		30,000	Dec 18
Delhi	55,000	55,000	Available
Bangalore	16,000	50,000	Available

**Total capacity of 455,000 sq. ft. of server farm**

# OUR NETWORK FOOTPRINT

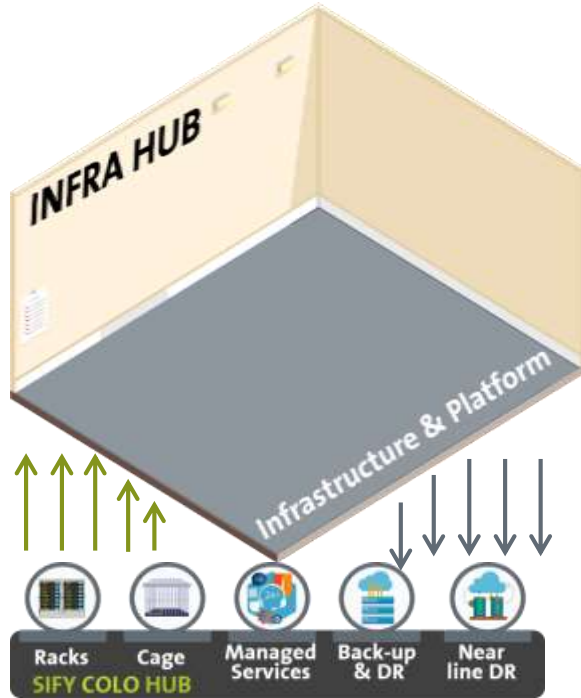


- 90000 + enterprise circuits
- 1550 Cities Coverage
- 2200+ network nodes across India
- 3 tier hierarchical topology for better scalability
- 10 G Access metro rings in 10 cities



**130+ Countries**  
**3000+ Cities**

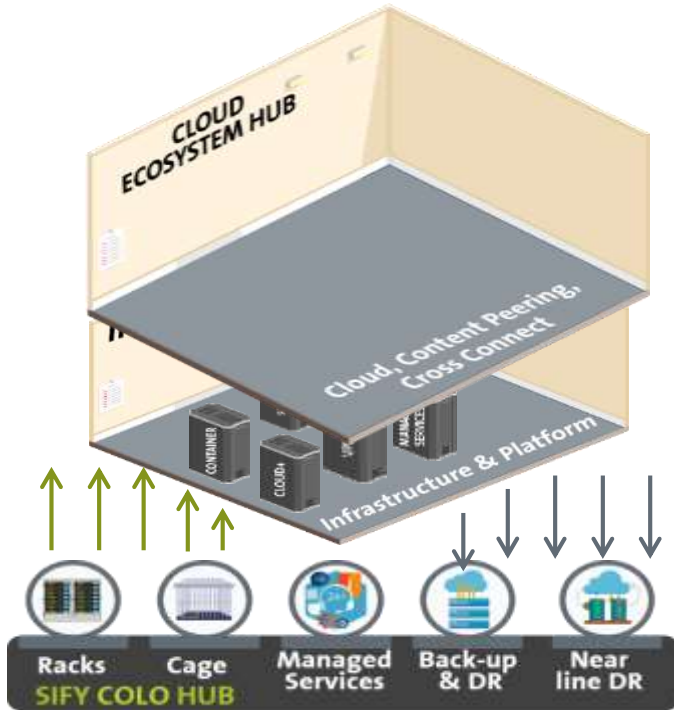
# SIFY INFRA HUB - INFRASTRUCTURE AS A SERVICE



## GO INFINITI CLOUD IaaS SERVICES

- Virtual and private cloud infra services
- Managed enterprise cloud
- Physical/Virtual HANA
- Self-service, daily Op
- Scalable pay per use aligned on-demand, pay per use

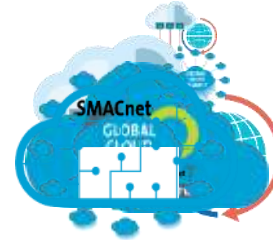
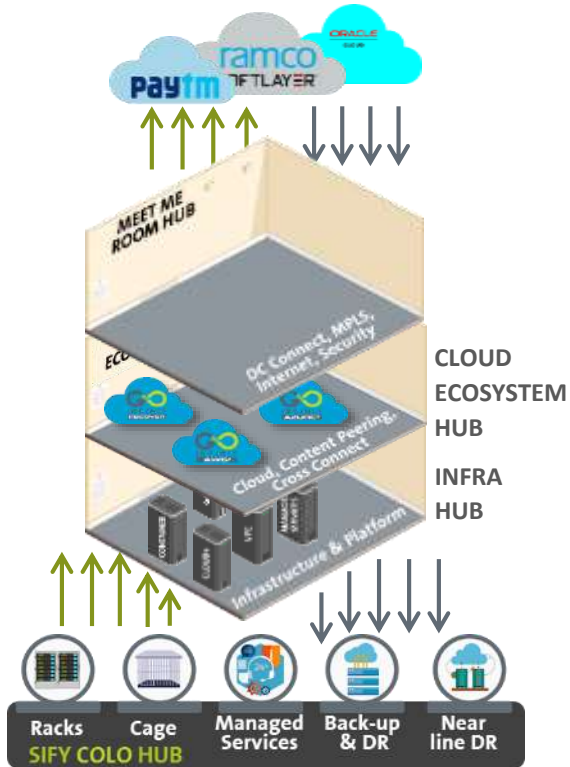
# SIFY CLOUD ECOSYSTEM HUB - ENABLING CLOUD ALIGNED IT



## GO INFINIT RECOVER+

- AWS S3 for backup archive & tiered data
- Public cloud IAM/Service role integrated
- Single console for AWS/Azure/Google Cloud
- Single console for AWS/Azure/Google Cloud
- Single console for AWS/Azure/Google Cloud
- Single console for AWS/Azure/Google Cloud

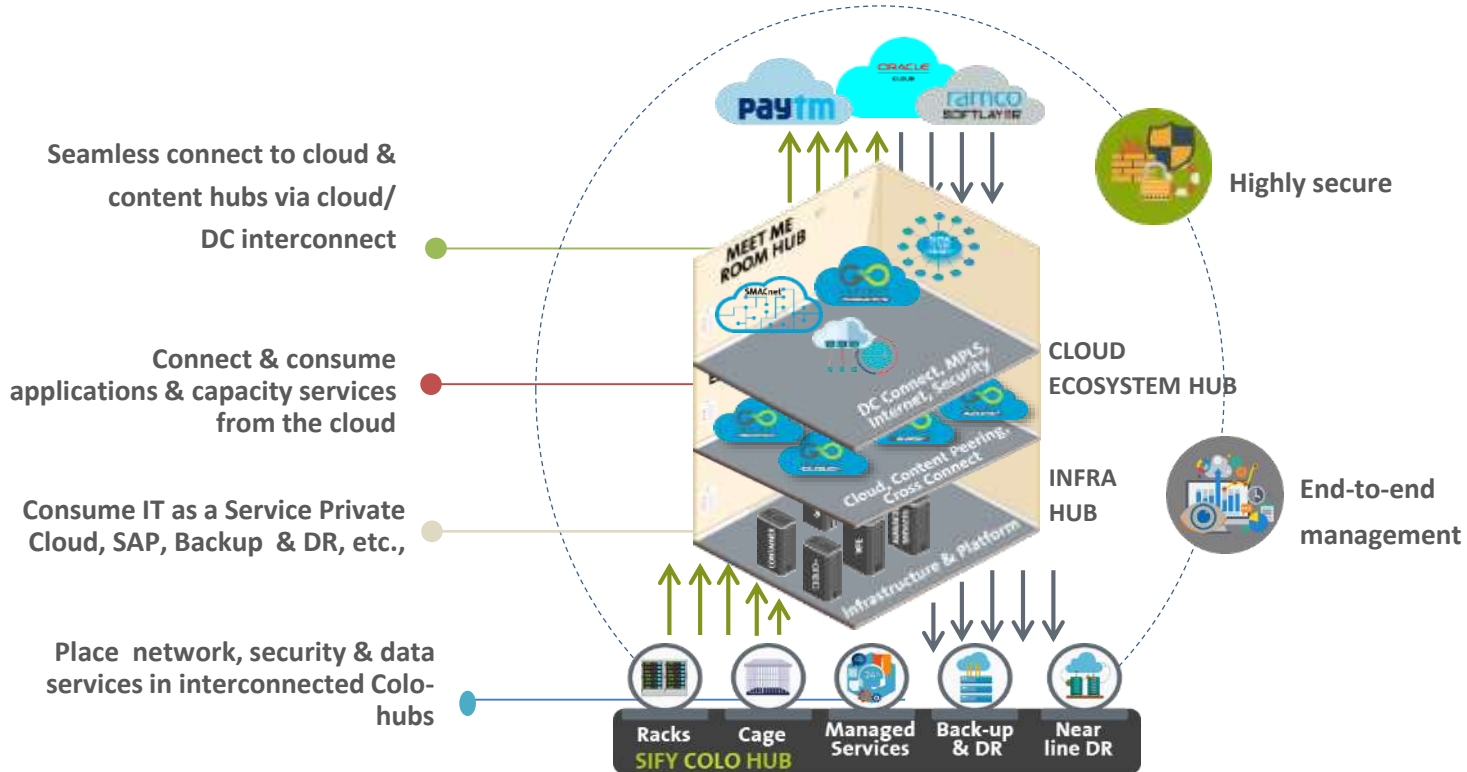
# SIFY GLOBALCLOUDCONNECT - EXTENDING DC INTERCONNECTS



## SMACnet Global Cloud

- Network expansion to Global Cloud ecosystem from Edge
- High speed network links to major Google etc.
- Cloud ecosystem has been built through Mobility, IOT, and Cloud ecosystem with Customer IT

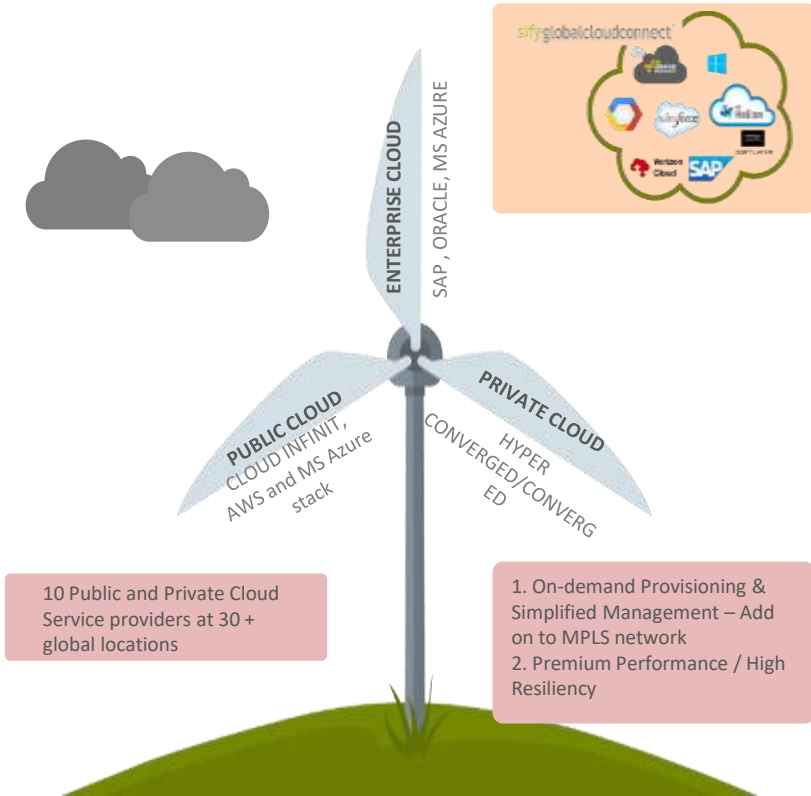
# SIFY END TO END - SECURITY AND MANAGEMENT FRAMEWORK



# HYBRID IT FRAMEWORK



# HYBRID CLOUD SERVICES



UNIFIED VISIBILITY

INTEGRATED ORCHESTRATION AND MANAGEMENT

SECURITY AND SERVICE GOVERNANCE

PUBLIC CLOUD

PRIVATE CLOUD

ENTERPRISE CLOUD



- Hyper Scale
- Pay per Hour
- Globally available

- Fully dedicated
- Compliance driven
- Flexibility to own, outsource and buy back

- Application Centric Architecture
- Application Blueprint driven
- Hybrid cloud ready

SEAMLESSLY INTERCONNECTED – EXPRESSROUTE, DIRECT CLOUD CONNECT



# CASELETS: CLOUDINFINIT (1/3)



*“Infrastructure Modernization @ Leading FMCG ”*

## Requirement

- Infrastructure requirement for running new & existing workloads
- CIO's take on environment,
  - Modern Infra required for running the current workloads to meet performance & availability needs
  - Infra setup required for launching new applications
  - High availability setup to ensure availability and protection against any interruptions
  - Infra Refresh - Technology Obscelence a challenge
- Assess - Assess the environment & build the plan for running new & older workloads

## Delivered

### Phase -I :

- Assess and Advise to Modernize and Transform IT infrastructure
- Create a Plan to modernize the infra for running existing workloads
- Create a Plan to deploy Infrastructure for new applications

### Phase -II :

- Migrate the applications to the new Modern infrastructure
- Build a geographically redundant DR Site to ensure highest availability
- Test the applications for performance & availability
- Build DC & DR for new applications

## Outcome

- Modernize and transform the complete Infra / Network / Security
- Ensure the performance, availability efficiency, and usability of existing applications & new applications are met
- Ensure IT Continuity through a Geographically redundant DR Site
- Enable IT to meet the SLA's required by Business
- Achieve Technology Obscelence

**Over USD 30K annual savings on DC+DR TCO**

# CASELETS: CLOUDINFINIT (2/3)



## NSDL-mFino Agency Banking Platform



*“Infrastructure for Payment Banking @ Leading BFSI Player”*



### Requirement

- Infrastructure deployment for Payment banking platform
- Application chosen was mFino who had
  - 3-tier application architecture
  - Infra designed with clustering in the DC & single thread in DR
  - DC-DR architecture on a Y-o-Y growth
- Build IT Infrastructure scaling year on year based on a defined transaction volume per month & per second basis

### Delivered

#### Phase -I :

- Convert the transaction volume into IT Infra scaling up year on year.
- Build a transaction pricing based on the business ramp of NSDL
- Architecture that has DC in HA & DR on single thread

#### Phase -II :

- Sify: CI VM + Storage, OS & Mgt, FW, BW, DC-DR replication
- Entire IT Infra on a transaction basis. Here is the table that details on the transactions & its ramp over the contract tenure.

### Outcome

- IT Infra that is invoiced based on a transaction basis
- IT Architecture that not met the compliance needs but business scalability too
- Ensure IT Continuity through a Geographically redundant DR Site
- Enable IT to meet the SLA's required by Business
- Achieve Technology Obscelence

**Enable business flexibility based on transaction billing model**

# CASELETS: CLOUDINFINIT (3/3)



*“Transformation @ India’s major Healthcare company”*

## Requirement

- Traditional Setup - Custom Healthcare Applications
- Highly secure and compliance driven environment
- Rigid architectures- No DR site
- Disparate environments are inefficient and expensive to operate and maintain (over 70% budget goes in keeping lights-on).
- To keep pace with its rapidly growing business, Max Healthcare required a dynamic IT environment equipped with off-site disaster recovery capabilities that are easily manageable.

## Delivered

- Enterprise Cloud with high availability and integrated security to enable,
  - Physical to Virtual
  - Infra. Consolidation
  - Agility and 24x7 online analytics
  - Integrated Security stack
  - Backup-as-a-Service
  - 7 years data retention
- Seamless migration from current setup to Hybrid cloud
- DR built at Sify DC- re-using old infra.
- End to End Managed

## Outcome

- Re-architected IT infrastructure enabling Huge cost savings over 5 years
- Complete setup within O&M budgets. More funds available for innovation and new projects (BI / BYOD / User Data Management)
- Highly available - fully compliant setup
- Application level security encapsulation allowing Apps to seamlessly move between environments
- Agile infrastructure and Adaptive management

**USD 1.12 Million savings over 5 Years**

**USD 54.5 K savings on MS licenses**

# CASE STUDY 4 - ADANI CAPITAL



**adani** **sify**

**CASE STUDY**


**Adani Capital chooses Golnifinit VPE for deploying their critical Loan Management Application**

**Rural Financing**

**Wholesale Financing**


**Adani Capital Pvt. Ltd.,** a part of Adani Group, a diversified industrial conglomerate, is its non-banking financial company (NBFC) arm. Adani Capital, founded in 2016, marked Adani Group's foray into the financial services business with a focus on wholesale and retail, and rural financing. The company has also initiated the roll-out of retail branch network in Gujarat, Maharashtra, Rajasthan, and Madhya Pradesh.

## CUSTOMER EXPECTATIONS



- Application Performance & Availability
- Superior technology with Scalable options to meet future expansion needs
- Robust security to protect information and meet compliances
- Agile and fully manageable infrastructure

## SOLUTIONS

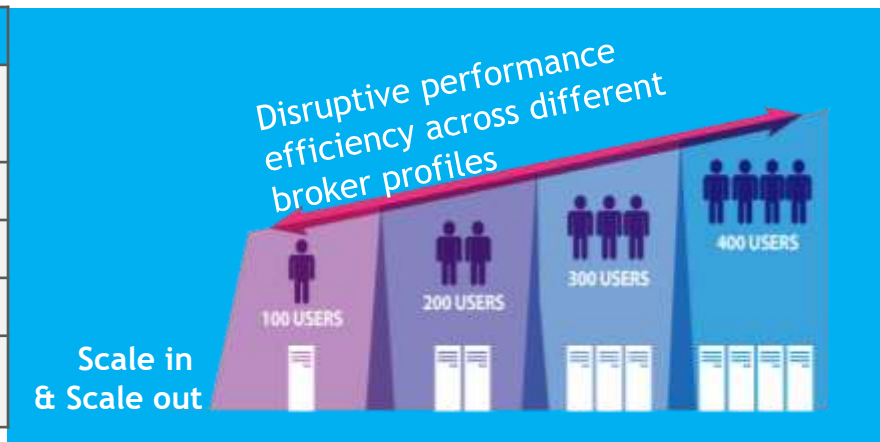


- FinnAxia & other core applications on RHEL platform with VPE
- Complete Suite of Security Solutions
  - Internal & External Firewalls
  - High Availability with Load balancing
  - PIM Services (Privileged Identification Management)
  - DDoS, WAF
  - Endpoint, Server security & VAPT
- SOC & SIEM services
- Hosting of all these components at Sify DC – Airoli (DC) & Bangalore (DR)
- Complete Suite of Managed Services
- Committed performance through All Flash Storage System

# BROKERAGE AS A SERVICE - 63 MOONS








	Small	Medium	Large
Connections/ sec	250	500	1000
Order/ sec	50	100	150
Cores	12	18	24
RAM (GB)	24	48	64
Storage (GB)	280	330	330



- Fully managed & compartmentalized IT infra Profiles - Small, medium and Large set of brokers
- Dynamically scale up and down resources without any disruption
- Billing only for the portion of IT consumed by different broker profiles
- End to End Solution comprising of the Application, Infrastructure, Network, Security
- Facilitate Automated execution of trades, institutional algorithms and complex arbitrage/ spread strategies

# SIFY CLOUD & MANAGED SERVICES: CAPABILITY



Engagements	Engagement Flavour	Key Competencies
<p><b>Department of Post</b></p> 	<p>Design, integration, operations and management of 30,000 locations (including DC &amp; DR) secured network infrastructure in an outsourced model</p>	<p>Design excellence / project management skills / multi vendor management / multi technology OEM management / large scale remote management &amp; field operations</p>
<p><b>Max Healthcare</b></p> 	<p>Transformation of data center and DR on a hybrid model. Transition from a large IT services company</p>	<p>Transition skills / Project Management / Services led utility model / Tools &amp; process based</p>
<p><b>Sanmar Group</b></p> 	<p>Strategic IT Outsourcing to manage the complete IT Infra (Including SAP Servers) for 14 group of companies across India and Global location. DC transformation opportunities to be leveraged during the course of the contract.</p>	<p>Expertize in Service Transition from Incumbent to Sify, Program Management and Technology Excellence . Managed Services skill to manage the Service Desk, End User Computing across 25 locations, Data Center and DR + 16 Server Rooms across globe, Network and Security Towers with proven Enterprise tools and Process.</p>
<p><b>Reckitt Benckiser</b></p> 	<p>Strategic IT partner for multi tower services across Europe, Latin America and North America</p>	<p>Data Centre Management / Global Network &amp; Security Management / Transition &amp; Project Management Skills / Process Management</p>
<p><b>FieldFresh Foods Pvt. Ltd. (Bharti Group Company)</b></p> 	<p>Strategic total outsourcing of the entire application &amp; infrastructure landscape, which includes Service Desk, Migration of SAP from Solaris to Linux, Provisioning &amp; Management of SAP Infra on the Sify Cloud, SAP Application Management Services (AMS), End User Compute, Branch IT Infrastructure, WAN, LAN, &amp; Security Management</p>	<p>Transition skills / SAP Skills / DC Transformation / Project Management / Remote Infrastructure Management / Service Desk / ITIL process</p>

# SIFY CUSTOMER BASE: MANUFACTURING VERTICAL

