

Addendum/ Corrigendum
Annexure - XVIII (Brief Details of IT Infrastructure)

Brief overview of Bank's IT Infrastructure

NHB has centralized setup with Data Center [DC] at New Delhi and Disaster Recovery [DR] Site at Mumbai. All applications are hosted at Data Centre, New Delhi and are accessed by all offices/ locations over MPLS WAN/ Internet. NHB at present has MPLS connectivity between Delhi, Mumbai & Other offices as under:

A. Wide Area Network (MPLS)

Presently NHB has MPLS connectivity between New Delhi, Mumbai & Regional Representative offices (RROs) as under. MPLS services are in managed mode.

S. No.	Location	Bandwidth
1.	New Delhi	34 Mbps
2.	Mumbai	16 Mbps
3.	RROs	1 Mbps

Presently Bank has four RROs at Ahmedabad, Bengaluru, Hyderabad and Kolkata.

B. Local Area Network

At New Delhi and Mumbai offices, the LAN is based on Layer 3 and Layer 2 switches. The switches used at the locations are manageable. All switches are property of NHB and are under Warranty/ AMC with respective vendors.

- At Delhi and Mumbai, Bank has deployed Cisco series switches
- At Delhi and Mumbai, Bank has installed Cisco ASA Firewalls.
- Other offices are connected to Head office over MPLS. The offices access Bank's hosted IT services over MPLS. MPLS network as well as the premises MPLS equipment is managed by present MPLS connectivity provider.
- Network diagram of NHB Delhi is given at last page of this annexure.
- The overall count of network devices at NHB is given below:

Network devices	Total
Core Switch	2
Firewall	4
Internet ASA Firewall	2
L2 Switch	21
MPLS ASA FIREWALL	2
SAN Switch	2
Server Switch	3
Switch	4
Grand Total	41

C. Applications/ Internet/ Intranet etc.

- Bank has setup Domain Controller (DC) & ADC for managing its environment.
- Bank has implemented SAP ERP system for most of its business operations.
- Mailing solution (MS Exchange) is available in high availability mode (DAG) with two primary servers at DC Site and one secondary server at DR site. Users at Delhi office access the corporate mail through LAN on MS Outlook. Other offices access the corporate mail over MPLS. Email service is also accessible for all NHB officials through Outlook Web Access (OWA) over Internet.
- Internet dedicated bandwidth from two different service providers are available at Delhi and Internet broadband is available at Mumbai. The bandwidths are used for Internet browsing and other web based services.
- NHB at its Delhi Office has implemented proxy server with web caching, web content filtering integrated with Active Directory at DC for user authentication and controlling user Internet access. In addition to this Bank has implemented Cisco ASA Firewall and Antivirus solution for security.
- NHB has SSL VPN Gateway to enable its employees to connect to IT services hosted in its Data Centre.
- Bank uses services like NewsWire 18, Reuters at its treasury department to keep a tab on development happening in financial and treasury market.

D. Website/Portals

- NHB Website (<https://nhb.org.in>): The website provides important information pertaining to various activities of the Bank.
- Residex Portal (<https://residex.nhbonline.org.in>): NHB RESIDEX enables the policy makers, banks, housing finance companies, builders, developers, investors, individuals, etc., to track the movement of housing prices across different cities in India on quarterly basis.
- PMAY CLSS Portal (<https://housingforall.nhbonline.org.in>): PMAY CLSS portal acts as an interface for Primary Lending Institutions for uploading CLSS claims and refunds.
- ORMIS Portal (<https://ormis.nhbonline.org.in>): ORMIS portal is used by Housing Finance Companies to upload various Regulatory Returns.
- GRIDS Portal (<https://grids.nhbonline.org.in>): GRIDS portal facilitates online registration and tracking of complaint for the complainant.

E. Infrastructure at Head Office, New Delhi

Servers	Nos.
1. Servers - on Windows 2008/ 2012 platform - including SQL Server/ Exchange Server/SAP Servers and others	86

PCs	Platform	Nos.
1. Client Machines on LAN	Windows Vista/ 7/Windows 8/10	222
2. Laptops/Mobile Computers	Windows 7/8/10	114

F. Infrastructure at Mumbai Regional Office

Servers	Nos.
1. Servers - on Windows 2008/2012 platform - including SQL Server	14

PCs	Platform	Nos.
1. Client Machines on LAN	Windows XP/8/10	11
2. Stand-alone PCs	Windows 8	2
3. Laptops/Mobile Computers	Windows 7/8/10	7

Note: This is only the brief of NHB's IT Infrastructure. The detailed IT infrastructure will be shared with the selected bidder.

