

Date: 15/04/2019

Ref No.: PCPL/Mum/15042019

To St Andrew College of Arts, Science Mumbai

Subject: Commercial Proposal for Internet Leased Line Solution

Dear Sir,

Thanks for showing interest in our services. This is with reference to our discussion for Internet Leased Line requirement. Please find enclosed the Techno-Commercial Proposal.

Yours Sincers for

Mahesh Kamble,

Manager - Domestic Business Unit

Landline: +91.022.3026 4444 Mobile: +91. 9699614433

Burk

Hernandes

# PIPETEL COMMUNICATIONS PVT LTD

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# Technical Proposal: Enterprise Leased Line Services

# Net 4 - Executive Summary

Net4 is the leading Indian Information and Communication Technology (ICT) Company, with Points of Presence (POP) in 6 locations throughout the country. Net4 is the only Indian Internet communications company with service provisioning ability on a multitude of Internet based services such as Domain Registration, Web Hosting, Data Centre operations, Business E-mail solutions and Internet Access services

Across all major cities in India, Net4's Customer Care team provides a 24-hour, single point of contact with local expertise, proactive monitoring and detailed customer Reporting & responsive escalation matrix.

Net4 is one of the leading providers managed networks and hosting services to a diversity of sectors, including the public sector, manufacturing, professional services, retail, logistics, construction, leisure, and travel.

# Services offered by Net4

- Enterprise Leased line
- Internet Date Center Server Colocation
- Net4's Virtual Private Servers, Hybrid Cloud and Microsoft's Azure Cloud
- Mailing solutions Hosted Exchange, Office 365







# Why Internet Leased Line from Net4

Commitment to Quality & Support

Net4India leased line services are backed by 24-hr 365 days support. A team of expert advisors is available around the clock every single day to answer your queries and speed the resolution of any faults.

Bandwidth Options

A range of bandwidth options is available so you can select exactly the capacity of connection that your business needs. Choose digital access in multiples of 2 Mbps.

Network Reliability

Our network has been designed with resilience in mind. A fiber optic backbone ensures that if a route is faulty or has failed; it will search out another and send data in the alternate route. Because there is no single point of failure on the backbone, you can trust the Net4India's networks with all your mission critical data.

Backbone Utilization

Net4India monitors the bandwidth utilization for each link in the Internet backbone network, with the objective of determining the necessary bandwidth to maintain service quality.

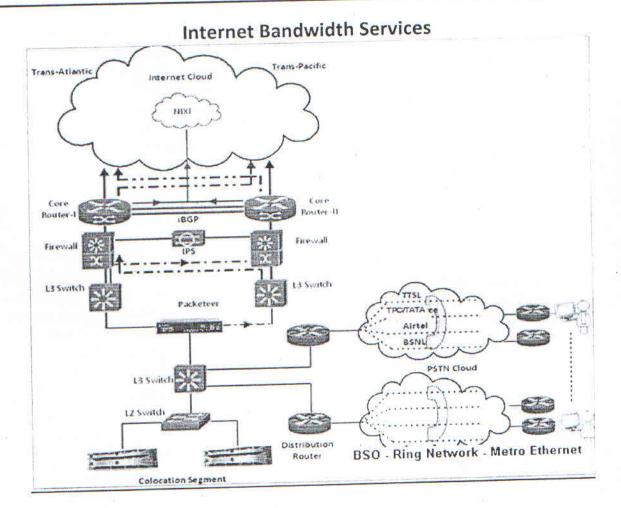
Privacy

Provide your organization with Internet privacy and control benefits. No hidden costs and installation costs. Reliable and trusted solution.









## Infrastructure

Net4 Internet Data Centres are equipped with state-of-the art infrastructure, with multi-redundant network & systems components. The architecture is designed to provide the internationally recommended Internet services quality standards. Net4 has strategic tie-ups with Cisco, Dell, APC, Amp, Nortel and many more IP & telecom infrastructure providers. The network is spread over various locations throughout India, by way of local POPs in multiple cities. Net4 is the only independent ISP with networks designed not only for Internet Access but also for the high quality VoIP & other IP communications like E-mail, Hosting, Web-Casting and so on.







#### Backbone

Net4's networks are connected to the Internet through multiple STMs. Net4 is currently one of the largest Independent, carrier Agnostic ISP in the country with a back bone capacity of multiple STM4's. The network architecture is built to sustain the highest level of quality, by having links connecting out of fibres on both Trans-Atlantic & Trans-Pacific routes. Additionally, peering with National Internet Exchange of India (NIXI), the browser is kept closer to the content. That means, all domestic content is routed to the respective service providers through this peering. Net4 is one of the few service providers, that is peered at a capacity of DS3 with NIXI. The backbone architecture of Net4 to the internet cloud is depicted above.

## **Last Mile Solutions**

Net4, through its extensive hunt for multiple connectivity options, is capable of provisioning Internet Access through leased lines from different last mile specialised telecom operators such as Tata Communications, Bharti, Reliance, Tata-Tele, BSNL, MTNL, Rail-Tel and many more. It is the only Internet Service provider with these many strategic partnerships. In today's world of outsourcing, Net4 outsources its connectivity options of its clients, to India's leading telecom operators. This helps Net4 to focus on its quality of service, by utilizing the best of the industry.

Reliability

Services by Net4 are provided on a highly engineered domestic and international network, with sufficient back bone capacity guaranteeing reliable transmission of any type of traffic, be it data, voice or video. The traffic engineering techniques used, via state-of-the-art technologies like packet shapers, assure the absence of congestion, maintenance of smooth operation and support for the most demanding services.

**Availability** 

Net4, through its 24x7 monitoring facilities spread throughout multiple locations, guarantees uptimes depending upon its clients' needs. The domestic & international networks are monitored continuously in order to ensure that the average monthly usage of circuits for incoming and outgoing traffic does not exceed the minimum accepted limit. Net4's policy mandates an excess back bone capacity of at least 20% of the peak usage requirement at any point of time. Guaranteed uptime is backed by







necessary monitoring equipment and applications, and 24x7 hour manned services by specially trained engineers.

#### Security

Net4 is the FIRST service providing company in the world to attain the ISO 27001:2005 Information Security certificate for all its data centres. Net4's network architecture engineering is designed through a multi-level security system, which includes live alerts on security threats like DOS, Trojan attacks, Viruses, unauthorized access etc. Net4 has also tied up with World's largest Security system development companies. Net4 follows Parker's Six-element of Info-Sec model in its Information Security.

Based on the ISO/IEC 27001:2005, Net4 covers the following in its security policy.

- Network Security
- Organization of Information Security
- Human Resources Security
- Physical and Environmental Security
- Communications/Operations Management Security
- Access Control Security
- Information Systems Acquisition, Development and Maintenance Security
- Information Security Incident Management
- Business Continuity Management
- Compliance Security

# Key benefits from Net4

- Internet access ports capacity ranging from 2 Mbps, through multiples of E1s till multiples of STMs.
- Multiple last mile options through strategically aligned partnership with the last mile service providers.
- State-of-the-art multi-redundant Infrastructure to support different type of needs and client base.
- Dedicated infrastructure for high-usage clients & service providers.
- Infrastructures deployed in highly secured ISO-27001 (Information Security) certified Data Centers in different cities.







- Highly secured architecture with Firewall, IDS, IPS, Content filtering etc.
- Strategic partnership with network & security vendors.
- 24 hour network & security monitoring.
- Both centralized & de-centralized telephonic supports.
- Online bandwidth utilization reports.
- Offline NMS reports.
- Readily available SLAs.
- Guaranteed bandwidth for critical business usage.

#### Features from Net4 India's Tier 3 Data Center

The data center has been engineered using the latest design methodologies including zoned cooling, hot aisle / cold aisle enforcement, zoned fire suppression utilizing clean agents, and redundant power supply sources. The combination of these items offers you the most current best practices in data center design and management.

Recognizing the importance of physical security as well as network security, Net 4 have designed data center and office facilities to be as secure as possible against unauthorized access, theft, fire and other physical threats. Net 4 monitor the physical security of our data center and offices 24/7 via biometric technologies, CCTV and physical alarm systems.

#### Certification:

Net4 Data center is an ISO 27001 certified

#### A. Layout Features

- 1) Link from Multiple Service providers
- 2) Redundant Cisco Enterprise Class Core Routers
- 3) Redundant Cisco PIX Firewalls
- 4) Intrusion Detection/ Prevention system for enhanced security
- 5) Efficient Bandwidth Management
- 6) Separate DMZ/ Hosting Zone

ISP/ITSP services provided by Pipetel Communications Pvt. Ltd.



net 4

Net 4

Net 1

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# B. Precision Environment & Power

- Every data center's HVAC (Heating Ventilation Air Conditioning)
   system is N+1 redundant. This ensures that a duplicate system immediately comes online should there be an HVAC system failure.
- All the air in our data centers are circulated and filtered to remove dust and contaminants
- Our advanced fire suppression systems are designed to stop fires from spreading in the unlikely event one should occur.
- Precise contamination control: up to 5 micron size particles of dust
   / heavy hydrocarbons and contaminating gases are filtered
- Stringent Fire detection and protection norms
- High sensitivity smoke detection system
- Vibration proof, foolproof from EMI / RFI interference, flooding & environmental pollution proof, tightly sealed and thermally insulated.
- Round the clock network monitoring and technical support, 365 days a year
- All inline equipments, right from Distribution Board to power strips are fully redundant
- Should a total utility power outage ever occur, all of our data centers' power systems are designed to run uninterrupted, with every server receiving conditioned UPS power
- Our UPS power subsystem is N+1 redundant, with instantaneous failover if the primary UPS fails.
- If an extended utility power outage occurs, our routinely tested, on-site diesel generators can run indefinitely.

# **Physical Security**

 Biometric scanning protocols and round-the-clock interior and exterior surveillance monitor access to every one of our data centers.



- Only authorized data center personnel are granted access credentials to our data centers. No one else can enter the production area of the data center without prior clearance and an appropriate escort
- Every data center employee undergoes multiple and thorough background security checks before they're hired

# **OPERATIONS & MAINTENANCE**

- Certified AMP cabling with gigabit backbone
- Switched 100 MB fast Ethernet
- OC3 backbone with public and private peering
- UPS on all systems backed by auto-start dual DG sets
- Microprocessor controlled redundant air conditioning
- Programmable desktop network alerts and audio alarms
- Ultra modern dust-free and anti static environment
- Secure access control
- Smoke detectors and fire fighting systems
- · Raised flooring for systematic cabling

#### SUPPORT

- 24x7 Customer Support
- Quick Response Support Team
- Advanced Monitoring & Tracking System
- On Site Technical Support in critical cases
- Multi-tier support staff with automatic escalation







Dated: 15/04/2019

#### Commercials

Sr. No.	ITEM / Service	Period	Amount in INR (Per Year)
1	50 Mbps (1:1) Dedicated Internet lease line including Last mile	Per Year	575,000

# Terms and conditions:

- 1) Taxes: as applicable.
- 2) Payment Terms:
  - All recurring payments to be made quarterly in advance.
  - SLA: Pipetel needs to sign 99%Uptime SLA
- 3) Order placement: Pipetel Communications Pvt. Ltd.
- 4) <u>Contract Period</u>: This service shall remain effect for an initial LOCK-IN period of 12 months from the date of signing of this agreement.
- 5) Notice: One month advance notice in case of disconnection, post completion of first year of contract period.

Yours Sincerely

Mahesh Kamble

Manager - Domestic Business Unit

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reach beyond

PIPETEL COMMUNICATIONS PVT LTD

Logo of the respective/national customers:

















# **Mahindra FINANCE**

















ISP/ITSP services provided by Pipetel Communications Pvt. Ltd.



reach beyond

PIPETEL COMMUNICATIONS DVT LTD