



International Internet Gateway

LEVEL3 ON TO INTERNATIONAL INTERNET GATEWAY OPERATION

Including Bangladesh with no exception, internet traffic experiencing geometrical growth and by and large, Asia is leading the way.

As an International Internet Gateway Operator (globally termed as IP Transit Provider), Level3 Carrier Ltd. provides ISPs, BWA & mainly the Mobile/3G Operators with a strong and comprehensive internet back bone for them to generate revenues from content and delight their customers with an immersive digital experience.

We are focused on the fact that the demand for dependable, high capacity, Global IP Transit is growing faster than ever. And it will continue to grow, driven not just by more computers, mobile phones and tablets, but also by increasing take-up in rapidly evolving markets.

For some time there have been more devices connected to the internet than there are people on our soil. Now more of our country's population is discovering, using, and making more connections to the internet.

TECHNICAL FEATURES

Our IP Transit network provides your business with global connectivity and maximum availability. **We have planned to work with multiple domestic and international Tier 1 providers to develop a premium carrier grade IP Transit solution.**

Our network has been built to provide you with the shortest possible path to your most visited Internet destinations, providing you with fast and resilient access 24/7. Each upstream provider is capable of handling 100% of our traffic in each POP (N +1 provisioning), ensuring that we have more than enough capacity for any customer's requirements.

We have direct access to a worldwide network engineering team for pro-active management which provides you with faster fault response times and greater control over our traffic.

Service Options

- Premium IP Transit– High-availability and low-latency transit offered with fixed or burstable bandwidth options and a flexible pricing model that allows you to make the most of your bandwidth.
- Country-Specific Route– Provides the shortest paths and lowest latency routes to and from a specific country or region with guaranteed performance.

Access your traffic graphing, reports, looking glass and other service management tools on our web.

Features

- On-demand Domain Name Server
- BGP Routing
- IPv4/IPv6 Dual Stack
- Access to Tier 1 domestic and international IP networks
- A large number of direct peering relationships
- Shortest possible path to top traffic destinations
- On-net Akamai and other content distribution networks
- Fast support and greater control over network traffic
- Designed for superior performance and high throughput
- Above industry standard SLAs
- Scalable - solutions for 1Mbps through to 10Gbps
- Robust high-speed backbone

TECHNICAL ARCHITECTURE

Based on Juniper, Strong Resilience and Capacity upgrading Policies

State-of-the-Art Network

We are proud to be a Junos-powered network partner. Our network is built around a high-performance OC-192/STM-64 ring infrastructure. This ring-based architecture features the latest Packet over SONET (POS) and Dense Wavelength Division Multiplexing (DWDM) technologies.

Powered by Juniper Networks Junos operating system and the latest high-performance Junos Trio chipset, the MX Series 3D routers enables service providers to adapt to fast-growing, bandwidth-intensive services in a rapidly changing market.

Core Router

Juniper MX-480 @ Core Gateway

The MX480 router enables a wide range of applications and services for service providers, including high-speed transport and VPN services, next-generation broadband multiplay services, and high-volume Internet data center internetworking.

Powerful switching and security features give the MX 480 router unmatched flexibility and reliability to support advanced services and applications.

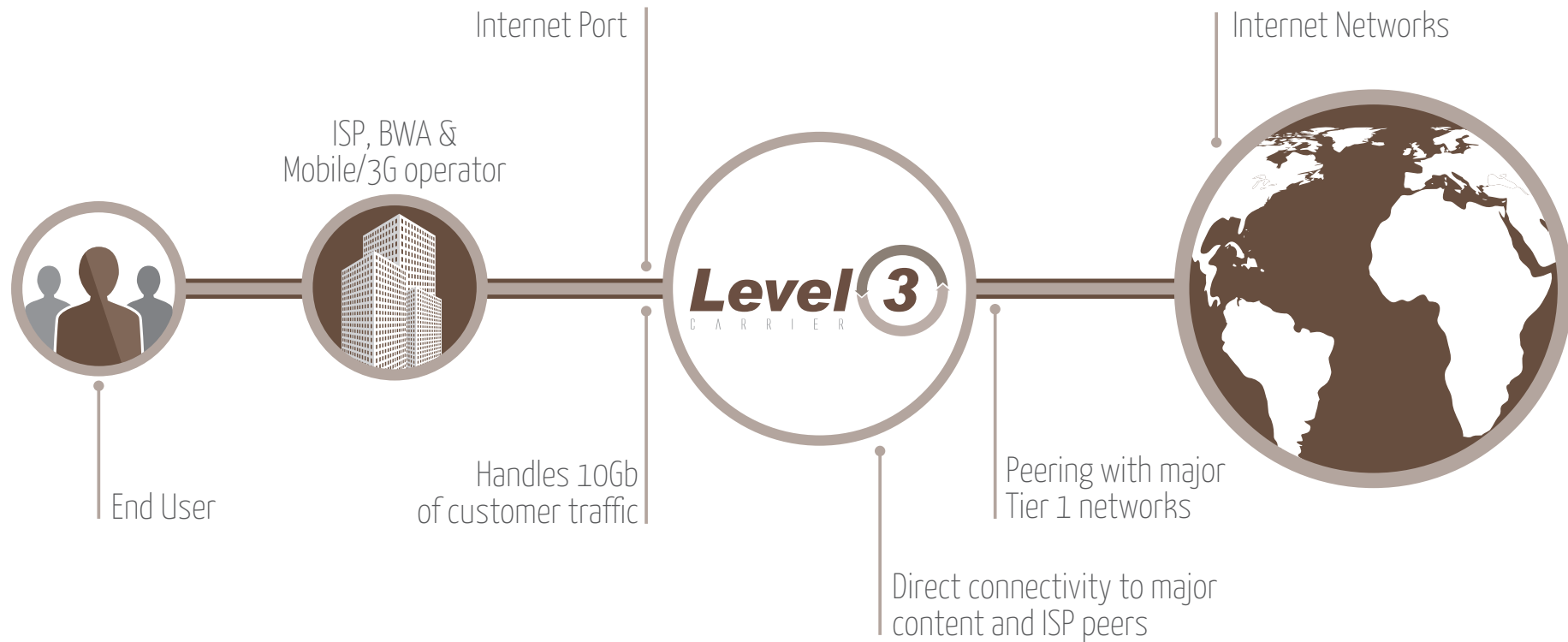
Security & DPI

Juniper IDP-8200

Juniper Networks IDP Series Intrusion Detection and Prevention Appliances provide comprehensive management of unwanted applications and easy-to-use in-line protection that stops network and application-level attacks before they inflict any damage, minimizing the time and costs associated with maintaining a secure network. Using industry-recognized stateful detection and prevention techniques, the IDP Series provides zero-day protection against worms, trojans, spyware, key loggers, and other malware from penetrating the network or spreading from already infected users.

IP TRANSIT

HOW IT WORKS



NETWORK HIGHLIGHTS

Point of Presence

Level3 IIG conveniently located at Carrier Neutral and Internet Exchanges (IX) thus reducing your access cost to the Internet. Reducing NTTN cost text to added.

Connected to Content

If you are an access provider, Level3 will connect you and your end users to the most popular content and application providers on the Internet - just one hop away! Your customers will appreciate low latency access to the best of what the Internet has to offer

Backbone

- Our Core Gateway Juniper MX-480 & Aggregation Router MX-80 can HANDLE 1.92 Tbps of CUSTOMER TRAFFIC with Packet forwarding capacity 1.32 Bpps.

Extensive Peering Relations

- For Strong Peering Strategy Direct Connection With Major Backbones And Content Providers To Provide Best Connectivity To Our Customers. Ie. Google, Youtube, Akamai Etc..

Distributed Denial of Service (DDoS) Attack Mitigation

- **Blackhole**– A free service which enables customers to block their assigned IP addresses and halt malicious network attacks.
- **CleanPipe**– Subscription-based advanced traffic filtering for customers with more demanding security requirements.

A wide variety of interfaces to fit your needs

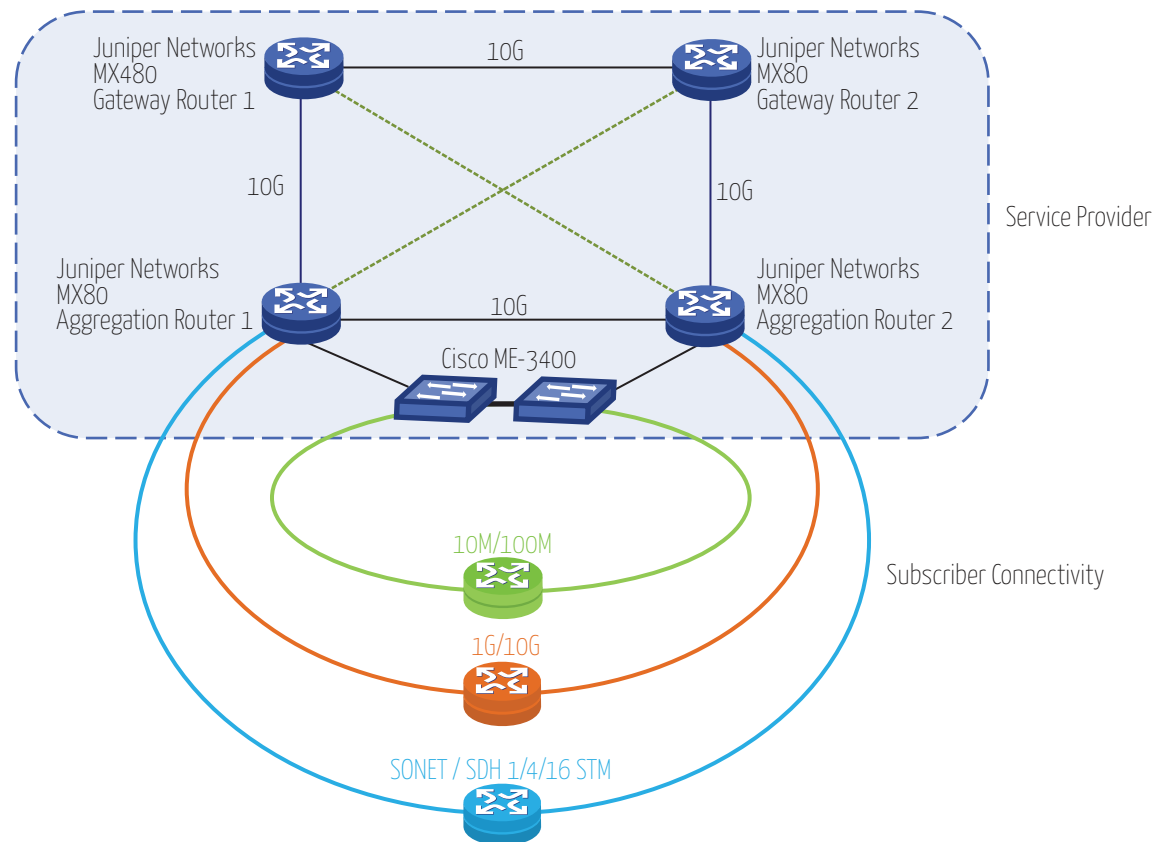
- Fast Ethernet 10 - 100 Mbps
- Gigabit Ethernet 100 Mbps - 1 Gbps
- 10 Gigabit Ethernet 1 - 10 Gbps
- STM-N & OC-N 155 Mbps - 10 Gbps

Bandwidth Monitoring Tool

- We used customised **Cacti** multirouter traffic grapher, that provides realtime reports on traffic utilization, availability and traffic volume.

TRANSPORT NETWORK ARCHITECTURE

Level3 Transmission Network Diagram



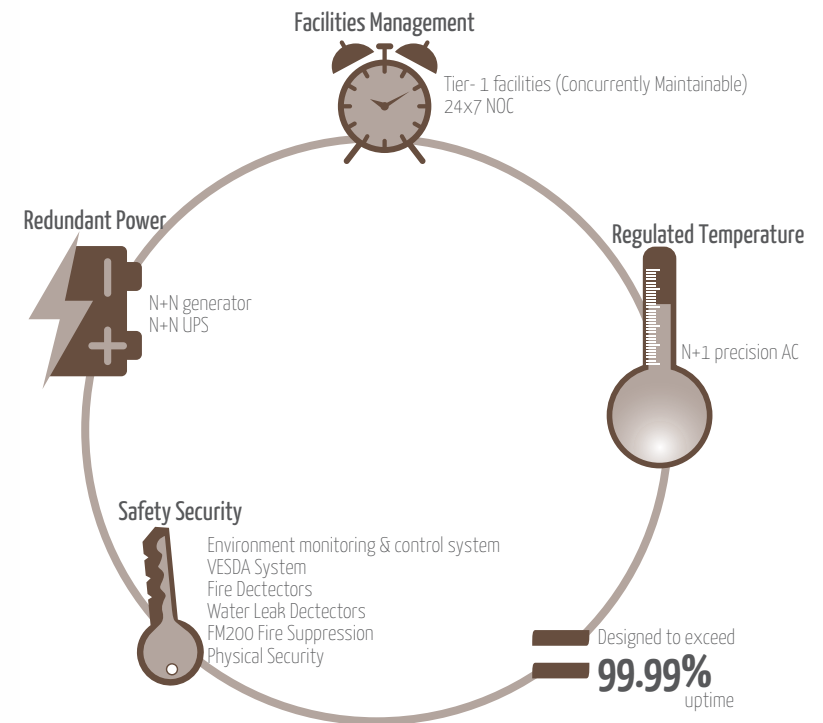
DATA CENTRE & NOC

We take into account the fact that in today's information age, secured data storage and ZERO down time are no longer luxurious but business critical requirements.

So, emphasis is given on the comprehensiveness of our DATA CENTRE and selection of its location. **Our Data Centre is located in a place which can provide our valued customers the opportunities to go LIVE in hours vs. months.** Besides, the environment itself will ensure 'Peace of Mind' for the customers with the continuous efforts to maintain and exceed an uptime of 99.98%!

In the same complex of our DATA CENTRE, multiple connectivity providers are our next door neighbors. This will allow Level3 to choose between the bests in the relevant activity areas and will provide added benefit to our potential customers in terms very low cost, easy and quick connectivity.

The advantage features of our Data Centre can be outlined as below:



SUPPORT HELP DESK SLA

24x7 Confident Support

Our Support Center is responsible for managing and monitoring customer Link/circuits and working closely with the Network Operation Center (NOC) which is dedicated to maintain network performance. Both centers are staffed 24x7 with highly qualified technicians for proactive intervention.

Help desk feature

- 100% Web Help Desk
- Ease of Use
- Multi-Departmental Service Desk Solution
- Email to Ticket
- Auto Assign Tickets
- Update Notifications

Service Guarantees

Dedicated to a high quality standard and customer satisfaction, we provide industry-leading Service Level Agreement on key network performance indicators.

- Network Availability 99.6%
- Packet Delivery > 99.9%

Network Latency

Level3 Carrier Latency with Globally top sites on the web TARGET

www.google.com	<=65 ms
www.gmail.com	<=65 ms
www.yahoo.com	<=270 ms
www.mail.yahoo.com	<=270 ms
www.bbc.co.uk	<=270 ms
www.youtube.com	<=65 ms
www.skype.com	<=120 ms
www.facebook.com	<=280 ms
www.twitter.com	<=280 ms
www.linkedin.com	<=270 ms
www.espn.com	<=65 ms
www.wikipedia.com	<=330 ms
www.blogspot.com	<=100 ms
www.odesk.com	<=280 ms

Packet Loss Target on all Routes <0.2%
Availability: 100%

OUR PARTNER

Technology Partner



Carrier Partner



Peering Partner



OUR VALUED CLIENTS

Mobile Operator



Internet Service Provider



ICOM Bangladesh Limited



PraDeshta

International Call Center



WHY LEVEL3 CARRIER?

Level3 emerged in 2012 as an International Internet Gateway operator. Level3 management believes in the spirit to reach to the peak in terms of achieving the goals, by taking along with their customers, they prefer calling them truly partners.

Level3 is focused on its performance and there they take pride in having their management of professionals of long experience and articulated skill in the field of business, particularly in telecommunication.

- Truly Partner
- Truly Committed
- Reliable
- Redundant
- Expertise
- Customer Oriented and cost effective
- Ensuring Customer's Confidentiality
- Tier 1 in East & West (Asia Pacific & Europe)
- Capacity and Peers
- Ethernet and SDH Local
- Ddos Blackholding
- Ddos Protection
- Secured Gateway

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THANK YOU