IP Transit: Who is the BEST?

Simon Sohel Baroi
Sr. Manager, ITC-IIG
IP Transit – The Main Criteria:

- TOP-10 Providers from – Cost Comparison.
- Latency
- Infrastructure
- Theory of Success
Top Providers
The TOP TEN List of 2013:

Baker’s Dozen for 2013

*Level 3*

NTT
Telia Sonera
GTT
Cogent
Tata
Sprint
Verizon
Tel. Italia Sparkle
PCCW
China Telecom
XO
Hurricane Electric

*(formly: Global Crossing)*

A Baker’s Dozen, 2013 Edition
Project: DHAKA - LONDON

- Capacity: STM-16 (POS Port)
- Data Center: Telehouse East London
- Submarine: Sea-Me-We-4
- Last Mile Provider: XYZ
- IP Port: Level3 (AS3356)
Cost:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Cost (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka-Cox’s Bazar Landing Station</td>
<td>STM-16</td>
<td>11,538.00</td>
</tr>
<tr>
<td>Cox’s Bazar towards Chennai Half Circuit</td>
<td>STM-16</td>
<td>22,051.28</td>
</tr>
<tr>
<td>Chennai to London TELEHOUSE East</td>
<td>STM-16</td>
<td>15,000.00</td>
</tr>
<tr>
<td>Level 3 IP port</td>
<td></td>
<td>3,500.00</td>
</tr>
<tr>
<td><strong>TOTAL COST</strong></td>
<td></td>
<td><strong>52,089.28</strong></td>
</tr>
</tbody>
</table>

Per Mbps Cost: 21.70 USD
Submarine Cable Connectivity at Bangladesh:

Submarine Cable: Sea-Me-We 4

Operator: Bangladesh Submarine Cable Company Limited (BSCCL)

Terrestrial Cable: At Benapole Border
Beyond 5 position:

Baker’s Dozen for 2013: Providers 5–8

A Baker’s Dozen, 2013 Edition
Cost:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Cost (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka – Chennai with STM-16 IP PORT</td>
<td>STM-16</td>
<td>36,000.00</td>
</tr>
<tr>
<td>TOTAL COST</td>
<td></td>
<td>36,000.00</td>
</tr>
</tbody>
</table>

Per Mbps Cost: 15.00 USD
**IPv4:**
Telstra Global
Pacnet Global Ltd
Hurricane Electric, Inc.

**IPv6:**
Telstra Global
Pacnet Global Ltd
Hurricane Electric, Inc.
Hong Kong Internet Exchange
Difference:

TATA Communications
New York

Level3
New York

NUS (National University of Singapore)

263 ms

252 ms
Latency
Infrastructure
Submarine Cable Connectivity at Bangladesh:
Submarine Cable Connectivity at Bangladesh:
Theory of Success
Theory of Success:

- Connect to Regional Internet Exchange
- Peer more and more.
1) AS15169: Google Inc.
2) AS32934: Facebook, Inc.
3) AS39832: Opera Software ASA
4) AS16625: Akamai Technologies, Inc.
5) AS22822: Limelight Networks, Inc.
6) AS9498: BHARTI Airtel Ltd.
7) AS16265: LeaseWeb B.V.
8) AS54994: MILEWEB, INC.
9) AS7922: Comcast Cable Communications, Inc.
10) AS16276: OVH SAS
11) AS16509: Amazon.com, Inc.
12) AS174: Cogent Communications
13) AS3356: Level 3 Communications, Inc.
14) AS14618: Amazon.com, Inc.
15) AS36351: SoftLayer Technologies Inc.
Make AS Path Shorter:

- F@H AS58587
- EQUINIX
- LimeLight AS22822

Client

Global Prefixes
Peering – more and more Peering

Cost Comparison: (in AISA)
1 GE Peering with in IX = 6 x GE Peering with CDNs
AS : 58587

- EQUINIX Singapore
- Global Switch Singapore
- Mumbai
- Chennai
- London (TeleHouse East)
- Bangladesh
Thank You.