Welcome to NANOG43

Big APE & VPF

Shrihari Pandit
President & CEO
Stealth Communications
spandit@stealth.net
1-212-232-2020
Connecting is a swing away

Big Apple Peering Exchange
It’s a jungle out there.
Background

- Launched in 2001 as NY6IX

- Distributed IX with nodes @ 60 Hudson, 111 8th Avenue, 25 Bway

- For the exchange of native IPv6 traffic
Big APE

NY6IX is now Big Apple Peering Exchange

- Big APE created in April 2005 with a mission to provide high-performance, low-cost peering services in NYC

- Force10 and Telx are sponsors of the service by providing equipment, space and power

- NY6IX merged into Big APE in Q4 2005
Big APE

Topology

25 Broadway Members
~ 10 Members

Big APE
Force 10 E300
60 Hudson

~ 15 Members

Big APE
111 8th Avenue Members
~ 8 Members

Addressing Supported by Members
~ 16 IPv6
~ 23 IPv4
Traffic Statistics - 30 Day View

Max: 21.8 Gbits/s Avg: 5.1 Gbits/s Cur: 10.6 Gbits/s
Business Model

- Cost Recovery Model

- 1 Gbps Ports are $1,000 annually

- 10 Gbps Ports are $2,500 annually + $15,000 one-time
**Background**

- An IX-like service
- For the exchange of VoIP traffic
- Started at Telx 60 Hudson Street
Distributed IX for VoIP

- The Westin Building, Seattle, WA
- One Wilshire, Los Angeles, CA
- 600 S. Federal, Chicago, IL
- 151 Front St, Toronto, ON
- 60 Hudson, NYC
- 600 S. Federal, Chicago, IL
- 2323 Bryan, Dallas, TX
- 56 Marietta, Atlanta, GA
- NAP, Miami, FL
- BEB, St. Louis, MO
- 1 Summer St, Boston, MA
- London, UK
Distributed IX for VoIP

- Protected Wavelengths
- Ethernet over Wave (without adoption layer)
- 1:1 (Non Overbooked)
- LACP (Bonding Multiple Wavelengths)
Statistics

Voice Peering Fabric Run-Rate (30 Day Moving Average)

1st peering system for VoIP

200 Billion Run-Rate and Counting...

2B Run-Rate
18B Run-Rate
139B Run-Rate
28M e164’s

1M e164’s
5M e164’s
10M e164’s
20M e164’s

VPF ASP Market
1st SRV Registry
CNAM, MMS/SMS & Presence Support

1st Carrier ENUM Registry
Installed in 9 U.S. Cities + UK

© 2008 Stealth Communications
Proprietary and Confidential; do not copy, duplicate or distribute.
Voice Peering Fabric (VPF) Statistics

Data based on Jun 02 2008, Updated daily.

**Daily Volume**

**Minutes Peered:** 1,337,297,416

**ENUM calls:** 691,364

**Annual Run Rate**

**Minutes Peered:** 393,652,664,980

**ENUM Calls:** 235,478,627

Methodology and Data Collection

For each minute, the Voice Peering Fabric is measuring the amount of RTP traffic that enters the fabric from each VPF Member port. Each one-minute bandwidth sample represents the total volume of calls. This number is then divided by the bandwidth usage of the G.711 codec to determine the approximate number of minutes in the one-minute bandwidth sample.
Real Life Implementations from the VPF
Q&A?

Shrihari Pandit
President & CEO
Stealth Communications
+1-212-232-2020
spandit@stealth.net

For more information, visit: www.bigape.us & www.thevpf.com