Welcome to NANOG43
Big APE & VPF

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STEALTH®
COMMUNICATIONS

Background

➢ Launched in 2001 as NY6IX

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

➢ For the exchange of native IPv6 traffic
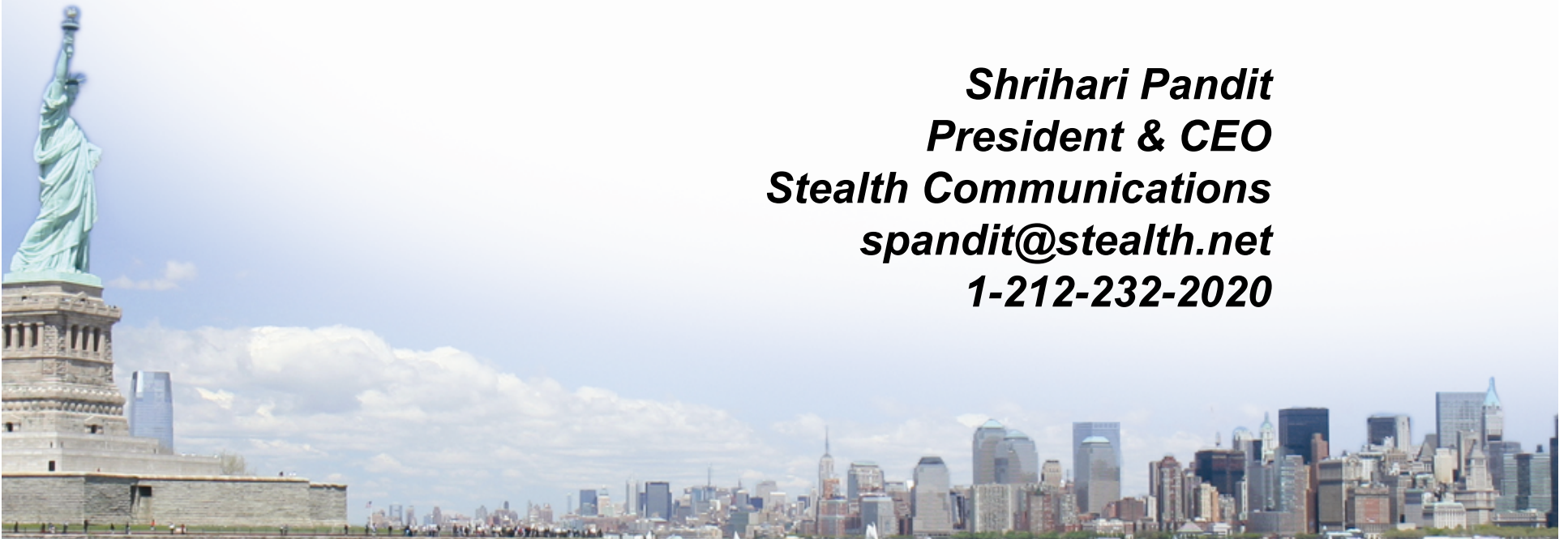
NY6IX is now Big Apple Peering Exchange

➢ 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
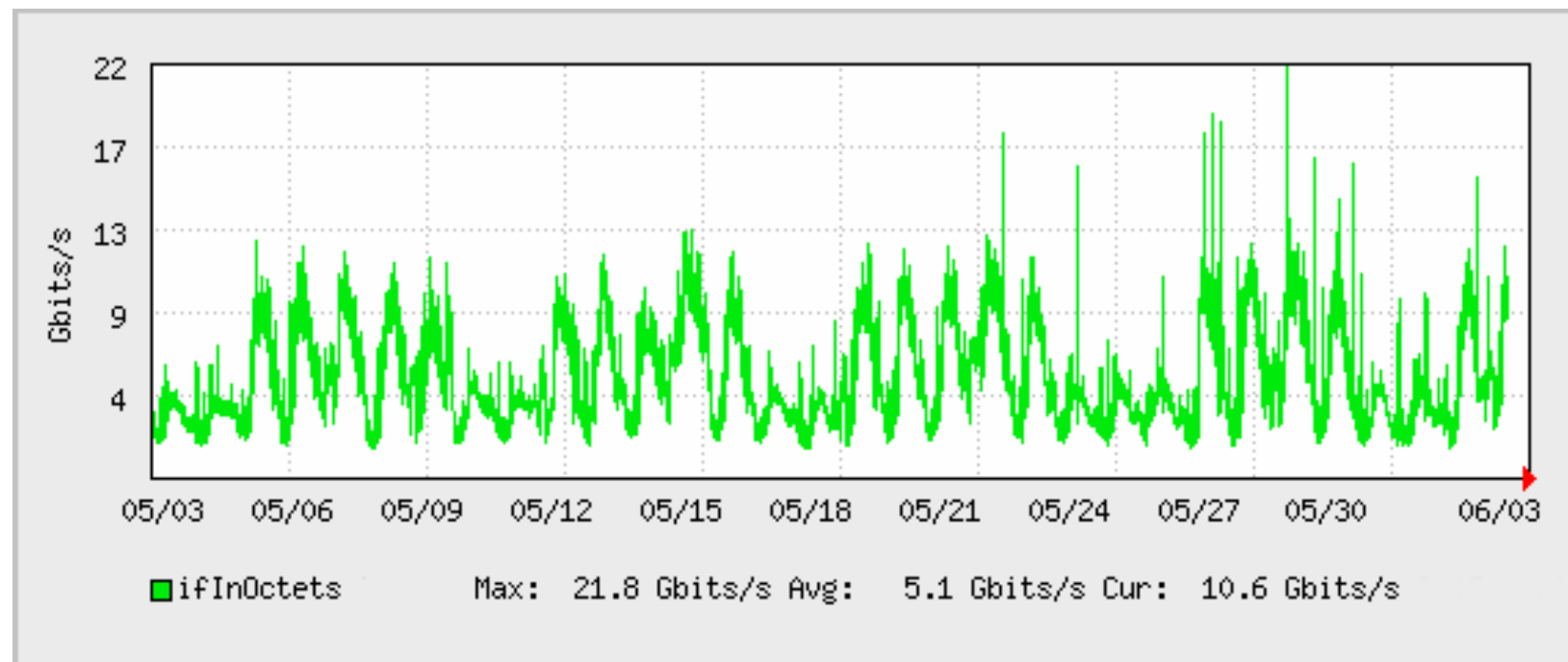
➢ NY6IX merged into Big APE in Q4 2005

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Topology

25 Broadway Members — WDM MOD / FILTERS — **Big APE Force10 E300 60 Hudson** — FILTERS / WDM MOD — **111 8th Avenue Members**

~ 10 Members   **~ 15 Members**   **~ 8 Members**

Addressing Supported by Members

~ 16 IPv6

~ 23 IPv4

Big APE

Traffic Statistics - 30 Day View
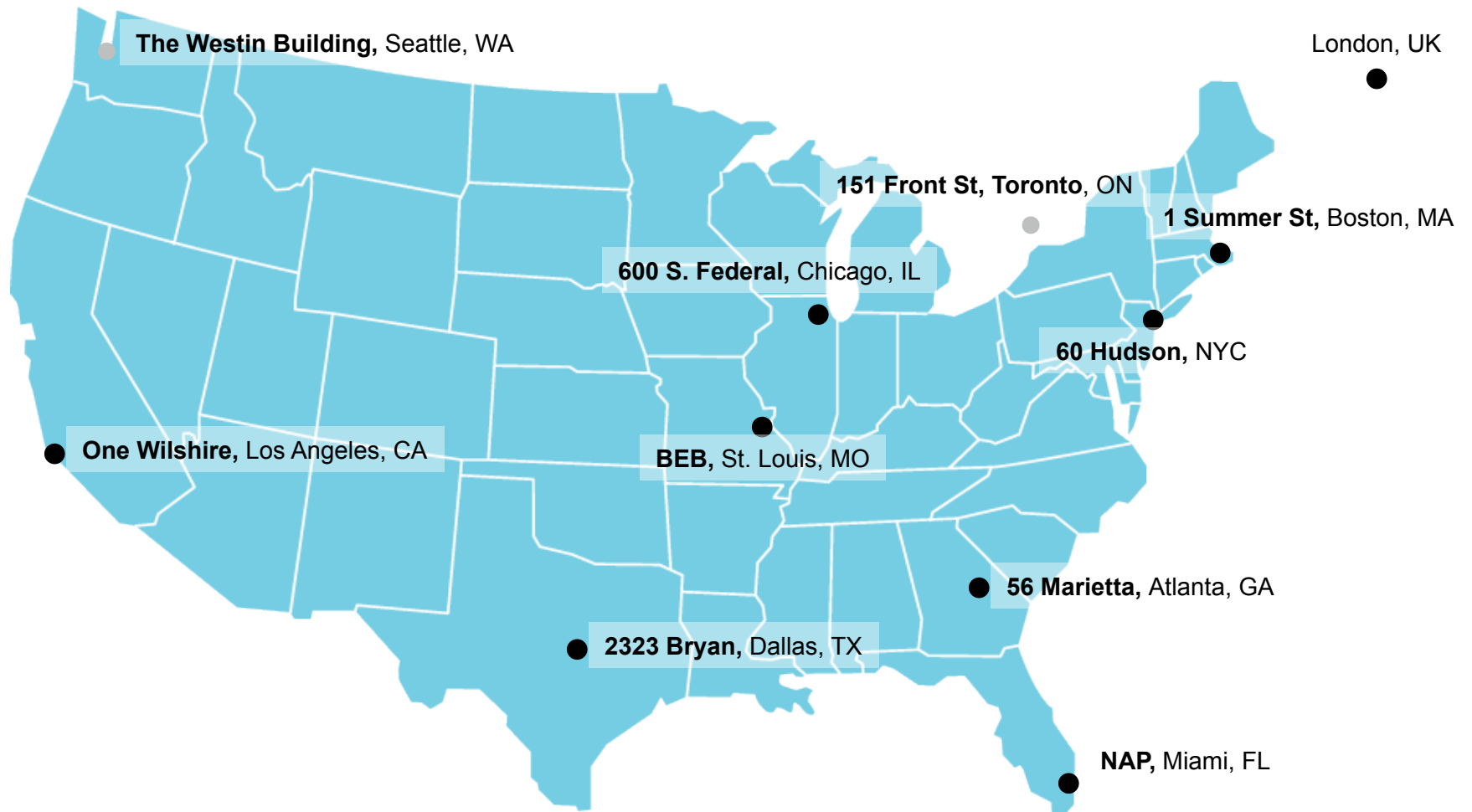
Business Model

- ➢ Cost Recovery Model

- ➢ 1 Gbps Ports are $1,000 annually

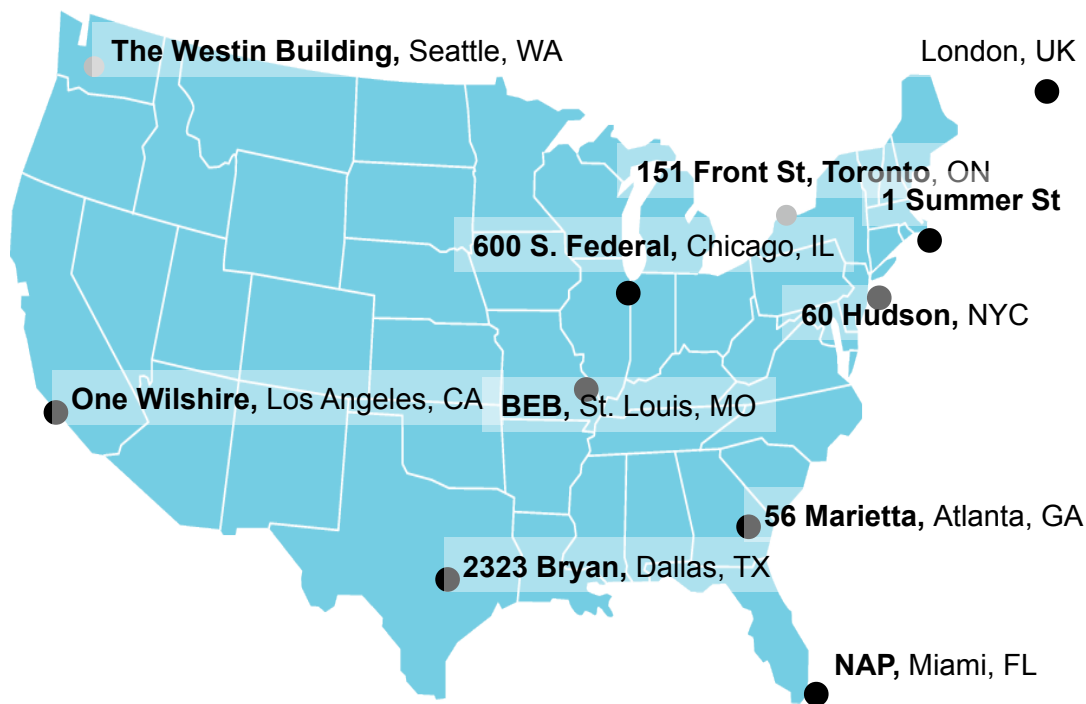- ➢ 10 Gbps Ports are $2,500 annually + $15,000 one-time

Background

- An IX-like service

- For the exchange of VoIP traffic

- Started at Telx 60 Hudson Street

VPF

Distributed IX for VoIP

The Westin Building, Seattle, WA

London, UK

151 Front St, Toronto, ON

1 Summer St, Boston, MA

600 S. Federal, Chicago, IL

60 Hudson, NYC

One Wilshire, Los Angeles, CA

BEB, St. Louis, MO

56 Marietta, Atlanta, GA

2323 Bryan, Dallas, TX

NAP, Miami, FL

Distributed IX for VoIP

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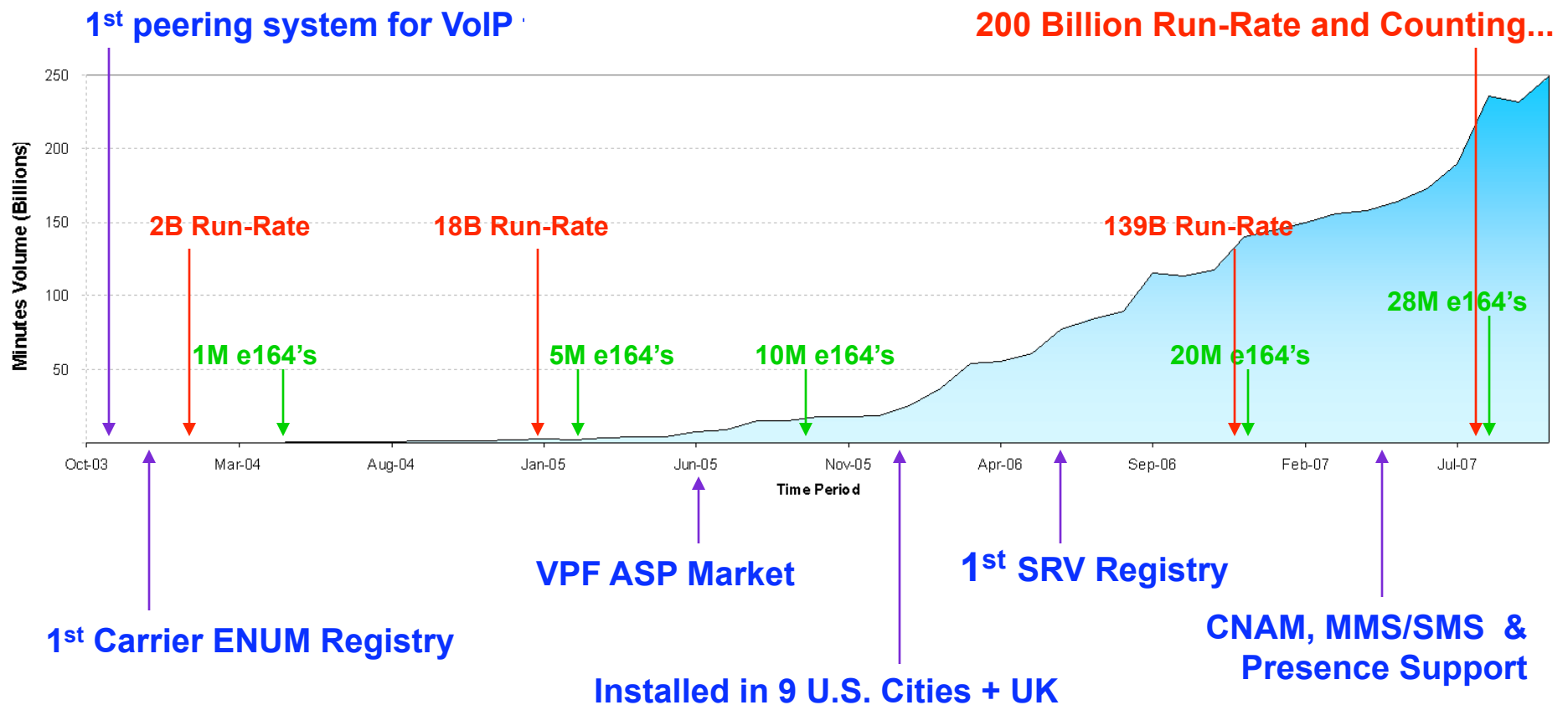
56 Marietta, Atlanta, GA

2323 Bryan, Dallas, TX

NAP, Miami, FL

- Protected Wavelengths

- Ethernet over Wave (without adoption layer)

- 1:1 (Non Overbooked)

- LACP (Bonding Multiple Wavelengths)

VPF

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

1M e164's

5M e164's

10M e164's

20M e164's

28M e164's

VPF ASP Market

1st SRV Registry

1st Carrier ENUM Registry

Installed in 9 U.S. Cities + UK
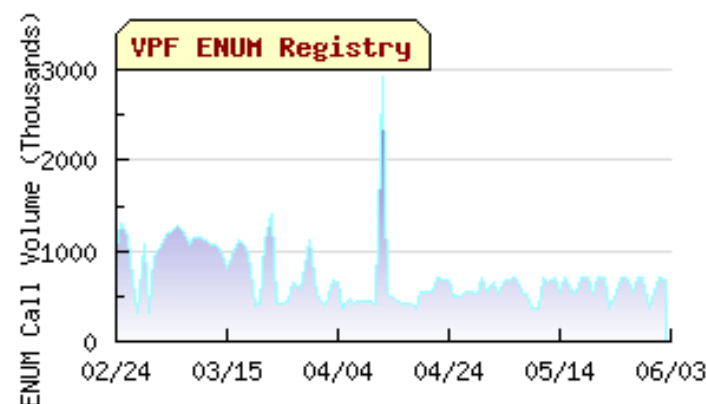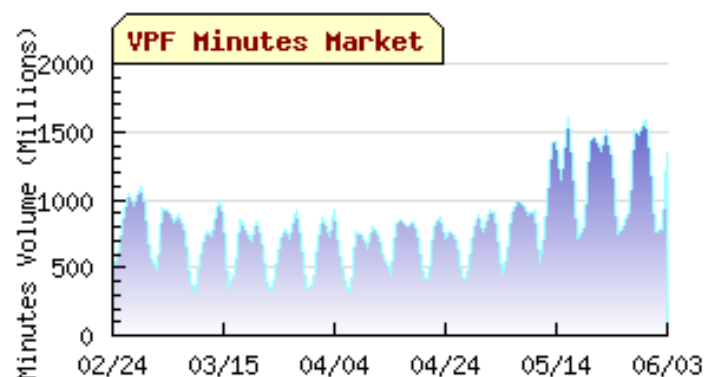
CNAM, MMS/SMS & Presence Support

VPF

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

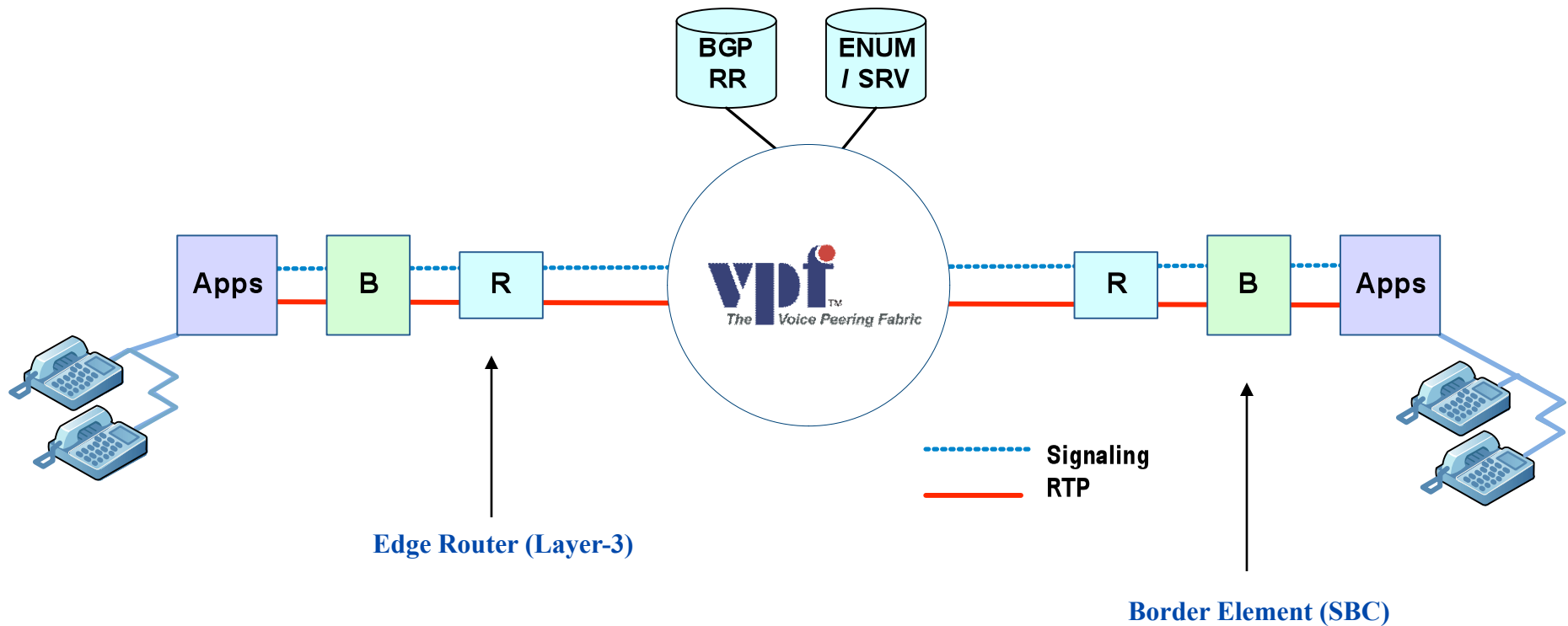*Annualized run-rate based on 30-day moving average.*

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

BGP RR

ENUM / SRV

Apps | B | R

vpf™
The Voice Peering Fabric

R | B | Apps

Signaling
RTP

Edge Router (Layer-3)

Border Element (SBC)

Q&A?

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Thank you

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