Introduction

Service Offering

Numbering

No Special Number Exhaust Issues Associated with VoIP Providers

January 22, 2003
“2002 saw the introduction of reliable Internet telephony services as companies such as Vonage are providing an alternative to analog wired telephony over a broadband connection.”

–FCC Chairman Powell*

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**2001**
- Q1: Company Founded
- Q2: Raised $12MM
- Q3: Technical Testing Begins

**2002**
- Q1: Vonage DigitalVoice Released into Production
- Q2: Consumer Product Launches
- Q3: Completed One Millionth Call on Vonage Network

**2003**
- Q4: Completed Five Millionth Call on Vonage Network
- Q1: 10,000 Customers

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*FCC Chairman Powell in his remarks to the Senate Committee on Commerce, Science and Transportation, January 14, 2003*
How It Works

Plug-n-Play Customer Premises Equipment

Works With Any Touch-Tone Phone
Vonage to Vonage Call Flow

Broadband Internet

Internet

Broadband Internet
Vonage to PSTN Call Flow

Broadband Internet

VONAGE PARTNER

PSTN
PSTN to Vonage Call Flow

(212) PSTN
VONAGE PARTNER
PRI
Vonage POP
Internet
Broadband Internet
Standard PSTN Features

- Voicemail
- Caller ID
- Call Waiting
- Call Forwarding
- Call Transfer
- Repeat Dialing
- Call Return (*69)
- Caller ID Block (*67)
- Call Hunt
- Local Number Portability

Vonage DigitalVoice® Features

- Web Based Voicemail Retrieval
- Real-time Calling Activity
- Low International Rates
- Online Features Management
- Network Availability Number
Service Offering

Premium Unlimited Residential
Unlimited Nationwide Local & Long Distance Calling
$39.99

Premium Unlimited Business
Unlimited Nationwide Local & Long Distance Calling
$69.99

Local Unlimited Residential
Includes 500 Long Distance Minutes
$25.99

Basic 1500 Minute Business
1500 Nationwide Local & Long Distance Minutes
$39.99
Vonage currently offers service in the following states/area codes:

NY 212, 917, 646, 718, 516, 631, 914, 845, 518, 585, 716, 315
NJ 732, 201, 908, 973, 609, 856
CA 415, 408, 510, 650, 707, 831, 925, 858, 619, 310, 323, 213, 818, 714, 805, 661, 562, 626, 949, 909, 760, *916
DC 202
TX 214, 254, 469, 713, 817, 903, 940, 979, 832, 936
FL 305, 561, 786, 954, 321
GA 404, 678, 706
IL 312, 773, 847, 630, 708, 815
MA 617, 781, 508, 978, 413
DE 302
IN 219
PA 215, 267, 484, 610, 412
MD 240, 301, 443, 667, 410
MN 612, 763, 952, 651
CT 203, 860
WA 206, 253, 360, 425
VA 703
MI 248, 313, 517, 586, 734, 810
OH 440, 216
NH 603
RI 401
CO* 303,720
OR* 503, 971
AZ* 602, 480, 623
MO* 314, 636, 557
NV* 702

Vonage plans to offer service in the following cities in 2003

**Q2 2003**

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<th>Area Code</th>
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*By January 2003

POP Last Updated: 01.06.03
Service Features

❄ Vonage Maps IP Addresses to Phone Numbers
  • Vonage uses numbers as a unique identifier for IP addresses
  • Number is assigned remotely to the MTA IP address when device registers with our network
  • IP addresses are dynamic, therefore Vonage can assign MTA any number regardless of physical location
  • Majority of Vonage customers choose native NPAs
  • One number per account (MTA)

❄ Number Mobility – MTA Device Is Similar to Wireless Phone
  • MTA is mobile throughout US wherever there is broadband
  • Like a wireless phone, people can reach you at the same phone number regardless of physical location

❄ Keep Your Existing Number
  • Vonage LEC partners support local number portability
  • LNP allows Vonage customers, via their partnerships, the ability to migrate their existing phone numbers to Vonage service
  • Customers that leave Vonage/underlying partner can also take their number with them to another provider
How does Vonage obtain numbers?

- Vonage partners with Tier 1 local exchange carriers
- Numbers come from common carriers
- Partners then provide Vonage telephone numbers from their existing blocks
- Calls delivered to Vonage via PRI circuit at a corresponding gateway relative to the coverage area
- Vonage then dynamically assigns a number from this range via IP to a customer’s MTA
Numbers come from a common carrier compliant with NANPA

Vonage purchases telecommunications services/receives number resources from common carrier like any other large business customer

- Large businesses receive blocks of numbers for PBXs and allocate numbers to users attached to PBX
- Some paging carriers still use blocks of numbers from LECs to assign to their customers
Ability to offer number outside of customer’s “home” rate center similar to FX, wireless
  • LECs offer customer similar ability through FX service
  • Wireless carriers also offer the ability to take foreign numbers physically into another geographic location

Impact of VoIP on numbering pool at this juncture is neutral
Annual U.S. Residential Revenue in $billions by telecom service type

Source: Forrester Research, Inc. – data represents line fees only, does not reflect content fees like directory services
2002 – first year in history US wireline access lines declined*

Migration from dial-up to broadband adds numbers back to pool

Wireline access lines will likely continue to decline indefinitely with competition from wireless services and broadband

FCC and state PUCs implementing number conservation measures such as 1,000 block pooling

*FCC Chairman Powell in his remarks to the Senate Committee on Commerce, Science and Transportation, January 14, 2003, page 4
Impact of new technologies on numbering resources is neutral at worst

Issue of exhaust is being addressed by the FCC and State PUCs’ current numbering conservation efforts

No special numbering conservation measures are needed due to VoIP