



*The Complete VoIP Telecom Service Provider*

*The Evolution of a SIP Trunking  
Provider*

By:

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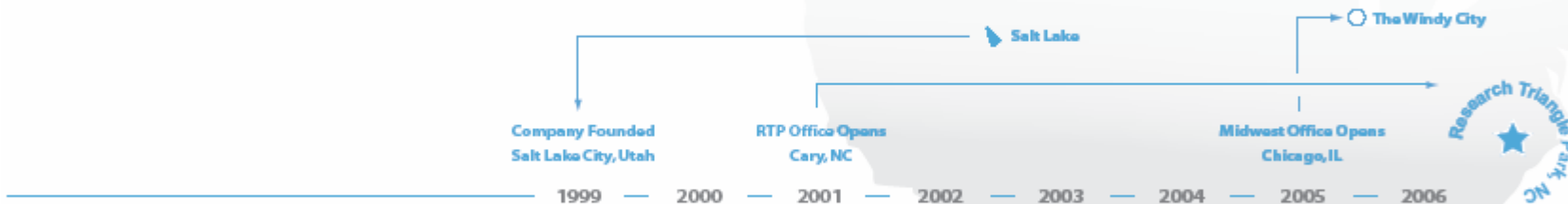
Director of Technology partner  
Assurance

- **Who is Bandwidth.com Today**
- **Before VoIP**
- **The Addition of VoIP**
- **IADs and Such**
- **Straight SIP**
- **The Future?**
- **Q&A**



Bandwidth.com is a complete provider of telecommunications services to

# Small and Medium Sized Businesses in all 50 States



▶ 130+ Employees

▶ Sell:

- ▶ Business-class data (DSL thru OCx)
- ▶ Hosted IP-PBX Services
- ▶ Flexible T-1
- ▶ Origination Termination Services
- ▶ SIP Trunking
- ▶ Professional Services

**250%**  
Annualized Revenue Growth

**Profitable**

**99.1%**  
Customer Retention



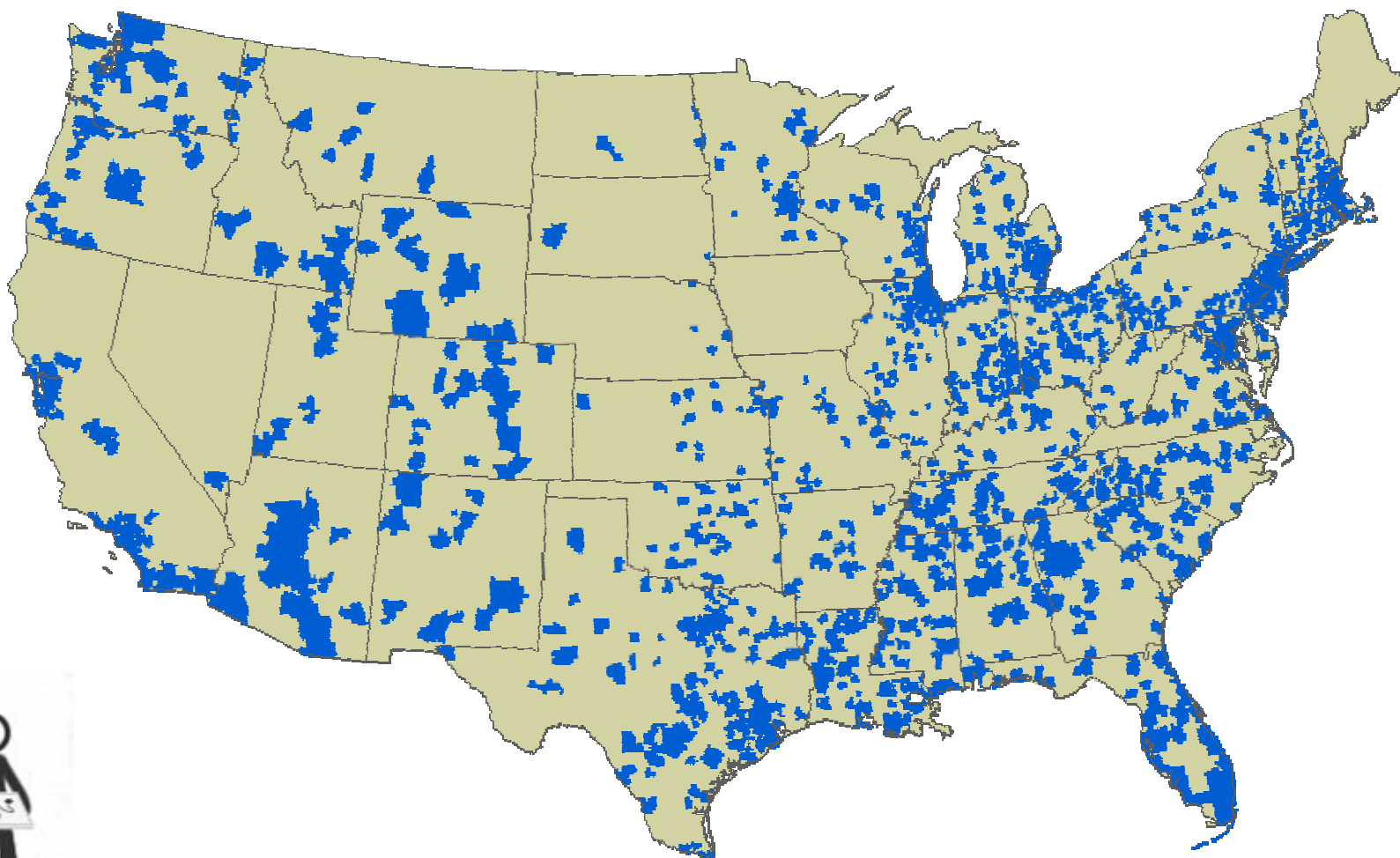
- #1 fastest growing privately held telecom company in the Country
- #1 fastest growing privately held company in North Carolina
- #16 fastest growing privately held company in the Country



Annual award given for a company's achievements in creating a positive work environment that attracts and retains employees through a combination of benefits, working conditions and company culture.

TRIANGLE BUSINESS JOURNAL

Serving over 400 Markets representing over 83% of the U.S. Population.....



- Year: 2004
- Employees: 35
- Products Sold:
  - Internet T-1 - 100%
    - Sold through direct and Indirect channels
- Key Challenges:
  - Growth!!!
- New Products
  - Hosted IP-PBX

- A fully hosted PBX providing customers a low initial investment phone system
  - Originally worked with Level 3 (3)Tone
  - Built our own Sylanro based platform
- Quickly realized that Hosted IP-PBX had limitations that hampered growth:
  - Pricing by user (in response, PBXs got cheaper)
  - Deployment of SIP
  - Customer availability
  - Channel refused to sell it
- Still was able to grow but growth did not outpace traditional T-1 services.

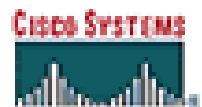
- Year: 2005
- Employees: 60
- Products Sold:
  - Internet T-1 - 90%
    - Sold through direct and Indirect channels
  - Hosted IP-PBX - 10%
    - Sold Direct
- Key Challenges:
  - How do we get more companies to adopt VoIP
- New Products
  - Flex-T (delivering dialtone to PBXs)

- SIP to and IAD delivering Digital and analog lines to a traditional PBX or Key-system
  - Designed to help companies and channel sales adopt VoIP
  - Built our own SER based platform
- Key challenges:
  - Internet Access & Quality
  - Hardware costs
- This grew much faster than Hosted, but costs for IADs kept it from growing faster than traditional T-1s

- Year: 2006
- Employees: 85
- Products Sold:
  - Internet T-1 - 70%
    - Sold through direct and Indirect channels
  - Hosted IP-PBX - 10%
    - Sold Direct
  - Flex-T – 20%
    - Sold Direct and Through Channel
- Key Challenges:
  - How do we get more companies to adopt VoIP
- New Products
  - SIP Trunking

- A direct SIP based connection to IP-PBXs
  - Worked with initial Asterisk community, Mitel, Allworx and others to build a supported SIP Trunking solution.
  - Utilized our own SER based platform
- Key challenges:
  - **Education** – Channel, Industry, Community, Customers, PBX Mfg
  - **SIP is a vague standard**
    - PBXs deploy SIP with vast differences. (Registration, TLS, CallerID, Call Transfer)
  - **No Firm DMARC**
    - How do we quickly identify the source of an issue?
  - **Internet Access and Quality**
    - How do we maintain carrier choice and coverage and maintain quality?
  - **Governmental Regulation changes and uncertainty**
    - What is the Government going to make us do?
  - **Security**
    - What are the risks and how will companies prioritize those risks?
  - **Race to the Bottom \$**
    - Every new provider is a lower price
- This has had explosive growth in combination with other VoIP services has finally displaced traditional T-1 services.

- **Simplify Your Network**
  - Eliminate costly TDM infrastructure
  - Converge data and voice onto single circuit
- **Lower Costs**
  - Bundled local & inbound dialing
  - Highly competitive LD rates
- **Ease of Installation**
  - No additional hardware necessary
  - Simple installation process
- **Unrivaled Service Footprint**
  - Addresses 80+% of US population
  - Numbers and local dialing in 5,000+ rate centers
  - Bandwidth.com can provide Internet circuit from all Tier 1 providers
- **Intuitive and Powerful Customer Portal**
  - Provides customers real-time visibility into their SIP Trunking service via:
    - Online Call Detail Records
    - Order / Installation Tracking
    - Trouble Ticket Creation & Tracking
    - Control Service resilience and DR capabilities in real-time



- Year: 2007
- Employees: 100+
- Products Sold:
  - Internet T-1 - 50%
    - Sold through direct and Indirect channels
  - Hosted IP-PBX - 10%
    - Sold Direct
  - Flex-T – 10%
    - Sold Direct and Through Channel
  - SIP Trunking – 30%
    - Sold Direct and Through Channel
- Key Challenges:
  - Interoperability
- New Products
  - InGate SIParator

- **NAT Traversal**
  - Provides needed NAT traversal that we can help our partners and channel support.
- **Security**
  - Is a very strict firewall with many features
- **Interoperability**
  - Allows us to keep the impact of PBX SIP differences to a minimum
- **DMARC**
  - Gives our support team a way to test and ascertain the root of SIP and RTP issues.
- **Manage Call Quality**
  - The InGate firewall can handle traffic shaping for customers who have a single Internet connection.

- Security will gain more of a buzz
  - TLS
  - SRTP
  - Other?
- Interoperability will be more defined
  - SIP Connect
  - Other?
- SIP Trunking pricing will continue to lower
  - Until the major carriers and SIP providers emerge with attractive bundled services
- The line between premised based and hosted will blur
  - Inbound call control in cloud
  - Local call processing
- SIP Trunking adoption will continue to grow

- Questions?