

BroadWorks® Voice VPN Case

The Voice VPN is a compelling application within the BroadWorks platform. This application enables service providers to:

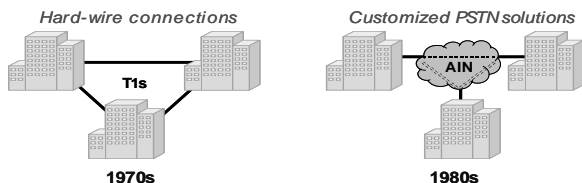
- Increase revenue from existing data VPN customers
- Differentiate VPN offering to stimulate demand
- Target & close large, multi-site enterprise customers

As discussed below, revenue and sales objectives can be met with limited upfront investment and an 8-month ROI.

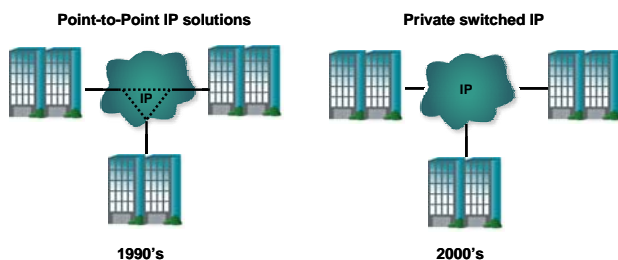
Background

Over the past several decades, corporate managers have gone to great lengths to reduce telecommunications costs and enhance voice services. Multi-location businesses, in particular, sought to reduce PSTN charges by carrying site-to-site traffic through a private network.

In the 1970s, the most effective way to deploy private voice networking was by provisioning dedicated lines, typically T1s, between sites. With advances in the 1980s, service providers were able to offer AIN-based solutions. These solutions were highly customized and offered limited capacity to carry enhanced services.



With the ubiquity and versatility of IP networks and open system architecture, service providers have turned to IP for private voice networking solutions:



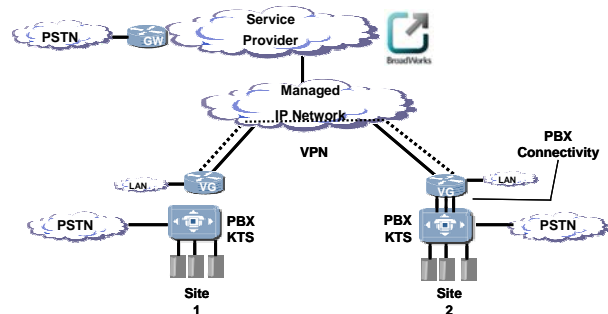
In early 2000, technical advances have minimized customizations and dramatically changed the economics of IP for private voice networking.

Enterprise Networking Environment

Most multi-site companies have adopted PBX-based voice architecture. PBXs are typically purchased to manage site-level voice services and connect to carrier networks. While this offers managers control of site-level services, it limits the ability to

extend services between sites and exposes companies to PSTN charges for inter-site traffic.

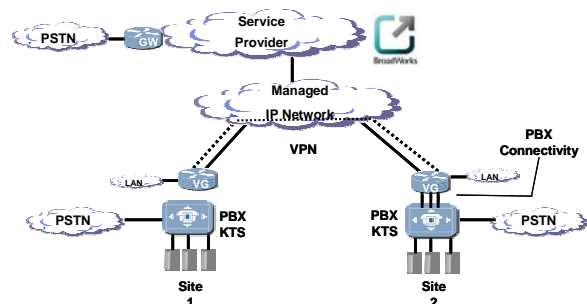
For data applications, virtual private networks (VPNs) are increasingly being selected for the core of multi-site data networks. IP networking enables VPNs to deliver increased security, a wide range of applications, and enhanced performance. VPN channels offer an attractive option to the PSTN to carry voice traffic, enabling site-to-site voice services, and reducing costs.



Application

BroadSoft's Voice VPN is an application within the BroadWorks platform that uses IP networks for site-connectivity and voice services. Voice VPN is delivered by the BroadWorks Network Server and Voice VPN private routing policies. Access gateways are commercially available that connect a variety of customer premises equipment (CPE). On-net calls are managed through the VPN using SIP protocol.

By connecting to a variety of CPE, including PBXs and key systems, Voice VPN connects branch offices, HQ, and international sites. End-user moves, adds, and changes are made through the BroadWorks Web interface and are performed rapidly by corporate administrators. Outbound long distance is routed by public policies for optimized carrier selection. Voice Portal Calling enables Voice VPN capabilities for the SOHO, teleworker and business traveler.



Capabilities – For multi-site enterprises, BroadWorks Voice VPN enables:

- Reduced site-to-site LD
- *Private dialing plan*
- *Voice Portal* for remote ("1-800") connectivity
- Web enabled moves, adds, and changes
- *Least cost routing* for outbound LD

There are several options for pricing and packaging VPN features. Service providers may bundle features into a single package or offer services a-la-carte. For site-to-site long distance, service providers may charge a fixed monthly fee and set charges based upon a combination of subscribers, sites, or total traffic.

Pricing and packaging options enable service providers to optimize customer satisfaction and maximize revenue per customer. Additional billing options, such as "per minute" or "per call", are available with the addition of a proxy server that generates a call detail report (CDR).

Implementation and Business Case

The case begins with the opportunity surrounding site-to-site long distance costs, an expense which can be as high as 1/3 of total long distance for multi-site companies.

Opportunity: A standard target enterprise (with 5 sites times 400 subscribers) is used for modeling. Subscribers make 16 minutes of site-to-site calls per day. That total is equivalent to roughly one 4-minute call every 2 hours during the workday. These calls are presumed to cost 5 cents/minute. Given this call volume, the enterprise spends roughly \$25K for site-to-site LD per month.

Selling Proposition: The service provider adds enterprise customers by offering 50% savings on site-to-site LD. With a signed contract, up-front charges are waived.

Revenue: For the model enterprise above, service providers generate recurring revenue of \$12.5K per month. Service providers grow revenue through the addition of one new enterprise customer per month.

Network: Implementation assumes the presence of an existing data VPN for IP site-connectivity. PBXs are connected to the VPN by upgrading existing routers or installing new routers.

Costs: CPE costs are calculated through a blend of new routers, existing router upgrades, and installation expenses. Network costs include BroadWorks, SUN hardware, and installation expenses.

Upfront charges for the service provider include hardware, software and installation and total \$214K. Given the assumed site-to-site call-volume, assume an incremental cost of \$40K to roll out each additional enterprise.

Return: There are several ways to consider return on investment. Incrementally, it costs \$40K to add an enterprise that delivers \$12.5K per month. Payback is just over 3 months. By adding one customer per month, a service provider recovers total cash investment in 8 months. Two-year costs, including all hardware, software, and installation are \$1,208K while revenue is \$3,750K. Return on investment is 310%.

Additional Factors: For simplicity, the Voice VPN model hasn't included the impact of other Voice VPN capabilities:

- *Voice Portal Calling* can add \$4000/month/enterprise revenue by capturing highly lucrative remote access traffic from off-site employees. This traffic historically commands rates as high as 15 cents/minute.
- *Web-enabled Moves, Adds, Changes (MACs)* can reduce service support costs by 25%. Changes are performed by corporate administrators or internally for as little as \$1/MAC.

- *Least Cost Routing* enables capture of outbound LD traffic. Considering the model enterprise, LD could add an additional \$75,000 of revenue per month and optimizes carrier selection for lowest rates and increased margins.
- *Private Dialing Plan* and *Web Access* are services that add top-line revenue with estimated rates of \$1000/month/enterprise.

Model Summary – Site-to-site LD	
Target Customer	<ul style="list-style-type: none"> • 2000 total employees over 5 sites • 16 min. site-to-site LD per day per person
Opportunity	<ul style="list-style-type: none"> • Intra-company LD over IP VPN • Current cost is \$25K per month
Selling Proposition	<ul style="list-style-type: none"> • 50% reduced rate, flat charge/month • Up front charges waived for term contract
Revenue	• \$12.5K per enterprise/month
Network	<ul style="list-style-type: none"> • Upgrade or install voice capable routers • Connect PBX to VPN • Install BroadWorks, Voice VPN license
Cost	• \$214K up front (\$40K per enterprise)
Cash Payback	• 8 month cash payback
2-Year Return	<ul style="list-style-type: none"> • Revenue = \$3,675K; Cost = \$1,208K • Return on investment = 304%

BroadWorks Enhanced Services

BroadWorks capabilities extend to applications beyond Voice VPN. The BroadWorks platform enables service providers to layer additional services onto a PBX based voice network.

With the Application and Media Server, providers can offer:

- Voice Messaging
- Web Conferencing
- Auto-attendant
- IP Centrex
- Call Center
- Remote Office

These services overlay the PBX architecture but are not bound by it. BroadWorks enhanced services connect all employees, regardless of location and CPE. For example, voice messaging and auto-attendant can route messages/calls from site-to-site and HQ to branch offices for more effective integration of multi-site business processes.

PBX Replacement – For site level services, BroadWorks IP Centrex enables enterprise customers to cost-effectively decommission PBX infrastructure. Not only does the end user benefit from greater selection of services, but the provider also captures added revenue and enjoys reduced customer churn.

Contact BroadSoft

BroadWorks Voice VPN is currently generating revenue for multiple service providers. System implementation can be completed in as little as three months. Contact BroadSoft for more information.