BroadSoft delivers next generation VoIP services using Linux on IBM BladeCenter

Highlights

- ***Comprehensive set of voice applications over next-generation networks***
- ***Modular architecture helps support telecom service provider's need to scale capacity in-line with subscriber growth***
- ***IBM Systems provide a flexible, standards-based foundation for BroadWorks platform***

The evolution of telecommunications

The telecommunications industry is facing unprecedented changes, driven by an increasingly competitive business environment. Telephony Centrex services built on proprietary, closed architectures tend to be expensive to deploy and maintain. This has left many of those services essentially unchanged and in steady decline over the past decade.

New and emerging IP-based voice products built on open, industry standards based platforms are quickly gaining market acceptance by overcoming these traditional problems with exciting new applications and capabilities. These applications are opening new opportunities for service providers to potentially generate increased revenues and strengthen customer loyalty.

Many service providers are leveraging these capabilities by moving beyond generic offerings toward targeted services tailored to address the unique needs of particular subscriber segments. Moreover, the widespread adoption of IP voice and data services is enabling a new business paradigm: converged services, which include voice, video and data offerings across a single network.

Convergence with a VoIP application platform

BroadSoft is a pioneer in VoIP application software. Its flagship BroadWorks® platform empowers wireless and wireline service providers to deliver next-generation voice and multimedia applications with advanced features that help increase revenue potential, enhance competitive differentiation and elevate customer satisfaction. BroadSoft's family of "carrier-class" software products delivers the scale, open architecture and reliability that the world's leading telecommunications companies demand to serve mission-critical enterprise and residential broadband customers.

"The modular architecture of the BroadWorks platform enables service providers to minimize their upfront expenses and to scale capacity; all while providing maximum flexibility for customization. Running our award-winning platform on IBM BladeCenter and System x server families ensures the performance, reliability, redundancy and scalability required for carrier-class service delivery."

— Bob Weidenfeller
Vice President of Engineering
BroadSoft

BroadWorks provides a comprehensive range of applications including Hosted PBX, IP Centrex, Mobile PBX, Residential Broadband Voice and Business Trunking. BroadWorks can be deployed in either an IMS or stand-alone architecture. In an IMS architecture, BroadWorks interacts through established open interfaces with the session control plane; in stand-alone, it can interacts directly with the devices. Functionality is distributed across server components to help optimize performance and enhance deployment flexibility. The core BroadWorks platform is comprised of three elements

- *Application Server provides the primary environment for call control and service management.*
- *Media Server performs media-oriented functions such as voice messaging, announcements, and music on hold.*
- *Network Server supports system-wide "geographic redundancy" and manages enterprise-level services such as private dial plans and private on-net routing policies.*

In addition, special function servers extend the capabilities of the BroadWorks VoIP applications platform and improve system performance:

- *Conferencing Server supports full feature, enterprise-grade audio and web conferencing.*
- *External Web Server handles all web traffic, enabling call control and service management functions maintain high performance levels.*
- *EMS Server provides a single point of control and management for the various servers within the BroadWorks VoIP application platform.*

BroadWorks applications provide an "out-of-the-box" service offering that helps minimize the issues and challenges associated with new service deployment. In addition, BroadSoft can work with service providers to further tailor applications to fit specific technology and market requirements, helping further reduce time-to-market and deployment risk. Combining an accelerated timeline with incremental deployment options, service providers can offer competitive services in the marketplace while helping increase return on investment.

BroadWorks on IBM Systems expands with the network

The BroadWorks modular architecture helps enable service providers to minimize up-front expense and scale their capacity in-line with subscriber growth. BroadWorks has been developed with an open, standards-based environment that provides flexibility for service providers to customize their offering.

BroadWorks running on the IBM BladeCenter™ and System x family of servers provides the performance, reliability, redundancy, and scalability required for "carrier class" service. These Linux® operating system-based servers provide a standards-based foundation for new applications in next-generation networks.

IBM BladeCenter family — for every customer need

The IBM BladeCenter T chassis provides hardware redundancy (power supply, I/O modules, management modules, L2 switching, mid-plane, etc.) thereby reducing potential points of failure in the solution.

The IBM BladeCenter is an advanced blade system which integrates servers, storage and networking into a single chassis — yielding significant simplification, improved density and potential TCO savings . A single family of common server blades, storage, I/O, switches and networking modules are fully supported and interchangeable across the family of BladeCenter chassis. The IBM BladeCenter chassis is designed as the ideal solution for data center deployments. The IBM BladeCenter H is for high performance computing platform, while the IBM BladeCenter T chassis is specifically designed for telecom central office deployments.

The new, IBM BladeCenter HT — a new, telecom optimized version of the BladeCenter H — opens new market opportunities with a new and powerful NGN platform ideally suited for telecom equipment and service providers.

The IBM BladeCenter T and BladeCenter HT deliver rich telecommunications features and functionality, including fault-tolerant capabilities, hot-swappable redundant DC or AC power supplies and cooling, and built-in systems management resources in a 20" deep chassis. The rigorous Network Equipment Building System (NEBS) Level 3 and European Telecommunications Standard Institute (ETSI) outline requirements typical of telecom central office environments in the areas of electromagnetic compatibility, thermal robustness, fire resistance, earthquake and office vibration resistance, transportation and handling durability, acoustics and illumination, and airborne contaminant resistance. The IBM BladeCenter T and BladeCenter HT chassis meet the NEB Level 3 / ETSI requirements[1].

BroadWorks on IBM Systems can help provide a rapid return on investment

Now that converged services are upon us, it is more critical than ever for service providers to offer distinctive and cost effective services to enterprise and residential broadband customers. By leveraging the next-generation voice and multimedia capabilities of BroadWorks, combined with the reliability, scalability, and high-performance of the IBM BladeCenter platform, service providers can build and deploy VoIP based services for this customer segment that help increase potential revenue and enhance competitive differentiation.

For more information

Learn how IBM Systems can help your company achieve more revenue and help reduce your costs, while helping you keep your profitable customers.

Have questions? Contact the IBM Telecommunications team today on how we can help you take advantage of our extensive industry expertise. Please visit us on the web at:

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September 2007