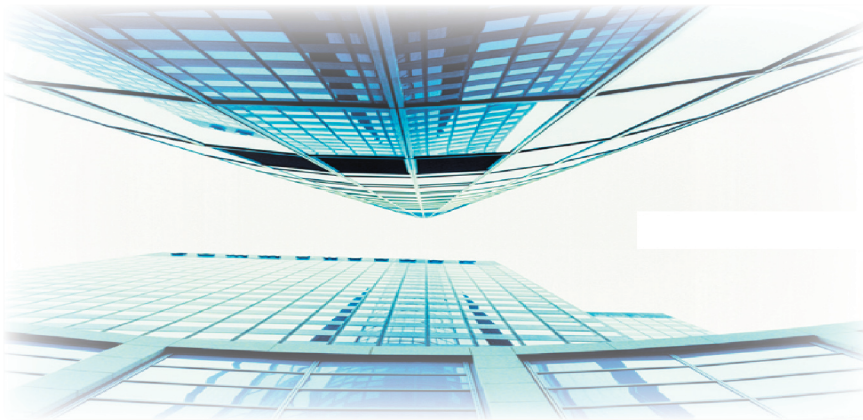


Verso delivers next generation VoIP services using Linux on IBM BladeCenter



Highlights

- **Unmatched density, modularity, functionality, integration and cost-efficiencies**
- **Complies with IMS architecture, providing standard interfaces for delivering value-added services and seamlessly integrating wireline and mobile networks**
- **Opens the way for consolidating VOIP-based applications such as Voice over Broadband, IP Centrex, VOIP peering and Class 4 services onto the same platform – generating even greater economies and flexibility**
- **Integrates Verso's advanced packet based-switching software and gateway hardware with IBM's BladeCenter T**

In today's evolving and competitive telecommunications market, service providers are looking to compete more effectively, and differentiate service offerings that will expand their markets while increasing their subscriber base. As a result, they are seeking technologies that will help reduce operating expenses by creating greater economies of scale and preserve investments in select legacy network equipment.

These technologies also need to support the migration to Next Generation Network (NGN) solutions, with the ability to support converged voice, data and video on a single network in order to support the global subscriber demand for new services. As a global provider of NGN solutions and products focused on the service provider market, IBM and Verso understand these drivers.

The Verso VoIP solutions portfolio enables a service provider to:

- *Implement a scalable and flexible NGN architecture to accommodate today's requirements, as well as supporting future network growth*
- *Preserve and leverage existing network investments as the network infrastructure evolves*
- *Provide alternatives for traditional tandem circuit switches built on legacy architectures*
- *Enter new markets quickly and affordably*
- *Increase ROI with the introduction of services and features*
- *Extend market reach by introducing new competitive services*

Verso solutions play a critical role in delivering voice and data transmission capabilities to millions of people around the world — at home, at work, and everywhere in between. Verso solutions leverage an end-to-end, NGN architecture that provides the core infrastructure, as well as the applications required to accelerate a service providers' time-to-revenue for new services over different access mediums. Verso solutions are built on an IMS compliant architecture and scales as the business grows.

Global footprint and versatility

Verso is a pioneer in softswitch technology and applications with deployments around the globe in more than 80 countries. IBM and Verso have worked together to offer a turnkey, VoIP solution leveraging an NGN packet based switching platform. The Verso MetroNet VoIP Overlay solution is the right choice for service providers who seek a migration path to an IP-based switching platform. The Verso MetroNet VoIP Overlay is a Class 4 / Class 5 IP-based softswitch platform that runs on the IBM BladeCenter T system.

This VoIP solution offers a reliable packet based softswitch and gateway, designed to replace legacy switches via an IP-based softswitch platform that offers greater flexibility, scalability and cost effectiveness.

The Verso MetroNet VoIP Overlay consists of Verso's Clarent® softswitch running on carrier grade Linux®. This comprehensive, standards-based solution ensures greater flexibility and scalability when deploying enterprise and residential VoBB services and features. The solution can help you achieve faster time-to-market and accelerate time-to-revenue.

The Verso MetroNet VoIP Overlay on the IBM BladeCenter T platform is an open standards solution so it's not restricted or limited with other applications and it's interoperable with most open standard networks. Open standards can enable a foundation for consolidating infrastructures and applications that deliver value-added VoBB services to high density or low density metropolitan markets. The Verso MetroNet VoIP Overlay is IMS compliant, an industry initiative to provide standard interfaces for delivering value-added services to the mass market.

The modular design of the IBM BladeCenter T system can support switching and gateway solutions, as well as multiple integrated servers for running database, unified messaging, conferencing, provisioning, billing and other applications from a wide range of vendors delivering value-added services. And it's all contained in a compact, easily maintained and quickly scalable chassis.

Because it is based on standard hardware and software components, and uses standard interfaces, it is easy to deploy, easy to operate and easy to scale — supporting the quest for low total costs of ownership. Service providers can gain a robust, reliable and cost effective

platform for managing demanding network requirements, and also for simplifying large-scale infrastructure consolidation, helping you to reduce costs.

Verso's SoftSwitch superiority

The Verso MetroNet VoIP Overlay is a highly reliable and robust IP based solution that can deliver superior call control functions enabled by the Verso Edge (C5CM) and Access (C4CM) solutions. Advanced services such as residential voice, IP Centrex, unified messaging, and conferencing can be delivered across any type of legacy or broadband local loop.

The C5CM and C4CM serve as the call controllers, delivering telephony services through a wide range of PSTN standard protocols including CAS, V5.1 and V5.2, ISDN Primary Rate Interface (PRI) and R2 signaling, together with the main SS7/C7 variants. Via major VoIP protocols such as SIP, MGCP, H.323, and SIGTRAN, it can simultaneously deliver advanced voice services over various packet infrastructures (e.g. cable, DSL, fiber optics or WiMax).

IBM BladeCenter T: a key NGN building block

The IBM BladeCenter T system that runs the Verso MetroNet VoIP Overlay solution and gateway solutions is

a high-density, NEBS Level 3 and ETSI-compliant computing platform optimized for NGN deployments. It includes off-the-shelf components designed to provide service providers with outstanding economies of scale.

In addition, the IBM BladeCenter T can host other essential applications — enabling service providers to deliver interactive voice response, prepaid card management, billing and other services from a single platform. The IBM BladeCenter T can help alleviate the banks of racks and labyrinths of cables that can add so much to the space requirements and costs of network and switching centers, further helping to reduce total cost of ownership.

The critical components of the IBM BladeCenter T are redundant and hot-swappable, including the cooling systems, power supplies, Ethernet controllers and switches, mid- and backplanes, hard disk drives and service processors. There is no single point of failure. This level of redundancy translates into a more resilient infrastructure and application, helping lead to higher application and network availability, and ultimately, improved customer service.



The IBM BladeCenter T supports the deployment of up to 80 processors within a telecom industry-standard, 42U rack. It can handle multiple IBM® HS20 (2-way), JS20 (2-way) and HS40 (4-way) blade servers — making it a cost-effective, efficient solution for quickly responding to fast-breaking demands for scale and capacity in NGN environments.

Powerful management tools

Managing the Verso MetroNet VoIP Overlay solution is easy. Built-in features include IBM Director management software, the industry-leading workgroup manager designed to deliver maximum system availability and help lower operating costs while reducing skill-level requirements. Administrators can monitor the usage and performance of the application as well as other IBM BladeCenter T components, including processors, disks and memory. The single-click graphical interface helps simplify both training and management, and can also help improve staff responsiveness and efficiency.

Self-managing “smart tools” offer automated, self-diagnosing and self-healing capabilities to maximize uptime while helping reduce costs. IBM Predictive Failure Analysis® can further help decrease unplanned downtime through proactive alerts that

can give you as much as a 24- to 48-hour head start on taking corrective actions. LEDs even point the way to potential trouble spots.

The Verso MetroNet VoIP Overlay is here to provide your network freedom from proprietary, vendor specific technologies and opens a migration path that ensures cost reductions and other competitive advantages. Because it is hosted on the IBM BladeCenter T, its advantages can extend far beyond core switching functions to encompass a full range of applications.

For more information

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