

Optimizing your network infrastructure for on demand business



## **IBM Communications Server for Linux - Network Optimization for On Demand business**



IBM Communications Server for Linux provides a cost-effective way to transform your infrastructure into an on demand environment. Unlike other competitive offerings that propose that you completely rewrite all of your applications to IP, this solution allows you to protect your investment in your core business SNA-based applications running in your data center, while fully exploiting the latest IP networking technology by upgrading only your network infrastructure to IP.



### **Network protocol consolidation and removal of legacy networking hardware**

You want to simplify, because complexity equals cost. Your Web-based business has grown and you now have dedicated servers in the data center serving applications and Web transaction requests. One day you review your IT spending and realize there are two separate expenses for everything: one for the internal business data transaction communicating on the SNA network, and the other on the IP network you have been expanding. One network adaptor for SNA and another network adaptor for IP. A network administrator for your SNA network and another for your IP network. You even have an ATM that communicates SNA and another ATM that uses IP.

You know IP is the protocol for the future, but you still have business-critical data running on the SNA sessions, which makes it difficult to think of a smarter way to help reduce the overall cost while moving toward the on demand environment. The Enterprise Extender function of the IBM Communications Server for Linux provides an elegant way to send and receive SNA packets on the IP network. IBM Communications Server for Linux can also serve as TN3270 server, which allows pure IP connections into the datacenter. Both of these functions allow you to combine the two separate network infrastructures into one IP-based infrastructure.

### **Higher performance without compromising security and reliability**

Legacy networking hardware has served your company well for many decades. It provided the reliability and scalability that your business needed. However, you are now seeking a more strategic solution to manage the higher traffic workload in today's business. You want a new solution that can provide the performance you need without compromising security and reliability. IBM Communications Server for Linux can help you meet your needs with its rich set of security and reliability functions. In addition, because it runs inside of your zSeries mainframe and communicates IP downstream, you can now replace your Token-Ring network and ESCON® channels with an ethernet network and gigabit OSA-Express hardware.

### **Highly scalable solution combined with highly scalable pricing model**

IBM Communications Server for Linux combines highly scalable technology with a highly scalable pricing model, designed to accommodate your on demand environment. In most SNA environments, the number of users is well-defined; however, this does not mean the workload cannot unexpectedly increase. IBM eServer™ zSeries® architecture allows you to scale horizontally by adding tens to hundreds of logical instances of the Linux kernel. And while you scale up to meet your growing business demands, z/VM® technology can allow this to be done in an efficient manner. z/VM technology dynamically provisions additional virtual servers in a matter of minutes and controls the utilization of the processor and other resources (storage, I/O) in a virtualized environment to achieve maximum efficiency. Communications Server for Linux on zSeries allows you to take full advantage of this scaling ability with its per concurrent user pricing model. There is no server license charge for the Communications Server for Linux. Your company will be charged only for the number of concurrent users connecting into the server. Therefore if the workload for each connection increases, z/VM manager can provision another server dynamically without being limited by the number of servers allowed under the licensing agreement.

*Communication Server for Linux Solutions allows you to bring SNA skills to one centralized location, or a few regional locations, thereby effectively eliminating the burden of maintaining SNA skills at every remote site.*

### **Workload consolidation on zSeries**

Do you have stand-alone TN3270 or SNA gateway servers? Does your upgrade plan involve replacing and adding more powerful hardware whenever your business grows?

Do you often see your servers operating at 3% - 5% utilization level, or even idle most of the time, only operating when there are unexpected spikes in the workload? These servers consume power and floor space 24 X 7, which equals a real cost to you!

If your IT infrastructure fits into any of these categories, workload consolidation using Communications Server for Linux on zSeries may be an excellent option for you. The ability to run hundreds of virtual servers on a single zSeries server can help keep your Total Cost of Ownership (TCO) low and can help you avoid revamping your IT plans every time your business expands. When you are evaluating how you can simplify your infrastructure and consolidate your stand alone servers, make sure you consult your IBM representatives on Communications Server for Linux Solutions.



### **Platform consolidation on Linux**

You may be currently running Communications Server for OS/2®, running distributed SNA gateway, or TN3270 servers on multiple platforms, which leaves you with the overhead cost of maintaining multiple platforms. If you are considering moving or are currently moving all of your Web-based applications to the Linux operating system, you can do the same for the SNA gateway and TN3270 server workload using Communications Server for Linux.

### **SNA skill consolidation to the data center**

There has been a steady decline in the availability of SNA skills as IP has emerged as the dominant network protocol. Maintaining the right level of SNA skills via recruitment and training is becoming more and more expensive. Communication Server for Linux Solutions allows you to bring SNA skills to one centralized location, or a few regional locations, thereby effectively eliminating the burden of maintaining SNA skills at every remote site.

### **Versatility and flexibility of Linux**

Linux scales from embedded devices all the way up to enterprise servers that support a variety of hardware platforms. This permits you, the customer, to select vendors that best meet your current needs. This can allow for healthy competition and competitive prices, and allows you to continue choosing vendors in the future based on competitive function and pricing, without having to “rip and replace.” There can be a server platform to meet your needs as the scalability and performance requirements evolve.

### **Highly reliable and secure network connections to the core business application**

Communications Server for Linux on zSeries not only provides the versatility and flexibility of the Linux operating system, it can also provide the reliability and security of the mainframe you have long trusted to deliver your most business-critical applications. zSeries architecture provides enhanced hardware error isolation and automatic recovery. Through the use of VM, discrete servers can be consolidated onto a single zSeries, maintaining one virtual server per application and helping to reduce planned and unplanned outages for software maintenance, error recovery, and problem isolation of individual server instances. Linux running on zSeries with EAL4 compliance has more security-rich features than ever before.

### **Reduced total cost of ownership**

Each of the aforementioned points can help; contribute to a lower total cost of ownership. Additionally, through the ease of migrating code from UNIX® to Linux, and efficient skill transfer, Linux provides an attractive platform for companies attempting to reduce IT costs. While IT cost reduction is a priority for customers, some competitors have licensing policies that increase licensing costs for many customers. The open source nature of Linux encourages vendors to drive differentiation above the operating system and thereby helps lower overall IT costs. Linux also provides IBM an opportunity to leverage its core competencies and technical prowess to build on the Linux TCO advantage. Through consolidation of workloads from underutilized distributed servers to our large, central platform and efficient clustering of inexpensive servers for parallel execution, Linux helps IBM deliver potentially innovative solutions with dramatic TCO advantages for the customers.

### **Cost-effective transformation toward an on demand environment**

IBM Communications Server for Linux can provide a cost-effective way to transform your infrastructure into an on demand environment. Unlike other competitive offerings that propose the complete rewrite of all applications to IP; this solution protects your core business SNA-based applications running in your datacenter, while fully exploiting the latest IP networking technology by upgrading only your network infrastructure to IP. In addition, zSeries now offers a very attractive option for customers who want to run Linux using IBM Integrated Facility for Linux (IFL) and z/VM, which can support a range of ten to hundreds of images per processor. Once you complete this transformation, you will be able to take full advantage of the on demand offerings IBM has for your business.



*Communications Server for Linux on zSeries not only provides the versatility and flexibility of the Linux operating system, it can also provide the reliability and security of the mainframe you have long trusted to deliver your most business-critical applications.*



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