

# Energia Communications, Inc.



## SteelHead CX Helps Energia Communications Reduce Bandwidth Utilization by 99% and Accelerate Data Replication Between Data Centers

Energia Communications, Inc. provides information and communication services to businesses in the Chugoku region of Japan by leveraging a highly reliable infrastructure foundation.

### In Brief

#### Challenges

- Prepare for future increases in the volume of data being replicated
- Improve data security by reducing time required for replication
- Predict bandwidth utilization to improve service quality

#### Solution

- SteelHead CX

#### Benefits

- Reduced bandwidth utilization by approximately 99% and better ability to handle data increases
- Reduced data replication time by 80% (initial transfer) and approximately 50% (subsequent transfers)
- Improved service quality as a result of increased visibility

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## Accelerate data replication to protect data and improve service quality

Energia Communications, Inc. is in charge of information and communication services for the Chugoku Electric Power Group and provides construction and operation services to it as well. Energia also provides a wide variety of services to other businesses in the Chugoku area, such as MEGA EGG, a fiber—optic Internet service for personal users and EneWings, V-LAN and cloud services for enterprises.

“We provide high quality services, rooted in local communities, to our customers by leveraging a highly reliable infrastructure foundation,” says Hiroyuki Takeda, Infrastructure Design team manager, Transmission Engineering Department, Communication Technology Division of Energia.

Energia’s business systems, which monitor the company’s services, are virtualized and operated from a data center in Hiroshima city. As part of the company’s business continuity plan and counter measures against natural disasters, Energia implemented a disaster recovery (replication) solution at its data center in Okayama.

Since the service line used for disaster recovery was part of the services facility, the company decided to implement line optimization technology verification for disaster recovery to prepare for future replication data increases.

“Forecasting future replication increases, we had to take immediate action to establish a system that could handle the situation,” explains Yusuke Takahashi, System Technology team member, Transmission Engineering Department of Energia. “We were looking for a way to achieve our goal without increasing the bandwidth of the service line itself or the ratio of the bandwidth allocated for replication.”

Reducing data replication time was another goal for replication line optimization. “The longer the time required for replication completion, the higher the potential for issues and risk of failure to occur. In order to improve our service reliability, time reduction was also a focus,” explains Takahashi.

At the same time, the company needed to gain greater visibility into its network—specifically the bandwidth utilization of the replication line. “We could not accurately grasp the amount of bandwidth the replication occupied with our existing monitoring tools. We needed greater visibility into the bandwidth usage if we wanted to improve our service quality,” says Satoshi Kato, System Technology team member, Transmission Engineering Department of Energia.

Energia Communications started investigating WAN optimization solutions that would reduce bandwidth utilization, accelerate communication and improve replication performance without any adverse impacts. “We were committed to ensuring that there would be no impact on the existing network and also that configuration would be easy to perform,” says Takahashi.

After verifying and comparing a number of similar products in the company’s environment, Riverbed® SteelHead™ CX was the final pick. “From their accurate technical support, prompt responses to our questions, to verification implementation, the product was fully supported, enabling us to use it with confidence,” says Takahashi.

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“We are truly excited to have SteelHead CX as a way to minimize our capital investment and realize service quality improvement and business efficiency enhancement.”

**Hiroyuki Takeda**  
Infrastructure Design Team Manager,  
Transmission Engineering Department,  
Communication Technology Division

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## 99% bandwidth utilization reduction, 80% reduction of initial transfer time

Since SteelHead CX was deployed in data centers in Hiroshima and Okayama, the benefits of its unique and powerful deduplication technology have been realized. “After introducing SteelHead CX, we achieved a reduction of approximately 99%,” says Takahashi.

This optimization enabled the company to handle future replication data increases while the existing line for the other services remained untouched. Furthermore, the required time for replication was significantly shortened.

“The capacity of a virtualization server to be replicated is about 40 GB. The required time for the initial transfer was approximately 11 hours before deploying SteelHead CX, however after deployment of this product it was shortened to two or three hours,” explains Kato. “We now transfer about 40 GB of differential data everyday but since the deployment, we have successfully cut this time in half from about 25 minutes to 13 minutes.”

In addition, SteelHead CX provided the network visibility the company was looking for when analyzing the amount of bandwidth occupied by replication. “We consider it a significant benefit that we can now accurately measure how we can optimize and how much bandwidth is being utilized,” says Kato. “We think that we will be able to stabilize daily operations and enhance the efficiency and accuracy of future sizing plans.”

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Another feature Energia uses is SteelHead CX’s ability to integrate with NetApp’s SnapMirror for replication. “Currently SnapMirror is used on a single volume but when and if we ever become able to use it on multiple volumes in the future, we would like to utilize the SteelHead CX feature that enables us to configure optimization on individual volumes,” says Kato. “Furthermore, we would like to use it for protocols other than SnapMirror, including virtualized server live migration.” Energia is planning to open Hiroshima ICT center near JR Hiroshima station in December 2016. It will be equipped with 1200 racks, making it the largest scale urban data center in the Chugoku area. As a Tier 4 data center, it will be state-of-the-art and include SteelHead CX.

SteelHead CX will also be fully harnessed to respond to the needs uniquely incurred by being a member of an electric power company group. “In the future, further network traffic increases are expected for business continuity plans of a wide range of business systems,” says Takeda. “Under this expectation, we are truly excited to have SteelHead CX as a way to minimize our capital investment and realize service quality improvement and business efficiency enhancement.”

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### **About Riverbed**

Riverbed, at more than \$1 billion in annual revenue, is the leader in application performance infrastructure, delivering the most complete platform for the hybrid enterprise to ensure applications perform as expected, data is always available when needed, and performance issues can be proactively detected and resolved before impacting business performance. Riverbed enables hybrid enterprises to transform application performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. Riverbed's 26,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at [riverbed.com](http://riverbed.com).

The Riverbed logo, consisting of the word "riverbed" in a lowercase, bold, orange sans-serif font.