



CPFL Energia

Reducing risk and boosting customer service with accelerated billing runs

Overview

The need

CPFL Energia was struggling to complete overnight billing runs within the available windows. Facing a 25 percent increase in customer numbers, the company risked disruption to business operations.

The solution

The energy provider deployed an IBM® FlashSystem® 840 as tier-zero storage, mirroring the top ten percent most-accessed tables in the Oracle database supporting its SAP billing application.

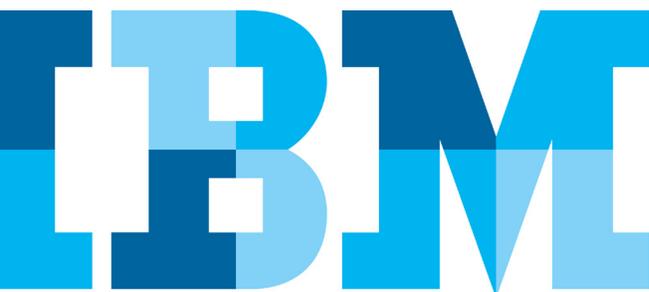
The benefit

Cut the overnight billing run from eight hours to five—a 37.5 percent reduction. Freed up capacity for onboarding two million additional customers. Improved call center responsiveness and cut phone bills.

In the energy and utilities industry, calculating bills for large numbers of customers is a business-critical requirement and a never-ending challenge. At CPFL Energia, 80 percent of revenues come from around 28,000 large industrial customers, linked to a smart grid in which consumption is measured automatically. However, monthly billing for the company's eight million domestic consumers is determined from manual meter readings and handled in 22 separate overnight batches, each covering up to 400,000 customer accounts.

As customer numbers grew, insufficient storage I/O performance meant that overnight batch jobs would occasionally overrun and impact business users the following day. This minor annoyance threatened to become a major issue when CPFL Energia's parent group decided to consolidate another group company's activities to its billing system, based on the SAP ERP application and running on the IBM Power Systems™ platform.

“Rather than going down the route of optimizing our billing logic, for which it was hard to predict the cost, timeline and outcome, choosing IBM FlashSystem enabled us to immediately get the performance boost we needed for a moderate investment,” says Márcio Felix, IT Manager, CPFL Energia.



Solution components

Hardware

- IBM® FlashSystem® 840
- IBM Power® 795

Services

- IBM STG Services—Lab Services
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Márcio Felix, IT Manager at CPFL Energia, takes up the story: “It was clear that adding two million customers would put the existing system under unacceptable strain, putting the whole billing process at risk.

We needed a solution that would slot into our existing landscape and immediately boost our storage I/O performance.”

Compact and powerful

Facing an instant 25 percent increase in customer numbers, and with storage throughput performance already insufficient, CPFL Energia invited three leading enterprise storage vendors to propose solutions based on solid-state storage. Based on the resulting offers, the energy company calculated that IBM FlashSystem would offer four to five times less latency and double the IOPS (input/output operations per second) of the next-best contender, as well as requiring less rack space.

“IBM FlashSystem offered far better price-performance than the other two options,” says Márcio Felix. “The physical footprint was also an important factor, as we have very limited space in our data center. The FlashSystem 840 offers more than one million IOPS in just 2U of rack space, and it is also highly energy-efficient. So it was very easy to deploy in our existing landscape.”

After running a successful proof-of-concept exercise with IBM Systems Group Lab Services, CPFL Energia deployed an IBM FlashSystem 840 with 24 TB usable capacity. The company’s previous storage systems remain in place, with the FlashSystem 840 set up to act as a tier zero using IBM AIX® Logical Volume Manager mirror. The FlashSystem accelerates access to the top ten percent most-used tables in the Oracle database supporting the SAP Industry Specific Solution for Utilities Industry (Customer Care and Services) application, which includes a Billing and Invoicing module.

Full speed ahead

Deploying IBM FlashSystem immediately cut the overnight billing batch run at CPFL Energia from an average of eight hours to an average of five hours—a 37.5 percent reduction. This also frees up ample capacity for onboarding the two million additional customers from the other company in the group.

“We can now reliably process 400,000 invoices every night during the available time, with no risk of over-running and impacting system performance during business hours.”

— Márcio Felix, IT Manager, CPFL Energia

Márcio Felix says, “It would have been impossible to absorb the two million new customers without FlashSystem. We can now reliably process 400,000 invoices every night during the available time, with no risk of over-running and impacting system performance during business hours. And because we have also mirrored the database tables used by our call center systems to FlashSystem, our service representatives can manage customer calls more quickly and effectively. This means happier customers, and it also reduces our telephone bill!”

FlashSystem acts as a transparent tier zero storage layer, non-disruptively integrated with the existing storage devices at CPFL Energia. “The cost and risk of deploying FlashSystem was minimal compared with the other solutions we considered, and it solved our I/O bottleneck instantly,” concludes Márcio Felix. “We will potentially add further FlashSystem devices as we identify other parts of the infrastructure that could benefit from the same performance boost.”

About CPFL

CPFL Energia is the largest non-state-owned electricity generation and distribution corporation in Brazil and the third largest Brazilian electric utility company. Serving both domestic and business customers, it is headquartered in Campinas, the third largest city in the state of São Paulo.

To learn more about CPFL, visit: www.cpfl.com.br

For more information

To learn more about IBM FlashSystem, contact your IBM representative or IBM Business Partner, or visit the following website: ibm.com/storage/flash



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