Optiva™

CASE STUDY

# Market Demand for Agility Leads Tier 1 Asian Telecom to Move BSS to Cloud

**When communication service providers (CSPs) adopt a new technology, it always comes with concern and hesitation. That increases when CSPs implement the new technology for a core enterprise application that may impact company revenues and customer experience. When this technology also requires a change in mindset in the operation of complex architecture with a multiple vendor ecosystem, the hesitation is even more heightened.**

**However, the need for modernization, simplification, and improved operation, led this Tier 1 Asian CSP to evaluate Optiva's new cloud-native online charging solution. Optiva and the customer agreed to hold a pilot production. The project included implementing the latest cloud-native version of Optiva Charing Engine™ with live traffic on the CSPs' private cloud. It allowed the customer to evaluate technology benefits for operational efficiency and cost reduction in a live production environment based on agreed KPIs.**

## Challenge: Key drivers calling for a change

The tier 1 Asian CSP, which serves hundreds of millions of prepaid and postpaid subscribers, is one of the world's largest and most sophisticated CSPs. It operates in a highly **competitive and dynamic** landscape characterized by high penetration levels, dynamic business models, and empowered customers. These conditions require it to innovate continuously, and its OSS/BSS enterprise software must quickly enable the rollout of new services.

Furthermore, the CSP faced the challenges and complexities of handling almost **20 different OSS/BSS stacks across multiple regions.** With that, it needed tools to help achieve architecture simplification and unification and to reduce its operational costs.

## Solution: Modernizing and cloudifying Optiva Charging Engine

The customer has partnered with Optiva for more than a decade, running on a legacy version of its charging solution. This was deployed across six production sites and six disaster recovery sites. It worked with Optiva to create a joint plan to upgrade Optiva Charging Engine to the latest Kubernetes-enabled version. Also, one of the sites, serving a large regional hub, was moved to a private cloud to simplify operations and make it future-ready for the public cloud.

Pilot targets and success criteria were jointly agreed upon to measure the benefits of migration to a cloud-native application, including:

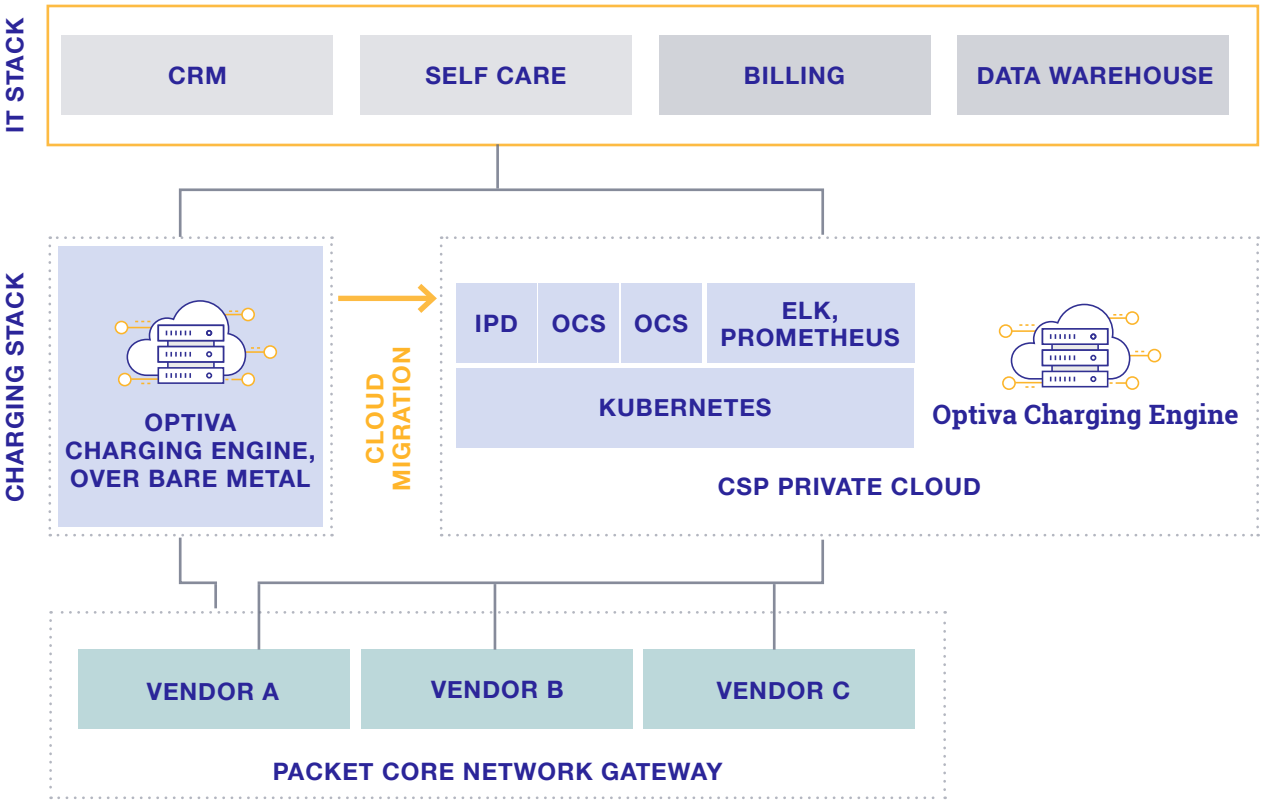
**Revenue generation, oriented by improving time to market**

- Faster software setup and patch updates
- Quicker releases

**Cost reduction**

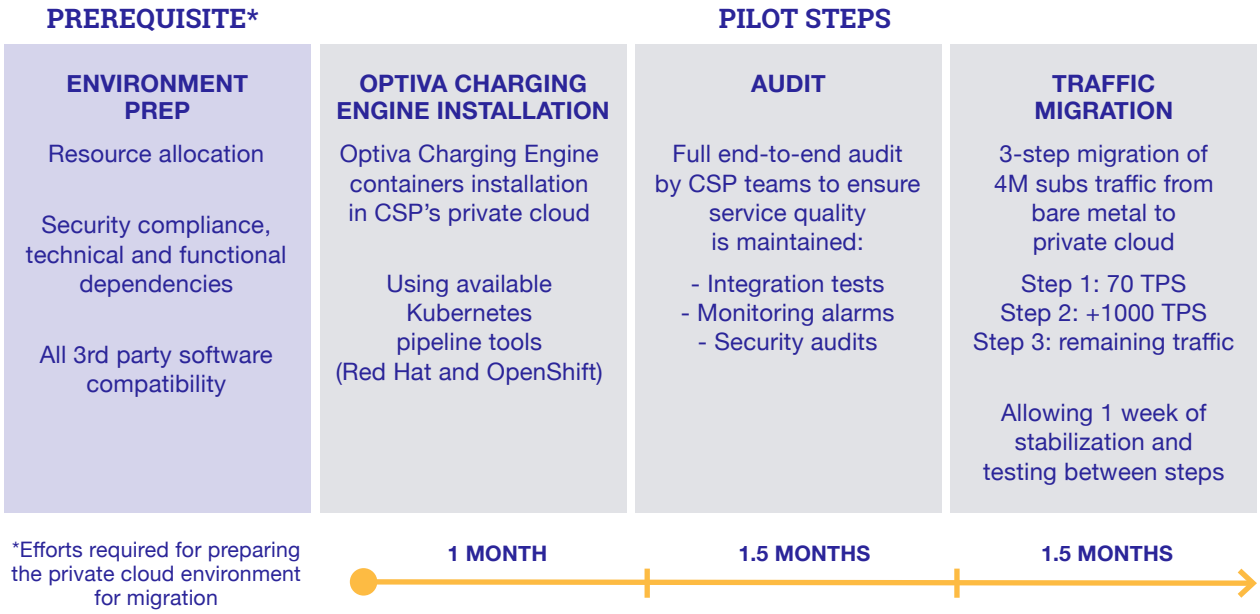
- Capacity management via autoscaling (auto scale-in, auto scale-out)
- Optimized hardware and CPU utilization through cloud-native decomposition and automated software management

The private cloud migration was not an easy task with a decade-old solution and layers of customizations. However, by embracing cloud practices that embedded CI/CD and automated testing, it went smoothly and was declared a success. **The CSP and Optiva teams flawlessly collaborated, executed, and migrated to cloud-native technology. That was achieved while also ensuring the new instance was compliant with the CSP's high security and performance requirements and maintaining 100% business continuity.**



The pilot production included live traffic migration from a bare metal instance of Optiva Charging Engine to a target cloud-native instance. Migration was of a single site, consisting of four million subscribers, out of the six sites the CSP operates.

The timeline from installation to full traffic migration was performed in the **groundbreaking time of only four months**. It included three main steps, which focused on the migration of the production traffic to comply with the CSP's performance and customer experience requirements.



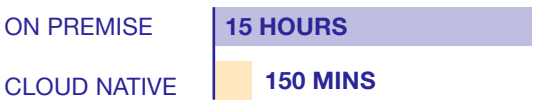

## Results delivered

After full migration of the planned traffic to the Optiva cloud-native instance, the agreed KPIs were measured. They showed substantial operational performance and scalability improvements.

### IMPROVED TIME TO MARKET

**1. Hot patch implementation**

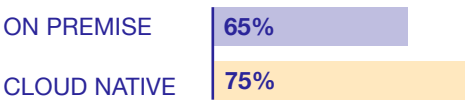
**2. Release rollout optimization**




### OPTIMIZED HARDWARE USE

**1. Time to add/remove one pod**

**2. Improved CPU utilization**

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## MORE RESULTS AND BENEFITS

**Full security compliance as per CSP's policy**

**No loss of transactions during migration**

**New dashboard tool for better monitoring**

**Quantifiable direct cost savings**

Moving all Optiva charging to a private cloud environment will also potentially yield cost savings for the CSP. Using Optiva's proven methodology for quantifying the total cost of ownership (TCO), the CSP expects an estimated 24% savings over five years by migrating all of its sites to a private cloud.

These savings are primarily due to fewer environments being required on a private cloud (an active-active setup instead of dedicated disaster recovery environments), better CPU utilization, and automated elasticity.

With the pilot, the CSP was able to explore and experiment hands-on with new cloud-based technologies, such as Kubernetes containers.

## Summary

The tier 1 Asian CSP has modernized and brought its charging system into the 21st century. It achieved this through **streamlining its operation across its different instances and gaining faster time to market** with the cloud-native architecture of **Optiva Charging Engine**. Further consolidation will increase cost savings, and a potential move to the **public cloud** in the future will accelerate cost savings even further.

The operator is the first in the telecom industry to deploy a charging solution with a fully cloud-native architecture, which transforms a traditional monolithic architecture through decomposition, containerization, and function productization. It plans to **leverage the agility, flexibility, and cost savings to improve and grow its digital offerings and provide a continually progressive, innovative customer experience.**

## Optiva Cloud Consulting team can help you on your cloud journey!

Discover the opportunities you can leverage to increase your agility, flexibility, and savings. Let us build a free, tailored TCO analysis for you. Contact us for details!

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