ORACLE

Hyperscale Converged Charging Performance Test

You've invested in 5G. Now it's time to monetize. 5G is an opportunity to enhance customer experience and generate new revenue. But monumental technical challenges are facing the 5G converged charging system. Are you ready for hyperscale charging demands?

New Technical Challenges for 5G Monetization

5G converged charging systems are the real-time experience engine for digital BSS (Business Support Systems). They must be able to monetize any commercial offer with support for increasingly complex 5G business models. Real-time transactions mut be processed using hyperscale performance, scalability and availability. And all must be achieved in a cloud native model, while reducing costs and enabling faster time to cash across the entire revenue lifecycle.

Oracle Converged Charging System

Introducing Oracle's Converged Charging System (CCS)—a cloud-native, network-grade charging solution that lets you monetize every generation of mobile network with operational excellence.

In a performance test for 50 million subscribers as part of a cloud native deployment on Oracle Cloud Infrastructure and using industry-realistic charging scenarios, Oracle's CCS achieved single digit millisecond latency, high transaction throughput, efficient resource utilization and near linear scalability.

Oracle CCS is engineered for the hyperscale charging demands of 5G service providers. It provides an in-memory charging grid which co-locates data & processing, to deliver extremely fast rating and balance management, with complete transactional consistency.

Designed to bridge network and IT domains, Oracle CCS also provides industry-leading revenue management to efficiently monetize the revenue lifecycle of any commercial offer or business model with DevOps-driven operational agility.

Learn More >>> Hyperscale Converged Charging Technical Brief.

Oracle Converged Charging Cloud Native Performance Test
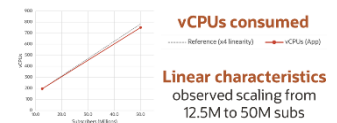
View the full report.

- 50 million subscribers: 90% prepaid, 10% postpaid
- Includes industry realistic price plans
- Mixed traffic and charging operation types
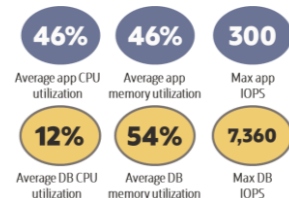- Cloud native deployment

Single Digit Millisecond Latency*

Data	**6.96 ms** 76,800 TPS	Voice	**6 ms** 21,200 TPS
SMS	**5.75 ms** 2,884 TPS	Balance Queries	**2 ms** 5,592 TPS

*Measured as a roundtrip between the internal network GW charging requests and the core charging server instances.

Linear Scalability

vCPUs consumed
Reference (x4 linearity) — vCPUs (App)

Linear characteristics observed scaling from 12.5M to 50M subs

Efficient Resource Utilization

46% Average app CPU utilization	46% Average app memory utilization	300 Max app IOPS
12% Average DB CPU utilization	54% Average DB memory utilization	7,360 Max DB IOPS

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