Oracle Clean Cloud

The Pinnacle of Performance and Sustainability

Case Study

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Public

Purpose statement

In 2021, Oracle participated in a customer use case study to measure the greenhouse gas emissions impact associated with migrating from a customer hosted Oracle ERP solution to Oracle ERP on Oracle Clean Cloud (OCI). The use case study was conducted by Bureau Veritas (Nanterre) in accordance with the principles of standard NF-ISO 14064-1:2006, using the Association Bilan Carbone (ABC) Bilan Carbone® tool version 8.5.

Highlights of the study identified:

- Increased operational performance with Oracle Clean Cloud
- Reduced greenhouse gas emissions with Oracle Clean Cloud
- Circularity reduces the environmental impact associated with end-of-life hardware

Overall, the use case identified a *93% decrease* in greenhouse gas emissions following the migration to Oracle Clean Cloud.

Increased Performance with Oracle Cloud

Consume less and do more. That is the approach Oracle takes in designing its applications and the infrastructure that runs them. Upon migrating to Oracle Clean Cloud, the use case identified a 62% reduction in the applications electricity consumption. This was primarily due to the pooling of resources, increased application performance, and less energy-consuming equipment supporting the applications and cloud environment. In addition to reducing energy Oracle ERP on Oracle Clean Cloud on average doubles on premise performance with an uptime of 99.999%.

> "With Oracle Cloud Infrastructure and Oracle Cloud platform, we significantly reduce IT operational costs, cut energy consumption by 20%, simplified administration and compliance, and delivered the scalability we need to meet our sustainable growth plans for years to come."

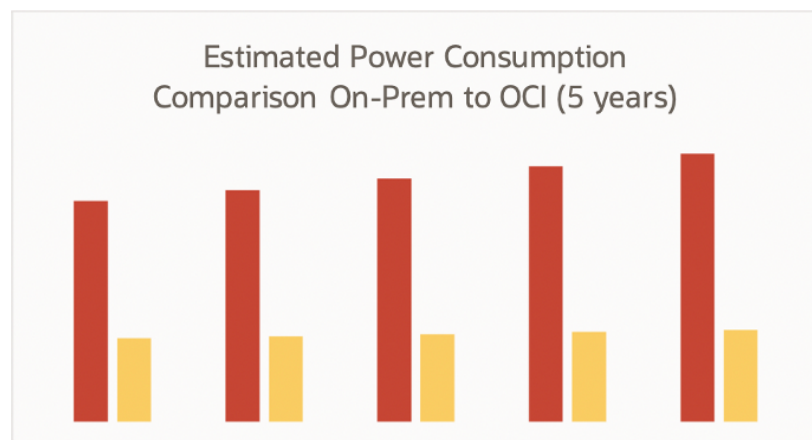**Vlad Moca**
Deputy Group IT Director
KMB Rompetrol SRL

Figure 1. Estimate Power Consumption comparison from on-premises to OCI cloud.

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Reduced Greenhouse Gas Emissions with Oracle Cloud

Oracle is committed to reducing its environmental impact across its entire organization. With its goal to use 100% renewable energy by 2025 and a target to be Net Zero by 2050, our customers are able to increase performance, lower costs, and reduce greenhouse gas emissions.

Findings from the use case identified a 93% reduction in greenhouse gas emissions when migrating from on-prem to Oracle Clean Cloud. The reduction of greenhouse gas emissions spanned across all emission scopes[1] including a 71% reduction in Scope 1 emissions, 100% reduction in Scope 2 emissions, and 84% reduction in scope 3 emissions.
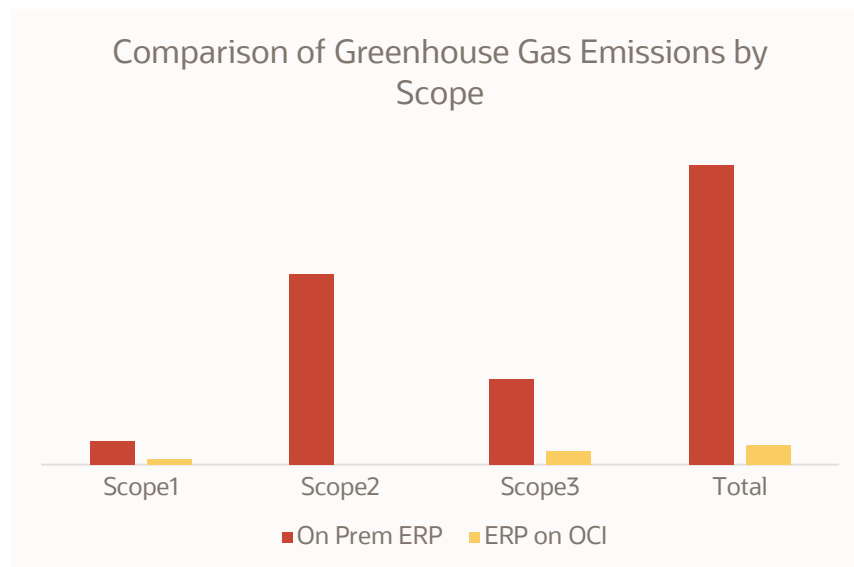

Figure 2. Comparison of Greenhouse Gas Emissions by Scope.

> "Oracle Cloud Infrastructure is a great platform, ease to navigate, and very transparent on the services it provides. We are using everything it offers to deliver a better service to our customers and as part of our zero-emissions sustainability drive."
>
> **Janaina Hyldvang**
> Cloud Center of Excellence Lead
> FLSmidth

Circular Cloud

A key tenant of the circular economy is to decouple physical assets form the services they provide. Increasingly, customers are moving away from physically owned hardware to cloud hosted applications. As customers make this transition, they must account for the impact retired hardware has on the environment.

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[1] More information on the methodology to calculate greenhouse gas emissions is at available at https://ghgprotocol.org.

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Oracle has a hardware recycling rate of over 99% - meaning less than 1% of the total e-waste is landfilled and further significantly reducing the emissions associated with retiring assets. This applied to both hardware decommissioned as party of a migration to cloud services and to the hardware deployed in Oracle's Cloud Infrastructure.
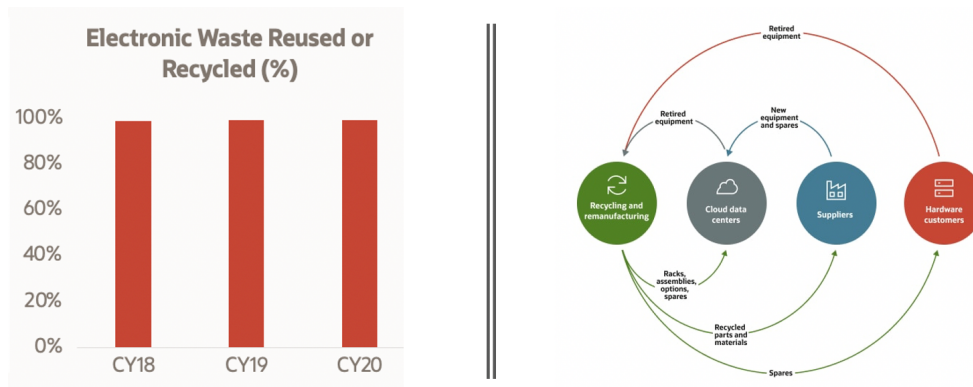

Figure 3. Electronic waste reused/recycled from CY 18 – CY 20 and the Circular Economy.

Conclusion

As a global leader in sustainability, Oracle is committed to delivering the Oracle cloud for our customers as a more sustainable alternative to on premise computing. Whether through software as a service (SaaS), platform as a service (PaaS), or infrastructure as a service (IaaS), Oracle Cloud offers our customers the opportunities to not only drive business value, but also to reduce their environmental impact. Oracle Clean Cloud data centers deliver a more sustainable computing platform that is efficient, renewable, and aligned with the circular economy.

For more information on Oracle's Clean Cloud please visit us at oracle.com/sustainability and oracle.com/green.

"Oracle offers the best solution for our current and future business needs. We know that Oracle is continually looking for ways to design its hardware for reduced environmental impact, and to control the end-of-life treatment of its hardware to reduce environmental waste."

Paul Cardell
Vice President, Corporate Operations Communications Test Design, Inc.

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