Oracle Cloud Infrastructure: Built for Enterprise

Covanta

Covanta taps Oracle Cloud Infrastructure for secure PeopleSoft migration

Global energy-from-waste (EFW) firm Covanta recently migrated a mission-critical Oracle PeopleSoft implementation to Oracle Cloud Infrastructure.

Covanta offers a variety of waste management and incineration services. Its EFW facilities burn about 22 million tons of waste from municipalities and businesses each year, while generating enough electricity to power about one million homes.

Covanta has long used Oracle PeopleSoft to power its finance, supply chain management, and procurement portal. The company initially managed the application on premises, eventually moving it to Oracle Managed Cloud Services. But the company recently decided to move to a next-level cloud offering. Recognizing the benefits, such as excellent support, faster provisioning, greater scalability, and lower management costs, Covanta migrated the PeopleSoft implementation to Oracle Cloud Infrastructure.

The company is also protecting the application environment with Oracle Dyn Web Application Security, a cloud-based managed security suite that defends the application from malicious bots and other internet threats.

"We did an analysis and we looked at a couple of different options for the PeopleSoft application, including [Amazon Web Services], and we spent countless hours with the Oracle team," said Ben Cabrera, Covanta's vice president and chief information officer. "Everyone at Oracle stepped up to the plate and now we're in the Oracle Cloud Infrastructure environment."

Enterprise grade, cloud easy

Oracle Cloud Infrastructure combines the elasticity and utility of a public cloud with the granular control, security, and predictability of on -premises infrastructure to deliver high performance, high availability, and cost-effective infrastructure services. Oracle Cloud Infrastructure makes it easier for companies like Covanta to provision new services and enhance their own offerings over time.

It took about two months to fully migrate the development, QA, and production environments for the PeopleSoft implementation to Oracle Cloud Infrastructure, and Covanta says it has seen a 2X performance improvement in the application since the migration was completed. Additionally, the team has greater control over the new environment and can scale the application more easily compared to the managed service model the company previously used.

"Compute resources are actually a lot better from a CPU utilization perspective. It's a huge improvement," said Karish Chowdhury, a cloud architect and manager at Covanta. "The environment is also in our control, so making a change that goes through development, QA, and production is much easier and less time consuming."

Why Oracle Cloud Infrastructure?

Covanta embraces a multi-cloud computing strategy and had several options when deciding

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  Vice President
  and CIO Covanta

WHY ORACLE?

• Successful POCs of Oracle Cloud Infrastructure and Oracle Cloud Web Application Security.
• Oracle WAF and Bot Manager de-risked the migration.

PROFILE

• Waste management & energy
• United States

SOLUTION

• Oracle Cloud Infrastructure
• Oracle Web Application Security
• Oracle PeopleSoft v9.2 PUM 22
• Oracle PeopleSoft PeopleTools 8.55

which cloud infrastructure was right for the PeopleSoft migration. The company uses Microsoft Azure and Amazon Web Services for other applications. But it decided that Oracle Cloud Infrastructure was the best choice for the migration because the platform is already optimized for PeopleSoft, and Covanta can continue using helpful Oracle cloud management tools. For example, the Covanta team wanted to continue using PeopleSoft Cloud Manager, an orchestration framework that enables users to provision and manage PeopleSoft within Oracle cloud environments.

Covanta could have used Oracle's automated migration tools to "lift and shift" the application from Oracle Managed Cloud Services to Oracle Cloud Infrastructure. Instead, the team made a strategic decision to provision the application environment from scratch inside Oracle Cloud Infrastructure. Covanta deployed the infrastructure using Terraform, popular third -party "infrastructure as code" software that enables users to efficiently build, change, and version the environment as needed.

Covanta wanted to manage the configuration and make registry changes themselves because this gave them a better understanding of how to optimally run the application. Managing the process themselves also helps Covanta maintain its cloud-agnostic approach.

"We didn't build the environment just for PeopleSoft," Chowdhury explained. "We built the environment thinking of our future roadmap so that we can add new applications and resources pretty quickly."

Among other tools, Covanta is using Oracle Cloud Infrastructure Virtual Cloud Network (VCN) technology, which gives it complete control over the networking environment. With Oracle Cloud Infrastructure VCN, Covanta can assign its own IP address space, create subnets, create route tables, and configure firewalls.

Chowdhury said another tool he likes is the Command Line Interface (CLI), which enables cloud management and information-retrieval from the command line. He added that VMs perform very well in Oracle Cloud Infrastructure.

"The VMs that we have been provisioning seem to be a lot better than what other cloud providers offer at the same level in terms of disk performance, memory and CPUs," Chowdhury said.

Better security

As planning for the migration began, Covanta realized it had some additional security requirements to address. With malicious hackers increasingly targeting internet-facing applications, it was clear the company needed a higher level of security at the edge of its network. Following a successful proof of concept, Covanta decided to go live with a next-generation Web Application Firewall (WAF) and Bot Manager from the cloud-based Oracle Web Application Security suite.

"[Oracle Web Application Security] is definitely one of the higher- performing solutions in this space," said Jason Gonsalves, a security architect and manager at Covanta. "We're really happy with the capabilities, the output, and the integration."

Oracle Web Application Security enabled Covanta to protect the PeopleSoft application from malicious web traffic before, during, and after the migration was complete. It also gives Covanta greater visibility into malicious web traffic and other threats to internet-facing application environments.

"A cloud-inclusive approach to web application security is a fundamental, key competitive advantage of Oracle Cloud Infrastructure compared to almost all other IaaS platforms in the market," said Laurent Gil, product strategy architect at Oracle Cloud Infrastructure. "Providers like AWS, Google Cloud, and Microsoft Azure are not in a position to offer the same de-risking solution."

Plans for the future

Going forward, the Covanta team plans to add file services and move to the fluidized version of PeopleSoft. The team is also considering going live with Oracle procurement solutions in its cloud environment.

What advice does Covanta have for IT managers who are mulling a move from a managed cloud service to Oracle Cloud Infrastructure?

"Remember, this is not a beta environment, this is real-time operational," Covanta's Ben Cabrera said. "This is the real deal."