

Oracle Consulting – Helping Customers Efficiently Move to Cloud Native

Using modern, secure, and flexible cloud infrastructure is increasingly becoming the architecture of choice for Communication Service Providers (CSP). IT supported in this way has many advantages in scalability, flexibility to change, and cost of both staffing and infrastructure. However, to make the most of the move to cloud, upgrading the IT systems themselves is often the best option.

Value stream mapping

To deliver cloud-native application development services, Oracle Communications Consulting (OCC) begins engagements with CSPs by first understanding their goals, markers of success, and unique organizational needs (such as regulatory or executive mandates). This is achieved with a complementary assessment called “value stream mapping.” During this process a comprehensive review of the CSP’s people, processes, and technologies is carried out, enabling OCC to determine where the CSP would first benefit the most from adopting cloud-native processes and technologies. For example, a value stream mapping may conclude that embracing cloud-native for the CSP’s test environment will offer the biggest immediate impact. By identifying where CSPs can see real gains from embracing cloud-native, OCC empowers its customers to quickly realize the business benefits of adopting cloud-native while providing the CSP with internal justification to tackle the projects.

Supporting customer migration to cloud native

Once the decision to move to cloud native has been taken, OCC offers a comprehensive set of cloud native work packages designed to support our customers’ migration to cloud, regardless of their starting maturity. These include options for customers with little or no experience of cloud, all the way to those with a high maturity in cloud use. Packages are available that assist with selection and uptake of CI/CD toolsets, the most appropriate configuration options, and with deployment itself. Sandbox environments can be configured and supported, either hosted on [Oracle Cloud Infrastructure](#) or on the CSP’s own preferred cloud.

Upgrade approaches

There are several potential approaches to a move to cloud infrastructure. Firstly, the selection of the cloud itself: whether to host on public or private cloud infrastructure needs careful consideration. Secondly, whether to upgrade and refactor the software before or after the move to cloud also need careful

Oracle Communications cloud native work packages

- **Discovery workshop & advisory package:** To analyze and recommend CN solution & CI/CD tools
- **OCI sandbox deployment package:** To deploy OOTB app cloud native images on OCI with OKE
- **Non-OCI sandbox deployment package:** To deploy OOTB app cloud native images on pre-configured K8s cluster on non-OCI infrastructure
- **App CN start-up package:** To deploy app CN & customized images using existing customer DB on pre-configured K8s cluster
- **CI/CD integration package:** To setup CI/CD pipeline for app CN processes using the existing customer’s CI/CD tools
- **CI/CD comprehensive (includes CI/CD integration) package:** To Setup CI/CD tools and pipeline for base & custom app CN deployment
- **Cluster setup comprehensive package:** To setup separate K8S cluster for production & non-prod environment.

Related Products

- Oracle Communications Cloud Native Applications in Monetization and Orchestration
- Oracle Cloud Infrastructure (OCI) deployment
- Oracle Managed Applications & Infrastructure services

Benefits

Cloud native work packages help customers to efficiently move to cloud native from any starting maturity

deliberation, as well as whether upgrades to the database itself is needed. Consideration must further be given to any refactoring or upgrades to surrounding systems, and whether these are also part of the migration to cloud. Clearly, such a move requires careful planning and skilful execution.

Deployment architecture and automation

Oracle Communications Consulting understands that there is a wide choice of tooling for continuous deployment automation. This results in very varied environments into which the Oracle Communications Applications software must fit. We have our own tooling choices, but we ensure that our consultants are up to date with most commonly used tools and, where a tool we have not encountered before is used, we will adjust to the customer’s choice.

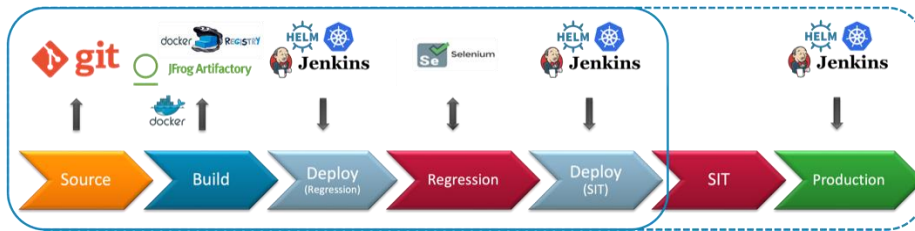


Image 1. Key managed services functions provided as part of Oracle’s Cloud Scale Charging offering

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Cloud native work packages

OCC uses a maturity model to assess how mature the CSP is in its adoption of cloud-native practices and technologies. The outcomes of the maturity model assessment then allow OCC to develop a plan of action to bridge the gap between the CSP’s current capabilities versus its goals. Based on where a CSP falls within the maturity model, OCC then prescribes one of seven packages meant to help the CSP embrace cloud-native practices, regardless of what stage they are at in their cloud-native journey. The packages range from frameworks that help CSPs who have not yet begun their cloud-native journey to those who are very advanced. Even in scenarios where the CSP is quite advanced in its use of cloud-native technologies, there are often variations in the approaches or types of tools used by the different teams within the CSP.

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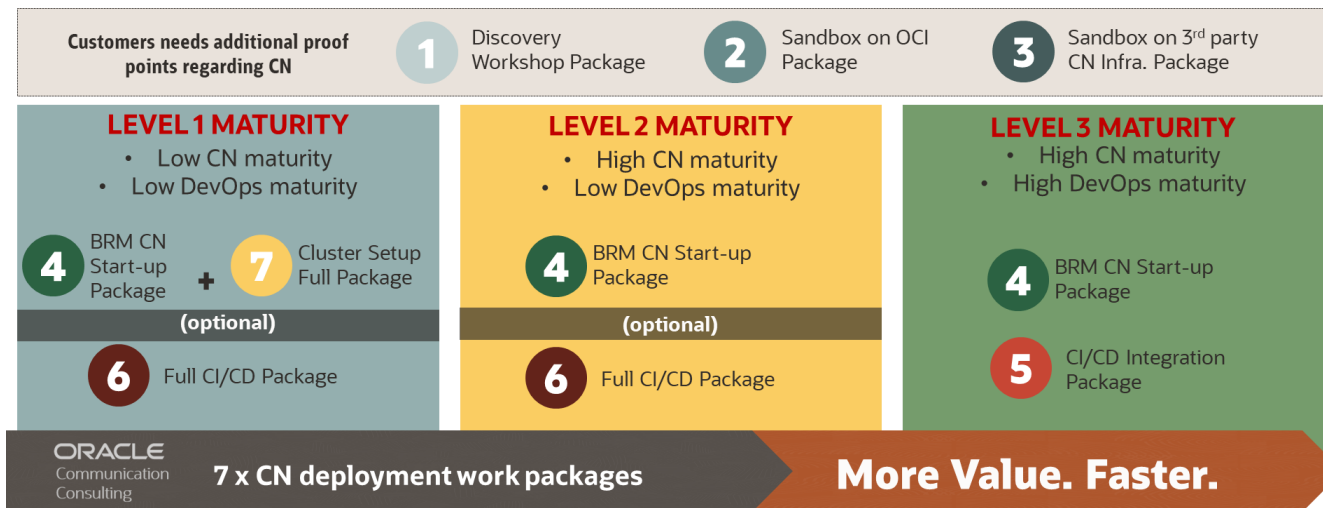


Image 1. Work packages prescribed by OCC to help customers efficiently move to cloud native from any starting maturity – using BRM as an example

The cloud native work packages address a range of requirements and can be selected individually or in tandem. The first three are geared at defining the problem and getting familiar with CNE and tooling. They are a Discovery Workshop package, Sandbox package on Oracle environment and Sandbox on the customer's own environment. These packages allow the customer and Oracle to better define the requirement and maturity. As required, there are packages to aid customer migration to cloud native from any starting maturity such as: high maturity customer in both CN and CI/CD; high CN Maturity with low CI/CD maturity; and low CN and CI/CD maturity. Tasks in these packages include activities such as implementation and configuration of toolchains, app on CNE, and cluster set-up.

WORK PACKAGE	DESCRIPTION	BENEFIT
<p>#1 Discovery Workshop & Advisory Package</p> <p>Time: ~ 3 weeks</p>	<p>To analyze and recommend CN solution & CI/CD tools</p> <ul style="list-style-type: none"> Conduct workshop to understand business drivers, current implementation, pain points, cloud roadmap, automation framework and cloud maturity level. Review application compatibility with existing hardware/software Document, review and provide recommendation on Infra/tools/cloud platform etc. <p>Pre-requisites: N/A</p>	<p>Help customer reduce ambiguity and take informed decisions around cloud native adoption.</p>
<p>#2 OCI Sandbox Deployment</p> <p>Time: ~ 4 weeks</p>	<p>To deploy OOTB cloud native images on OCI with OKE</p> <ul style="list-style-type: none"> Deploy OOTB BRM CN image with fresh DB Sanity test with pre-defined use-cases <p>Pre-requisites</p> <ul style="list-style-type: none"> OCI with OKE PoC instance procured and provisioned Customer connectivity to the OCI data center 	<p>Light weight service package on a pre-configured Oracle Cloud environment that provides customer a playground to validate app CN capabilities.</p>
<p>#3 Non-OCI Sandbox Deployment</p> <p>Time: ~ 3 weeks</p>	<p>To deploy OOTB cloud native images on pre-configured K8s cluster on non-OCI infrastructure</p> <ul style="list-style-type: none"> Verify the cluster setup Deploy OOTB BRM CN image with fresh DB Sanity test with pre-defined use-cases <p>Pre-requisites</p> <ul style="list-style-type: none"> Cloud infrastructure setup - done Docker engine, k8s - installed Networking and security - done 	<p>Light weight service package that provides customer a playground to validate app CN capabilities.</p>
<p>#4 App CN Start-up Package</p> <p>Time: ~ 12 weeks</p>	<p>To deploy app CN and customized images using existing customer DB on pre-configured K8s cluster</p> <ul style="list-style-type: none"> Deployment on 1 non-prod and 1 prod grade cluster. 	<p>Create app CN images to work with existing customer production database.</p>

	<ul style="list-style-type: none"> Build and layer custom CN Image e.g. for Cloud Scale Monetization - CM, Billing care, BRE, ECE, OCOMC, Eai. Point custom Image to existing DB. <p>Pre-requisites</p> <ul style="list-style-type: none"> Cloud infrastructure setup done Docker engine, k8s – installed Networking and security done App specific e.g. BRM 12 file system with 12c DB and above deployed and customizations are ready. 	
<p>#5 CI/CD Integration Package</p> <p>Time: ~ 4 weeks</p>	<p>To setup CI/CD pipeline for BRM CN processes using the existing customer's CI/CD tools</p> <ul style="list-style-type: none"> Setup pipeline – for app components for up-to four custom images using customer’s existing CI/CD tools <p>Pre-requisites</p> <ul style="list-style-type: none"> App on CNE with custom image is deployed Customer has working setup with CI/CD automation in place. Customer is enabled on the usage of CI/CD tools 	Service pack to utilize customers CI/CD tools for setting up app CN pipeline
<p>#6 CI/CD Comprehensive Package*</p> <p>Time: ~ 6 weeks</p> <p><i>*Work Package #5 (CI/CD Integration) scope is included</i></p>	<p>To Setup CI/CD tools and Pipeline for base & custom BRM CN deployment</p> <ul style="list-style-type: none"> Recommend and setup CI/CD tools Setup pipeline for app components for up-to four custom image deployments Sanity testing <p>Pre-requisites</p> <ul style="list-style-type: none"> App on CNE with custom image is deployed Customer is enabled on the usage of CI/CD tools 	Service pack to realize the benefit of cloud native architecture by using automated deployment framework and DevOps principles.
<p>#7 Cluster Setup Comprehensive Package</p> <p>Time: ~ 10 weeks</p>	<p>To setup separate K8S cluster for production & non-prod environment</p> <ul style="list-style-type: none"> App on CNE with custom image is deployed Customer is enabled on the usage of CI/CD tools <p>Pre-requisites</p> <ul style="list-style-type: none"> Customer owns all the required software and hardware licenses. 	Create a K8 setup to enable the customer to move to production set-up after regression done on non-prod instance.

Table 1. A high-level overview of the what is provided by each cloud native work package and the value provided

Summary

Oracle Communications Consulting (OCC) is your trusted partner supporting you at every stage of your digital and cloud journey as you pivot from telco to techco. To help customers efficiently move to cloud native, OCC offers a comprehensive set of work packages, regardless of their starting maturity. These include options for customers with little or no experience of cloud, all the way to those with a high maturity in cloud use.

- **Value stream mapping:** Determine where the CSP would most benefit from adopting cloud-native processes and technologies first
- **Discovery cloud native work packages:** Help CSPs define the problem and get familiar with CNE and tooling
- **Cloud native work packages to aid customer migration:** Includes key activities such as implementation and configuration of toolchains, BRM CN, Cluster set-up.

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