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Oracle Managed Services for Cloud Scale Charging

Growing demand for digital services introduces higher expectations for reliability and performance. These services present novel challenges and risks when teams and tools are not adequately built to support them. Operationally, teams struggle with siloed data and processes, especially as more services are adopted or built into environments outside of their management control. Poor visibility combined with ineffective management tools lead to inefficient cross-functional communications and slow remediation times. Outages and performance degradation present risks of regulatory failure, lost revenue, poor customer experience and damage to brand reputation. Oracle Managed Services for Cloud Scale Charging addresses these challenges using our superior technology, tools, processes and people.

Reduce operational costs, innovate more

Oracle's Cloud Scale Charging enables service providers to monetize anything at any scale. But as with any network grade application, a team of highly skilled operational staff are required for performing charging operations, application maintenance and environment management – with further expertise required to support cloud native deployments and CI/CD pipelines. Oracle Managed Services for Cloud Scale Charging removes the need to hire, train and maintain specialist teams for such operational tasks. It is a comprehensive set of offerings (image 1) from daily infrastructure operations through to software maintenance that bring clear ownership and reduced operational risk.

End-to-end service and value chain from Oracle

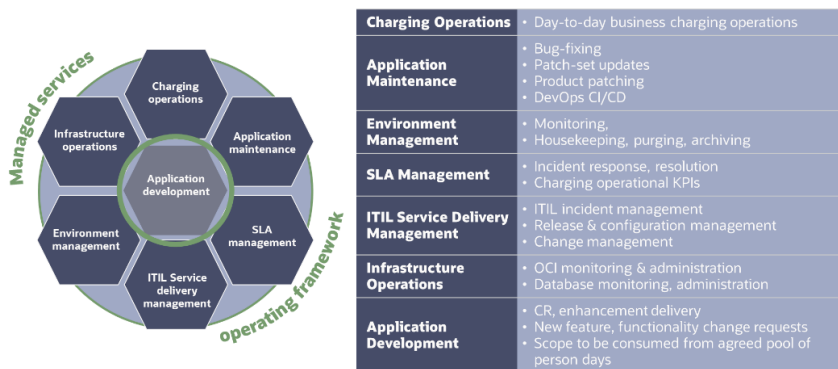|	
Charging Operations	• Day-to-day business charging operations
Application Maintenance	• Bug-fixing • Patch-set updates • Product patching • DevOps CI/CD
Environment Management	• Monitoring, • Housekeeping, purging, archiving
SLA Management	• Incident response, resolution • Charging operational KPIs
ITIL Service Delivery Management	• ITIL incident management • Release & configuration management • Change management
Infrastructure Operations	• OCI monitoring & administration • Database monitoring, administration
Application Development	• CR, enhancement delivery • New feature, functionality change requests • Scope to be consumed from agreed pool of person days

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

Managed services teams are experts in Oracle's Cloud Scale Charging and have a clear understanding of the customer's architecture and solution. The focus is on preventative maintenance while bridging the gap to Oracle Support with a fully

Key benefits

Oracle Managed Services for Cloud Scale Charging is a comprehensive set of managed services offerings that reduce cost of operations while providing a more efficient and reliable end-to-end service value chain – all from Oracle

- End-to-end visibility, aligned teams and outcomes
- Faster remediation times and better prioritization
- Prevent downtime before it impacts revenue
- Reduce the cost of operations
- Reliable way to manage the IT environment with less operational risk
- Ensure quality of service to your customers.
- Fully integrated process with Oracle support for more efficient restoration and resolution processes

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integral process. This materializes in more efficient restoration and resolution processes since Oracle provides an end-to-end service and value chain from project implementation through to product support and operations.

Supporting both cloud and on-premises deployments

Oracle Managed Services for Cloud Scale Charging is an extensible and reliable way to manage your IT environment and ensure quality of service to your customers. The comprehensive offering is focused on Oracle Cloud Scale Charging's in-memory charging grid. It addresses converged charging processes, preventative maintenance and supports cloud native deployments on private and public cloud infrastructure.

Incident severity level, service level agreements and other KPIs

Standard managed services packages are tailored according to customer needs. The service level agreement (SLA) timescales for response, remote restoration, and resolution are aligned to the type of use case deployed and corresponding incident severity level. The baseline agreement also specifies the number of service requests that can be made per month according to the severity.

Oracle managed services is focused on preventative maintenance. Image 2 depicts typical alarm/incident management flows, covering both low severity and those with the potential to impact business continuity. In rare cases where a severity one incident could not be avoided, system-wide observability would automate the formation of a war room so that the shortest possible time for restoration can be achieved, such as within a 1-hour window.

Related solutions

Oracle Managed Services for Cloud Scale Charging is applicable across the following solutions:

- **Cloud Scale Charging and Billing.** Monetize anything at any scale using pre-integrated charging, offer design, billing, revenue, and account management for accelerated time to cash and accountability across the entire revenue lifecycle for any service and business model.

- **Cloud Scale Charging.** Charge for anything at any scale with a cloud native, network agnostic converged charging system powered by an in-memory grid. Supports any fixed and 2G-5G network while interoperating with third party billing systems.
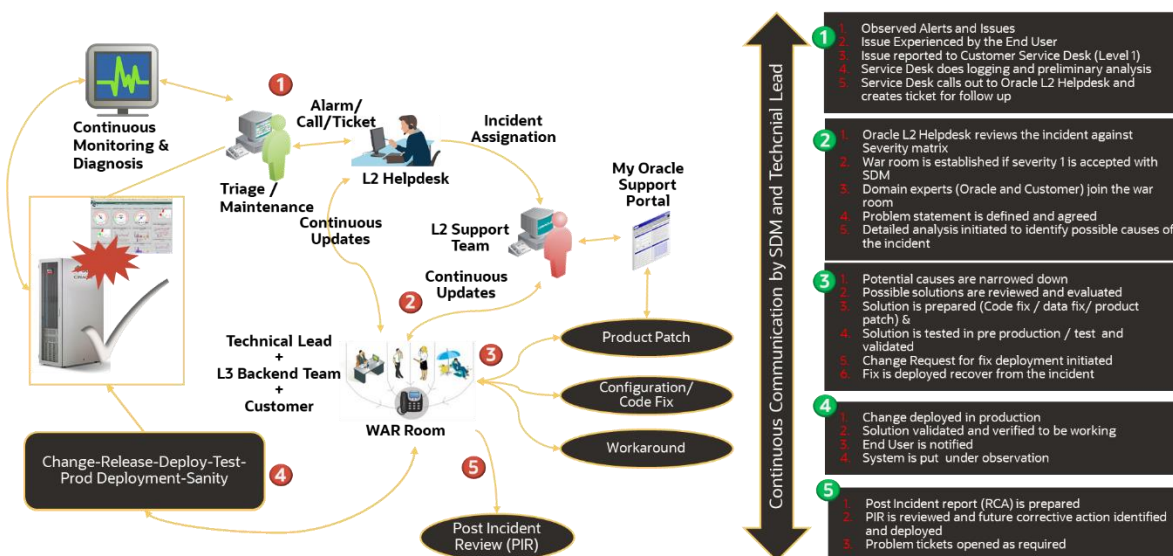

Image 2. A typical incident management flow that is provided as part of an Oracle Managed Service package for Cloud Scale Charging

End-to-end managed services approach

Oracle offers a range of managed services packages for Oracle's Cloud Scale Charging solution - a cloud native 5G ready converged charging system powered by mesh based in-memory technology to provide high performance, resiliency and linear scalability. In addition to SLA maintenance, the packages cover day-

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to-day charging operations and application maintenance such as bug-fixing, applying patch-set updates and product patching using a DevOps methodology and CI/CD pipeline. Managed services for the charging application are complemented by both managed infrastructure services as part of our Advanced Customer Services (ACS) portfolio as well as using the application specialists of Oracle Communications Consulting. It is recommended to adopt both so that a full, coordinated and end-to-end managed service approach can be provided – embedded with comprehensive security processes at all levels.

Oracle Cloud Infrastructure for ACS provides 24/7 monitoring and resolution services across the entire IT infrastructure, from database to applications to storage networks and services. All monitoring and resolution tools and technologies are designed to support the ITIL services framework.

Managed services packages for Cloud Scale Charging can be obtained at two levels, the standard package (table 1) and the premium level (table 2).

Standard package

The tables below show the services available with the standard package.

TRACK	SERVICE
Application maintenance	Service delivery manager
Application maintenance	Technical lead
Application maintenance	Incident reception and routing
Application maintenance	24x7 support for severity 1 incidents
Application maintenance	Incident monitoring
Application maintenance	Troubleshooting
Application maintenance	Big fixing and critical patches
Application maintenance	Root cause analysis and reporting
Application maintenance	Service request assistance
Application maintenance	Escalation management
Application maintenance	Assistance in issue reproduction
Application maintenance	Major incident management support
Application maintenance	Problem avoidance, root cause analysis for severity 1 incidents
Environment management	Environment monitoring
Environment management	Environment housekeeping, purging, archiving
Application operations	Application monitoring
Application operations	Application housekeeping, purging, archiving
Application operations	Execution of scheduled jobs for operational activities
Application operations	Performing user administration, role changes activities

Solution components

Oracle's Cloud Scale Charging solution is comprised of the following pre-integrated products:

- **Oracle Communications Elastic Charging Engine.** A digital experience engine that provides 3GPP aligned, real-time converged data and communications session charging and balance management. Natively integrates into Oracle's full suite of billing and revenue management capabilities and designed in accordance with TM Forum principles.

- **Oracle Communications Offline Mediation Controller.** A carrier-class convergent charging mediation solution designed for multiple network types including 5G and hybrid 4G/LTE/5G networks as well as non-telco applications. It provides comprehensive network data collection, aggregation, and correlation.

- **Oracle Communications Convergent Charging Controller.** A highly scalable online charging control platform for SS7-based voice and messaging services, enhanced IN services and voucher management. Consolidate traditional silos onto a single cost-efficient platform with continued support while pivoting to 5G.

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Table 1. Managed services functions provided by the standard package

Premium package

Once the standard service is up and running, the managed service functions can be provided as per table 2 with the additional features of the premium package.

TRACK	SERVICE
Application maintenance	On site specialist visit for critical events
Application maintenance	Ad hoc functional advice on phone
Application maintenance	Standby assistance for major change management activities
Application maintenance	Assistance for release management activities
Application maintenance	SLAs for response, restore and resolve times
Environment management	Free upgrade and feature enhancements
Environment management	Patch set updates and product patching

Table 2. Managed services functions provided by the premium package

Summary

Oracle Managed Services for Cloud Scale Charging alleviates the cost of employing a team of specialists to manage day-to-day operations, so that more resources can be made available to the business for spend on innovation. It is a comprehensive set of managed services offerings that increase the efficiency and reliability of operations – all from Oracle.

- Full lifecycle, end-to-end service value chain

- Reduce the operational risk and cost of operations

- Ensure reliability and quality of service to your customers

- More efficient restoration and resolution processes

Comprehensive multiple-site charging deployments

Engineered options to meet your business continuity needs:

- Active – warm standby

- Active – hot standby

- Segmented active – active

- Active - active

Verified cloud scale performance

In a cloud native performance test* for 100 million subscribers using Oracle Cloud Infrastructure, Oracle Cloud Scale Charging demonstrated wide area active-active deployment with extremely high performance across two sites. This gold standard business continuity architecture was deployed across two data centers located in the West and East coast of the USA with 50 million subscribers on each site with bi-directional charging grid data federation. The test used realistic traffic profiles and demonstrated large scale rated event generation with low single digit charging latency.

Read the full report

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