# Oracle simplifies hybrid and multicloud management

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# Table of Contents:

# Omdia view

## Summary

The adoption of greater numbers of core business workloads in the cloud will accelerate the need for organizations to transform their organizational roles, responsibilities, processes, and structures. Omdia believes that as the percentage of workloads operating in the cloud moves toward 50% (ICTEI survey 2020 finds 35% of workloads are in public cloud), the organizational transformation must be equally well advanced. The selection process of the workloads to migrate and their relative priority is a capability that organizations need to develop. Selecting the correct approach to ensure that business outcomes are achieved will be the measure of success, and CIOs must have a strategic plan for delivering on these outcomes. However, to achieve these outcomes, they need metrics and visibility into the cloud.

## Oracle announces new observability and management capabilities for its management platform

Figure 1 shows the Omdia maturity model for IT operational management. It classifies the stage, defines the key characteristics of the stage, and indicates the tools deployed. It shows a linear relationship between people, processes, and technology, but organizations will have more of a disjointed relationship between these elements. Omdia uses the maturity model to explain the use of the IT operational activities needed to deliver services to business customers. The term operational activity has been used in the past to focus purely on administration tasks such as patching a server, configuring a network switch, or adjusting the storage allocation. However, Omdia argues that operational management also includes the development phase, the testing phase, the production running phase, and the retirement phase of a service. It is only by considering these different activities as part of managing the service delivery that it is possible to move beyond the idea of development and operations as separate entities with different responsibilities.

**Figure 1: IT operational management maturity model**
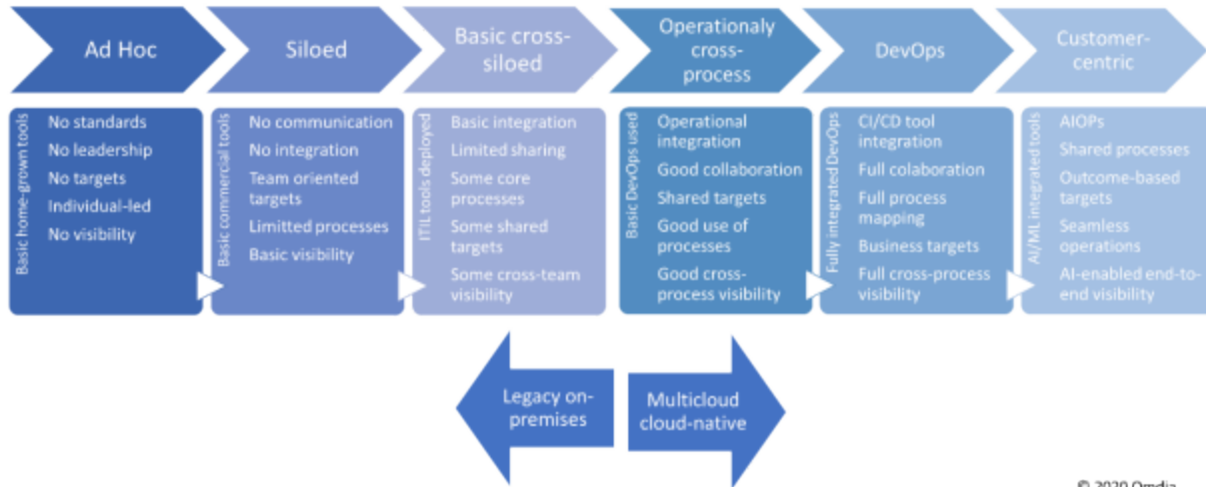
Source Omdia

Oracle announced its new observability and management platform, which has been enhanced to include logfile management, logfile analytics, application performance monitoring, database management, operational insight, and a service connection hub. The challenges that organizations face with IT operational management in a more federated and heterogeneous world mean that pure-play solutions, such as log management tools or network monitoring tools, only solve part of the challenge. Pure-play solutions deal with just one tier in the software stack and require an additional layer of cross-solution orchestration and management. Oracle offer an alternative approach, which unifies all the telemetry from the operating system, middleware, database, to the application in a single stack. If Oracle only provided this for its own environment it would be no more useful that the tier specific solutions, as it would require a cross-platform orchestration layer to work with the other cloud environments. However, Oracle designed and build the platform for hybrid and multicloud environments as well as for heterogeneous technology stacks. The key to Oracle's solution is to make use of the open standards, such as cloud-native computing foundation (CNCF), open tracing, open telemetry, and fluentd, and to make its platform interoperable with third-party tools.

# The new capabilities indicate a more "open" approach

The services Oracle announced make the Oracle Observability and Management Platform a more comprehensive solution. The new capabilities join existing Oracle Cloud services, such as monitoring, notifications, events, functions, streaming, and OS management, and will also complement existing solutions such as Oracle Enterprise Manager.

The new services are: logging, logging analytics, application performance monitoring, database management, operations insights, and service connector hub.

## Logging
The ability to ingest log files into a central log management capability has been a contentious issue for organizations. All too often some of the log files are not able to be imported simply into a central management capability due to format and protocol disparities. Oracle has chosen to use Fluentd as the

unifying layer for the log file layer. Fluentd tries to structure data as JSON as much as possible, which allows it to unify all facets of processing log data, including collection, filtering, buffering, and outputting logs across multiple sources and destinations.

## Logging analytics

Being able to ingest the log file data is one challenge, and the next challenge is making sense of the data and being able to make decisions based on this data. Oracle has built in AI/ML algorithms that can discover anomalies and identify correlations so the meaningful data can be visualized.

## Application performance monitoring

Oracle has again taken an open approach and makes use of CNCF Open Telemetry project. Open Tracing has merged with OpenCensus to form a new standard Open Telemetry, which Oracle uses as part of its application performance monitoring (APM) capability. APM is not new but has been limited by vendor specific APIs that have meant to operate in a heterogeneous environment any APM solution needed some bespoke modifications. Open Telemetry is comprised of an API specification, frameworks and libraries that have implemented the specification, and documentation for the project. This enables developers to add instrumentation to the application code by using APIs that do not lock them into a particular product or vendor. While it is not a standard, it is working toward creating more standardized APIs.

## Database Management

The often-overlooked aspect of IT operational visibility is the database. Oracle's new cloud service provides similar capabilities to those available in Oracle Enterprise Manager for all versions of Oracle Database, including Oracle's Autonomous Database. Therefore, it allows common management practices across autonomous and non-autonomous database environments.

## Operations insights

The new capabilities enable organizations to perform capacity planning so that the cost of operations can be identified and optimized. The challenge with insights is how much data is retained, but with the Oracle platform, a long-term SQL store is provided so that trend analysis can be performed and application behavior patterns identified.

## Service connector hub

At the heart of the Oracle platform is its ability to work with third-party tools. The service connector hub enables the integration with these tools and also supports the movement of data using Kafka to third-party solutions.

# Appendix

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