

# Have It Your Way

## On the cloud and in your apps at Oracle OpenWorld 2024

### Key Takeaways

Oracle has built deep partnerships with the leading Infrastructure as a Service (IaaS) providers—AWS, Microsoft, and Google—to better support multi-cloud and hybrid enterprise architectures.

After their success using the Redwood design system to revamp their Human Capital Management (HCM) offerings, Oracle accelerated Redwood's application to their supply chain management (SCM) offerings, which include their product lifecycle management (PLM) capabilities.

Redwood is essential to embed Oracle's extensive artificial intelligence capabilities in their applications portfolio, including supporting user extensions of generative AI (GenAI) use cases. Oracle delivered over 100 AI use cases last year and the pace is quickening.

Smart Operations seeks to replace manufacturing execution systems (MESs) in most applications, while extending Oracle's reach in the digital thread.

CIMdata attended Oracle CloudWorld 2024, held at The Venetian in Las Vegas, NV on 9-12 September 2024.<sup>1</sup> According to Oracle staff, more than 15,000 people attended this four-day event.

Many solution providers issue a raft of press releases during their major customer event. Oracle made some major announcements at Cloud World again this year. At previous Oracle events, their executives discussed the importance of multi-cloud support to their customers and prospects. CIMdata echoes this sentiment because we see it often with our industrial consulting clients. Their chosen Independent Software Vendors (ISVs) focus on delivering their offerings on one IaaS provider. (This has created business opportunities for the major global systems integrators to repackage those solutions for delivery on other IaaS providers.)

Where Oracle differs from their IaaS competitors is their broad portfolio of enterprise software offerings. Their high-level architecture is shown in Figure 1. Over the last two years, Oracle has announced major partnerships with Google Cloud<sup>2</sup> and Microsoft Azure<sup>3</sup> which gives customers direct access to Oracle database services running on Oracle Cloud Infrastructure (OCI) and deployed in Microsoft Azure and Google Cloud datacenters. During OpenWorld Oracle announced a new partnership with Amazon Web

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<sup>1</sup> Research for this commentary was partially supported by Oracle Corporation

<sup>2</sup> <https://www.oracle.com/news/announcement/oracle-and-google-cloud-announce-groundbreaking-multicloud-partnership-2024-06-11/>

<sup>3</sup> <https://news.microsoft.com/2023/09/14/microsoft-and-oracle-expand-partnership-to-deliver-oracle-database-services-on-oracle-cloud-infrastructure-in-microsoft-azure/>

Services (AWS) bringing OCI to the leading cloud service.<sup>4</sup> According to Gartner, these three companies have 70.2% of the worldwide IaaS market.<sup>5</sup> They also announced an expansion of their partnership with Microsoft Azure around Oracle Database@Azure<sup>6</sup> and the general availability of Oracle Database@Google Cloud in four regions in the United States and Europe.<sup>7</sup> Clearly Oracle is committed to supporting multi-cloud scenarios and their partners are helping make this support a reality around the world.

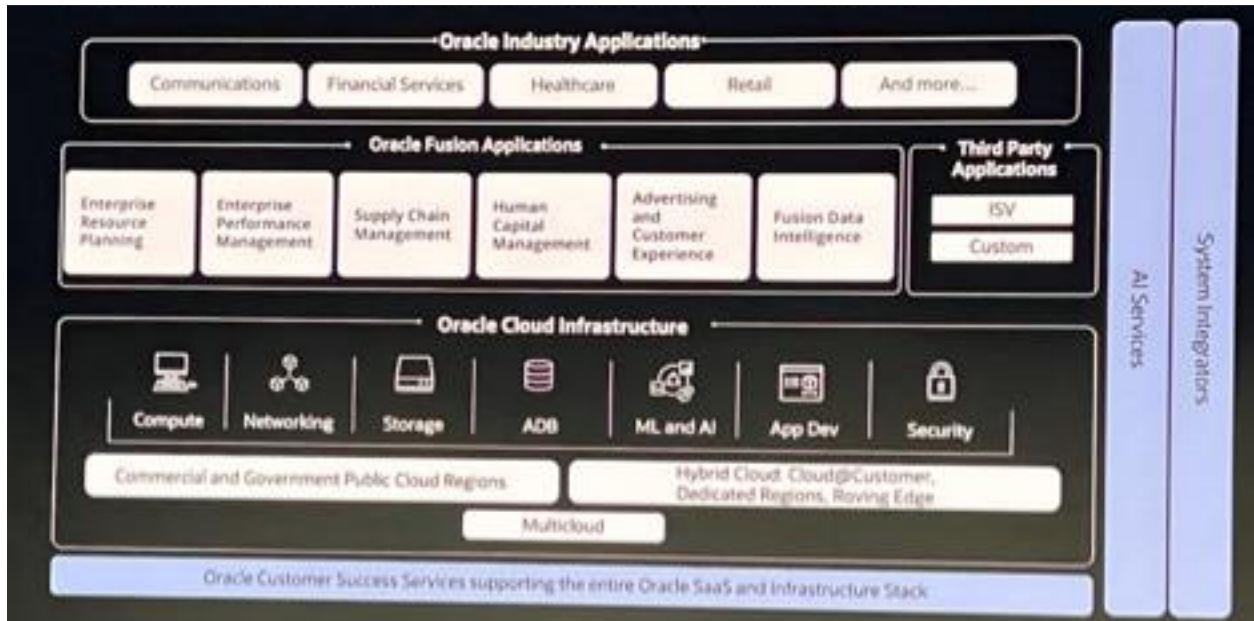


Figure 1—Oracle Applications, Infrastructure, and Technology  
(Courtesy of Oracle Corporation)

Oracle is expanding the use of their Redwood design system, a total rethinking of the Oracle applications user experience (UX), across their broad portfolio.<sup>8</sup> Their HCM solution was first to be “Redwood-ized” with plans to expand to their considerable portfolio. The initial fruits of their UX investment in their SCM offerings were highlighted in an Oracle Fusion Cloud PLM session led by Mr. John Kelley, Vice President of PLM at Oracle. Redwood is a key element in OCI, as shown in Figure 1. Redwood provides much more than a common “look and feel.” It is designed to support four levels of tailoring and customization. **Guided Processes** help users through standard use cases that can be built into the system. **Guided Journeys** can help adopters add more attributes or create reports built using managed data. More importantly, Guided Journeys help adopters build augmented intelligence into their work processes, using third-party large language models (LLMs) to support retrieval augmented generation (RAG) from content selected (and uploaded) by the adopters.<sup>9</sup> For example, an employee wants to check if a medical procedure is covered by their company insurance plan. If you asked GenAI without RAG it would tell where to look in your plan document to find the answer. More information but not really helpful. RAG can provide the context of the request from information about the requestor, i.e., what plan they have, what is covered, and other more useful information to take action. GenAI built into OCI can summarize

<sup>4</sup> <https://www.oracle.com/news/announcement/ocw24-oracle-and-amazon-web-services-announce-strategic-partnership-2024-09-09/>

<sup>5</sup> <https://www.gartner.com/en/newsroom/press-releases/2024-07-22-gartner-says-worldwide-iaas-public-cloud-services-revenue-grew-16-point-2-percent-in-2023#:~:text=Amazon%20retained%20the%20No.,%2C%20Google%2C%20Alibaba%20and%20Huawei.>

<sup>6</sup> <https://azure.microsoft.com/en-us/blog/microsoft-and-oracle-enhance-oracle-databaseazure-with-data-and-ai-integration/>

<sup>7</sup> <https://www.oracle.com/news/announcement/ocw24-oracle-and-google-cloud-announce-the-general-availability-of-oracle-database-at-google-cloud-2024-09-09/>

<sup>8</sup> Redwood was first announced at Oracle OpenWorld in 2019. CIMdata wrote about Redwood in our Commentary about the 2024 Oracle Applications & Industry Summit: <https://www.cimdata.com/en/resources/complimentary-reports-research/commentaries/item/24872-enabling-smart-user-experiences-2024-oracle-applications-industry-analyst-summit-commentary>

<sup>9</sup> <https://www.oracle.com/news/announcement/ocw24-oracle-offers-powerful-generative-ai-rag-agent-and-enhanced-ai-services-2024-09-10/>

the information and, importantly, includes links to the plan content used to create the summary. Explanatory capabilities are essential to making augmented intelligence credible and Redwood highlights its sources clearly. **Business Rules** offer low code, no code capabilities which are typically used by system admins. Leveraging Oracle APEX, first introduced in 2004, and its Visual Builder Studio application, Oracle's customers can customize their applications so they are upgradable to new versions as they become available. This is important given Oracle's quarterly release schedule. Finally, the **Logic Rule Builder** can support use cases like criteria-based security and pricing logic.

As Mr. Kelley took questions from the PLM-savvy audience, one could almost see the light bulbs go on as frustrated users literally saw that many issues would fade away as the move to Redwood progresses. Many session attendees clearly were early Fusion Cloud PLM adopters, but Agile users in attendance were also impressed by the progress. In a later meeting, Mr. Kelley said the move to Redwood in their SCM applications started about 18 months ago but has really accelerated since the April analyst meeting. Based on the audience's reaction in the PLM session, Oracle product management is on the right track with these enhancements. Perhaps, as the session title said, "Now Is the Time to Move to the Next Generation of Oracle Cloud PLM."

At the April analyst meeting, Oracle announced new Smart Operations offerings which they described as 'intelligent guidance for manufacturing execution' providing connected data from the supply chain digital thread, equipment, and the workforce. Smart Operations leverages core Oracle Fusion SCM capabilities. Using Redwood, Oracle can offer real-time recommendations combined with automated production adjustments.

In April, Oracle described four role-based capabilities:

- Operator Workbench—automated data capture and continuous monitoring
- Digital Work Instructions—visual guidance on real-time manufacturing execution processes
- Maintenance Technician Workbench—GenAI assistance with tasks, service history, and a knowledge base
- Production Supervisor Workbench—AI-powered anomaly detection and opportunity insights

In his CloudWorld keynote, Mr. Steve Miranda, Oracle Executive Vice President of Fusion Application Development, listed three newer additions to their Smart Operations offering:

- Maintenance Supervisor Workbench
- Inventory Shortage Workbench
- RFID for Replenishment

During his remarks, Mr. Miranda termed Smart Operations a "modern day MES." In a focused session, Mr. Geoffroy de Carbonnel, VP, Product Strategy SCM Manufacturing, posed a more provocative question: "Is MES obsolete?" In certain contexts, Mr. de Carbonnel says yes. With their Smart Operations offerings Oracle hopes to minimize the need for third-party MES solutions. Of course, he admitted there will always be environments needing an on-premises specialized MES, and Oracle has the APIs to connect with them. In closing, Mr. de Carbonnel suggested that Oracle is just starting their efforts to help clients on their journey from manual operations to "lights-out" manufacturing.

The information covered in this Commentary is a small fraction of the content presented at CloudWorld; it focuses on PLM or PLM-adjacent topics. Their partnerships with the leading hyperscalers AWS, Microsoft, and Google will help simplify often complex hybrid environments for PLM and other enterprise applications. Redwood makes it easy to bring GenAI to the point of work for Oracle users, enhancing their efforts by leveraging LLMs and corporate content and data. Oracle already made significant progress with

Redwood in their SCM suite but the work is really just beginning. Oracle claims that most enhancements are triggered by user requests, and user engagement with GenAI should provide for lively interactions between users and product development teams. Smart Operations should reduce the need for specialized MES at many customers, but these initial single process examples are just a start. Support for more complex operations are in development. Overall, this is only the beginning for Redwood and GenAI as part of Oracle's complex platform offering. CIMdata looks forward to what innovations 2025 will bring.

## About CIMdata

CIMdata, a global strategic management consulting firm, provides services designed to maximize an enterprise's ability to design, deliver, and support innovative products and services. For more than forty years, CIMdata has provided industrial organizations, providers of digital technologies and services, and investment firms with world-class insight, expertise, and best-practice methods on a broad set of product lifecycle management (PLM) topics and the digital transformation they enable. CIMdata also offers research, subscription services, publications, and education through certificate programs and international conferences. To learn more, visit [www.CIMdata.com](http://www.CIMdata.com) or email [info@CIMdata.com](mailto:info@CIMdata.com).