On the Radar: Oracle BSS and 5G monetization

Oracle envisions 5G billing as part of an end-to-end digital customer experience

Summary

Catalyst

As communications service providers (CSPs) start to roll out 5G networks, the reality is hitting home of how to make money from new 5G services and how to go to market with new industry partners and business models. Monetization is now a key focus – what are the key use cases and services that will drive new revenue? What kind of new capabilities are needed from billing support systems (BSSs) to support new 5G services? Existing legacy IT systems that support traditional products are not designed for dynamic, high-volume 5G services. The majority of CSPs are either in the process of upgrading or planning upgrades to agile and real-time IT systems deployed in the cloud that can flexibly support monetization of new advanced 5G services (e.g., on-demand cloud networks and network slices).

Key messages

- Oracle has launched Oracle Monetization Cloud for subscription-based services, with flexible billing based on a range of metrics such as by gigabytes, downloads, events, which will be a key requirement of 5G services and new partner business models.
- Oracle is developing its BSS capabilities in line with the developing 3GPP 5G standards, and evolving the convergent charging capabilities of its Billing and Revenue Management (BRM) product to handle high volumes of chargeable data sessions and deliver highly reliable, low-latency online charging.
- Oracle has integrated billing into its suite of software components for service providers in order to cover the entire digital customer journey.
- In addition to its SaaS product, Oracle Monetization Cloud, Oracle is developing its on-premises and private cloud monetization products into a cloud-native microservices-based architecture.

Ovum view

- Overall, monetization systems must be flexible enough to meet the needs of new 5G business models and services, and support a variety of flexible, real-time billing use cases at scale.
- CSPs will require vendors to offer cloud-native microservices-based billing software components that can be orchestrated on demand, and fully support open RESTful APIs.
- Converged OSS and BSS capabilities and real-time analytics that provide operational intelligence will be essential to effectively deliver business-critical services.
- Oracle is taking the right course in building up its monetization, orchestration, and analytics capabilities to manage the challenge of dynamic 5G service activation, diversity of devices, and the expected high volumes of chargeable data sessions.

Recommendations for CSPs

Why put Oracle on your radar?

Oracle is a reliable choice with an installed base of over 200 monetization customers, including over 100 CSPs, and supports customers moving to SaaS with Oracle Monetization Cloud, or private cloud. Oracle takes a horizontal approach to its software development. For example, Oracle Monetization Cloud also supports subscription-based services billing in other enterprise verticals, and the enterprise insight regarding subscription-based billing across verticals will be useful in 5G BSS features development for CSPs. Oracle is embracing cloud but service providers should ensure they understand its strategy with regard to new BSS cloud solutions and compare with pure-cloud BSS competitors in terms of new features and capabilities.

Highlights

Background

Oracle is a large software and services vendor that was founded in 1977 and is based in Redwood Shores, California, US. It is a publicly traded company with revenue of $39.8bn in fiscal 2018. Oracle sells to a number of verticals, including communications, higher education, financial services, health science, construction and engineering, hospitality, retail, and utilities.

Within the telecoms space, Oracle has a large footprint in both the BSS and OSS domains, counting many of the top 100 global CSPs as customers. Oracle's Communications global business unit is responsible for all software and solutions for CSPs and media companies.

Oracle's broader solution offering for communications is called Digital Experience for Communications (DX4C), which includes marketing, social, sales, customer data management, commerce, configure-price-quote (CPQ), order orchestration, monetization, and service.

The Oracle Communications Billing and Revenue Management (BRM), Oracle Monetization Cloud (OMC), and Oracle Communications Network Charging and Control (NCC) products sit within the Oracle digital monetization portfolio.

In addition to software, Oracle offers a host of professional services as part of its Oracle Communications Consulting portfolio. Consulting services include implementation, integration, management, hosting, enablement, and support services. Oracle Communications Consulting also offers a number of starter packs aimed at implementing OMC, which include predefined timelines, cost, and deliverables.

The vendor also has an extensive global network of more than 100 Oracle-certified partners, including Deloitte, Accenture, and PwC.

Oracle monetization portfolio

Oracle has three monetization products: Oracle Communications BRM, OMC, and Oracle Communications NCC for mobile networks.

BRM can handle scale and carrier-grade convergent charging and billing transactions, and customers can choose to use an Oracle-hosted version of BRM integrated with other Oracle systems.

Oracle released OMC in July 2017 as a SaaS product running solely in Oracle's Cloud, using a microservices, containerized architecture. The product is a public cloud alternative to the vendor's staple Oracle Communications BRM, which is typically deployed on-premises or in a private cloud. OMC runs in Oracle's next-generation public cloud and shares significant features and code with BRM, so it is built for high-volume and complex orders/rating environments. Its customer base includes companies monetizing services related to education, smart cities, media, information services, and utilities, in addition to telecoms. Pricing for OMC is based on revenue under management or number of subscribers. With OMC, customers have access to subscriber management, accounts receivables, billing and invoicing, discounting, payments, and rating, as well as user and administrative capabilities, reporting, and process management. In addition to these core services, CSPs can add on usage processing services.

Oracle Communications NCC is an intelligent network-based monetization system for CSPs that enables fast and agile charging for prepaid-focused consumer mobile markets.

Oracle Monetization Cloud

Oracle Monetization Cloud's core functions include Offer Design, Subscriber Management, Rating and Discounting, Billing and Invoicing, Revenue Recognition and Management, as well as Descriptive Analytics capabilities.

Offer Design

CSPs need to be able to keep up with rapidly changing market dynamics and be able to create new packages on the fly without being hindered by their IT. Offer Design's capabilities will also come in handy as CSPs continue to focus on establishing new IoT business models and growing their partner ecosystems. The module, which includes its own product catalog (or which can be integrated with existing catalogs), enables CSPs to seamlessly construct creative product bundles. CSPs can create unique packages that include, for example, bundles such as traditional CSP services with IoT add-ons, or CSP services with internet content provider (ICP) services, both of which allow CSPs to better compete in the digital marketplace and boost ARPU through market-differentiating bundles.

In addition to creating unique service bundles, Offer Design enables CSPs to offer flexible payment options, with the ability to make bundles available by subscription, one-time fee, consumption, or even loyalty points.

Rating and Discounting

CSPs can set rating parameters based on consumption for any service type or usage metric, such as by event, duration, clicks, gigabytes, downloads, and volume.

This will be useful in exploring new business models for existing and emerging 5G services beyond the traditional "unlimited" usage model. Using the Offer Design and Rating modules, however, CSPs can create and price out a number of new 5G services, such as a unique rating for 5G data for movie downloads, or special rating for 5G gaming connectivity.

With more flexible pricing and discounting options, CSPs have the ability to create more targeted offerings and monetize customer segments that are traditionally overlooked – such as those customers that generate a smaller ARPU.

Billing and Invoicing

CSPs can create a number of billing options for their product and services, such as monthly, quarterly, annual, or custom-timed billing. This offers additional flexibility beyond the traditional monthly bill; features such as bill now, on-demand billing, bill on first usage, and subscription billing enable CSPs to offer different types of billing depending on 5G service, application, or type of industry, opening up the potential to support new IoT and partner (B2B2X) business models.

Revenue Management

The Revenue Management capabilities of OMC enable CSPs to manage the financial side of the business with features that include accounts receivable, general ledger, taxation, and native compliance with ASC606 and IFRS15, all of which also help to inform the Subscriber Management module.

Subscriber Management

Finally, closing the monetization loop, the Subscriber Management module includes all the necessities that CSPs expect from any CRM solution, including the ability to onboard new subscribers, adjust currency and non-currency balances, upsell and cross-sell services, and manage payments.

End-to-end digital experience

Oracle has software to manage all "seven" stages of a customer journey, and is winning deals across the Oracle Digital Experience for Communications (DX4C) stack. Oracle is providing Oracle CPQ for quote management, Oracle OSM and BRM for order fulfillment and billing, and can integrate with Salesforce for lead and opportunity management. The monetization portfolio is a subset of DX4C.

The products included in Oracle DX4C are:

- Oracle CX for Communications (includes marketing, sales, commerce/CPQ, and service)
- Oracle Communications Order and Service Management (OSM)
- Oracle Billing and Revenue Management (BRM)
- Oracle Communications Design Studio (DS)
- Oracle Integration Cloud (OIC)
- Oracle Communications Application Integration Architecture (AIA).

Oracle's DX4C is a converged CX, BSS, and OSS portfolio, which brings together the breadth of Oracle's software for service providers to cover the end-to-end digital customer experience, from knowing, acquiring, and engaging customers (see Figure 1) to launching, fulfilling, and monetizing products and services with real-time balance, rating, and revenue management (see Figure 2). This positions Oracle with service providers that are engaged in transforming IT systems and need to upgrade key components as a cloud service in order to support new revenue streams and digital and 5G services launches (e.g., real-time rating, charging and discounting, and convergent online and offline charging).

Figure 1: An end-to-end digital experience with Oracle's DX4C

Source: Oracle

Figure 2: An end-to-end digital experience with Oracle's DX4C: launching, fulfilling and monetizing products and services
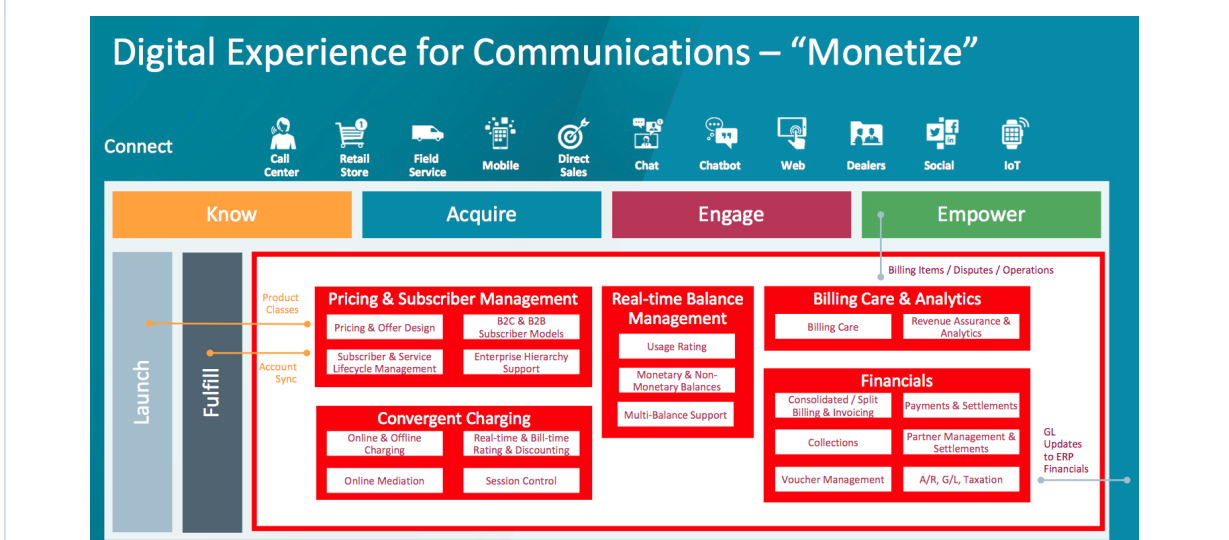
Source: Oracle

Looking ahead to 5G monetization

Oracle has identified multiparty monetization on a large scale as a key requirement for 5G monetization. Oracle is enhancing its monetization products to support extreme volumes of chargeable data sessions and transactions from people and sensors with the flexibility to support "any wholesale or retail partner go-to-market model."

Another requirement is that 5G BSS enables (rather than inhibits) speed to market, new business models, new services, and pricing models. In particular, new 5G networks slice monetization models, including bundling within slices and across slices, which will add new complexity and, for certain use cases, always-on low-latency, network-grade charging.

Oracle sees two key aspects of monetization that will be important to support 5G business goals – network-grade convergent charging and subscription-based billing and management. Oracle is evolving its BRM-convergent charging capabilities (integrated online and offline) in line with 5G-

service-based architecture and 3GPP standards. These capabilities will be key to support dynamic on-demand 5G services (for example, short-lived virtual network slices to support a particular event).

Advanced subscription-based monetization, running in the cloud (e.g., the Oracle Monetization Cloud), can support new 5G services that operators will want to test and launch quickly – the "fail fast" idea. Monetization has to support different service, metric, and business model flexibility; for example, rating parameters based on consumption for any service type or usage metric (such as by event, duration, clicks, gigabytes, downloads, and volume). 5G will also require monetizing high volumes of transactions and events to support the proliferation of diverse IoT-enabled devices.

In terms of architecture, Oracle is focused on delivering a cloud-native microservices architecture with open RESTful APIs for third-party systems integration, and evolving its SaaS and private cloud monetization products around a shared roadmap. Oracle will also support a choice of customer deployment options – SaaS, private cloud, and on-premises.

Cloud-native software components and open APIs will be needed for monetization, as 5G services will be orchestrated from service design and activation through to provisioning and billing, which can involve managing a service chain of virtualized network functions. Oracle also believes real-time actionable analytics across all stages of the customer journey – from engaging customers, to order activation, to provisioning, to billing, and responsive user interfaces – will be important.

Data sheet

Key facts

Table 1: Data sheet: Oracle

Product name	Oracle Monetization Cloud (OMC) Oracle Digital Experience for Communications (including BRM)	Product classification	Business support system
Version number	OMC release is 19A BRM release is 12.0	Release date	March 2019 (OMC) December 2017 (BRM)
Industries covered	Communications, media, and entertainment	Geographies covered	EMEA, Asia-Pacific, and Americas
Relevant company sizes	CSPs, and mid-sized and large enterprises	Licensing options	Perpetual and subscription-based licenses
URL	www.oracle.com/industries/communications/products-category.html#category-monetization	Routes to market	Direct and indirect channels
Company headquarters	Redwood City, California, US	Number of employees	137,000

Source:

Appendix

Methodology

On the Radar is a series of research notes about vendors bringing innovative ideas, products, or business models to their markets. This research note was supported by Ovum briefings with Oracle's OMC, DX4C team, and 5G product marketing.

Further reading

Next-generation cloud capabilities underpin Oracle Monetization Cloud 18C release, SPT001-000037 (November 2018)

2019 Trends to Watch: Telecoms Operations and IT, SPT001-000058 (March 2019)

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