On the Radar: Amdocs' RevenueONE is a 5G monetization solution

Amdocs RevenueONE integrates key modules to monetize 5G

Summary

Catalyst

As communications service providers (CSPs) start to roll out 5G networks, the reality of how to make money from new 5G services and how to go to market with new industry partners and business models is starting to hit. Monetization is now a key focus: What are the key use cases and services that will drive new revenue and what kind of new capabilities are needed from business support systems (BSS) to support new 5G services? Existing legacy IT systems that support traditional products are not designed for dynamic, high-volume 5G services. A majority of CSPs are either in the process of upgrading or are 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

- Amdocs is offering RevenueONE as a 5G monetization solution based on modular cloud architecture. It includes the key monetization elements: convergent charging, unified product catalog, partner management, and real-time billing. It also features distributed edge to support edge monetization and reduce system footprint.

- Amdocs has evolved its convergent charging engine to a cloud-native architecture which strengthens its ability to transition operators with 4G and 5G charging on the same architecture.

- Amdocs has a robust partner management system, which manages the entire partner lifecycle such as onboarding, as well as supporting templates and custom charging.

- CatalogONE is based on business-oriented flows, giving business users the ability to create and launch new services from end-to-end, without any coding knowledge.

- RevenueONE includes real-time billing capabilities that turn billing from a batch function to a real-time function, so customers can get a real-time view of their spend (for one-time and recurring charges) and can control spending limits.

Ovum view

Monetization systems need to be flexible enough to meet the needs of new 5G business models and services, and support a variety of flexible, real-time billing models 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, as well as agile business and delivery models. Converged OSS and BSS capabilities that manage the end-to-end customer experience and real-time analytics that provide operational intelligence and enable automation will be essential to effectively deliver business-critical 5G services.

Amdocs RevenueONE is based on modular microservices-based cloud architecture which is important to service provider customers when considering 5G BSS upgrades. RevenueONE simplifies Amdocs' expansive BSS capabilities into the key modules needed to support new 5G use cases and business models – unified catalog, convergent charging, partner management, and billing. Customers can still pick and choose which components they want to upgrade within RevenueONE. Amdocs

introduces analytics and artificial intelligence (AI) capabilities to its converged charging engine to enable smarter traffic management flows between the upstream network and the charging engine. There is also a focus on more efficient event processing of IoT events to reduce the cost of supporting low-ARPU services.

Recommendations for CSPs

Why put Amdocs on your radar?

Amdocs has been a trusted OSS and BSS software provider to service providers for over 30 years and brings that experience and expertise to customers. This positions Amdocs as a company that understands the service provider business and provides well-integrated billing systems, which puts it in a strong position to win 5G monetization upgrades with existing and new accounts. Amdocs RevenueONE is based on a cloud architecture with decomposed microservices and simplifies Amdocs products to the key BSS modules that operators need to support new 5G revenue streams: convergent charging, unified product catalog, partner management, and real-time billing.

Highlights

Company background

Amdocs was founded in 1982 and is an experienced long-term provider to the communications industry. Amdocs has a broad portfolio of business support systems (BSS) and operational support systems (OSS) products and professional services. In recent years, Amdocs has enhanced its portfolio with customer experience systems (CES) functionality enabled by big data analytics. Amdocs has business relationships with 350 communications and media service providers, including AT&T, BT, Korea Telecom, Globe, Orange, and Liberty Global.Amdocs has 25,000 employees in over 85 countries. Listed on the NASDAQ Global Select Market, Amdocs had revenue of $4bn in 2018.

Amdocs RevenueONE

Amdocs has an extensive BSS portfolio, this report focuses on Amdocs RevenueONE in the context of 5G monetization.
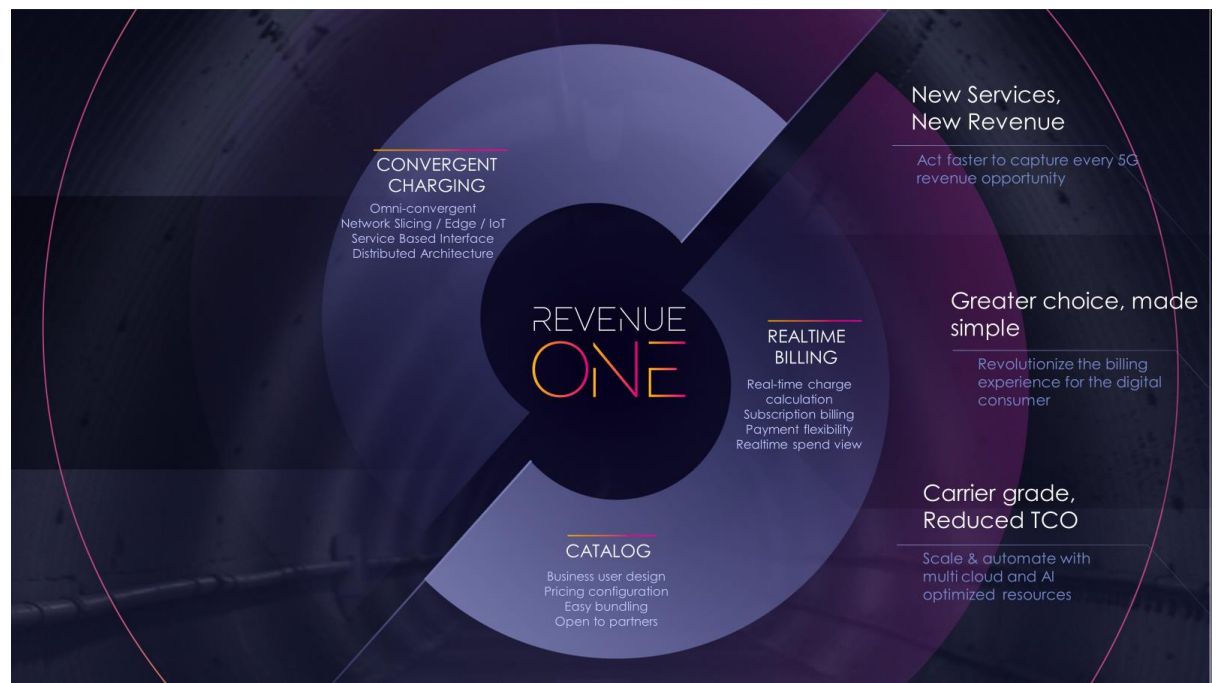
RevenueONE integrates real-time charging and billing with a unified service catalog and the key billing and charging features that service providers need for 5G services and to support partner services. It is designed to support all lines of business, customer segments, and payment types. RevenueONE products are based on a modular cloud architecture based on microservices, containers, orchestrators, and open source software wherever applicable.

As Figure 1 shows, the key components of Amdocs RevenueONE are:

- **Amdocs Convergent Charging.** A standards-based 5G convergent charging system designed to support all service provider 5G services.
- **Amdocs CatalogONE.** A unified catalog which enables service providers to create, price and launch 5G services and bundles to enable faster time to market.

- **Amdocs Real-Time Billing .** Real-Time billing capabilities and spend view and flexible payment methods.
- **Amdocs Partner Management.** A partner management system that manages the entire lifecycle for third-party partners.

Figure 1: Amdocs RevenueONE snapshot

Source: Amdocs

Convergent Charging

The Amdocs Convergent Charging engine supports converged online and offline charging, and can handle 4G over Diameter, 5G standard Service-Based Interface, and charging architecture, in accordance with 3GPP specifications.

Events are rated in real time, quotas are dynamically allocated and Call Detail Records (CDRs) are immediately available in both the billing system and customer engagement systems.

The charging engine exposes open APIs to other systems. For example, an OTT video application that wants to display a user's data balance in real time within the video stream can get the information needed by querying Convergent Charging's balance API.

Amdocs has addressed efficient event prcocessing and the aggregation of IoT event flows, in order to keep the costs of IoT events down, especially since a single enterprise customer can own thousands of devices and multiple device types (sensors, actuators, etc.). Amdocs Convergent Charging is also designed to support distributed convergent charging functions deployed close to the network edge, which also reduces signaling, latency and dependence on charging hub connectivity.

Amdocs Convergent Charging can be deployed on any public cloud, such as Amazon AWS, either completely or in a hybrid deployment. Since 4G and 5G will co-exist for some time, Amdocs Convergent Charging supports hybrid 4G and 5G charging interfaces in the same installation. It

provides the option to use Hadoop HBase for usage and PostgreSQL for all the other database information.

Amdocs Convergent Charging uses an artificial intelligence engine that enables smart managementof traffic between the up-stream network and the Convergent Charging engine. The engine examines usage patterns based on various usage parameters, such as type of service, transaction time (time of day, day of week, special dates), subscriber rate plans, data share parameters to automatically determine the optimal quota to allocate to the specific subscriber at the specific time for the specific requested service. The engine also considers different services that share the same bucket at the same time (multiple concurrent sessions of the same subscriber), as well as data sharing between subscribers under the same data share group.

Real-Time Billing

Amdocs RevenueONE includes real-time billing capabilities that turn billing from a batch function to a real-time function, so customers can get a real-time view on spend and can control spending limits. Real-time billing captures product change events and reflects their monetary impact immediately on the charge repository. This provides real-time calculation of charges for one-time charges and recurring charges. Real-time billing also includes on-bill or subscription, as well as payment by credit card, online payment services (Amazon, Google, PayPal), and loyalty points.

CatalogONE

CatalogONE is a unified catalog to create, implement and launch new services and offers from end-to-end, using a template-driven approach and without the need for coding. It also includes a library of productized templates, which support partners and co-developers on 5G services and bundles.

Partner Management

Amdocs Partner Management manages the entire lifecycle for third-party partners including content providers and cloud service providers. It enables service providers to integrate and resell third-party services to its own customers, as well as to enable partners to sell its products directly to its own customers with embedded connectivity provided by the service provider.

Looking ahead to 5G monetization

Amdocs has practical experience working with 5G operators and already enables 5G monetization as a partner of Korea Telecom for service monetization and convergent charging, one of the first operators to launch 5G services in March 2019.

Amdocs has packaged RevenueONE as a modular cloud architecture solution that can handle the diverse 5G use cases and business model demands. In particular, its convergent charging engine is a key component to enable online and offline charging, and the capability to support 4G and 5G on a single platform.

Real-time billing flexibility, either subscription or on-bill is needed as well as support for a range of online payment methods. This enables customers to have a real-time view of their spend which relates to enhancing customer experience, another priority of operators as a way of giving 5G customers more control and an accurate view of the status of their services at any time.

Amdocs is also bringing analytics and artificial intelligence to its charging engine to enable smarter management of traffic, and more efficient event routing and charging policy. This efficiency will be

important as 5G data volumes increase, especially for IoT and sensor-based use cases that involve large volumes of devices, yet the revenue per device is low for the operator.

Another key requirement Amdocs sees is supporting the 5G partner ecosystem, which is expected to comprise a diverse number of players, applications, services, and content, which in turn, creates the need for real-time charging, subscription billing, payment flexibility, and end-to-end partner management.

Data sheet

Key facts

Table 1: Data sheet: Amdocs

Product name	RevenueONE	Product classification	Business support system
Version number	n/a	Release date	October 2019
Industries covered	Communications Service Providers (CSPs)	Geographies covered	EMEA, Asia-Pacific, Americas
Relevant company sizes	Large enterprises	Licensing options	Perpetual and subscription-based licenses
URL	www.amdocs.com	Routes to market	Direct and indirect channels
Company headquarters	Israel/US	Number of employees	25,000

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 the Amdocs team.

Further reading

On the Radar: Oracle BSS and 5G monetization, SPT001-000062 (May 2019)

On the Radar: Ericsson advances BSS and 5G monetization plans, SPT001-000067 (June 2019)

On the Radar: Netcracker BSS and 5G monetization, SPT001-000073 (July 2019)

On the Radar: Openet BSS and 5G monetization, SPT001-000074 (August 2019)

On the Radar: Optiva takes a bold approach in promoting public cloud for BSS, SPT001-000081 (October 2019)

Author

Sandra O'Boyle, Associate Analyst, Ovum

sandra.oboyle@ovum.com

Ovum Consulting

We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum's consulting team may be able to help you. For more information about Ovum's consulting capabilities, please contact us directly at consulting@ovum.com.

Copyright notice and disclaimer

Ovum

INTERNATIONAL OFFICES

Beijing

Boston

Chicago

Dubai

Hong Kong

Hyderabad

Johannesburg

London

Melbourne

New York

Paris

San Francisco

Sao Paulo

Shanghai

Singapore

Sydney

Tokyo