ORACLE

Data Driven Innovations for the Communications Industry

Data is the new oil and Communication Service Providers (CSPs) have plenty of it, but too many of them are still missing the right tools to extract and refine the wealth in their data. Thanks to the power of new technologies, such as data science, machine learning, autonomous data management, and cloud, CSPs can finally turbo-charge their businesses by unleashing all the power from their data. Once CSPs see data in new ways, they can discover insights, and unlock endless possibilities.

UNCOVERING OPPORTUNITIES WITH DATA AND AI

CSPs already sit on some of the largest and most valuable data lakes spanning customer, device, and network data. On top of that, new usage patterns, such as widespread use of videos, and new types of services, such as IoT and content delivery, will dramatically increase the size and value of a CSP's data.

CSPs have been trying for decades to unlock the wealth of their data; however, for most of them, the results have not met the expectations. On the other hand, CSPs' disruptive competitors, the Over-The-Top (OTT) providers, such as WhatsApp, Skype, Netflix, and Google, are very successful at using data to generate revenues, tailor experiences, and effectively run their prospering businesses

Today, with technologies such as data science, Machine Learning, cloud, and autonomous storage platforms for multi-structured or heterogeneous data, CSPs can finally see data in new ways, discover insights, and uncover endless possibilities.

23 PB

1 hour of global mobile data traffic, the equivalent of 70 years 24/7 full HD video

5X

GSMA forecasted growth in mobiule data usage by 2024

TURN DATA INTO INSIGHTS AND THRIVE

CSPs can now turbo-charge their businesses by unleashing the wealth of their data. Thanks to the power of new technologies, such as AI, cloud, and autonomous data management, CSPs can generate new digital revenue streams, personalize services and customer interactions, and optimize networks and operations.

CSPs have some of the most valuable data lakes in the world. In March 2017 TM Forum published a study conducted across 300 senior decision makers at major brands in US, UK, and France across multiple industries: 67% of brands considered telecoms operators to be a better original source of data insights than Google, Apple and Samsung. CSPs have access to customer data, household data, browsing data across devices, location data, and so much more.

CSPs can monetize data directly, like OTT providers have been doing for many years. They can sell anonymized insights to businesses like retailers, insurances, public agencies, transportation agencies, and manufacturers. They can also anonymize data and load it into a *Data Management Platform* to make it available to digital marketeers and generate incremental revenue that is *100% margin, in an easy, safe, and flexible* way.

CSPs can create their own *Ecosystem of Value* and expand revenues by using their data to identify opportunities for partners and better serve their customers. This will enable B2B2C business models where partner's services are bundled with the CSP's offer.

CSPs can *personalize customer experience (CX)* with insights on customer's behavior and journeys to target tailored offers based on the customer's digital profile, usage patterns, network data, and sentiment analysis. In the same way they will also be able to increase NPS and reduce churn by differentiating their services with proactive and personalized interactions.

CSPs can use Machine Learning and AI algorithms for real-time analysis of their network, usage, and customer data so that they can *optimize operations and network management* with network planning and design, they can fight fraud, and they can rely on proactive detection and guided resolution of network issues.

A CSP's quest to transform into a digital service provider starts with data. Digital transformation spans across four dimensions: services, network, customer experience, and operations—and data is at the core of each one of them. To innovate, a CSP must go beyond selling connectivity and reinvent itself as a provider of data. This is more than just data streaming to and from customer devices and should focus on the following actions.

- Monetizing data and insights
- Exchanging data within an ecosystem of value or to fuel the artificial intelligence (AI) revolution
- Using data to drive personalized customer experiences and optimize operations

Once CSPs see data in new ways, they can uncover endless possibilities.

67%

of digital marketers consider Telcos a better source of data insights than Google, Apple, or Samsung [TM Forum Inform, March, 2017]

62%

of CSPs are planning or in the process of monetizing data [Analysys Mason, February, 2019]

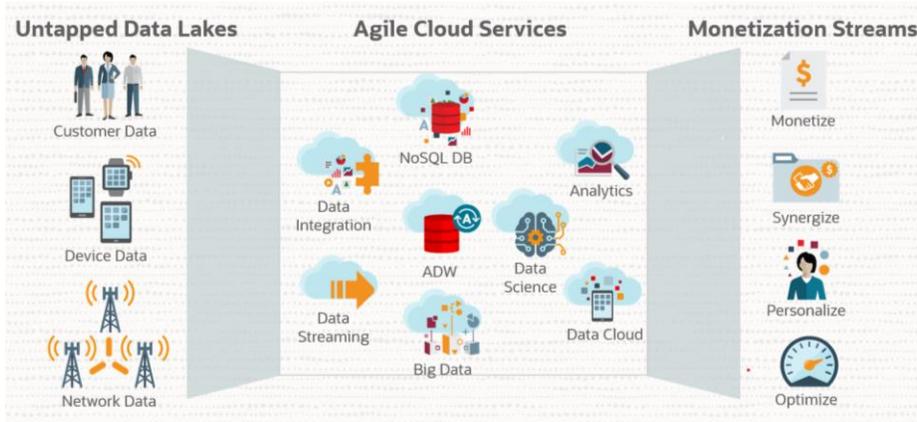# UNLEASH THE POWER OF YOUR DATA WITH ORACLE'S DATA DRIVEN INNOVATIONS

The Oracle cloud is the next-generation public cloud that provides the agility, reliability, scalability, and security that modern businesses need.

Only Oracle embeds data and intelligence across all areas of a CSP's business and IT stack—from infrastructure through platforms and software-as-a-service applications. With AI and machine learning embedded throughout processes and the software that runs them, CSPs can engineer the business to press their information advantage, securely, and win in the moments that matter.

Oracle's Data Driven Innovations is one unified cloud platform that enables CSPs to aggregate, analyze, and activate their data. Depending on the use case the solution uses a combination of:

- Oracle Data Integration Platform and Oracle Infrastructure Streaming for extracting data from sources
- Oracle Autonomous Datawarehouse, Oracle NoSQL Database, and Oracle Big Data to store and manage data
- Oracle Data Science for machine learning, models, and AI
- Oracle Analytics for data visualization, predictive analytics, and insights
- Oracle Data Cloud for external data monetization via DMP platform

With Oracle's Data Driven Innovations, CSPs can drive new revenue streams, differentiate services, gain efficiency, and power their digital transformation.

"We believe that the future of the network is to be datapowered, to be softwarecentric, and to be fast and responsive,[…] This collaboration with Oracle accelerates our network transformation and migration to the cloud to expand efficiency, performance, and reduce cost while improving overall customer service."

John Donovan, *Chief Strategy Officer*, AT&T Technology and Operation

"We are working with local businesses to use Data Driven technologies like Autonomous to better their operations. We've already seen the power of putting smart phones in the hands of the Fijian people. We can't wait to see what happens when we put the power of data into the hands of these local businesses."

Ronald Prasad, Regional *Chief Commercial Officer*, Vodafone Fiji

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