



# **OPTIVA SOLUTIONS INCLUDE:**



# **Optivo BSS Platform**™

A best-in-suite solution built for MNO, MVNE, and MVNO business operations, integrated into a convergent platform with modules, including billing, campaign and order management, product catalog, provisioning, settlement, and more.



# Optiva Charging Engine™

A best-of-breed convergent charging and billing solution for any type of service (e.g., mobile, fixed line, OTT, BB, IoT, 5G) with modules, including charging and rating, policy control, payment management, and service control.



# Optiva Partner Monetization™

A platform-as-service (PaaS) cloud-native offering for telcos to extend multiple partner-driven, value-added bundled services to B2C, B2B, and B2B2X customers. The platform handles onboarding, bundling, partner fulfillment, taxation, and settlement.



# Oρtiva MNVO Hubs™

A unified and multi-tenant BSS-as-a-service for MVNO/Es, leveraging Optiva BSS Platform hosted on Google Cloud infrastructure. Optiva MVNO Hubs support integration with payment gateways, taxation services, and a range of value-added services and can be migrated to a customer's own Google infrastructure.

# WHAT MAKES OPTIVA DIFFERENT?

- Fully integrated and digitally optimized solutions built for speed, agility, and improved customer experience.
- Cloud-native architecture on public and private clouds.
- Al-driven automated operations reduced testing time enabled by 4K+ test cases, golden disk, and more.
- Integrated out-of-the-box templates, enabling faster rollout of new propositions in hours.
- Strategic partnerships with Google Cloud, Microsoft Azure, Red Hat, and VMware, including the availability of Optiva BSS Platform and Optiva Charging Engine on Google Cloud Marketplace, allowing customers to leverage committed contract spend.
- SaaS to control costs plus managed services as needed.



Digital customer experience



To launch new telco operations



Customer lifecycle management



Just hours to roll out a new proposition

# **BSS IN A BOX AS A FULL SAAS**



# • Pay as you go

- Available on Google Cloud markeplace
- Scalability and flexibility
- Low TCO

# Connectivity

- Pre-integrated to MNO\* network
- Well-defined deployment process
- Faster time to market

(in selected geographies)\*

#### **Software**

- Always updated no end-of-life software
- Out-of-the-box functionalities
- Multi-tenant
- Future ready (AI, blockchain, etc.)



#### **Managed Services**

- 24/7 support
- Automation enabled
- Monitoring, alarm and fault management
- Business configration support

# Exclusive benefits for telcos with pre-committed deals with Google Cloud:

- Draw from GCP customer commit via Marketplace transaction
- Unified invoicing
- BSS modernization
- Easy procurement

Telecom innovators worldwide partner with Optiva to achieve their business goals and accelerate their path to monetization. Our worldwide deployments are for telecom operators of all sizes and new market entrants, MNOs, MVNOs, MVNEs, digital brands, and embedded connectivity devices, reflecting the flexibility of our products and people.























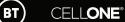


































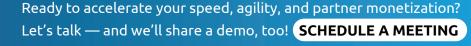






















Optiva **MVNO Hubs**™



Full revenue and customer management suite built for digital telcos, MVNOs, MVNEs, and digital brands that are delighting their customers with innovation and speed.

# Key characteristics of Optiva BSS Platform:

- Full BSS suite with revenue and customer management
- Digital BSS with automation, digital processes, and user interfaces built-in
- Supports end-to-end digital customer journey and experience
- Mission-critical and proven technology
- Highly scalable with cloud-native, available on private and public cloud

# **OPTIVA VALUE**

Optiva three-layered approach to delivering value ensures that our customers enjoy a world-class product backed by modern technology and delivery options to suit our customers' requirements.

We satisfy all your monetization needs.



#### PRODUCT

Full BSS suite for simplified and innovative monetization



# جيئة

#### TECHNOLOGY

Cloud-native, open API gateway, centrally managed product





## **DELIVERY**

BSS in a box - Fully managed on private or public, multi-tenant MVNE, MVNO Hubs

# **Our Customers**





























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# **Our Customers**



















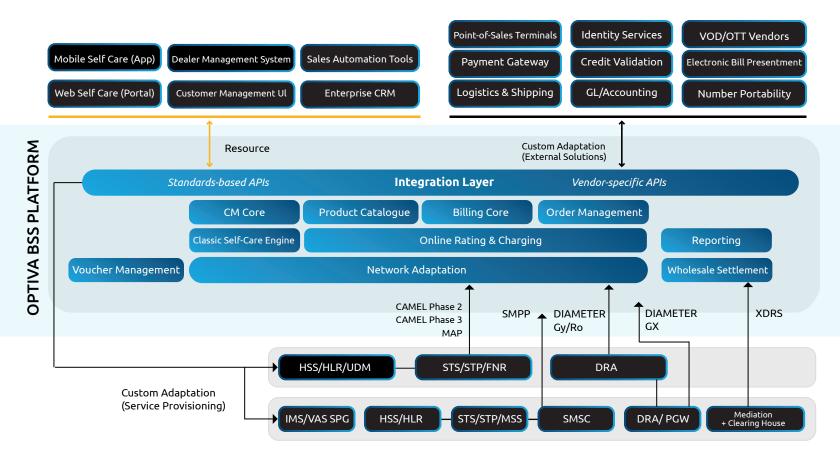








# **Product Architecture Overview**





- Real-time online rating, charging, and billing that support multiple billing models out-of-the-box, such as up-front fees, one-time fees, subscriptions, usage-based, recurring, and more.
- Revenue recognition, dunning and collections, and tax management abilities are built into revenue management.
- Digital and fully configurable product catalog and order management with a modern user interface provides speed and agility for new product launches.
- Wholesale management combined with a reporting module fulfills all needs for MVNO/Es.
- Complete customer management, including full life cycle management of customers, dealers, and self-care.



# **Technology Stack**

- Fully cloud-native software available on private and public clouds with CI/CD upgrades and updates.
- Integration layer that supports standard-based APIs and vendor-specific APIs.
- Multi-tenancy at core for maximum TCO and efficiency gains.
- Centrally managed product focusing on productization versus customizations, SDLC best practices, site reliability engineering (SRE) approach for software delivery and maintenance, use of software automation, such as auto-healing, dashboards, alarms, 24x7 monitoring, etc.



# **Delivery Models**

- BSS in a box Fully managed software with managed hosting on private or public cloud, managed application customizations, updates, and upgrades, and managed business operations for daily application management and upkeep.
- Strategic partnerships with Google Cloud, Microsoft Azure, Openshift, and VMWare.
- Complete SaaS offering on the public cloud of your choice.
- Optiva MVNO Hubs Multi-tenant MVNO BSS hubs on Google Cloud with pre-integrated network APIs, wholesale billing, and additional payment services.

# Example use cases of Optiva BSS Platform











5G ready, real-time, converged, cloud-native charging solution optimized for the world's largest and fastest-moving telecom innovators.

# Key characteristics of Optiva Charging Engine:

- Fully converged charging for telecom and beyond.
- Mission-critical and proven technology.
- Highly scalable with cloud-native, available on private and public cloud.
- Embedded rating and policy control function.

# **OPTIVA VALUE**

Optiva three-layered approach to delivering value ensures that our customers enjoy a world-class product backed by modern technology and delivery options to suit our customers' requirements.

We satisfy all your monetization needs.



#### **PRODUCT**

Best-in-class product features for simplified and innovative monetization



#### TECHNOLOGY

Cloud-native, open API gateway, centrally managed product



#### **DELIVERY**

BSS in a box - Fully managed on private or public, golden disk, MVNO Hubs, partnerships

# **Our Customers**























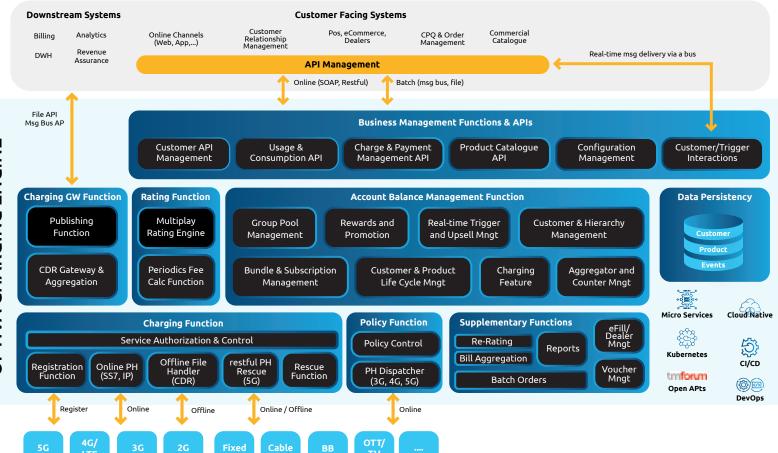




# GINE

# **OPTIVA CHARGING ENGINE**

# **Product Architecture Overview**



**Any Network Access** 



# **Product Features**

- Real-time multi-play charging backed by a universal data model to charge any attribute (SLA, bandwidth), any charging model (subscriptions, bundles, hierarchies), and any business type (mobile, TV, IoT, fixed, etc.)
- Extensive northbound (CRM, partner, wholesale, catalog, billing, payments, etc.) and southbound (EPC, IMS, 5G, IoT, CS, etc.) integrations and protocol support.
- Innovative out-of-the-box monetization capabilities with differentiated rating and charging for use cases, such as shared rating, promotions, periodics, roaming, intelligent upsell, multi-layer hierarchies, multi-service bundles, loyalty programs, and more.
- Business management functions and APIs for end-to-end customer management, product catalog, payments, and usage information.
- Payment management with paper voucher management, electronic vouchers, distributor management, and the payment gateway.
- Policy control function and other functions like re-rating, mediation, aggregation, batch orders, and more.



# **Technology Stack**

- Fully cloud-native software available on private and public clouds with CI/CD upgrades and updates
- API Gateway and real-time, closed-loop feedback with pre-integrated policy for new-age use cases, such as AI, ML, real-time analytics, and customer experience
- Centrally managed product focusing on productization versus customizations, SDLC best practices, site reliability engineering (SRE) approach for software delivery and maintenance, use of software automation, such as auto-healing, dashboards, alarms, 24x7 monitoring, etc.



# **Delivery Models**

- BSS in a box Fully managed software with managed hosting on private or public cloud, managed application customizations, updates, and upgrades, and managed business operations for daily application management and upkeep
- Golden disk Minimal viable product available for new greenfield entrants with OOTB and fully configurable plans and integrations, ready to launch in 90 days
- Strategic partnerships with Google Cloud, Microsoft Azure, Openshift, and VMWare
- Complete SaaS offering on the public cloud of your choice
- Optiva MVNO Hubs Multi-tenant MVNO BSS hubs on Google Cloud with pre-integrated network APIs, wholesale billing, and additional payment services

# Example use cases of Optiva Charging Engine











# Key characteristics of Optiva Partner Monetization:

- End-to-end partner lifecycle management platform for a multi-tier B2B2X ecosystem.
- Bring any partner across industries, use cases, and business types.
- Monetize any and everything with real-time billing, rating, and charging.
- Build a complete and catalog-driven digital marketplace with up-sells, promotions, campaigns, partner, tax, and payment management.

# **OPTIVA VALUE**

Optiva three-layered approach to delivering value ensures that our customers enjoy a world-class product backed by modern technology and delivery options to suit our customers' requirements.

We satisfy all your monetization needs.



Innovative and simplified partner ecosystem monetization



# TECHNOLOGY

Cloud-native, marketplace, centrally managed, and digital product

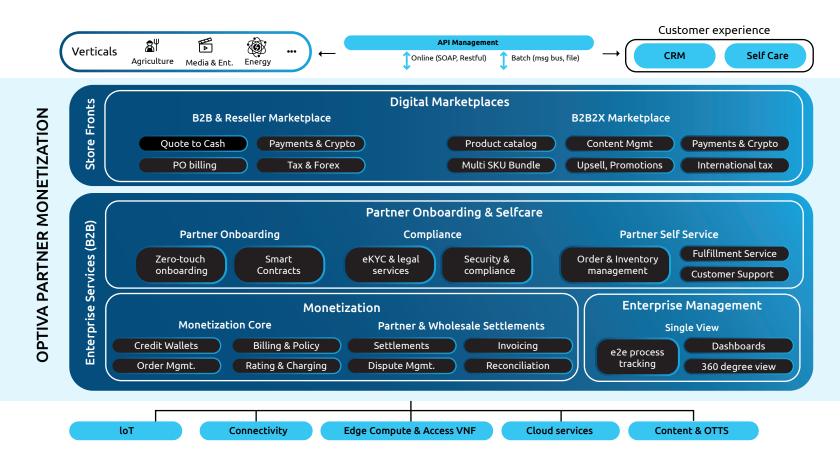




## **DELIVERY**

Fully managed on private or public, B2B & B2B2X, pre-integrated modules

# **Product Architecture Overview**



# Product Features

- The four core elements of Optiva Partner Monetization are digital partner management, digital catalog manager, billing and multi-partner settlement, and marketplace.
- Develop and monetize a complete partner ecosystem with billing and multi-party settlement, partner onboarding and integration, service management and bundling, and self-serve.
- Simplified and automated onboarding supported by digital and real-time processes.
- Monetize anything and everything ranging from any industry, any connectivity type, any software, any technology, or any device.
- >> Single dashboards to provide a centralized view across the ecosystem to all players.



# **Technology Stack**

- Fully cloud-native software available on private and public clouds with CI/CD upgrades and updates.
- Digital and automation at core with pre-integrated value-added services, such as tax, foreign exchange, payment services, and more.
- Centrally managed product focusing on productization versus customizations, SDLC best practices, site reliability engineering (SRE) approach for software delivery and maintenance, use of software automation, such as auto-healing, dashboards, alarms, 24x7 monitoring, etc.



# **Delivery Models**

- Fully managed software with managed hosting on private or public cloud, managed application customizations, updates, and upgrades, and managed business operations for daily application management and upkeep.
- >> Strategic partnerships with Google Cloud, Microsoft Azure, Openshift, and VMWare.
- >> Complete SaaS offering on the public cloud of your choice.

# Example use cases of Optiva Partner Monetization

B2B2C digital subscription products - OTT, streaming, gift cards and more

Complete
B2B2X partner
marketplace
with build your
own bundle

B2B enterprise segment extending to B2B2X portal eSIM and
IoT devices
marketplace
with embedded
connectivity









# FAST TRACK YOUR BUSINESS WITH MVNO AS A SERVICE

Today, digital customers are searching for service providers who can provide personalized service with an exceptional digital experience — tailored to their needs and lifestyles. The mobile virtual network operator (MVNO) is becomingincreasingly appealing across the globe as it offers opportunities tocapture new revenue by addressing the needs of specific customer segments. These include innovative offers for students, homemakers, youth, millennials, health providers, loyalty, and more. However, many new MVNOs find themselves trapped by the legacyBSS platforms provided by the underlying MNO or dealing with thecomplexities of implementing billing, charging, payment, andtaxation functionalities, among many other services. It makeslaunching and operating a successful new MVNO very challenging.

# **MVNO CHALLENGES INCLUDE:**

- Managing complicated MVNObusiness support systems andoperations withouttelecom expertise
- Scaling MVNO operations with agilityas subscriber base grows
- Providing an exceptional digitalcustomer experience
- Creating personalized promotions based on real-time customer behavior

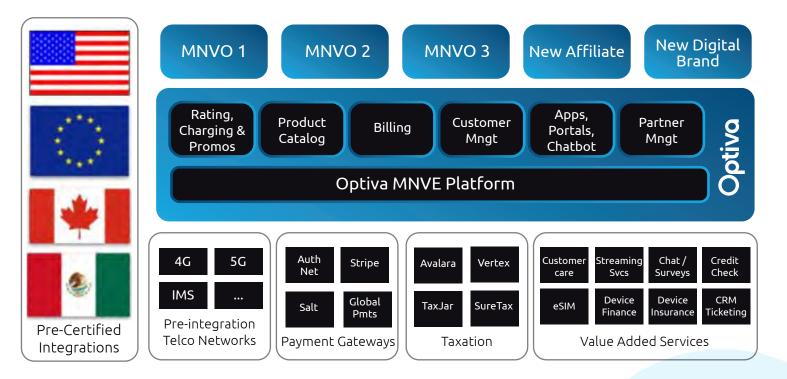


# INTRODUCING OPTIVA MVNO HUBS POWERED BY GOOGLE CLOUD

With 20 years of experience serving CSPs, MVNO/Es, and digital brands spanning more than 50countries, Optiva is now accelerating the time to market for the innovators in the telecom market.Optiva MVNO Hubs powered by Google Cloud elevates BSS as a service to a simplified and unifiedplatform that will help you build and sustain a successful MVNO operation without any of thecomplexities, delays, and costs of traditional platforms. With Optiva's BSS solution, combined withpre-integrated payment gateways, taxation modules, value-added services, and more, OptivaMVNO Hubs minimize the complexity and early-stage costs. Optiva MVNO Hubs is MNO agnostic, enabling integration with the network of your choice.



# Optiva MVNO Hubs - Share in MNVO Global Expansion



# Optiva MVNO Hubs advantages

- Full suite of BSS as a service (including customer management, order management, BSS, self-care, and dealer care)
- Multi-tenant deployment on Google Cloud Open integration supporting all MNOs can becustomized in all aspects (MSDIDN/IMSI ranges, currency, GL codes, product catalog, ratingrules, promotions, etc.)
- Pre-integrated into major payment gateways,taxation, value-added, and streaming services.
- Integration with Google Cloud's BigQuery forBSS-data-based, Al-powered insights Low upfront costs and a pay-as-you-growconsumption model.

# **Optiva BSS key features**

- Proven experience with 20+ years supporting MVNOs, MVNEs, and digital brands, providing BSS services to millions of end users.
- Modular multi-tenant, future-proof, feature-rich modular offering, including flexible real-time charging and triggering, customermanagement, billing and invoicing, payment, and unified policy control.
- Automation enabled embedded to supportcustomer service operations, softwaremanagement, and test automation.
- 120+ market-proven and ready-to-use OOTBproduct templates to configure and launch newinnovative and competitive offers in minutes.











# **Customer Background**

As the geo-political situation in Ukraine worsened, the top priority for lifecell was to ensure the continuity of its telecom services to citizens, military, and medical workers. It urgently needed a reliable and flexible solution to quickly and securely implement a self-managed disaster recovery strategy to drive its operations.

# **Customer Opportunity**

As the geo-political situation in Ukraine worsened, the top priority for lifecell was to ensure the continuity of its telecom services to citizens, military, and medical workers. It urgently needed a reliable and flexible solution to quickly and securely implement a self-managed disaster recovery strategy to drive its operations.

The existing disaster recovery site was near the frontline, and a new safe disaster recovery site was a critical requirement. In addition, because 60% of lifecell employees were unable to work in their local offices, the ability to operate and maintain these systems remotely was mandatory. Without this, the citizens of Ukraine were at risk of losing critical connectivity services.

Despite the war, lifecell was also determined to expand its BSS and charging systems to keep pace with current and future customer needs, including opportunities presented by 5G connectivity and beyond. It had plans to introduce new capabilities via functional enhancements of its existing revenue monetization technology stack, and it aimed to provide expanded support for



# **Solution**

Optiva's flexible and modern charging and billing platform enabled lifecell's mission-critical telco operations. Optiva's modularity, automation capabilities, and architectural flexibility supported lifecell in setting up new disaster recovery sites in six weeks (45% faster than the competition) at a new and safer location in Ukraine far away from the frontline. Optiva's BSS experts supported full replication of the application and customer data, ensuring reliable and continuous connectivity services critical for citizens of Ukraine during life-threatening and difficult times.

Optiva's team worked hand in hand with the lifecell team. It provided 24/7 remote support for developing and testing disaster recovery applications and data instances, including many non-standard changes, while working closely with other functions as one team. By leveraging AI-driven contextual insights of Optiva's solution and insights from a specialized vendor, lifecell could also implement immediate service suspension for illegitimate service users in less than one minute, preventing nefarious and dangerous activities.



Optiva has deployed the latest version of its revenue monetization platform, including online charging, billing, product catalog, and voucher management and more. The platform also includes a new interface for 5G core network integration support and will enable lifecell to quickly support 5G charging when the time is right to deploy 5G in Ukraine.

With the new system in place, lifecell can now meet customer needs faster and offer international roaming and the types of plans needed by citizens, medical workers, and the military. By leveraging 100+ built-in, out-of-the-box templates and automated testing frameworks, including thousands of pre-defined test cases, lifecell has decreased the testing period and manual resource requirements, accelerating operational velocity. Optiva has also enabled end-to-end digital customer lifecycle management from service ordering and onboarding to provisioning, change management, and care.







When the war began, our top priority was to protect our customers and their connectivity. Optiva's modern and reliable platform enabled us to deploy a critical new disaster recovery site in just six weeks. Configuration flexibility allows us to configure non-standard products and functionalities.

Optiva also empowered us to implement billing for new services in just several hours. It was critical for keeping Ukrainians connected when so many people were forced to leave their homes and the country.

Despite the crisis, we have undergone a digital transformation and will continue to upgrade and expand our mission-critical systems by working closely with Optiva's professional and highly experienced team and leveraging its BSS solutions to launch 5G services to rebuild our nation.

- **Volodymyr Rusanovych**, Manager, Applications Operations

# **Optiva**



# **Benefits**



# Six weeks

To launch new disaster recovery site by leveraging Optiva's modern, modular, and low code monetization platform, ensuring continuous connectivity



# QoQ One minute

to digitally register a new subscriber (via bank-id, e-signature, government channel integration Diya, and bank partners) and activation of an eSIM from home



# One day

to launch international roaming services to help people who were forced to leave the country to stay connected to their loved ones



# Seven days

to launch a completely new national roaming service leveraging



# Less than five minutes

for remote mobile number porting (MNP) process, allowing subscribers to make port requests, check status, select tariffs, and set SIMcard or eSIM



# 100% continuity

of the telecom operations by enabling connectivity for Ukrainians

# **ABOUT OPTIVA**

Optiva Inc. is a leading provider of mission-critical, cloud-native revenue management software for the telecommunications industry. Our products are delivered globally on the private and public cloud. Optiva solutions help service providers maximize digital, 5G, IoT, and emerging market opportunities to achieve business success. Established in 1999, Optiva Inc. is on the Toronto Stock Exchange (TSX:OPT).









# The Customer

Truphone, a global mobile network operator, provides mobile connectivity to consumer and enterprise segments and IoT devices to over 3,500 multinational enterprises. It is renowned for its technological breakthrough products offered worldwide. Headquartered in London, it has 15 offices across four continents and continues to expand globally.

The company, a global network of MVNOs united via a dedicated IP mobile core network to create a single international roaming "zone," was an early adopter of OTT software to compete against traditional mobile operators.

Truphone is riding the waves of digital transformation and IoT and exponentially growing its embedded eSIM business globally while putting customer experience at the forefront.

# The Challenge

Truphone wanted to plan well for the future in pursuit of its growth strategy. It knew its BSS could be its growth engine or biggest bottleneck. It needed real-time BSS to support flexible multiplay commercial models for existing and new business lines. It also required the agile rollout of new functionalities and features from a complete end-to-end continuous integration/continuous delivery (CI/CD) pipeline and autoscale capabilities to respond quickly to market needs.

Further, it required **agile rollout of new functionalities and features** derived from a complete end-to-end continuous integration/continuous delivery (CI/CD) pipeline to react quickly to market needs and **autoscale capabilities**. Further, Truphone wanted to ensure a **robust and resilient "always-on" environment** and a dynamic commercial model with minimal upfront investment and **"pay-as-you-grow"** method, offwering ensured and efficient cloud economics.

For highly competitive markets like 5G and IoT, it needed fast speed to market and an experimental approach to fail or succeed with minimal cost, time, and effort. In addition to rolling out new and innovative products at speed, Truphone wanted to always keep offerings relevant and up-to-date for its global audience.

# The Solution

Truphone's on-premise online charging system (OCS) and testing and disaster recovery systems were replaced with one OCS on Google Cloud.

Optiva delivered Optiva Charging Engine, a real-time converged charging solution that is 5G ready and updated every 3-6 months through a CI/CD pipeline. Truphone's upgrade to the public cloud also included a multi-year support agreement with Optiva that will further help Truphone maximize its value, monetization, and results. It estimates that the total cost of ownership (TCO) savings from the move to the public cloud will be approximately 60%.

Total time from kickoff to production was just five months – one-fourth the industry standard.

# **Optiva**





Ralph Steffens
CEO of Truphone

66

"With Optiva Charging Engine built on Google Cloud, Truphone can accelerate our digital transformation and technological innovation journey. We needed our online charging system (OCS) to be agile and robust, support rapid expansion, and scale easily — all without diverting our IT operation's focus.

CI/CD is a new approach in the traditional telecom industry, so it was important that Truphone gain trust in the new technology, adopt these tools and approach, and complete it on their side to ensure a fully automated acceptance process," said Ralph Steffens, CEO of Truphone.

# The Benefits

With its new OCS firmly in place, Truphone has more dynamic capabilities to launch new digital services quicker, cheaper, and with lower risk. Truphone's new automated CI/CD pipeline has enabled a more rapid time to market with OOTB product templates and reduced the number of tests from over 5,000 to around 190 automated and end-to-end.



**Test Automation -** Optiva Testing Framework (OTF) simplified verification

**Quality Check -** Project & Operational rollouts

Massive Tarif Testing - 7 million rate combinations



OPEX Reduction - Test system spin up on demand in 2 hours utilizing current live backups



Automated Daily Checks -5 min to complete Automated Trouble Tickets -Creation & Escalation



**50% Reduction** in number of maintenance windows

Non-critical activities can be done live at anytime



Software Installations -Achieved 9 rollouts in 1 year



TCO savings of approximately 60%



Platform **resilience** compared to bare metal improved by **10X** 



**100% System Integrity** as workloads are elastic, self balancing & self healing



Implementation in 5 months

Optiva starter pack delivers go live in 90 days

Optiva's CI/CD capabilities accelerated the delivery of the live implementation. The "starter pack" solution was deployed four weeks from kickoff, followed by continuous bi-weekly delivery cycles introducing new functionalities. Truphone had full visibility of the project's progress, which went live in only five months.