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5G NETWORK SLICING
BSS & OSS SOLUTION FOR B2B

USE CASE

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BSS & OSS SOLUTION FOR B2B

As the rollout of 5G continues to gain momentum, there are plenty of avenues for telecommunications providers to exploit.

For a European CSP, supporting the increasing needs of B2B companies is one of the main priorities. For this, it's necessary to upgrade the Business Support Solution (BSS) and Operations Support Solution (OSS). However, before adopting any solution, the CSP wanted a proof of concept (POC) for the BSS & OSS solution.

This is to ascertain that it will enable them to support new B2B business models and operations over 5G.

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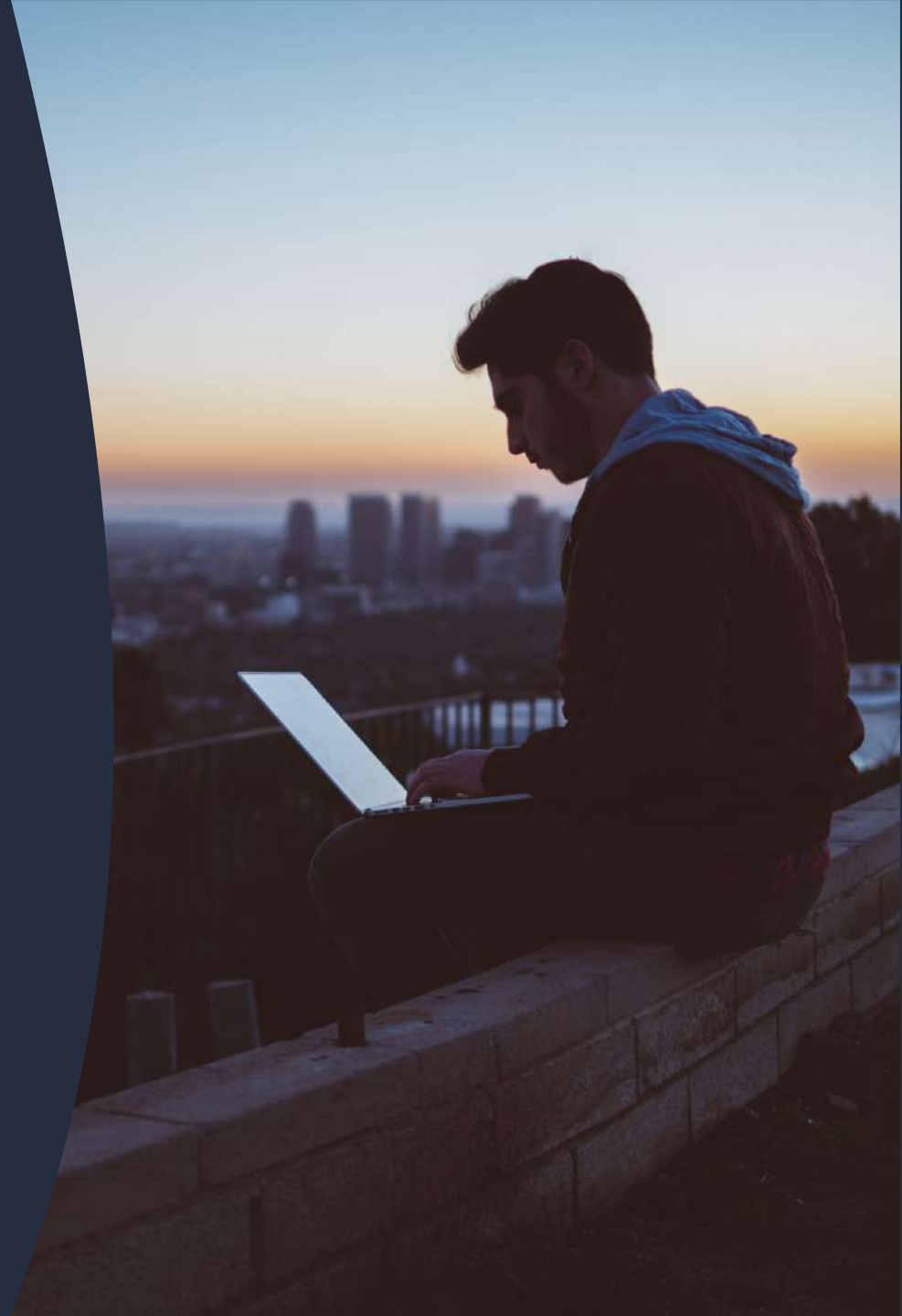
OBJECTIVES

SOME OF THE KEY OBJECTIVES FOR THE POC INCLUDE:

- Transitioning towards a digital-first and cloud-native solution
- Leveraging network slicing to launch and support new products
- To assess its integration and interoperability capabilities
- To assess the capacity and ease of use of the solution
- Minimize use of legacy systems and maximize operational independence

USE CASES

THE PROOF OF CONCEPT FOCUS ON TWO KEY USE CASES:

1   Video Surveillance and Telecontrol

2   Mobile Private Network

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1 VIDEO SURVEILLANCE AND TELECONTROL

As on-premise security becomes a greater concern, video surveillance solutions are becoming a basic security requirement. As businesses continue to adopt these solutions, telcos need to be sure that they can adequately cater to such needs.

As such, in relation to video surveillance and telecontrol, the focus for the PoC is the kind of offer the provider will have for customers.
In addition to using a 5G network slice as the base of communication, this offer will also include:

| User equipment such as cameras

| Storage for the stream

| Service platform (NVR)

| Managed services

| Analytics

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VIDEO SURVEILLANCE AND TELECONTROL

To ensure 360-degree service for the customer, the composition of the solution has a wide range of features that enhance delivery and effectiveness.
To begin with, there are seven different camera models, and each offers varying characteristics.

Moreover, each camera has five different storage options. When it comes to optional services, there are six available for each camera.

Another key area of focus is pricing and contracts. To cater to different customer needs, there are different types of contracts. The variations come in the form of the contract period and prices. Also, depending on camera quantities, B2B customers benefit from step discounts.

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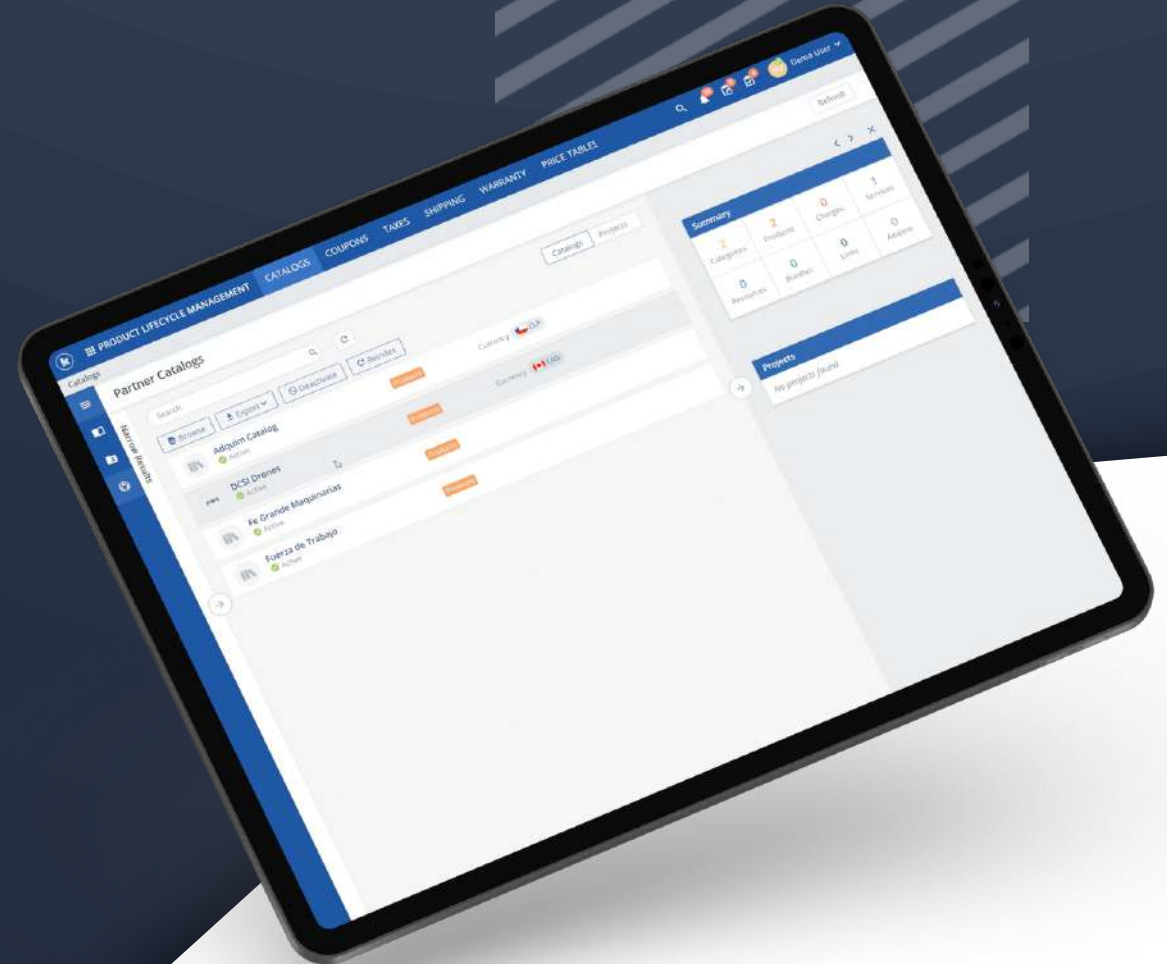
2 MOBILE PRIVATE NETWORK

The objective of the mobile private network use case is to offer customers a completely private network dedicated to them. As the name suggests, the network have mobile components. Customers also access additional network functions as the mobile private network links with the public Core.
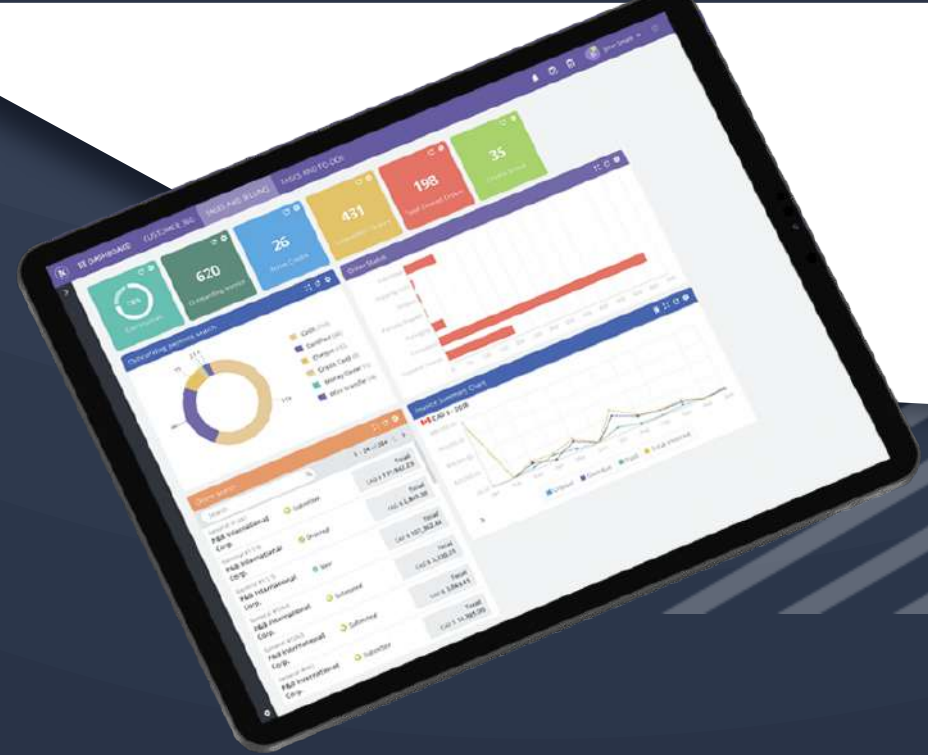
A STARTER KIT
The starter kit contains the basic equipment necessary to set up a mobile private network;

EQUIPMENT
Customers get several different components. These include a Core, two terminals, four different radio equipment, and two sim cards;

SERVICES
Among the supporting services on offer will include a PTT service, video surveillance (with platform link), and three IoT services (with platform link);

CONTRACTS, PRICING, AND DISCOUNTS
The contract commitment periods and prices vary. Customers can choose a one-shot approach, or monthly solutions and discounts will be available based on volume.

ACHIEVEMENTS

Upon completion, the proof of concept was largely successful, with achievements realized for both use cases.

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ACHIEVEMENTS FOR BSS

Some of the key achievements for the BSS layer include:

1 SUPPORT FOR THE MAIN B2B PROCESSES

For B2B companies, their needs from telcos are growing. If they're not adequately met, there may be a need to switch providers. In regard to this proof of concept, it was clear that the solution supports the key B2B process. With this, the CSP can help enhance the performance of clients, which will translate to growth.

Some of the B2B processes it supports include:

| CPQ

| Contracting

| Ordering

| Inventory management

| Service order orchestration

| Product lifecycle management

| Lead management & Funnel

For B2B companies, the process of acquiring, cultivating, and converting leads is essential as the client pool is generally not as big as with other sectors. Fortunately, the B&OSS solution supports B2B management. This then serves as a better platform to identify more qualified leads and increase conversion rates;

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2 SELF-SERVICE PORTAL

One element that significantly reduces the ability of B2B companies to fully capitalize on solutions is the need for support at every stage. With the B&OSS solution also comes a self-service portal for clients. It offers them greater independence and flexibility as they can manage their accounts, change services, place orders, etc.

3 DIFFERENTIATION

With the solution, it is now possible to differentiate elements such as CPQ, contracting, and order processing by product or market segment. This makes it easy to identify areas of high performance and those lagging behind, allowing companies to take the necessary remedial measures.

4 DYNAMIC PRICING

Instead of offering a standard pricing method that may not be suitable for some clients, the B&OSS solution offers dynamic pricing capabilities.
For example, it's now possible to offer contract pricing, per rules pricing, attribute-based pricing, table-based pricing, and quantity discounts.

Along with these, there are also BSS achievements such as:

▌Flexible templates and electronic delivery that support the generation and sending of proposals

▌Discretionary sales channel and order size discounts with approval flows

▌Flexible catalog definition

▌Standards-based integration

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ACHIEVEMENTS FOR THE OSS LAYER (SYMPHONICA)

As a telecommunications provider, there is no room for inefficient operational systems and processes. When it comes to the operations support system side, achievements come in five primary categories as follows:

1 MULTI-DOMAIN ORCHESTRATION FOR AUTOMATED PROVISIONING OF SERVICES AND SLICES

As network providers transition into 5G, multi-domain orchestration and automation of service provisioning will be a primary feature. In this regard, the CSP realized the following benefits from the PoC:

| NSMF, NSSMF, and E2E Network-Slice lifecycle management;

| Increased capacity for service order decomposition for multiple technical orders;

| Rules-based approach for selecting the best fit;

| NSSMF profile management;

| End-to-end fulfillment spanning from service orders are received to command execution on the necessary network elements.

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2 SERVICE AND RESOURCE CATALOG

With the solution, the CSP was able to gain:

- Flexible Catalog modeling with two use cases integrated end-to-end from scratch within a few weeks;
- Workflows powered by catalogs with CFS/RFS/RES reuse for various use cases.

3 DESIGN STUDIO FOR CATALOG, WORKFLOWS, & INTEGRATIONS

Another key element that supports operations is the design studio that offers:

- Southbound integrations designer with graphical point & click workflow;

- Reusable vendor-agnostic services across services;
- Lower project development costs and reduced time to market due to the no-code designer;
- ONAP Core Simulator Deployment.

4 CLOUD NATIVE AND CERTIFIED SOLUTION

With the cloud native and certified solution, the CSP is able to enjoy:

- Deployments in cloud-based environments are much easier;
- Supports monitoring of business and technical KPIs.

5 TM FORUM ENTITIES AND OPEN APIS

As a result of the alignment with TM Forum Open APIs and entities, integration with BSS is smooth.

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LESSONS FROM THE
BSS & OSS PROOF OF CONCEPT

One of the desires of the CSP was to simplify the integration of work and alignment of CFSS characteristic naming through the TM Forum Open API. To achieve such alignment and avoid changes with each service introduction, the alignment must be catalog/table-driven. During the PoC, they were able to achieve all this.

Careful determination must be made on which service attributes are exposed to the customer for presentation, view configuration, and/or filtering. This should be accompanied by determining how they map to and influence the OSS of the RFS, CFSS, etc.

In order to deliver the PoC as per the initial schedule, defining the use cases and scope of execution, as well as the CPS's excellent predisposition to participate in the workshops and answering questions, were key.

The integration of the solutions (Kloudville and Symphonica), being both based on Open API TMForum standards and the vast experience in telecommunication projects and telco stacks by Readiness IT, allowed the project to be implemented on the planned schedule and fully functional.
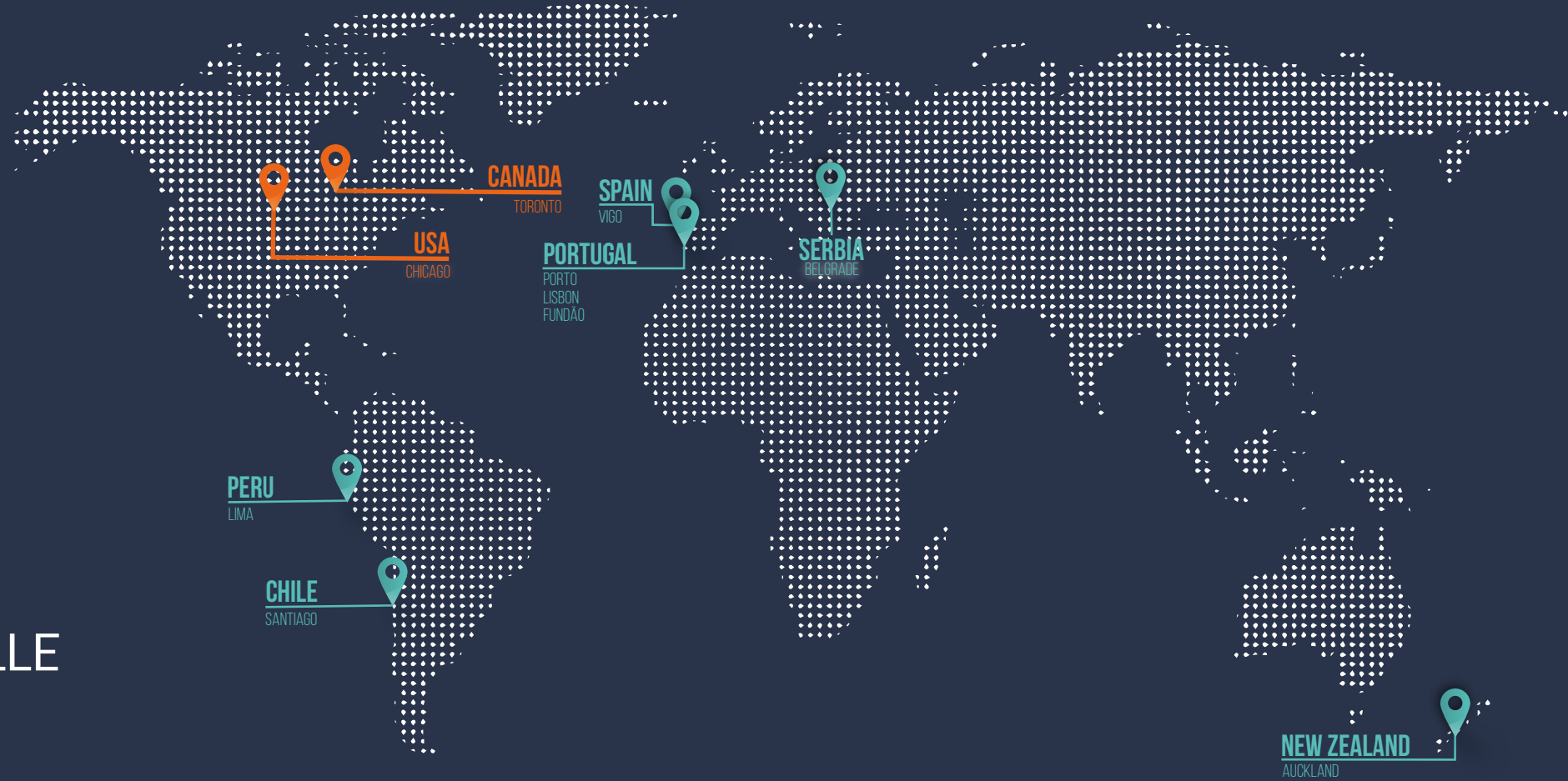
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