NATEC: digital transformation

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Company summary

NATEC, headquartered in Ukraine, is a provider of BSS software development solutions for communications service providers (CSPs). NATEC's primary offerings include WideCoup BSS solution and MEF.DEV platform, which is a framework that can be used to support incumbent and legacy BSS solutions through wide number of API access points. The solution is built on open architecture frameworks, which CSPs can link to their existing BSS systems. This can help CSPs develop and expand the capabilities of their incumbent solutions bypassing the solution provider, which will help accelerate transformation and lower support costs.

The company considers open processes, swift time-to-market and agility as the primary differentiators of its solution. NATEC claims that its MEF.DEV platform can reduce concept-to-cash timeframe from months to few weeks, which can lower costs and improve competitiveness. NATEC is positioning itself as a digital transformation partner especially for telcos with large numbers of legacy systems. The MEF.DEV solution is specifically designed to support telecom processes across multiple lines of business.

NATEC continues to investing significantly to expand and strengthen its platform capabilities and plans to expand its business footprint internationally in next three years. This profile is focussed on the NATEC's digital transformation portfolio and initiatives.

Figure 1: NATEC's company facts

Founded	2013
Offices	Headquartered in Kiev, Ukraine
Regional focus	Ukraine and CIS
Selected key customers	Kyivstar (VEON Group), Ericsson. NATEC also provides telecom expense management solutions to multiple large customers in the CIS region.
Partnerships	Ericsson, Qvantel. The company also has specific agreements with IBM, HP and SAP.

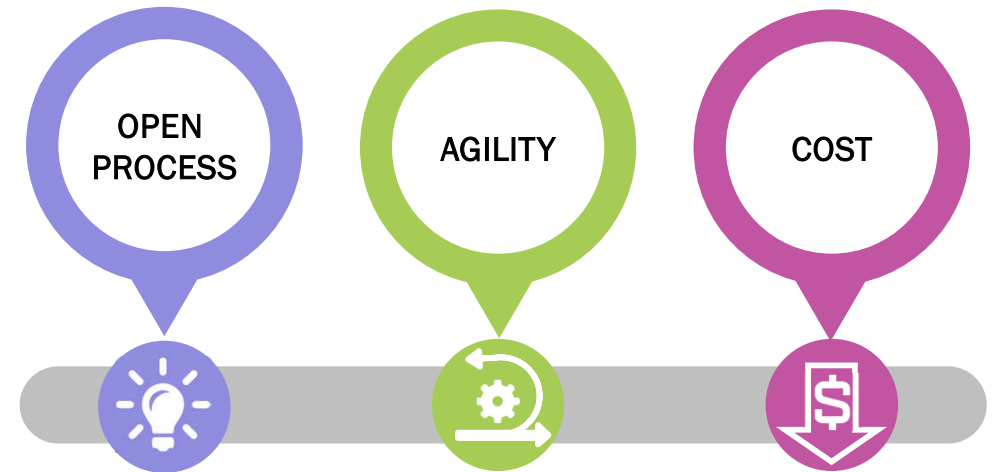analysys mason

Strategic direction

The MEF.DEV platform is an application development, serverless hosting and management platform that can help CSPs accelerate their transformation of legacy BSS functions. The company counts Kyivstar as an important reference customer, where it has been able to build a reference case of developing of platform that has helped the operator to accelerate the timelines of transformation and the overall agility of incumbent systems.

NATEC plans to continue updating its platform by adding capabilities such as improved platform visibility, cloud hosting, function-as-a-service and flexible payment options.

From a strategic perspective, NATEC emphasizes on three primary pillars for the MEF.DEV platform:

Open process – NATEC prioritises its open process adherence as a key differentiator for its services. The open process capability provides a software development approach for operators' BSS implementations that are not tied to any proprietary technologies or platforms. For example, the operator will be able to fulfil its business requirements within its chosen BSS vendor solutions in the MEF.DEV platform. This helps prevent vendor lock-in and improves functional modularity and can help reduce the impact of siloed systems.

Figure 2: Three strategic pillars of MEF.DEV platform

Source: Analysys Mason

Agility – The MEF.DEV platform adheres to an agile development process that is based on continuous integration principles. This enable operators to rapidly iterate through multiple prototypes, swiftly implementing bug fixes and uncovering new requirements.

Cost – An important benefit of the MEF.DEV platform if the ability to significantly reduce the support costs, especially for legacy systems where the alternative is to pay for expensive customized maintenance contracts. The MEF.DEV platform also provides support for legacy integration with new systems.

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The MEF.DEV is a development, hosting and application management platform that can help operators accelerate their transformation of legacy BSS functions

The MEF.DEV platform provides accelerated development, serverless hosting, and application management capabilities for operators. The platform is aimed at improving business agility, especially in legacy environments, by creating a simplified transformation process. The platform has a graphical user interface that simplifies the process of integrating and automating (BPM/BRM) applications. The company claims to support integrations with multiple third-party vendors including Amdocs, Ericsson, Oracle, Nexign, SigScale and Bercut.

Key capabilities of MEF.DEV platform include:

Standardised APIs - The platform exposes auto-generated REST API interfaces which helps extend the functionality of the platform.

Container composition - MEF.DEV platform provides access to business logic and native data storage using the free and cross-platform Managed Extensibility Framework. This enables operators to quickly add third party business logic containers without the need for revision and re-building.

Smooth DevOps – MEF.DEV adheres to continuous integration process that supports enterprise SDLC processes for code generation, configuration management, versioning support and rollback. The platform also offer a plugin that can be used in the process of self-development of applications.

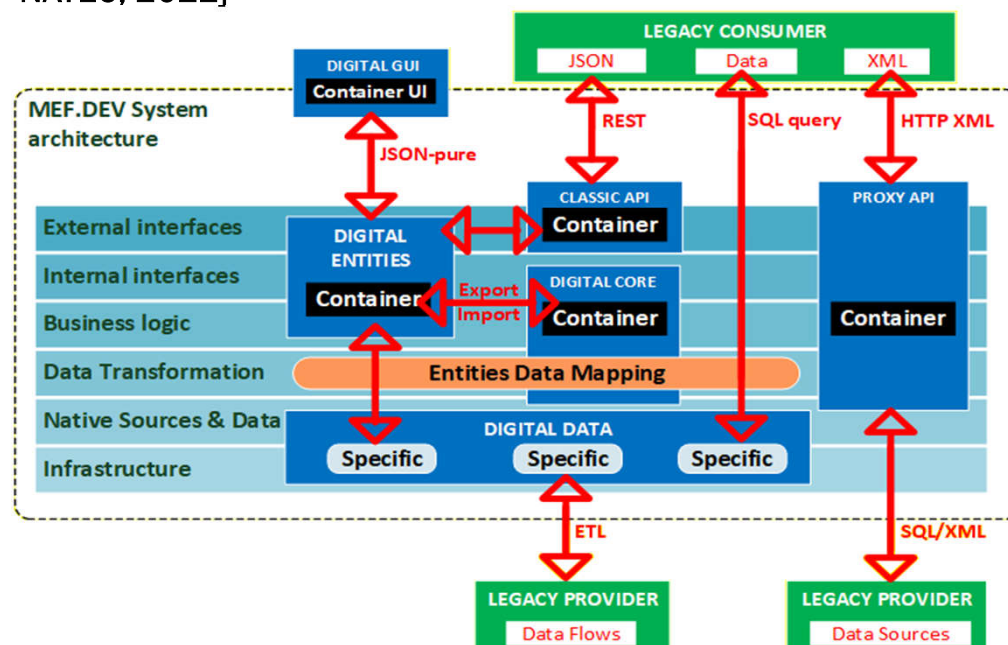Figure 3: Overview of MEF.DEV's system architecture [Source: NATEC, 2021]

Figure 4: Expected benefits of the MEF.DEV reference architecture approach [Source: NATEC, 2021]

Improved business agility by accelerating concept-to-cash from months to less than 3 weeks

Improves opex efficiency by creating IT solutions that are easier and cheaper to deploy, integrate & upgrade

Speeds up the software development lifecycle processes by up to 52%

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The MEF.DEF platform is primarily positioned towards CSPs with complex legacy setups

MEF.DEV platform finds support within telco digital transformation programmes when replacing legacy incumbent systems is not a viable option. The MEF.DEV deployment begins with the definition and standardization for domain services or products. Specific resource, interactions, and business model representations are developed for each service or product. For specific business requirements and user cases, MEF.DEV maps the applicable Entities and Action models to relevant data schemas which are then exported & packaged into MEF plugin's along with related autogenerated documentation, code samples and developer guides, to support the development based on Managed Extensibility Framework (MEF) and external APIs.

Once the plug in is ready, operators will be able to modify and update those systems directly, bypassing the solution providers. NATEC also provides a service to support specific types of modifications that the operator are not able to do by themselves.

The MEF.DEV platform supports TMF SID model, which is a part of the its reference architecture for the classification and description of all business processes of the CSP. From a financial perspective, NATEC adopts a usage-based pricing model for its MEF.DEV platform, with a separate cost levied for initial setup.

Figure 5: Overview of NATEC's business process flow [Source: NATEC, 2021]
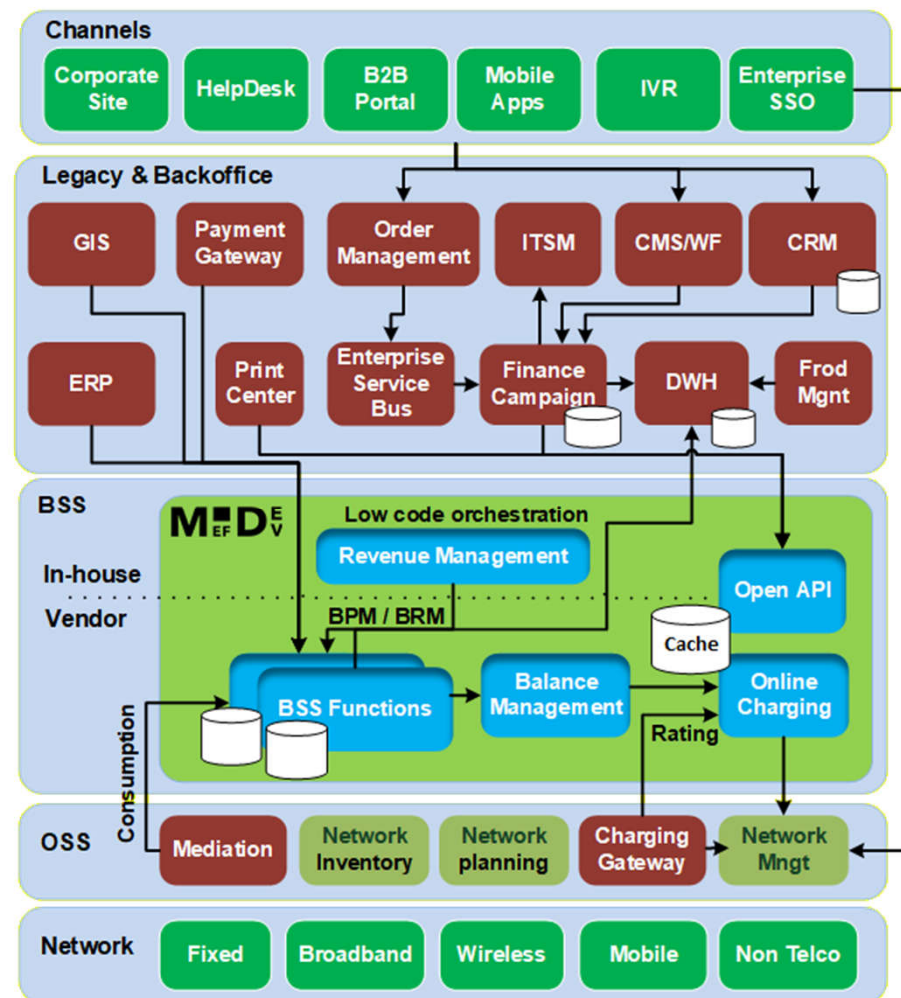
Overview of the reference framework, which helps CSPs to quickly launch and support services for both telco and non-telco services

Figure 6: Overview of MEF.DEV's reference architecture framework [source: NATEC, 2021]
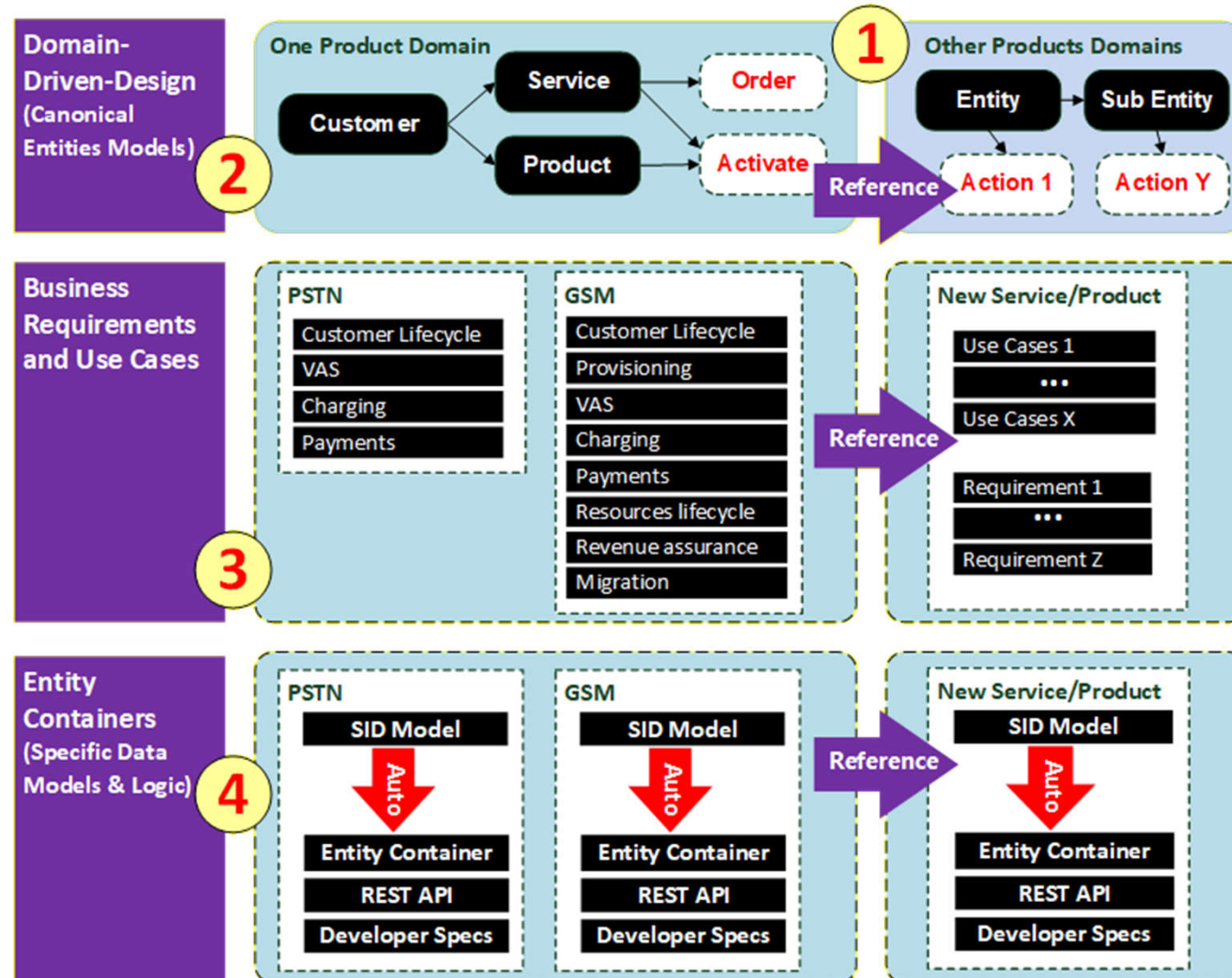
MEF.DEV support TMF SID model

To support NGOSS concept and the TM Forum recommendation, the MEF.DEV App Logic Containers are implemented based on TMF shared information models, are focused on the business processes of service operators, organising the sharing of information about consumers, services, available resources, suppliers, partners and other information in the framework:

1. To facilitate automation by digital transformation projects, MEF.DEV begins with the definition and standardisation for domain services or products with domain-driven design.

2. From these services or products definitions, Entities and Action models are developed. These include common types and constructs for further exposition and behavior that span all services and products. Specific resource, interactions, and business model representations are developed for each service and product.

3. The business requirements and use cases are specific to each domain services or products, and they define the functional requirements, use cases, business process flows, state transitions, etc., related to the specific Entities or Action.

4. From these business requirements and user cases, MEF.DEV maps the applicable Entities and Action models to relevant data schemas which are then exported & packaged into MEF App Logic Containers along with related autogenerated documentation and developer guides, to support the development cooperation using dependency injection (DI) and inversion of control (IoC) for each of the Entities or Action reference points.
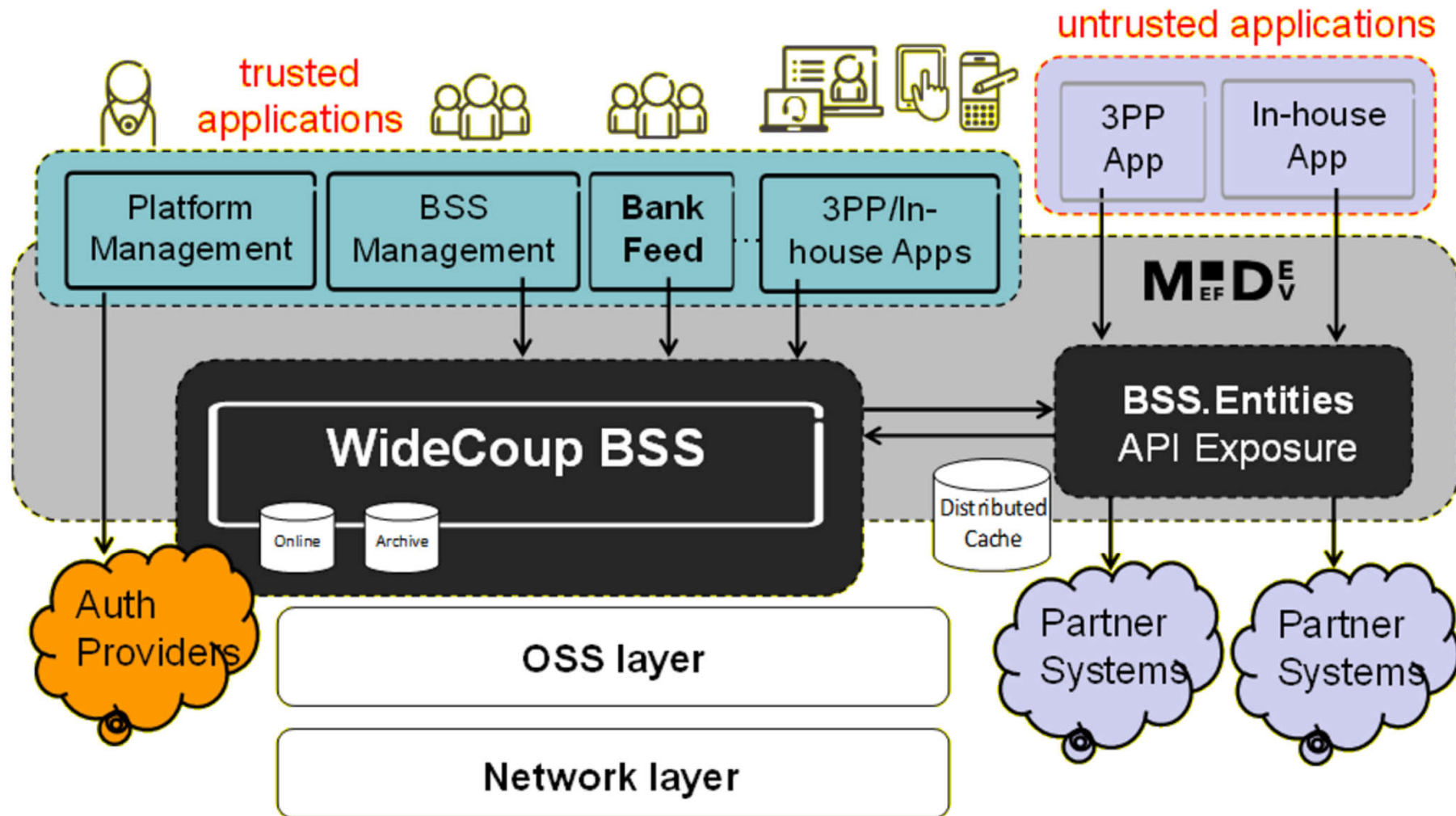
Figure 6a: NATEC's SID model example [Source: NATEC, 2021]
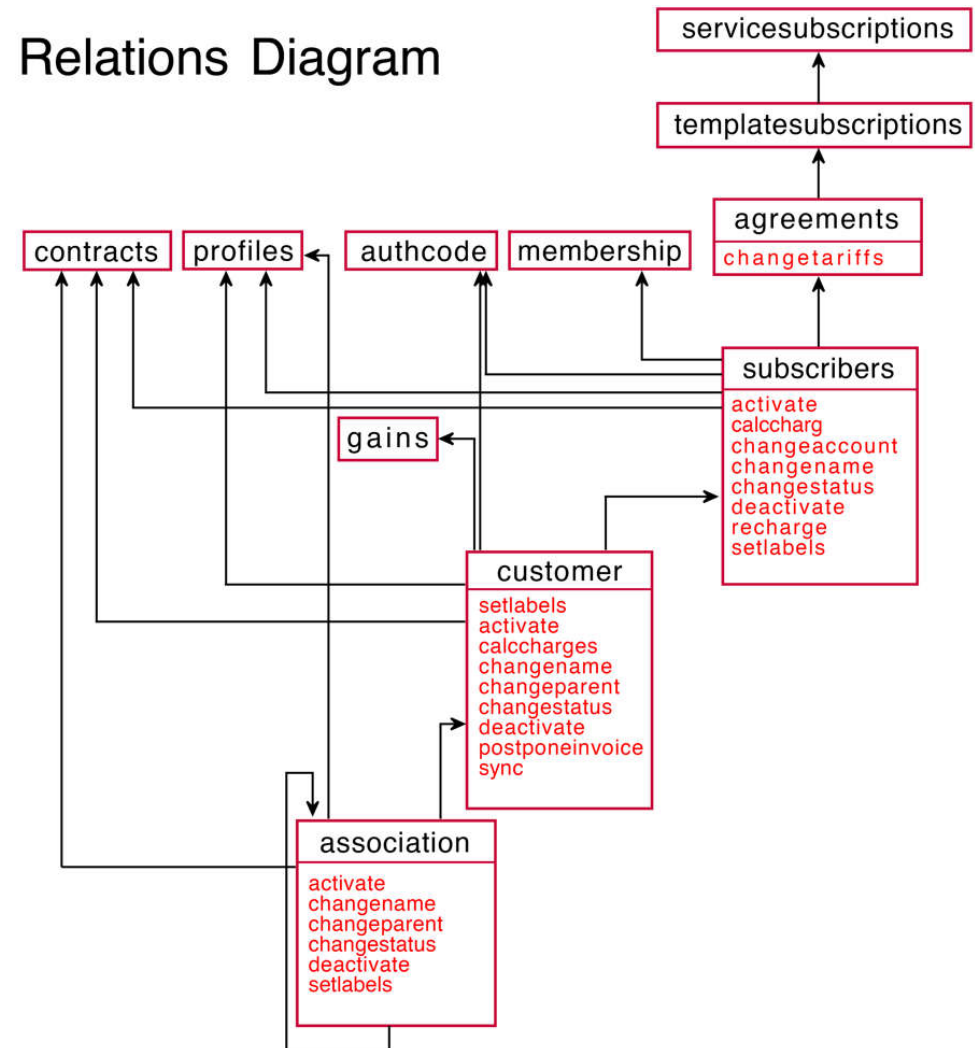
Overview of NATEC's BSS framework

Figure 7: Overview of NATEC's BSS framework [source: NATEC, 2021]

Product summary

Figure 8: NATEC's core products

Solution	Description
MEF.DEV platform	The MEF.DEV is a development, hosting and application management platform that can help operators accelerate their transformation of legacy BSS functions. The platform supports domain-driven design and business analysis with database and model-first code generation capability and unified development process. It provides an open standards based approach to build software. The MEF.DEV has wrapped the WideCoup BSS core for managing into multi-vendor hybrid infrastructure and includes assets such as open APIs, information models, and support for DevOps deployment approach.
WideCoup BSS	WideCoup BSS is a BSS solution that provides CSPs access to key functional capabilities including fulfilment, assurance, service management, and billing. Together these provide a standard template for multi-vendor hybrid deployments. It can support flexible billing relationships which can enable multiple business models including B2C, B2B, and B2B2X value chains. In addition it also supports offline and real-time charging with rules-based discounting.
BSS.Entities (MEF.DEV plugin)	The BSS API features exposure is based on the TMF SID model and supports custom implementations such as App Logic Container (NuGet plug-in). These containers provide a range of assets to support enterprise architects in realizing customized OSS/BSS solutions and enables integration and fast-swap operations.
Bank Feed (MEF.DEV plugin)	The Bank Feed UI is used by bookeepers to centrally control and manage the Enterprise bank statements processing in different integration scenarios. It provides a user-friendly interface that simplifies complex accountant tasks and tracks customer, accounts, payments, and billing information within appropriate security protocols.

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Significant customers

Figure 9: NATEC's customers

Customer	Country	Scope
Kyivstar (VEON Group)	Ukraine	Kyivstar, which is part of the VEON group of companies, has implemented a collaborative development approach in one of its major projects to migrate tariffs and contract billing functions to new platforms from its legacy BIS system. The migration was managed in stages to the WideCoup Billing solution using the MEF.DEV serverless development platform. In the next phase, Kyivstar is expected to migrate non-telco services to a new platform.

Analysis: strengths, weaknesses, opportunities and threats

STRENGTHS

- NATEC is addressing a key pain point for many operators – the high cost of supporting and maintaining incumbent legacy systems. The platform helps CSPs overcome vendor lock-in and provides CSPs greater control over the business software in a cost-effective approach.
- The company has a healthy pipeline and continues to invest in growing its regional presence and platform capabilities.

OPPORTUNITIES

- The relationship with Kyivstar helped NATEC gain reputation and credibility in Ukraine and provides an opportunity to expand its footprint further within the country.
- CSps are unlikely to replace their incumbent legacy systems for atleast a decade, which will present an opportunity for the MEF.DEV platforms.
- As CSPs increasingly diversify into other non-telco verticals, it will further provide opportunities to companies such as NATEC to provide a mechanism to extend use of incumbent CSP solutions.
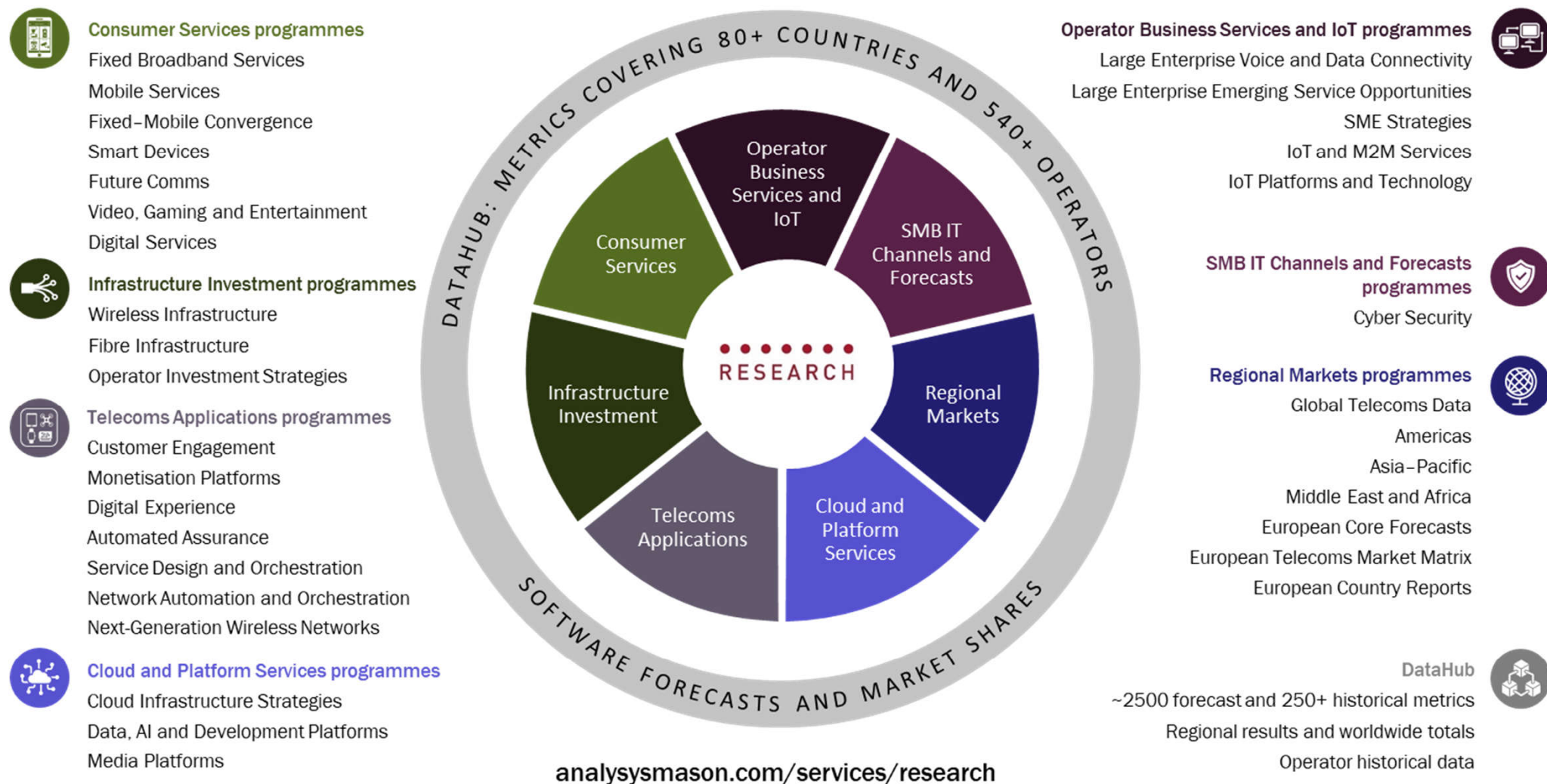
WEAKNESSES

- NATEC is a small-sized company with limited visibility compared to bigger software vendors.
- NATEC will need to expand its partnerships in order to improve its regional presence and access to CSP buying centers.

THREATS

- NATEC faces strong competition from other software providers in the market.
- The growing preference of the SaaS models may impact CSP appetite for solutions that are built around traditional software systems.

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