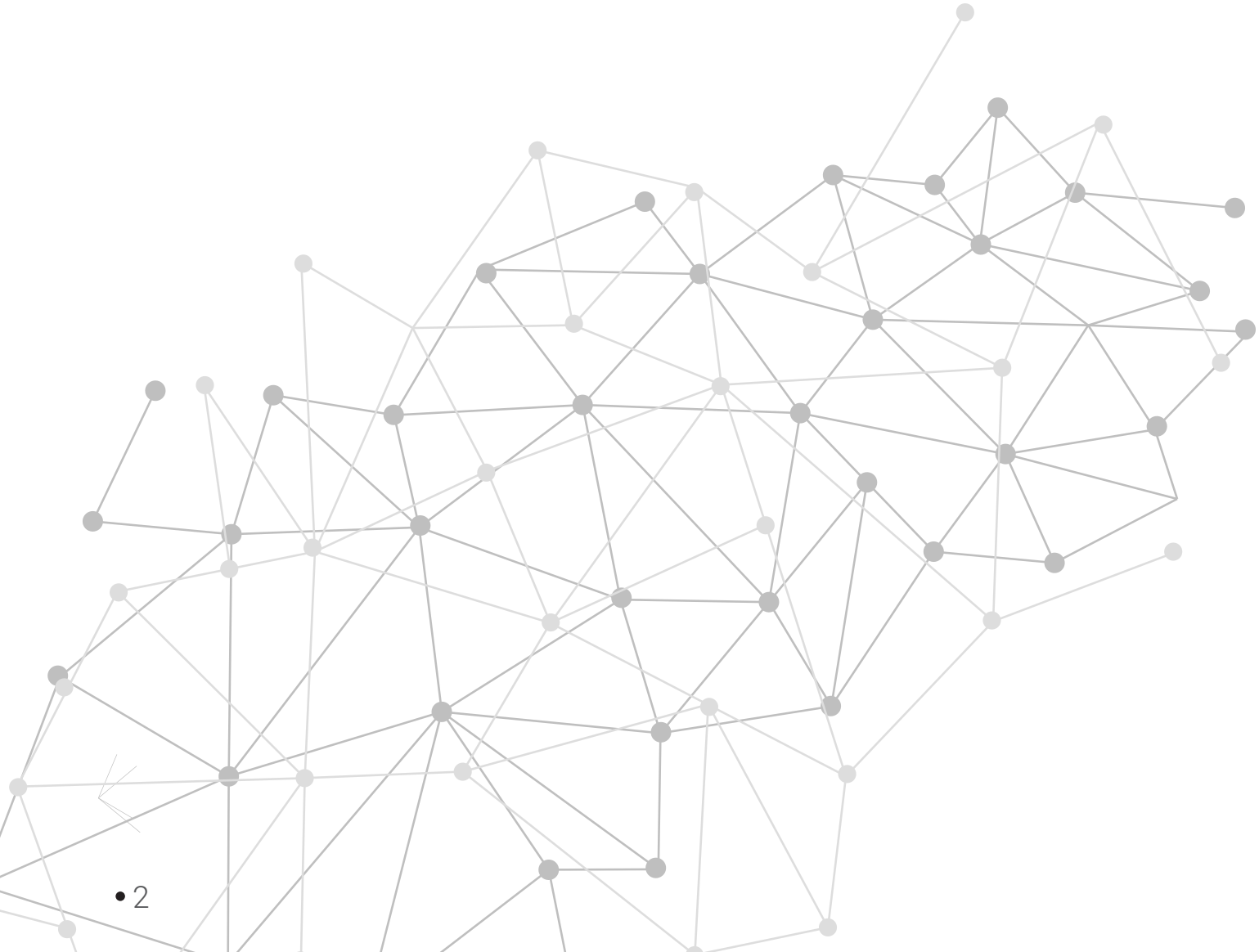
Intraway

Case Study:

Automation Opens the Path for Digital Transformation in North America



Automation Opens the Path for Digital Transformation

Intraway's Symphonica cloud-native, no-code provisioning engine enables the evolution to Digital Service Provider in North America.

Automation and orchestration bring significant benefits to service providers as they seek to avoid costs and increase revenue across existing and new business lines.

Our client, one of the leading broadband providers in the United States, evolved from a legacy communications/cable company to a true digital service provider (DSP). This shift was driven by the necessity to offer their customers a more effective onboarding and provisioning customer experience.

Even though their business objectives were clear, the challenges they faced while becoming a digital service provider drove process improvements and ultimately investing in a system characterized by a no-code, cloud-native orchestration and provisioning solution to help drive the transformation process.

A Legacy Pile Up

Due to rapid growth and a large number of disparate processes, the client had difficulty executing its business and product strategies and fully optimizing the customer experience. They relied on legacy products and services, which were more difficult to update/change, and along with extensive manual processes, were stymieing the company's growth and profitability. In addition, they were incurring high maintenance costs and faced digital transformation barriers since they could not adapt to shifting customer demands in an agile, efficient manner.

The cost of maintaining legacy systems was a key concern for our customer. As many cloud and other SaaS solutions are typically directly compatible with older legacy systems, the client would have needed to incorporate new tools and programs, with extensive custom code required to make their systems interoperate. The result of this lack of integration is the emergence of data silos, in which different departments within an organization are unable to access the data they need freely.

Another area that our client was concerned about was the automation of operations. The highly distributed and heterogeneous infrastructures that our client had defined for decades limited their ability to manage networks and services efficiently. This, in turn, also limited their ability to compete effectively with emerging OTT players.

Intelligent automation of their operations was key

to minimizing complexity so they could focus on providing more innovative experiences and services for customers. Unfortunately, manual processes and human intervention for operations like network provisioning, end-to-end service orchestration, and continuous service monitoring and assurance prevented our client from making the leap from CSP to DSP.

Creating a more dynamic, adaptable network and automating operations opens the opportunity for enabling new digital services and ecosystems. With competitors putting increasing pressure on the evolution from CSP to DSP, their ability to deliver innovative new services was critical to long-term success.

As OTTs and other disruptive services enter the market, customers have more choices than ever, and the service experience must be used to differentiate yourself from the competition. This means digitizing customer engagement where possible and creating seamless omnichannel experiences. Whether a customer chooses to interact with the company face to face, through a contact center, with a self-service portal, or via any other channel, they should be met with a consistent and "delightful" experience.

Speed is a primary differentiator. To reduce design cycle time and time to market, our client needed to rethink their internal processes for designing, developing, and deploying new digital products and services. TTM directly impacts revenue, and the team wanted to shorten the time, respond to changes faster, and deliver a higher-quality product.

How did they solve the problem?

The client, using Intraway's Symphonica as a key component, initiated a digital transformation and modernization project that affected every part of their operational processes and systems to increase the effectiveness and efficiencies of the current business. The result yielded a provisioning and activation framework that delivers a competitive advantage in introducing new services, as well as integrating new acquisitions.

Typically, the goals of such a transformational project include:

- The ability to quickly react to market needs to deliver new (or alter existing) advanced digital offers, reducing the time to market for residential and business services.
- Consolidating their processes and platforms, focusing their energy on integration, orchestration, and presentation capabilities of fewer systems, doing a more efficient job of providing critical business capabilities.
- As part of our client's digital transformation efforts, Intraway employed the no-code cloud-native provisioning automation solution, Symphonica. Symphonica facilitates the automation of the fulfillment process for our client's Residential and Business Services by enabling network-aware and no-code service orchestration and activation from a single, versatile platform. Symphonica automates the fulfillment process, resulting in at least 40% cost savings and expediting new product introduction.

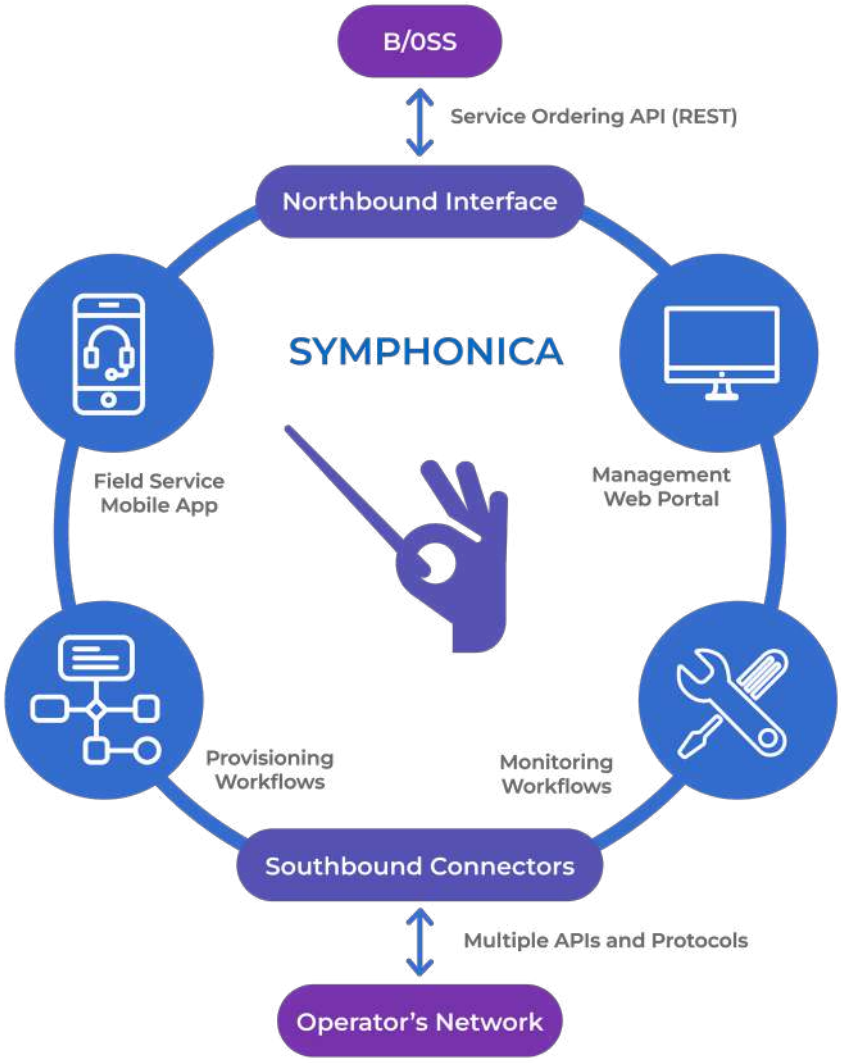
Why Symphonica?

Symphonica is the only solution in the market that provides ease of integration and functional capabilities across a heterogeneous environment:

- No-code
- Cloud-native
- Open APIs
- Standards-based, TM Forum Certified
- Vendor-agnostic – can easily integrate with multiple vendors across multiple technologies.

With Symphonica, operators can take new and future state technologies and bridge them with legacy technologies. It provides the ability to tie together the legacy OSS or BSS environments and transforms them into a dynamic and flexible product development cycle for quick fulfillment processes.

In addition, Intraway has vast experience in the optimization of fulfillment processes. With an impressive history of working with leading service operators in Latin America and North America, Intraway has deep industry and business knowledge. Intraway is not just another vendor. It takes a partner and trusted advisor approach to every customer engagement. They take responsibility for the solution's delivery, educate customers on how to maximize its use, and collaborate closely to overcome the unique technical and operational challenges inherent to every operator's IT and network environment.



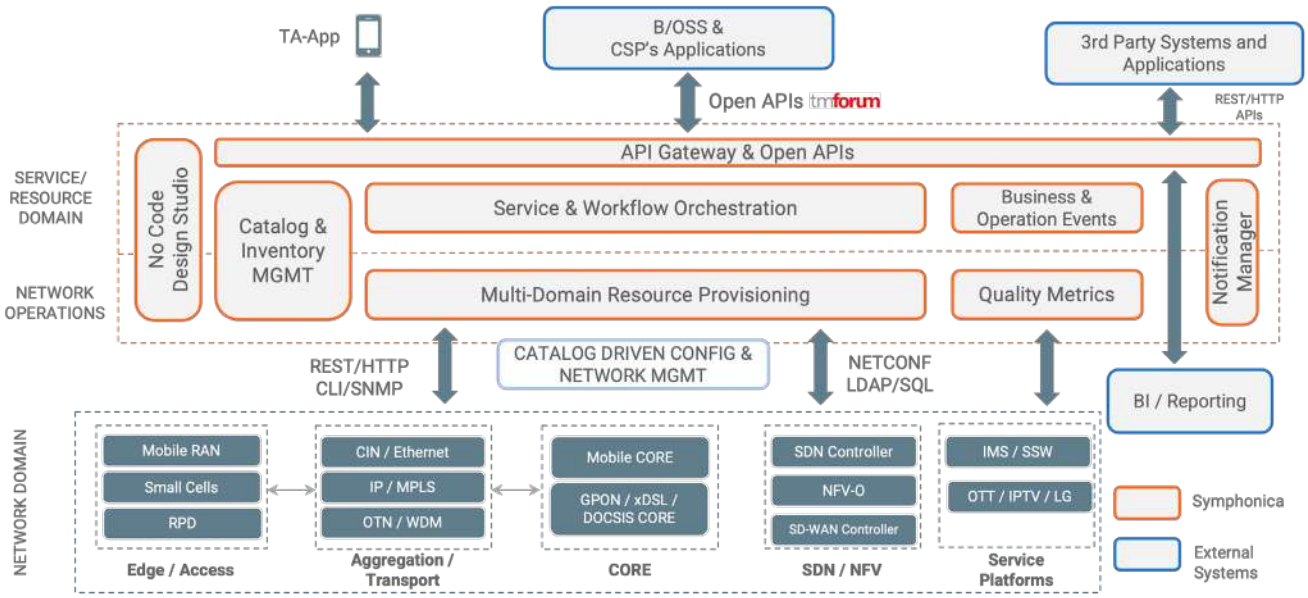
The Power of Intraway's Symphonica

Symphonica is a true, vendor-agnostic, cloud-native solution designed to support rapid growth and change, meet aggressive time-to-market demands, and provide massive cost advantages over traditional and incumbent technologies.

CSPs can leave behind their silo-structured B/OSS approach and implement a centralized solution to automate the entire life cycle of services orchestrated across multiple networks and technology domains without investing in time-consuming and budget-heavy projects, reducing operational costs and speeding up time-to-market. They can also simplify IT and network operations by moving to a managed, no-code, cloud-native solution.

Symphonica is designed-based on microservices and Open APIs; it's aligned with TM Forum standards and is deployed on containers managed by Kubernetes, allowing the platform to scale vertically and horizontally according to the requirements of the business. Leveraging event-oriented architecture built on Apache Kafka, Symphonica is highly available and scalable, with all components running in active/active mode. It supports asynchronous order processing to guarantee highly efficient resource utilization.

Symphonica High Level Architecture



The Many Benefits of Symphonica

Flexibility: Symphonica enhances the incorporation of new services in an environment of multiple vendor network elements, models, and their available protocols. Mobile and Fixed services managed under a single, federated platform make it possible to manage a unified product/service catalog and create integrated business rules.

Cost Reduction: A major benefit of Symphonica is the support for multi-vendor & multi-service networks. This allows for an optimized architecture and replaces siloed EMSs that CSPs have been installed

over the years. There is a direct OPEX reduction due to the consolidation and elimination of several maintenance and support contracts. It also simplifies the operation and deployment of multi-play services. Depending on the platforms to consolidate, OPEX costs can be reduced by up to 50%.

The CSP was able to decommission old siloed systems and consolidate the activation process of multiple technologies in a single platform. It is expected to cut systems maintenance OPEX related to the specific function in the network by up to 50%.

Business Engagement: Symphonica also provides a mechanism to verify the quality of installation/repair of the service at the customer premises and to generate a birth certificate of a work order. This process has a direct impact on the reduction of reworks and recurrent customer-reported incidents.

New Service Introduction & Business Models: Symphonica provides several functionalities that accelerate the time-to-market of a new service:

- The platform offers a single web service interface to the Customer Order Management, simplifying any integration effort and reducing the timing at implementation.
- On the other hand, if the new service includes the integration of new network elements, the platform offers a connector framework that assures integration in less than 3 weeks.
- Reduction of implementation time by optimizing integration against different systems.

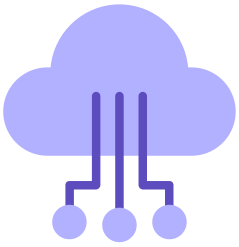
In addition, the platform allows monetization of the network via feature-rich APIs that can be used by internal business and operation systems, but also by external applications fostering service innovation and leveraging the DSP infrastructure.

An Agile Implementation

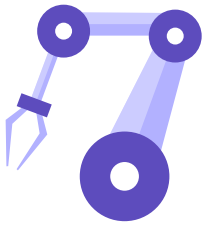
A major challenge that CSPs experience when going through an OSS consolidation project is that the timing of the implementation often takes a couple of years. An agile implementation methodology enables a swift and fluid end-to-end process, enhanced by specific product traits and tight collaboration with clients to meet deadlines and achieve common goals.

Other benefits from an agile deployment include:

- A quicker return on investment for each feature after it is developed reduces the need for large capital investments.
- Faster feedback from users on each new feature or functionality as it is released to production.

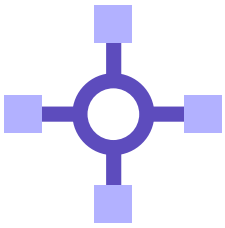


Simplify IT and reduce TCO of OSS infrastructure.



Automate manual activities from current service provisioning processes.

Launch new services (or integrate a new network technology) fast.



Eliminate silos and implement a centralized end-to-end provisioning orchestration solution

Symphonica Supports Record-Speed Implementation

The implementation of Symphonica as a service orchestrator and service activation has a transforming impact on the overall operation of telecommunications service providers:

At Design Time:

- **Increases the agility in new product introduction:** The no-code technology applied to implement provisioning of new services or new network elements reduces integration time from months to weeks or even days and, therefore, time-to-market for new products.
- **Allows flexibility for changes:** In this new digital environment, "fast" has been redefined. Not depending on complex coding, Symphonica allows operators to launch and adjust processes or services as per the market response. Symphonica's simple way to manage versions of connectors and business flows provides operators the flexibility to quickly manage adjustments of the services on the go.
- **Eliminates the IT skills gap:** By using a simple graphical interface to design workflows in the orchestration of service orders and the creation of network connectors, Symphonica eliminates the need to hard-code any integration.
- **Service KPIs are defined at design time:** The Sentinel component allows the configuration of real-time KPIs for the implemented services. It gives Operations clear business and technical metrics to support a "continuous improvement" philosophy within the organization. It also exports metrics to BI systems for product management or executive analysis.

At Run Time:

- **Enables full or partial automation of delivery processes (i.e.,: zero-touch or self-serve):** Automation of the end-to-end service lifecycle deeply transforms the business and the operation of a CSP.
  - Generates immediate cost savings by reducing personnel doing repetitive tasks. (operational efficiency).
  - Brings consistency and predictability into the operation flows (i.e., installation, birth certificate)
  - Increases the effectiveness of the delivery process by minimizing errors in fulfillment. Symphonica's stateful design allows understating or querying the network, so fulfillment errors are minimal. This has a positive impact on customer experience.
- **Real-time information for proactive monitoring of the business and platform:** Proactiveness is a major transforming practice within operations. It allows the prevention of issues that can affect customer experience; it gives visibility of when and how to grow capacity based on business needs. Symphonica metrics are generated in real-time during the run-time of the operation.
- **Real-time updated inventory:** One of the major challenges of operators is to keep an up-to-date inventory of services and resources. Symphonica's flows can be configured to automatically update inventories every time a service is activated, deactivated, or changed. Having an updated inventory allows operations to manage expansions and product launches and increase the accuracy of serviceability and delivery SLAs.

Using TM Forum Frameworx

According to TM Forum, *"TM Forum Frameworx is a suite of best practices and standards for the business processes, information structure and applications – and for the integration between them – within an organization. Besides, Frameworx includes two important extensions of the aforementioned core components: a suite of Business Metrics and a certain number of Best Practices. All these tools help us improve end-to-end service management."*

Using TM Forum best practices constituted a major differentiator in the definition, design, and implementation of the project. The main benefits were:

- Effective communication with the customer in the definition stage of the project, saving reworks and allowing setting of common goals for the project:

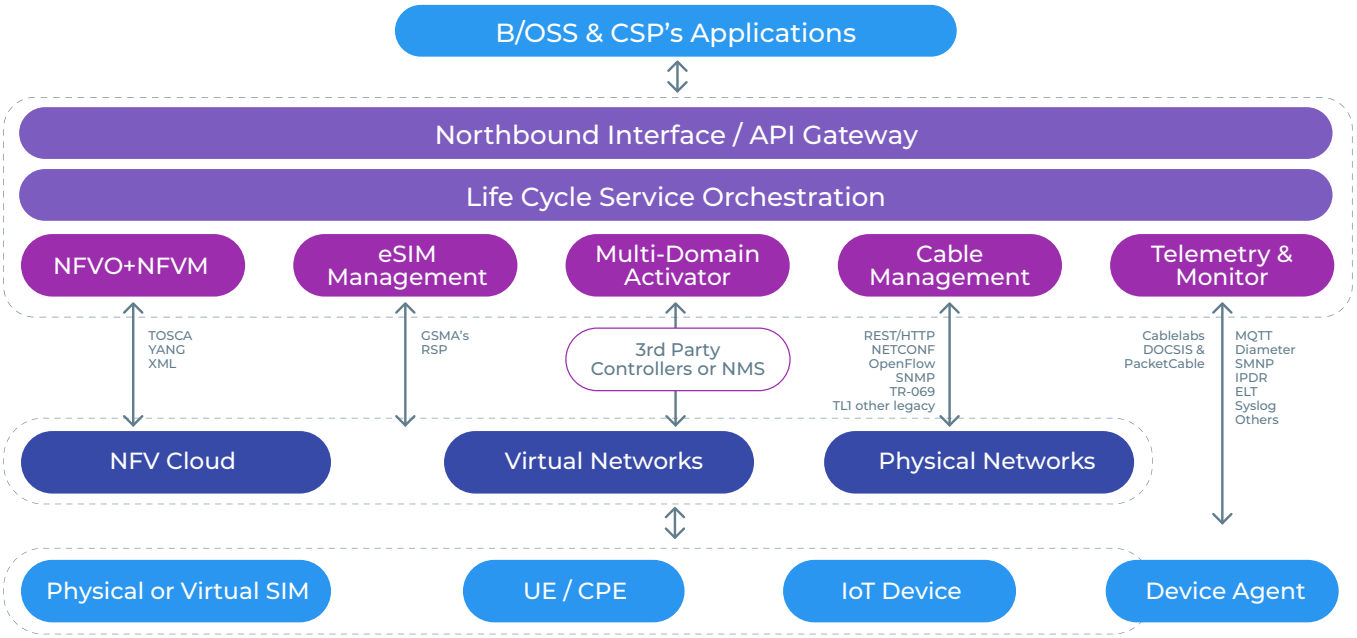
  "TM Forum practices/standards helped facilitate the communication with our client to agree on new architecture, integration guidelines, and processes to be implemented in order to support future services and increase their operational efficiency." Steve Marsh, NA CTO

- Symphonica is designed following TM Forum standards in order to create a flexible and scalable system allowing any-protocol interaction with the CSP network, minimizing provisioning systems redundancy. Data modeling is strictly compliant with the SID framework regarding product catalog, network inventory, and customer management.

  Stateless and stateful concepts were also considered to reduce networking overhead due to their critical role in real-time provisioning and activation. Optimized integration points: TM Forum standards provided a set of concepts that allowed for easier integration with the existing legacy systems such as BSS, Product Catalog, and Inventory Systems.

This allowed us to design and implement a transaction mediation system as a decoupled module that functions as an adapter between the BSS Customers, Products, and Inventories. The mediator is capable of synchronizing customer-facing data smoothly, centralizing data in Symphonica's data modeling. Bulk offline transactions can be managed with this mediation and integration system in order to add value to time-to-market indicators. The use of standards allowed additional time for customization of specific business needs, user interface & reporting, all within an agile environment that allowed the customer to start benefiting from SYmphonica from the early phases of the project.

TM Forum standards allow for easier identification of separated processes or functionalities to implement, so it facilitates the definition of phases in the agile implementation that is a key factor for the customer's satisfaction and quicker return on investment.



Results That Speak For Themselves

Symphonica reduced the lead time for new services, deployment time, operational costs, risks, and OPEX by enabling rapid service design, network technology introduction, and design-time configuration environment.

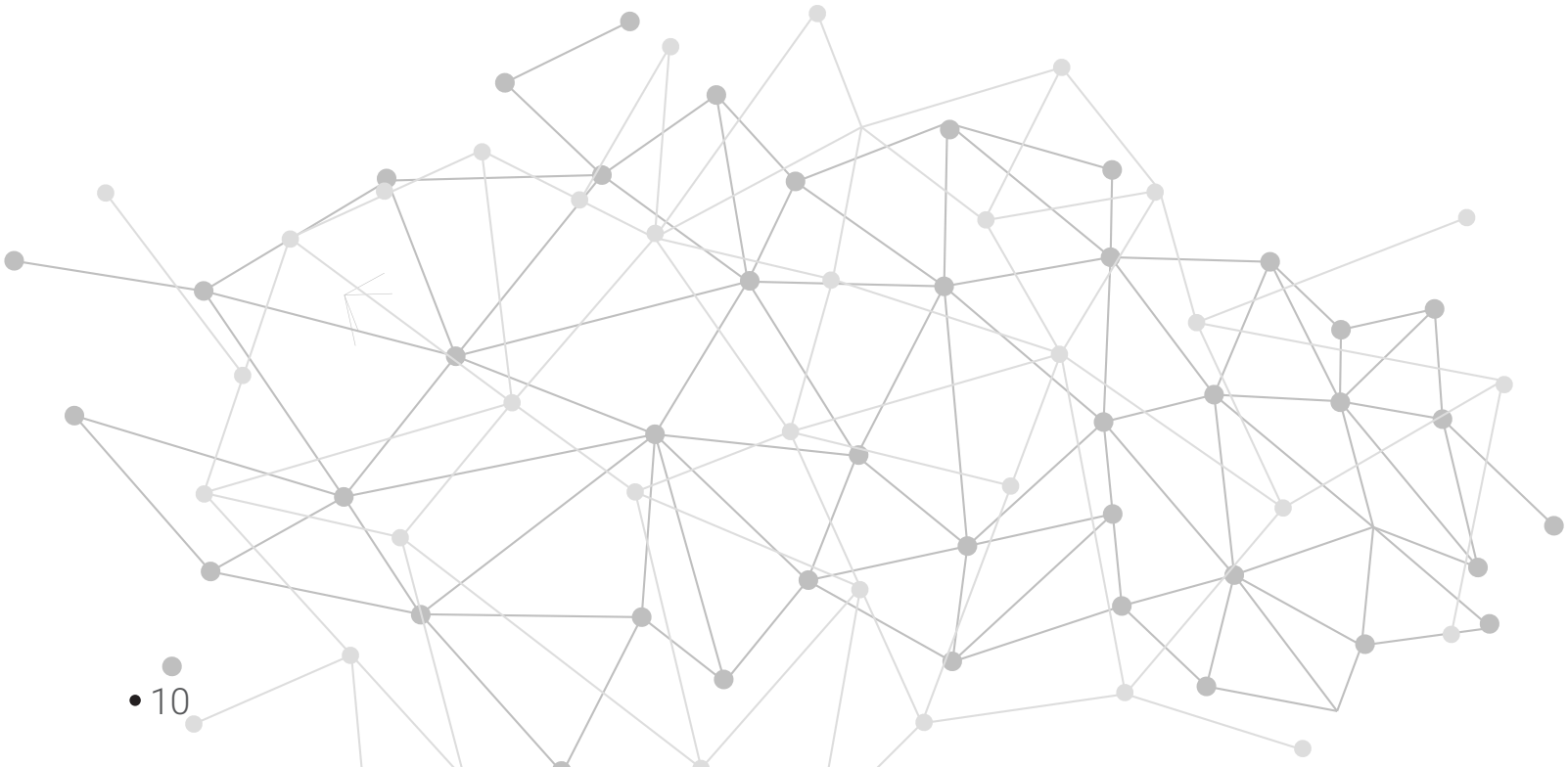
- Improved efficiency per transaction in the fulfillment process – Cost per transaction and/or FTE cost reduction.
- Increased effectiveness in the fulfillment process: Attain higher throughput & quality for the Service Delivery team.
- Reduced YoY operation cost growth – Reduced capital and reduced operating costs.
- Implemented a framework that allows increased agility in deploying new services and making changes to existing ones.
- Improved customer experience during the service lifecycle, setting the framework to support future operation models such as self-care, self-provisioning, and APIs for easier integration into analytics and advanced diagnosis tools.

Looking Ahead

As more operators pursue next-generation service strategies, their major growth opportunities will arise from the solutions they can provide over new, high-performance networks. In a multi-vendor, multi-network, ecosystem-driven service environment, many disparate vendors will bring their own tools for activation and provisioning. The danger CSPs face is recreating the silos and heterogeneous environments they are transforming to eliminate today. Intraway's vendor-agnostic and cloud-native approach, powered with Symphonica, enables CSPs to escape vendor lock-in, avoid silos, accelerate time-to-market, and gain massive efficiencies. These factors will set a CSP apart from competitors as it expands into new markets and service offerings.

In today's fluid telecommunications market, the providers who prevail will be those who can adapt quickly. Intraway's Symphonica is leading the charge.

For more information, visit www.symphonica.com.



Intraway
AMAZING DELIVERY

Intraway has radically simplified Telecom OSS

With over 40 million subscribers successfully served in more than 20 countries over three continents, Intraway's standards-based approach adds the latest, cutting-edge functionalities to speed up time-to-market, reduce operational costs, and advance customer-centricity.

Our signature software, Symphonica is a no-code, cloud-native, telco-grade orchestration and service activation platform for the automation of the entire life cycle of services orchestrated across multiple networks and multiple technology domains. Whether you are looking to increase agility through automation, modernize your operations or embrace digital transformation, Symphonica has you covered.

www.intraway.com