

# axonec

## A REVOLUTIONARY SOLUTION FOR ENTERPRISES

Accelerate Growth with our **Digital BSS** Platform





In today's rapidly evolving industrial landscape, the digitisation of businesses has emerged as a critical mantra for success. While numerous organisations aspire to embrace digitised business channels, they often grapple with a host of challenges that impede their progress. This comprehensive white paper delves into the intricacies of the hurdles that businesses encounter in relation to their business support solutions. Furthermore, it elucidates a pathway to surmount these challenges by seamlessly integrating adept and advanced solutions through ADL's cutting-edge Digital BSS platform.

Within these pages, we not only dissect the multifaceted challenges organisations confront but also present innovative resolutions that the Digital BSS platform offers. By harnessing the power of ADL's platform, businesses can transcend the barriers that hinder their digital transformation

journey. Additionally, the white paper delves into an in-depth exploration of the platform's myriad features and functionalities, shedding light on how it can revolutionise operations. The architectural underpinnings of the platform are also elucidated, providing a comprehensive understanding of its robust framework.

Furthermore, the white paper offers valuable insights through firsthand accounts - testimonials from satisfied customers who have already reaped the benefits of ADL's Digital BSS platform. Their experiences serve as a testament to the platform's efficacy in driving tangible outcomes. In essence, this white paper serves as a beacon, guiding organisations through the challenges of digitisation and illuminating a path toward a future where seamless digital transformation is not only possible but also transformative.

# What is a Digital BSS platform and why is it important?

The Digital BSS ecosystem crafted by Axiata Digital Labs is the culmination of years of invaluable experience and expertise derived from a team of industry professionals who have dedicated over 15 years to the Telco BSS domain. With a focused objective in mind, our ecosystem is designed to provide exceptional customer experiences while enhancing operational efficiency. By leveraging our profound understanding of the industry's complexities and obstacles, we have developed a powerful tool that caters to the distinctive requirements of our valued partners and clients. In today's rapidly evolving digital landscape, time-to-market (TTM) is of utmost importance, and our BSS ecosystem at ADL is designed to empower clients with streamlined operations and substantial cost savings. By minimizing complexities and optimizing processes, we enable partners to accelerate their go-to-market strategies, resulting in faster product launches and service rollouts. Our commitment to efficient deployment and implementation translates into cost-effective solutions that contribute to long-term success. Moreover, security and future-readiness are paramount, and we embed security at every level while aligning with industry standards like TM Forum Open Digital Architecture (ODA).

This ensures data protection, privacy, and resilience as clients navigate the evolving technological landscape, providing confidence and peace of mind.

The core of our BSS ecosystem's power lies in Axonect API Manager and Axonect Enterprise Enabler (AEE). Through these cutting-edge tools, clients unlock powerful capabilities for seamless API management, integration, and data utilization. Axonect API Manager facilitates efficient communication between systems, enhancing operational efficiency and deeper insights. Meanwhile, AEE empowers organizations to create a cohesive ecosystem, driving business growth through enhanced data integration. This combination amplifies our BSS ecosystem's performance and scalability, perfectly meeting the demands of the dynamic digital era.



## Some Major Challenges and Their Solutions

### How Do We Avoid Fragmented Operations?


Telecommunication operators face significant challenges due to their fragmented systems and disjointed processes. This results in inefficiencies, data silos, and a lack of operational visibility. To address these issues, there is a pressing need for a unified platform that seamlessly integrates essential functionalities like customer management, billing, service provisioning, and revenue assurance. By consolidating these key aspects, the operators can streamline their operations, gain a comprehensive view of the business, and ensure a more efficient and cohesive workflow.

Our unified Digital BSS platform simplifies and streamlines operations by integrating customer management, billing, service provisioning, and revenue assurance into a cohesive ecosystem. Say goodbye to fragmented systems and disjointed processes as our platform eliminates silos and enhances data visibility. With improved operational efficiency and productivity, you can achieve a holistic view of your business.

### Scalable and Reliable Solutions Are the Need of the Time

As the volume of data continues to surge and customer demands grow, telecom operators find themselves in urgent need of a BSS platform that can seamlessly scale to meet these requirements without compromising reliability. Legacy systems often fall short in terms of flexibility and efficiency, struggling to handle fluctuating workloads effectively. This leads to performance issues and unnecessary costs. Additionally, maintaining data integrity across multiple systems and databases poses a significant challenge, further exacerbating the problem.


Our Digital BSS platform offers scalability, lightweight architecture, and reliability, empowering your business to effortlessly scale. With optimized resource utilization, our platform ensures optimal performance and cost-efficiency. Whether facing rapid growth or seasonal fluctuations, our platform provides the scalability and reliability required to meet customer demands and outpace competitors.



## Overcoming Time Constraints with Ease

Telecom operators operate in a highly competitive environment, where staying ahead requires the rapid launch of new products and services. However, the utilization of traditional Business Support Systems (BSS) can prove to be a challenging and time-consuming task due to their inherent complexity. The need to configure and customize these systems often leads to significant delays in time-to-market, hindering innovation and subsequently impacting a company's competitive advantage.

With our Digital BSS platform, your team gains the power to swiftly tailor the solution and create cutting-edge offerings, resulting in reduced time to market. AEE offers ready-made templates that enable speedy deployment, thanks to its microservice architecture. Moreover, its modularized deployment facilitates rapid implementation and maintenance. By embracing AEE, you can accelerate your innovation cycles, outperform competitors, and effectively cater to the constantly evolving demands of your customers.



## Executing Complex Integrations with Simple Yet Powerful Tools

For telecom operators, achieving seamless integration with their existing systems, third-party applications, and emerging technologies is of paramount importance to optimize their Business Support Systems (BSS) operations. However, the challenge lies in legacy systems that often lack interoperability, resulting in data inconsistencies, the need for manual workarounds, and inefficient processes.

Achieve BSS optimization with our Digital BSS platform through seamless integrations. Our platform excels in integrating with existing systems, maximizing the value of your technology investments. Whether it's legacy systems, third-party applications, or emerging technologies, our platform simplifies the integration process and ensures smooth interoperability. Experience a unified view of operations, improved data accuracy, and streamlined processes by leveraging our robust integration capabilities.

Furthermore, our platform is engineered to seamlessly integrate with a wide range of IT infrastructure environments, accommodating various configurations such as on-premises servers, public cloud setups, or hybrid deployments. Our goal is to provide flexibility and adaptability to meet the unique requirements of each client. By consolidating the client's infrastructure, we ensure a unified and streamlined operation of our Business Support System (BSS) solution. This integration capability enables a cohesive ecosystem where our platform seamlessly interacts with the existing IT landscape, optimizing performance and enhancing operational efficiency. Whether clients prefer an on-premises setup, leverage the scalability of the public cloud, or adopt a hybrid approach, our platform is equipped to deliver a robust and reliable solution.

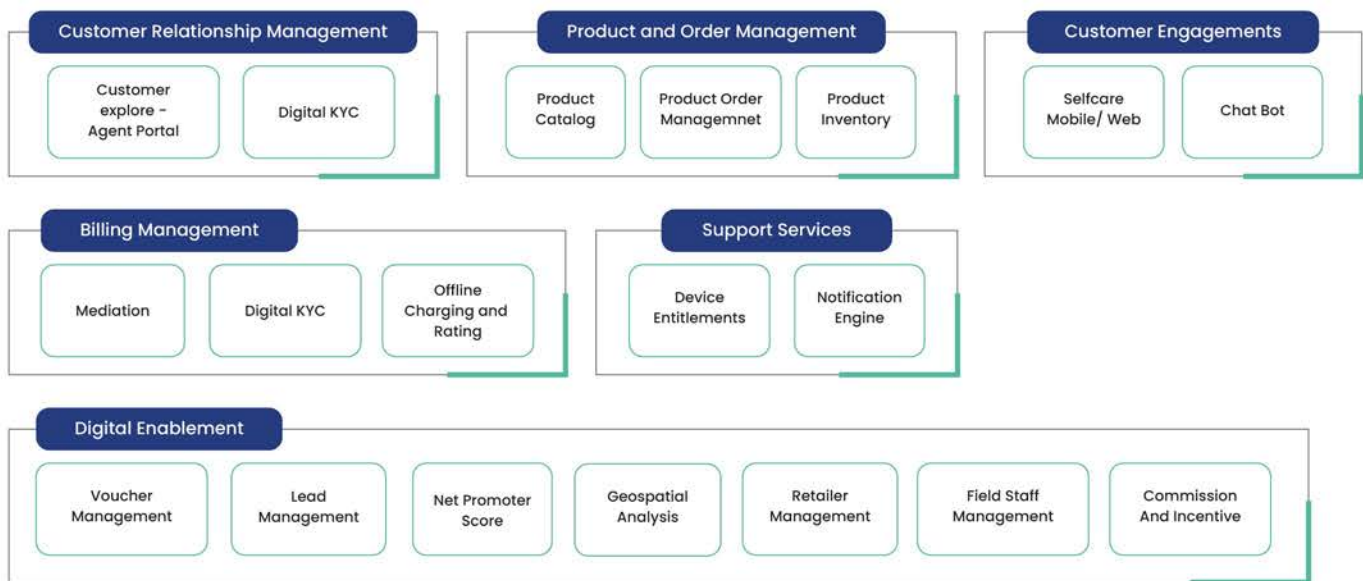


To thrive in the highly competitive telecom industry, operators require a Business Support Systems (BSS) platform that not only meets industry standards but also embraces best practices. It is crucial for telecom operators to prioritize compatibility,

interoperability, and future-readiness when selecting a BSS solution. Compliance with industry frameworks, such as the TM Forum Open Digital Architecture (ODA), becomes indispensable as it enables seamless collaboration, fosters innovation, and helps operators maintain a competitive edge in the market.

|        |   |
|--------|---|
| TMF620 | Product Catalog Management                |
| TMF640 | Service Activation Management             |
| TMF621 | Trouble Ticket                            |
| TMF622 | Product Ordering Management               |
| TMF645 | Service Qualification Management          |
| TMF629 | Customer Management                       |
| TMF652 | Resource Order Management                 |
| TMF632 | Party Management                          |
| TMF654 | Prepay Balance Management                 |
| TMF633 | Service Catalogue Management              |
| TMF666 | Account Management                        |
| TMF634 | Resource Catalog Management               |
| TMF669 | Party Role Management                     |
| TMF635 | Usage Management                          |
| TMF672 | User Role Permission Management           |
| TMF636 | Billing Management                        |
| TMF676 | Payment Management                        |
| TMF637 | Product Inventory Management              |
| TMF679 | Product Offering Qualification Management |
| TMF638 | Service Inventory Management              |
| TMF683 | Resource Inventory Management             |
| TMF702 | Resource Activation Management            |

# Solutions Stack



## Customer Relationship Management

### Agent Portal

Axonect Customer Explore is a CRM portal with TMF 629 integration designed for Telcos. It offers a user-friendly interface for managing customer-related functions in one place. The portal centralizes customer data, streamlines order management, and provides efficient customer support. It helps Telcos enhance operational efficiency and deliver exceptional customer experiences.

### Digital KYC

Axonect Digital KYC offers a secure, accurate, and efficient solution for verifying customer identities, simplifying the onboarding process. By leveraging advanced technology, it ensures the authentication of customer information while reducing manual efforts and improving operational efficiency.

## Product and Order Management

### Product Catalog

Axonect EPC (Enterprise Product Catalogue) and CDOM (Catalogue Driven Order Management) provide a comprehensive solution for telecom companies to effectively manage and offer B2C and B2B products. This solution is specifically designed to address the challenges commonly encountered in product and order management, offering enhanced efficiency, and streamlined processes.

### Inventory Management

This component enhances the efficiency of managing and tracking product inventory across various channels and locations. It achieves this by ensuring accurate record-keeping, monitoring stock levels, managing product catalogue details, and optimizing inventory replenishment. By seamlessly integrating these functions, businesses can streamline their inventory management processes and improve overall operational effectiveness.

## Order Management

This module encompasses the end-to-end process of capturing and processing customer orders, ensuring the accuracy and completeness of order details, efficiently managing order fulfilment, and providing real-time tracking of order status.

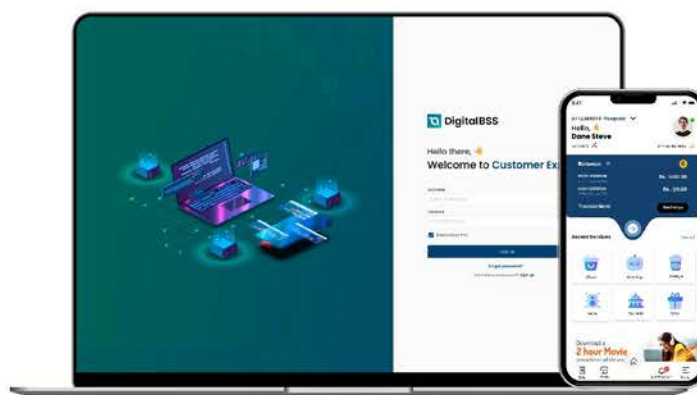
## Customer Engagement

### Chatbot

Our digital BSS system includes an intelligent virtual assistant that enhances customer engagement and support. Seamlessly integrated with our platform, it provides enhanced interactions and assistance. Leveraging cutting-edge technologies, the virtual assistant empowers customers to access information, resolve queries, and receive personalized support effortlessly. By incorporating this assistant, we optimize customer experiences and deliver efficient service.

### Selfcare Mobile/Web

The Axonect Selfcare Framework is a modular selfcare solution with an intuitive admin panel, usage tracking, and strong security. It enables businesses to provide a seamless customer experience on iOS and Android, meeting needs with convenience, reliability, and data protection.



## Billing Management

### Mediation Layer

The Mediation component plays a vital role in our billing system by ensuring the availability of comprehensive and validated data. It acts as a seamless bridge between various data sources and our billing system, guaranteeing that the data collected is accurate, standardized, and ready for the billing processes. By effectively mediating between different data formats and sources, this component enables smooth data integration and enhances the reliability and efficiency of our billing operations. With the Mediation component in place, we can confidently generate accurate invoices and streamline our billing processes while maintaining data integrity.

### Billing

The Axonect Billing System streamlines billing for telecom service providers. With its user-friendly platform, it supports both prepaid and postpaid models, ensuring precise and efficient bill calculations and presentation.

### Offline Charging and Rating

Offline Charging and Rating is a crucial component in telecom systems. It accurately tracks and calculates usage data, applies pricing policies, and generates billing records offline.

## Support Services

### Notification Engine

Our Notification Engine empowers businesses to send timely and tailored notifications, enhancing customer engagement and fostering business expansion.

### Device Entitlements

The Axonect Entitlement Server empowers mobile network operators with effortless device entitlement and streamlined plan management.



# Digital Enablement

## Voucher Management

The Voucher Management platform facilitates efficient management of recharge cards, vouchers, products, services, PINs, and the complete life cycle associated with them

## Lead Management

Axonect Lead Management streamlines lead capturing from multiple channels and oversees their entire journey, including eligibility checks, report generation, and dashboard provision. Seamlessly integrating with CRM, CMS, WOMS, and marketing platforms, it enables real-time eligibility verification, simplifies processes, automates workflows, and offers numerous other advantages.

## Net Promoter Score

CxPulse is an advanced Survey Management Platform designed to effectively capture and evaluate customer experiences across various interaction channels and journeys. By leveraging cutting-edge Machine Learning models, it provides near real-time visualization and predictive analytics to comprehend customer sentiments. With its versatile capabilities, the platform enables users to gather valuable data on customer satisfaction (CSAT), Net Promoter Score (NPS), and Customer Effort Score (CES) ratings, as well as sentiments, across multiple touchpoints. It caters to diverse end-user requirements, offering a comprehensive view of the entire customer feedback process. Moreover, CxPulse facilitates the seamless resolution of negative sentiments by collaborating across different groups, fostering continuous learning and mitigation. With its ability to conduct surveys through SMS and web interfaces, it ensures a comprehensive 360-degree perspective on customer feedback.

## Commission and Incentive

Axonect Commission & Incentive Management incorporates a sophisticated business rule evaluation engine that seamlessly integrates with diverse data sources and generates dynamic outputs.

## Field Staff Management

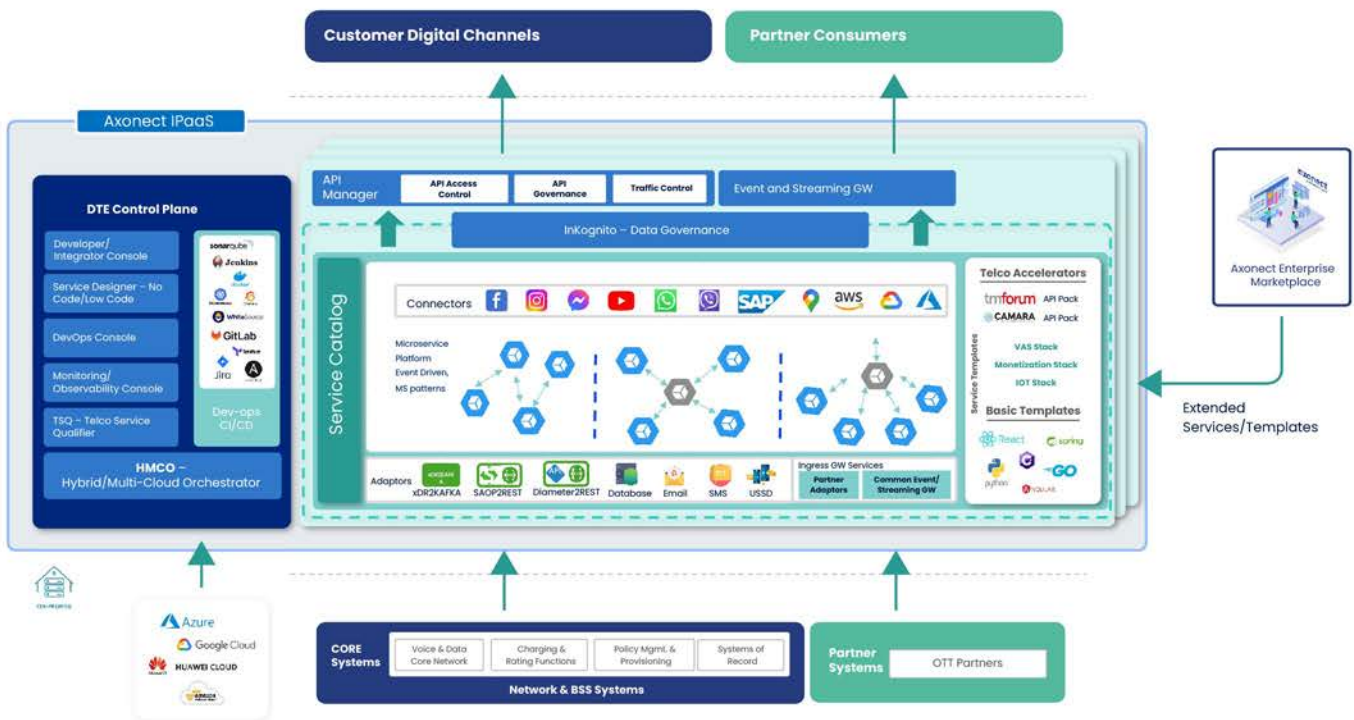
WOMS is an all-inclusive software platform that efficiently manages back-office operations for field services, encompassing tasks like new installations, troubleshooting, deliveries & fulfillment, and other services performed at customer premises. By monitoring the complete order management lifecycle, WOMS utilizes web and mobile applications to enhance supply chain and value chain optimization, effectively addressing business challenges in almost real-time.

## Retailer Management

DLead serves as a centralized lead management platform that consolidates customer leads and interests from various channels. It offers a seamless solution for addressing customer needs by leveraging the expertise of telesales agents and integrating with the work order management system for streamlined order fulfillment. This platform plays a pivotal role in optimizing the efficiency and productivity of telesales agents by providing them with real-time insights. With these insights at their disposal, agents can effectively identify the most suitable product or service available to meet the customer's requirements, thereby ensuring customer satisfaction and maximizing sales opportunities. By offering a comprehensive end-to-end order management process, DLead enables organizations to enhance their operational efficiency and deliver a seamless customer experience.



# Solution Architecture



There can be multiple '**Core Systems**' utilized in a Business Support Systems of a given organisation which should have communications with our BSS solution. Our solution may also be integrated with any partner vendors, which are categorised as the '**Partner Systems**'. The Adaptors and Connectors are there as an interface for our system (The Service Catalogue) to communicate with the Core Systems and Partner Systems. There is an API Gateway within the Axonect platform which enables back and forth connections to the customer's digital channels as well as the channels of partner consumers. There are several Telco Accelerators which can accelerate the implementation process. DTE Control Plain is a module within the Axonect platform which can be used for deployments of the solution. Axonect Marketplace acts as a hub which can be used by the customers to create and sell solutions of their own and bundled with partner modules. The solution can be deployed in On-Prem, On Cloud or on a Hybrid Architecture.



## About Axonect

Axonect is a suite of Digital Transformation products designed for the telco industry that enables MNOs to rapidly develop and deploy new services, positioning telcos to become more agile, innovative, and efficient. Axonect enables MNOs accelerate the journey from Telco to TechCo. Axonect boasts of a combination of innovative products built by telco specialist digital engineers to deliver cost-effective solutions to our clients.

Axonect enables telcos to reduce costs, rapidly launch new services and scale their operations to meet evolving customer needs.



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