

CASE STUDY

Safaricom

Delivering diversity
with CELFOCUS
Order Management



"With CELFOCUS Order Management, we meet our 99,95% target for order management availability and increased scalability for our consumer and enterprise customers."

Kennedy Njoroge

Enterprise Integration, Order Management &
Contact Center Systems Senior Manager at
Safaricom

CELFOCUS

 **Safaricom**

Going Digital to manage an Order Lifecycle

Technological advances and changing customer needs have dramatically changed how customers interact with companies. Today, customers use multiple sources of information from independent (and often non-integrated) channels and are motivated by personal needs and emotions.

For Telcos (and other industry players), this leads to increased offer complexity due to a broadened view of products and services. It also results in many and different requests that have to be fulfilled **within an expected timeframe which tends to be tight** – plus the demand for a seamless experience throughout the buying process.

As a result, Telcos are under pressure to shorten the response time to market needs and streamline the fulfilment chain from an operational perspective because those multiple requests need to be consistently addressed and quickly go live. Therefore, the need arises to adopt an integrated, holistic view on the multiple interaction channels through which customers experience value, requiring a robust and effective order management orchestrator.

Order management may be considered everything that happens after the buy button – it touches virtually every supply chain system and process. An Order Management System tracks orders, from inception to fulfilment, and orchestrates the people, processes and data connected to the order as it moves through its lifecycle.

The Project in a Nutshell

CELFOCUS Order Management implementation, management and update at Safaricom since 2009

Upgrade to version 6 featured with microservices architecture, cloud-native, and bulk order engine revamp in 2021

Flexibility to accommodate further services, functions and offers

The Order Management process starts when a customer places an order and ends once they receive their package or service. In the meantime, the Telco has to seamlessly coordinate the fulfilment process and provide customers with transparency and accuracy concerning their order status, enhancing their experience.

In summary, **an Order Management end-to-end orchestration improves the customer experience and enables new revenue streams.** From an operational perspective, it will decrease manual operations, improve lifecycle management and converge legacy systems, making it possible for the CSP (Communication Service Provider) to become a DSP (Digital Service Provider).

The Kenyan Telecommunications Market

With a mobile penetration above 130% and almost 62 million subscriptions resulting from steady quarter-on-quarter growth, the Kenyan Telecommunications sector is closely connected to the country's economic growth, with data infrastructure becoming an essential enabler for other sectors.

Safaricom is the undisputed leader in the market and holds 65% of the mobile share. At the beginning of 2021, the operator launched 5G trials with 15 sites and unveiled plans to increase coverage across the country¹.

1 – Communications Authority of Kenya Q3 2020-2021 Report



About Safaricom



Founded in 1997, Safaricom is the leading communications company in Kenya, detaining the most expansive and strongest network coverage. Safaricom provides a comprehensive range of **innovative services under one roof**: mobile, fixed-voice and data services on a variety of platforms. In addition, the company is a 50% shareholder of the M-PESA mobile money service.

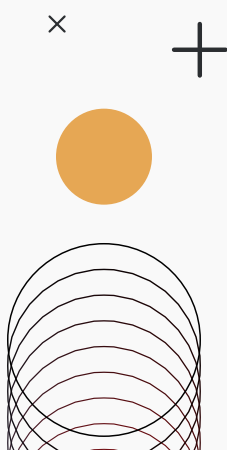
The Challenge How to improve scalability and performance?

After more than a decade of using previous versions of the product, Safaricom felt the need to call for an extended product availability offered by the latest version to cater to a large flow of requests that require highly demanding order processing.

Safaricom, being committed to operational efficiency, additionally aimed to improve process orchestration and automation scalability and performance, turning days-long activations into on-the-fly experiences.

The Kenyan Telco was looking for cutting-edge technologies based on new architectures that would allow tracking and increasing order visibility, acquire service metrics to improve customer experience, and automatically scale solutions without impacting performance.

At a business level, the Telco has been witnessing an increase in mobile subscribers (YoY growth above 9% on



average in the last five years), aligned with sustainable growth in the overall market segment of nearly 60% since 2017.

A long-standing order management delivery: Celfocus was challenged to implement the first version of its Order Management solution back in 2009, update it as needed and install the latest version in 2021.

The Solution

Orchestrating all requests on a single platform.



CELFOCUS Order Management is a code-free master orchestrator that maps, sequences and fulfils any external or internal customer request. It can map business-oriented complex processes and break them into specific technical processes, which are then ready for automation and system synchronisation.

Driven by any orderable item, this orchestration allows Telcos to quickly access information on any previously initiated step of the fulfilment order and have an immediate, detailed and aggregated 360° process view.

With CELFOCUS Order Management, neither the launch of new commercial products impacts business flow, nor do new technical products (of the same class as the already configured ones) affect the orchestration flows. This is because the process distribution adjusts dynamically to pre-existing flows, resulting in a better time-to-market response.

Latest Product Version - Increased Speed and Scalability

The latest version of CELFOCUS Order Management **processes more in less time** and detects issues more quickly if they occur. The migration to a cloud-native ecosystem allows to scale up and down based on workload and infrastructure demand, enabling Safaricom to manage resources more efficiently due to cost optimisation and handle up to 400.000 orders per day (representing four times an increase compared to the previous version). Additionally, a migration to an **open-source database** has allowed for OPEX reduction.

The product's **microservices architecture** is supported by **cloud-agnostic** (they run in any cloud infrastructure, private or public) decoupled components (containers). This allows creating offline bulk orders along with the online orders that come from assisted and non-assisted channels (self-care, CRM, shops, among others).

A **bulk order engine** is key to improving performance and is particularly useful, for instance, when the Telco launches a promotion for a new tariff plan targeted at a broad set of customers or is asked to quickly perform the subscription of a new service or add-on for an enterprise customer (which translates into – to illustrate with a number – 10.000 requests in one go).

CELFOCUS Order Management automatically manages bulk orders and enriches them, providing a detailed and aggregated view over requests and lowering fulfilment time and operational costs.

"It was an easy and seamless process to move to the latest product version, without major defects or challenges."

Kennedy Njoroge

Enterprise Integration, Order Management & Contact Center Systems Senior Manager at Safaricom

Benefits








CELFOCUS Order Management allows for a flexible, swift and transparent order management process that reduces time-to-market. New product subscriptions or change requests are performed quickly and with minimal impact. For the user, this process can be run autonomously for administration, installation and product development tasks.

In Safaricom's case, the product allowed the Telco to accomplish 99,95%.

Moreover, the product introduces many benefits by addressing various constraints and challenges that Telcos face. Below are some examples:

- 1 **Being action and delivery focused**, CELFOCUS Order Management detects the actions needed to satisfy customer requests over unstructured information based on a scenario detection algorithm (XPath). It transforms any request, even non-products, into a meaningful set of activities. As a result, development costs, IT training needs and downtime periods are reduced.
- 2 **CELFOCUS Order Management separates technical and commercial complexity, which leads to efficiency**. With CELFOCUS Order Management, channels only display orderable products, allowing Telcos to simplify channel catalogue. The solution translates orderable requests into actionable technical requests for back-end systems, with no dependency between those systems.
- 3 **The product manages both manual and automatic tasks in an integrated manner**. Manual activities are created and forwarded to the correct profiles. The collected input is integrated to proceed with the fulfilment. As a result, both development and operational costs are reduced.

To sum up, CELFOCUS Order Management delivers the following benefits:

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|  <p>Centralised Request Management
Flexibility to accomodate new channels, with no additional customisation.</p> |  <p>Faster Order Design & Implementation
Transforms any request into a meaningful set of actions even non-products.</p> |
|  <p>Increased Order Tracking & Visibility
With a 360° view on action sequences.</p> |  <p>No Downtime
Due to its code-free nature.</p> |
|  <p>Simplified Channel Catalogue
Featuring orderable products only, with no dependencies between systems.</p> |  <p>Reduced Operational Costs
By leveraging Kubernetes platform automation capabilities, like autoscaling.</p> |
|  <p>Improved Time-to-Market
With no configuration for most products.</p> |  <p>Fast and Proactive Recovery
Through a self-healing mechanism.</p> |

Why Celfocus?

Celfocus is deeply committed to delivering what best fits Telcos' specific needs and requirements – one size does not fit all. Furthermore, Celfocus maintains excellent and trustful relationships with Telcos over time, based on effective solutions and consistent follow-up.

"Celfocus understands Safaricom's requirements, touchpoints, operational processes and technology goals, such as being cloud-native. We have been following up on the product evolution and experiencing its benefits both at a technological and a business level."

Kennedy Njoroge

Enterprise Integration, Order Management & Contact Center Systems Senior Manager at Safaricom

Next Steps

CELFOCUS Order Management gathers the conditions for adapting to new scenarios based on changes in the business environment and consumer behaviour. It can accommodate further services, functions and offers that Safaricom might aim to integrate in the future, such as the Internet of Things (IoT), with full process automation.

The product runs its course and has a lined-up roadmap to evolve from a commercial to a service order management role (from COM to SOM), entering the OSS space. It catalyses the Telco's customer experience digitisation in the new offers that 5G will bring to B2C and B2B. Also, the product will enable the automation of operational processes across all of Telco's domains.

Safaricom's internal teams are capable of evolving and embracing new challenges. In short, both the Telco and the product are future-ready.



About Celfocus


Celfocus is a European high-tech system integrator, providing professional services focused on creating business value through Analytics and Cognitive solutions – addressing Telecommunications, Energy & Utilities, Financial Services and other markets' strategic opportunities.

As a highly specialised technology company, Celfocus helps clients undergo their innovation path, providing technological solutions to extract value from data for successful business evolution.

Serving Clients in 25+ countries, Celfocus delivers solutions such as accelerating digital network transformation in Autonomous Networks, elevating and monetising business services in B2B2x ecosystems, and providing highly relevant customer experiences through Hyper-personalisation solutions.

Founded in 2000, Celfocus started as a joint venture between Novabase and Vodafone Portugal and is now entirely owned by Novabase. The company is listed on the Euronext Lisbon Stock Exchange.

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www.celfocus.com

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