

ODA CA and other TM Forum  
community efforts,

**tomorrow's B/OSS  
architecture  
drivers**



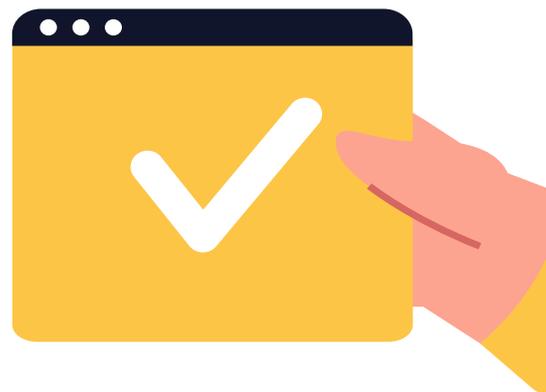


# Why the commitment to the **ODA Component Accelerator** and other **TM Forum projects** will be the drivers of tomorrow's architecture

As mentioned in previous articles about ODA ([How ODA is advancing to become the benchmark for CSPs](#)), its idea is to restructure the BSS and OSS systems of telcos. ODA recombines all the information structure and inserts it into 'atomic' components to manage SID entities. These entities take an important role in certain business operations, and they help to provide APIs. But, the new ODA-compliant systems need to deal with the problems arising from the non-compliance of the old, pre-ODA components. On the other hand, the lifecycle of investments in new systems is significantly long. This means that software experts need to anticipate future innovations and evolutions. To do so,

they need to design an ODA-compliant architecture while providing the necessary functionality for today's world.

As part of our brand-new software portfolio, we also committed to the **ODA Component Accelerator**. This accelerator ensures that our software meets the ODA standards as they emerge, so we can stay on the leading edge. It also helps us both to assess issues early in our development process and to avoid costly redevelopments.



# Why did we commit to the ODA Component Accelerator?

There are several reasons why any company could be interested in joining forces and committing to the ODA CA. The main motivators for Alvatross to commit to it have been:

**1. To provide our know-how and years of experience** working with telecom operators. As soon as the company learnt about the existence of this ODA CA, we immediately became involved in these tests of tools and technologies. And from the start, we have been contributing with as many ideas as possible.

**2. To stay abreast of the latest technologies and architectures** in the market. For us, it is about discovering where this type of architecture is heading, while adapting all our components. In short, it is about learning. Therefore, we will be able to continue to stay in line with this standardised model, while preventing costly reengineering efforts in the future.

**3. To gain visibility and become more attractive** to customers. This kind of project facilitates a dialogue between companies and operators in the sector. A dialogue that can potentially lead to collaborations among similar companies and getting new clients. As a result, Alvatross can now be recognised as a benchmark of the sector.

**4. To test our own ideas.** This does not only apply to the ODA CA but to all the collaborative projects we are involved in with other TM Forum members, like the IG1228 that we will discuss in the following paragraphs. Thanks to this, Alvatross can expose its own ideas about where and how our products can evolve. Communication and feedback from other experts are really quick and simple. Something really positive to move forward in the right direction



# Where has Alvatross been important in the ODA CA?

Alvatross (under Satec's footprint) has been able to share its knowledge in certain aspects, making suggestions on how to improve this standard infrastructure. Among other things, the knowledge of our team has been essential to detect tools that might not work well, avoiding potential problems that Satec knows better.

Among other things, Alvatross is proud of having contributed with specific components that were missing in the ODA CA. So far, **we have provided a commercial component** that is already implemented in real customers to serve as a concept test in the ODA CA. This component is our **product order manager**, originally offered by our company as a single product and now split into two separated components by TM Forum: Product Order Inventory and Product Order Orchestration Management (POOM).

Our involvement has also proved to be essential in the simplification of certain tasks that appeared too cumbersome in the first version of the ODA CA. Any component that is suggested for this infrastructure must pass a series of tests. One of these tests is to provide a Party Role API to return information about the user roles supported by the specific component. This is something integrated into the authentication and authorisation system. However, the test demanded by the ODA CA seemed too exhaustive from our perspective.

In the first version, not only did it ask for information to be returned. It also requested the component to be able to create, update and erase new roles, and all the other operations of regular APIs. Thanks to our feedback, TM Forum has decided to simplify this test. Instead, all it requests to do now is to return the information with the roles it needs to function correctly.

# IG1228 project

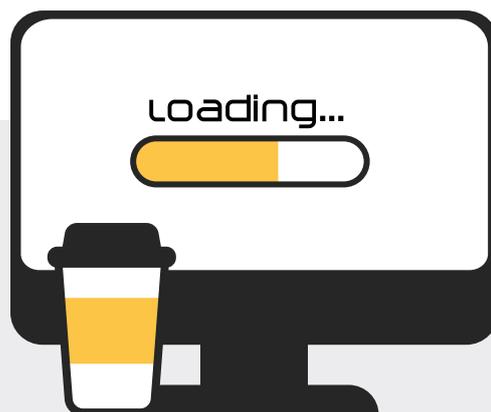
As mentioned above, we also take part in TMF community projects, collaborating with other companies in practical use cases. So far, we have been involved in the community effort under IG1228 which hardens the ODA component definition against specific use cases. The idea of this kind of project is to **rethink and double check the ODA project standards** and serve as a cornerstone for future updates. Specifically, our work has been focused on the definition of the Use Case UC008, which we will further explain.

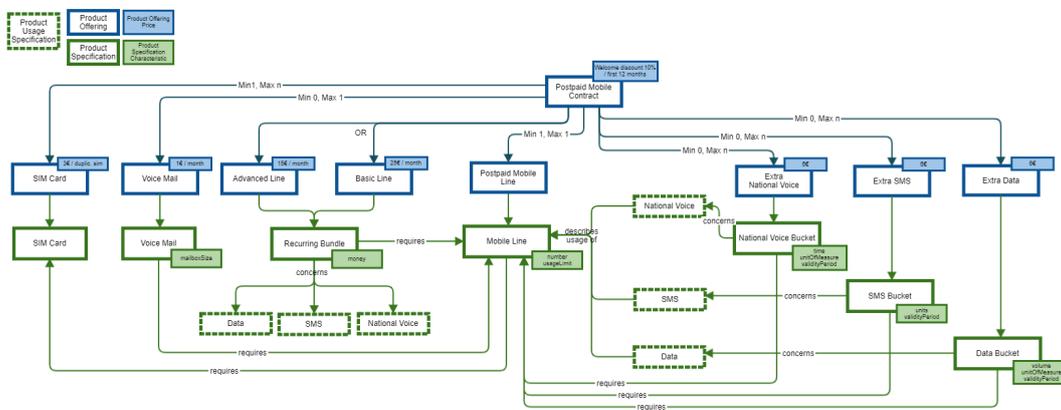
The project's main objective is to show and illustrate ten simple use cases of ODA components, using TM Forum Open APIs in their latest version. Each one of them represents different practical aspects that a company would be potentially able to implement in their system. **These cases will continuously evolve** thanks to the different TMF working groups, benefiting from their feedback.

Through this project, Satec and Alvatross have been working to help in the definition of the ODA-compliant component **called 'service order management'** (linked to our Order Management service). To do so, we have been specifically involved in the Use Case UC008: Service and resource order management for postpaid mobile subscribers v.1, collaborating with Vodafone, DT, Netcracker, Amdocs, Nokia, Wipro, Techmahindra, CSG, Mayer Consult, Telenor, and Orange, for over four months.

Ultimately, this kind of project aims to determine whether the ODA components need any adjustment or not. Subsequently, **it could lead to the creation of new APIs.**

Something that will happen if any of the use cases shows that there is a gap that needs to be covered by a new and different API with certain functionalities that are yet to be developed.





# Use Case UC008

Since the market disruption of wireless technology, CSPs hardly offer fixed telecommunications services anymore. Introducing new offerings with different characteristics highlights the **need to renew, or even replace, legacy systems for commercial and production management**. However, the main issue is that most systems have been implemented before ODA components existed. And this means that they do not necessarily follow these principles.

**Order manager** is one of the prime functional areas where a new system stack meets a legacy stack. In the document description of the Use Case UC008, there is a technical explanation of the **end-to-end lifecycle of an order**. It starts from the moment the order is sent by the order capture component (a CRM with a shopping cart where the client can choose the products they want to buy) until the moment everything is provisioned in the network and ready for the client.

The previous image shows an overview of the **catalogue definition of this specific use case**. Here, the service is a postpaid mobile subscription, including the SIM, voice mail, a basic or advanced line, and available extras. The use case considers the subscription of a customer to a mobile service. It has two possible variants regarding the way the customer received their SIM card. In the first variant, the SIM card is shipped to the customer after the order has been confirmed. In the second variant, it is handed over at the store.

The relevance of order manager highly depends on pre-provisioning. In our example, pre-provisioning is not possible as our case study is a postpaid and not a prepaid contract. In the latter option, the client would buy a SIM card and, after making the first payment, everything would be activated. This way, very little service or resource order management would be necessary. This means that order manager

would mostly be necessary if the customer wished to modify their subscription or if there was an issue. On the contrary, **in our use case, everything is provisioned during the order execution.**

Broadly speaking, the documentation of this case shows a string of operations where the ODA component triggers a product order. This order is subsequently divided into service orders and resource orders. It is a string of messages where information is exchanged. It also shows the states it goes through and how those states are related to one another. Moreover, as a catalogue driven solution, **the final resource facing services will be driven by the configuration and rules of the catalogue.** That way, the end customers will be able to enjoy their purchased services.

## Did this use case trigger any necessary updates of ODA components?

Certain conditions have proved some necessary revisions when they are or are not met. In the current ODA heatmap,

resource activation falls under the resource order management component. If further studies of ODA Technical Architecture separate resource ordering management and its activation, this use case will need to be reviewed.

Additionally, **the team** working behind this use case found it necessary to **introduce an external component** (“Network System”) **to help in the resource activation and configuration.** However, this component may or may not meet TMF standards. If this new network element is not capable of providing a standard interface, it could be included in an ODA component to provide a standard API. And, if such component is compatible with TMF702, this Network System could be included as a resource activation function by ODA.

Therefore, the Use Case UC008 has been beneficial to explore the order management functionality of a postpaid mobile service in a convergent offer. This first version of the use case shall also help architects involved in a real project to identify the **challenges** of designing an **ODA compliant architecture when legacy components need to be maintained.**

# Summing up

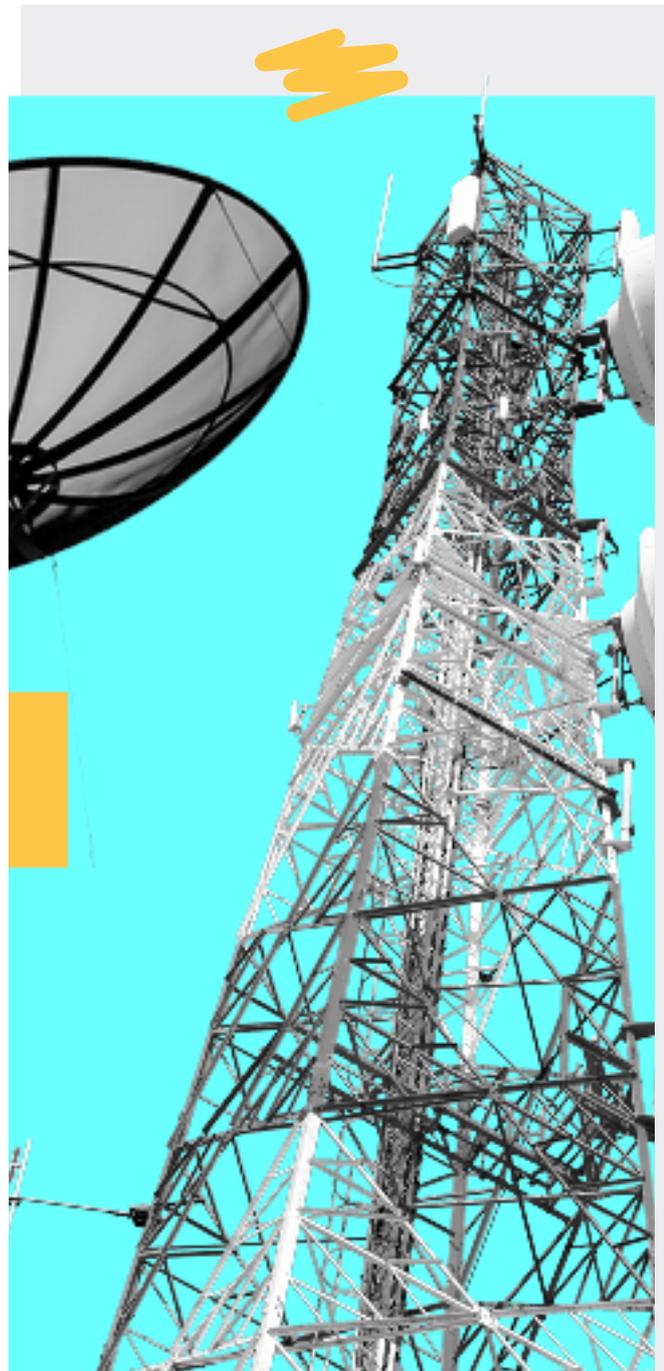
Alvatross is a proud silver-certified member of TM Forum. As such, not only have we committed to improving and developing our architectures to match the standards offered by TMF. We are also deeply involved in the development of the ODA CA, and we are taking part in other community efforts like the IG1228 project we have discussed in this ebook.

Through our commitment to the ODA CA and community efforts, we are becoming a benchmark in the market, a role model, and therefore the right option for telecom operators that seek to improve and modernise their technology to meet the standards of the future.

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The information contained in this document relative to the IG1228 project represents some highlights of the data contained in the official documentation of TM Forum Use Case UC008. If you are not a member of TM Forum, you can contact us, and we will forward you a copy of the last version of the official document.

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