

**MULESOFT**

**SAP BAPIS**

Case Study

## MuleSoft to SAP BAPIS Integration Services



### COMPANY

The client is one of Florida's five largest water management districts, with 75 years of operational excellence. This regional governmental agency is protecting South Florida's water resources and ecosystems, meeting the region's water needs, and improving flood control. Currently, the client is managing water assets in the southern half of the state, across 16 counties from Orlando to the Florida Keys, ensuring a balance in water supply.



### CHALLENGES

The client encountered significant challenges in integrating SAP Business Application Programming Interfaces (BAPIs) and loading data into the SQL Server tables. This integration complexity caused inefficiencies in fetching, consolidating, and managing a unified view of data maintenance.

Driven by time-consuming and tedious data management processes, the client experienced an array of issues related to data insertion, duplicate detection, sequencing data inserts, and maintaining transactional integrity. Moreover, a lack of automation in gathering, organizing, and tracking data led to significant challenges in driving optimal resource utilization, sales order processing between SAP ERP and CRM applications, and operational excellence. This resulted in an inability to generate and evaluate reports in SAP.





## SOLUTION

V-Soft performed all phases of the software development life cycle, including requirement analysis, design, development, testing, and deployment. This involved integrating three SAP BAPIs using the MuleSoft SAP connector and loading extracted data into the SQL Server tables

After closely collaborating with the client to get a thorough understanding of their challenges, V-Soft successfully implemented MuleSoft to SAP integration services. Using API-led architecture-based solutions, we were able to integrate SAP BAPI with the SQL server database. This ensured seamless integration of various on-premises and cloud-based business applications with SAP ERP Central Component (ECC) or SAP S/4HANA, thereby minimizing integration points by consolidating connectors within a unified integration layer.

Once the data is fetched from SAP BAPIs, it will be validated and transformed according to business requirements. This ensures that the business rules are applied before inserting data into the SQL Server database table(s), resulting in improved data accuracy and operational agility.

Additionally, V-Soft has developed two common reusable components: Error and Exception handling, and email notifications. These components reduce disruption impacts and minimize response and recovery time through timely notifications and alerts.

As part of the implementation, V-Soft ensured that the APIs were fully secured and obeyed required policies, such as client-id enforcement, json/xml threat protection, IP whitelisting, rate-limiting SLA-based policies, and spike control.



## RESULTS

V-Soft's powerful MuleSoft to SAP integration services delivered incredible benefits to the client, including:

- Successfully implemented SAP integrations and synchronized data with other business apps.
- Automated sales order processing between SAP ERP and CRM applications such as Salesforce.
- Created an integrated agile software infrastructure for changing business needs, ensuring increased business alignment.
- Streamlined and automated processes enabled better tracking and visibility, thereby improving business process efficiency.
- Integrated systems and aggregate data for a consistent and accurate view of business, offering improved business visibility.
- Achieved significant cost savings by using low-cost MuleSoft Enterprise.
- Ensured great support for functional and non-functional requirements.
- Facilitated the generation of accurate reports in SAP based on regions and evaluated sales across the world.
- Improved customer interactions by automating direct communications.
- Optimized resource utilization and eliminated the need for dual data entry, saving time and money.
- Reduced data redundancies and errors caused by manual data entries.
- Enhanced agility to perform change requests or new information quickly.

### Technologies Used

MuleSoft AnyPoint Platform