

# IFS Integration with SAP®

Field Service and Asset  
Management Solutions



# Integrating with SAP Solutions

There is a movement happening from all-encompassing platforms to a more agile, modular approach. Businesses like yours are now adding best of breed applications as part of a composable architecture to maximize the value from digital transformation.

IFS software is designed to be easily integrated with existing enterprise software products, including SAP solutions. As a widely recognized leader in Field Service Management and Enterprise Asset Management (EAM), IFS has a long history of successful SAP solution integrations, helping our customers unify their infrastructure for an efficient and successful operation.

Our customers rely on IFS for seamless and reliable enterprise solutions. Together with our partners, we deliver SAP integrations—from established connectors to highly customized projects.

# Industry Use Cases

IFS works with organizations across all industries, providing seamless SAP application integrations to unify their technology stack. Here are some industry examples:

## Utilities

Many energy and water utility organizations depend on deep integrations across multiple SAP functions, including SAP IS-U/PM, Logistics, Finance, and HR modules.

IFS utility customers leverage prebuilt SAP templates to expedite design work, including a library of workflows and screens to manage the field completion of SAP-generated services and time tracking.



## Manufacturing

As with many industries, it's not uncommon to see a mixed environment of legacy and modern technologies within manufacturing.

These organizations must transition from end-of-life systems such as ClickSoftware to contemporary service management solutions that integrate easily with existing SAP infrastructure.

This modern approach supports progressive strategies such as predictive maintenance to help manufacturers maximize equipment uptime, reduce engineer call-outs, and deliver a heightened customer experience.



## Energy

Organizations within the oil and gas sector must operate and service a network of complex mobile assets, with technicians working onshore and offshore.

These companies can easily connect their IFS service management platform with existing SAP systems, such as enterprise asset management and enterprise resource planning, using an IFS-guided engagement with prebuilt integration packages.



# Customer Use Cases

With such diverse industry use cases, we have many IFS customers running our software integrated with their SAP solutions. These include:



Xcel Energy, a leading US-based energy provider, integrates IFS Mobile Workforce Management and Planning & Scheduling Optimization software with SAP via an add-on component (AOC).



Kyocera, a leading supplier of telecommunications equipment, information equipment, semiconductor packages, and electronic components, integrates IFS Service Management with SAP.



OKG, a leading supplier of fossil-free energy, operates multiple nuclear power reactors including one of the world's largest boiling water reactors. OKG integrates IFS enterprise software with their SAP solution.



Makino, a metal cutting and manufacturing technology manufacturer, integrates IFS Service Management with parts and inventory data in SAP. Time, accountability, and expenses are housed within IFS Service Management.



Sysmex distributes and supports automated in vitro diagnostic hematology, coagulation, urinalysis analyzers, reagents, and information systems for laboratories and healthcare facilities. IFS Service Management is integrated into the company's sales CRM, data warehouse for business intelligence and analytics, customer web portal, and SAP systems.



Northwest Natural is a publicly traded natural gas utility company. They chose IFS Mobile Workforce Management to replace their legacy system and integrate with their newly updated SAP S/4HANA ERP.

Customer use cases support a broad range of business scenarios, including:

- Financial systems (invoicing, tax calculations, etc.)
- Pricing
- Cost collection and cost settlement
- Credit card processing, additional transactions, etc.
- Purchasing systems (parts replenishment, subcontractor goods, services, etc.)
- Spare part inventory
- Billing
- Order fulfillment
- Shipping and receiving
- Transport shipping carriers (pickup and delivery of products and parts)
- Knowledge management systems (troubleshooting complex service problems)



# The Nature of Software Integrations

Software integrations streamline a process or achieve a business outcome across two or more systems. These connections are foundational to the success of the business, automating manual workflows, increasing efficiencies, and reducing operating costs.

Once systems are integrated, the business operates from a unified platform. Data is centralized, supplying real-time information for accurate analytics.

Considering that 18% of companies use 20 or more data sources to inform business decisions, enterprise integration is a critical capability.

## SAP Application Integrations

SAP application integrations can be simpler, or they can be more complex. The nature of each integration depends upon the customer's business requirements and the ownership of the data between the IFS and SAP systems.

Depending on the extent of the project, data connections between finance, logistics, HR, and CRM modules may be required.

IFS uses a flexible integration architecture to integrate with SAP solutions, supporting point-to-point (SOAP, REST), PI/PO, CPI, and ESB.

IFS solutions have been integrated with SAP platforms and applications including SAP Netweaver®, SAP R/3®, SAP S/4HANA, and SAP S/4HANA Cloud.



# 18%

Companies that use 20 or more data sources for decision-making

## Master Data Management

With so many unique customer ecosystems, when an SAP application is considered the system of record, mapping the master data interfaces is an essential first step.

IFS has developed tools to support this work, covering on average 70% of the effort required to integrate the IFS and SAP platform, with configuration and any customizations comprising the remaining work.

Master data integrations can include the customer master, employee master, and material master data. All of these records are enhanced with service specific data that the ERP typically doesn't require. Installed equipment record contracts may also be included in this group.

## Master data

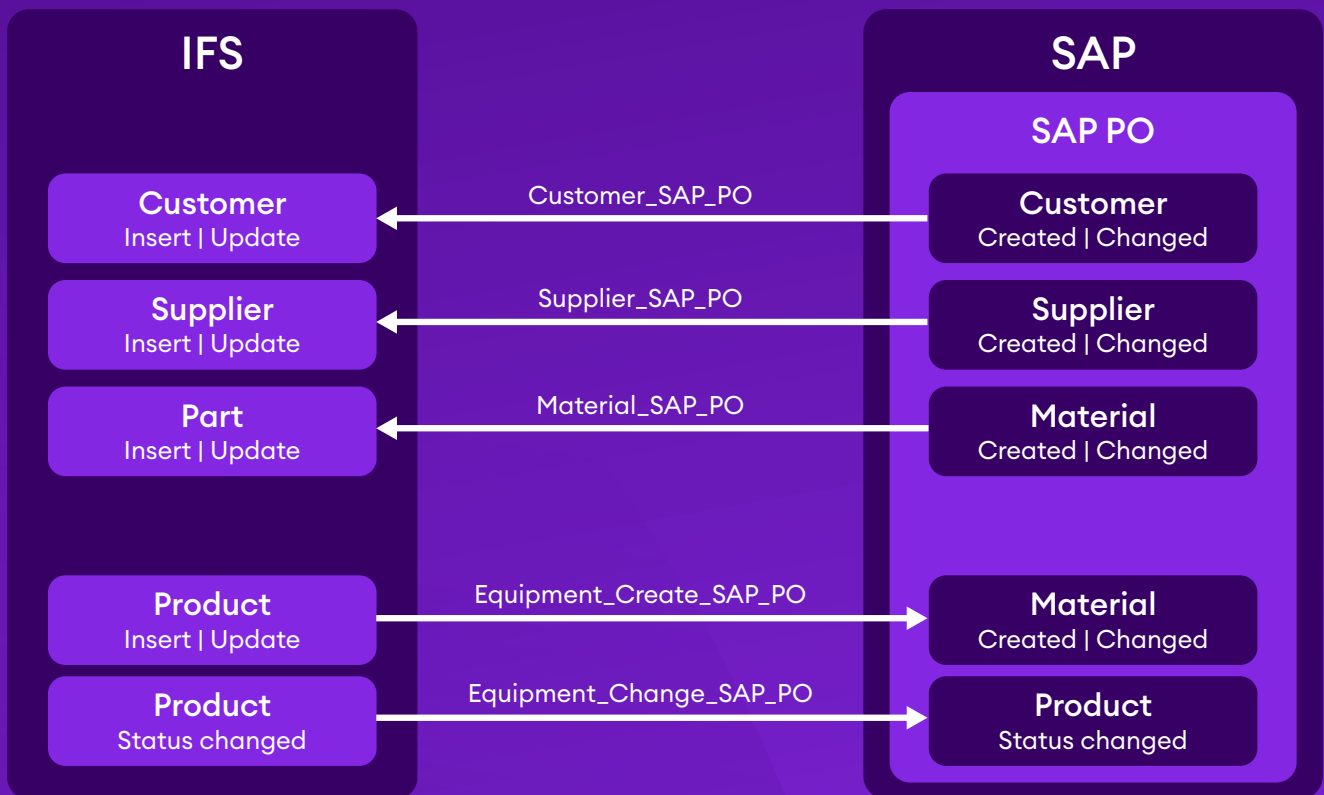


Fig. 1: Integration of IFS Service Management with SAP Master Data

The IFS tools quickly map the fields and data tables between IFS Service Management and the SAP Master Data tables.

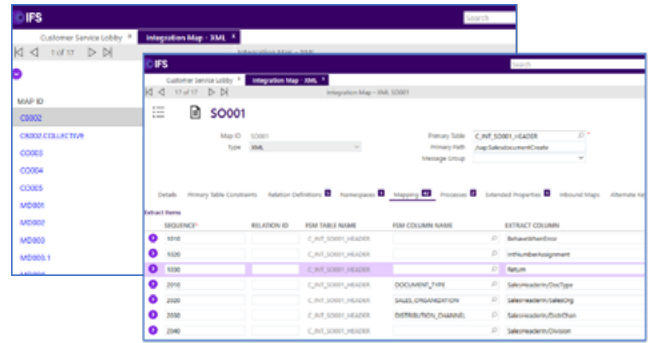


Fig. 2: Example of integration maps

### Transaction Service Interfaces

To maintain an accurate system of record in the SAP system requires data exchange for each transaction through the transaction service interfaces.

Transaction data can be exchanged in batch or real-time depending on the specific business process. For example, parts inventory movements are often updated in real-time, while details for invoicing after service jobs are processed in batches.

An audit trail of all transactions can be viewed and reprocessed should there be a connectivity failure between IFS and SAP applications.

When integrations require any customizations, these are held in a separate layer to ensure ease of upgrading of the base systems.

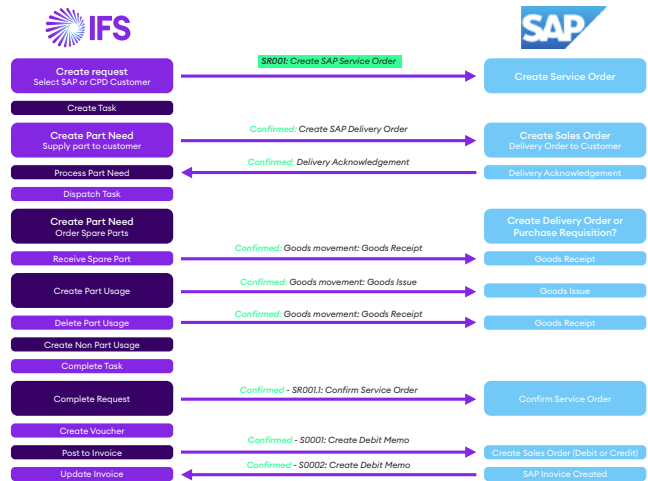


Fig. 3: Example of transaction service interfaces for service orders

### EAM-related Procurement Integration

For maintenance and asset management, the integration work to transition from SAP ECC to SAP S4/HANA is centered around the procurement processes of assets, spare parts, and services.

The procurement workflow kicks off when an IFS user creates a purchase requisition. Once approved, the requisition converts into a purchase order. The purchase order is created and issued by IFS or SAP, depending upon the implementation choices of the customer.

After acknowledging receipt of the goods and services, an invoice is registered and matched. In the default integration scenario, all transactions are considered including the required master data. In the example shown



Fig. 4: Example of integrations for EAM orders

in figure 4, IFS is the master for inventory and purchase requisitions and SAP for purchase orders and accounts payable. IFS can also be the master for accounts payable when required.

## SOAP/REST APIs

In some instances, the customer's environment may rely on REST APIs to handle multiple types of calls, return different data formats, and other capabilities.

We use an established SOAP and REST API model for SAP application integrations to streamline data movement. The process supports asynchronous and synchronous configuration via middleware.

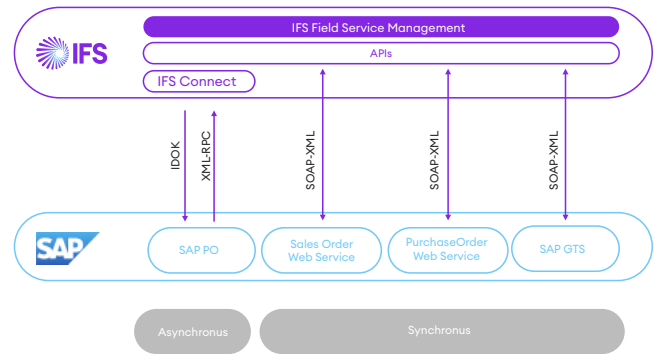


Fig. 5: SAP solution integration with SOAP APIs

## IFS Connectors

IFS enables rapid integration of IFS Service Management data with data from asset management, customer information, and GIS systems to support mobile workforces. Best practice templates automate end-to-end workflow processes for service orders, notifications, network assessments, and other information.

Additional integrations include:

- Timesheets for automated time capture and approval
- Job costing for complex calculations with materials, labor, vehicle, and equipment usage
- Scheduling with dispatch-centric toolsets to manage the workforce, with visibility into planned and real-time work that is underway

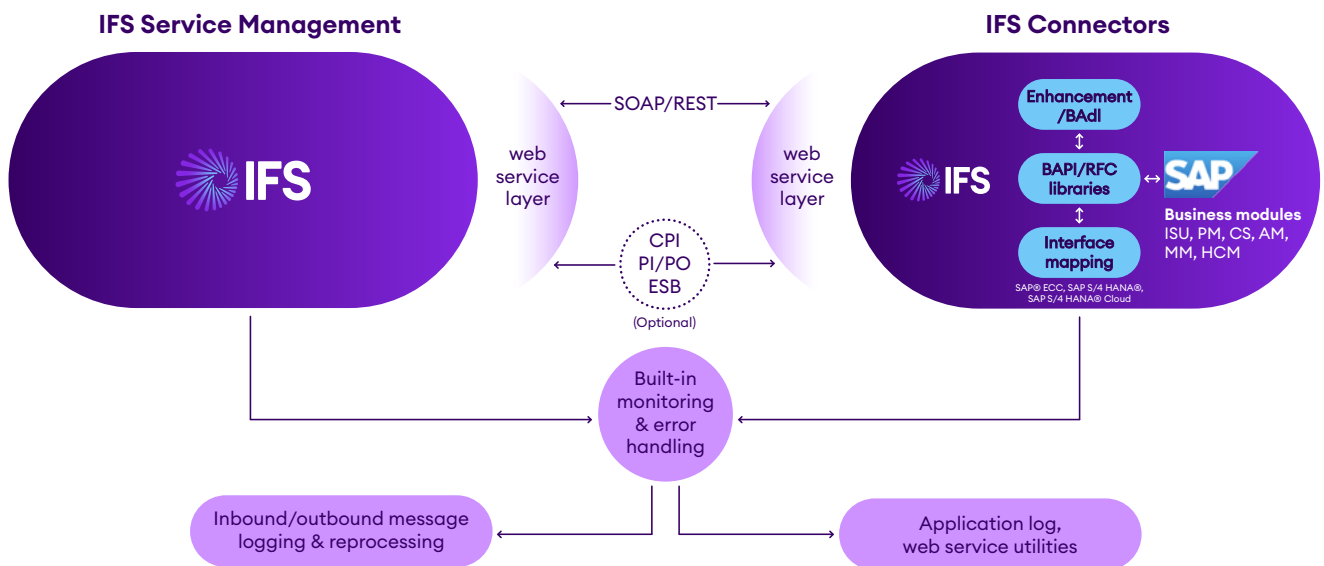


Fig. 6: Integrating SAP applications with IFS Service Management



## iPaaS Connectors

Some IFS customers manage their integrations using iPaaS technology to simplify the flow of information between new and legacy systems. A good example is our partnership with Boomi and the creation of

the IFS-Boomi connector. Future-proofed by design, with a drag and drop interface, the connector enables organizations to easily connect data from IFS Cloud to existing SAP infrastructure.

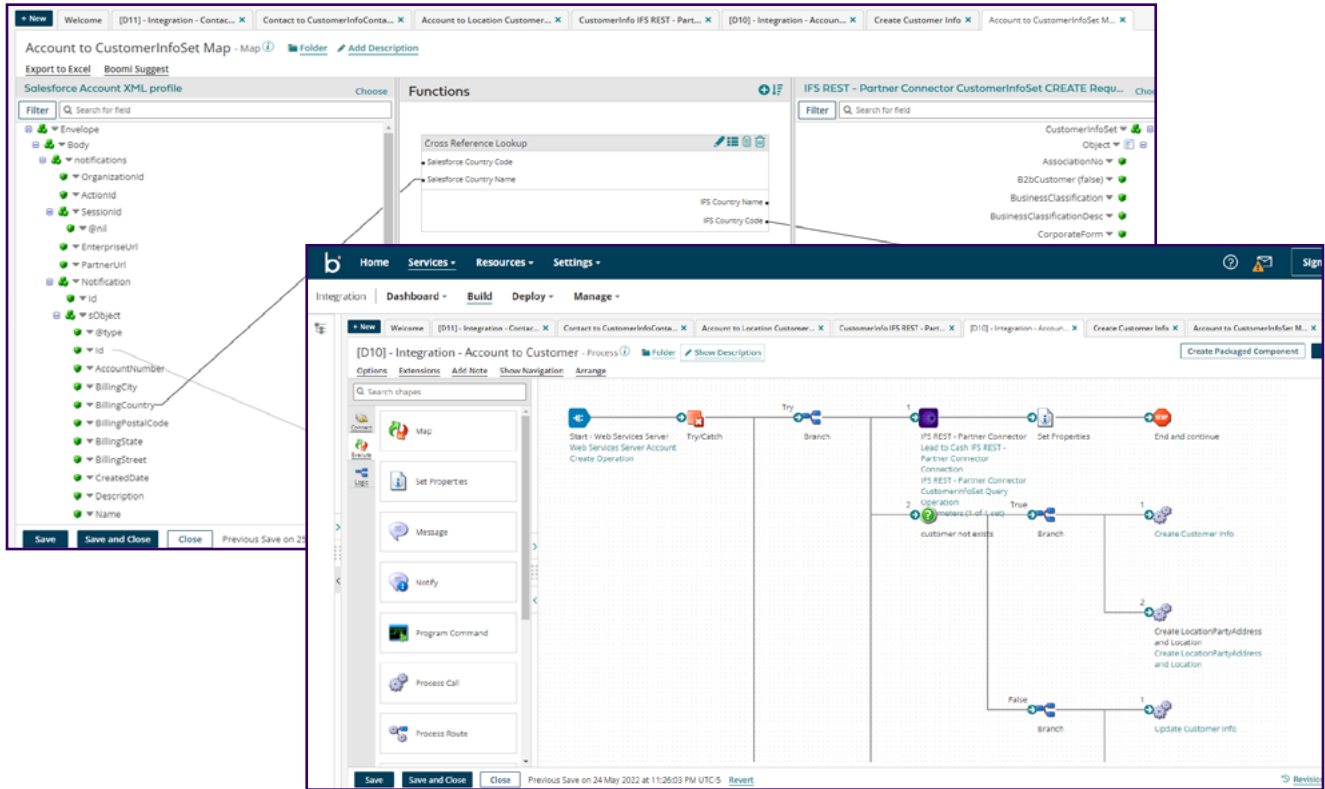


Fig. 7: Example of iPaaS Connector technology

## Composable Application

Integrating IFS with SAP systems provides greater flexibility, resulting in a composable technology stack where different solutions can be removed or added to benefit the entire operation. Default SAP components are easily replaced with IFS technology optimized for service organizations.

With so much flexibility, customers have immediate access to best-of-breed service capabilities. Innovative solutions like IFS Remote Assistance which incorporates artificial intelligence, machine learning, and

augmented reality, can be easily implemented without costly and time-consuming customizations.

This composable model is agile, empowering our customers to select options that suit their unique requirements—for example, implementing IFS Enterprise Asset Management and Service Management capabilities while retaining SAP Financials as a core platform. It also allows organizations to scale with the future, quickly extending their infrastructure as the business changes and grows.

## SAP Upgrades

One of the most common integration use cases is when a customer migrates to a new product like SAP S/4HANA®. As with most technology upgrades, the client will lose many customizations built within the legacy platform. In particular, migrating custom code to S/4HANA is an extremely complex task.

Faced with such a significant lift, many customers leverage their upgrade project as the perfect opportunity to replace standard SAP components with IFS technology optimized for service organizations, precluding much of the customization work required in shifting from the old to the new SAP system.

## IFS Integrations with SAP

Since IFS started business in 1983, we've delivered many SAP application and platform integrations to our customers including SAP Netweaver®, SAP R/3®, SAP S/4HANA, and SAP S/4HANA Cloud. With so many simple and complex projects under our belt, we consider ourselves SAP application integration specialists, overseeing projects that vary in scope and size based on the objectives of our customers.

Our flexible SAP application integration model can be deployed in the cloud and on-premises. [Contact us](#) to learn how IFS can complement your SAP solution.



## About IFS

IFS develops and delivers enterprise software for companies around the world who manufacture and distribute goods, build and maintain assets, and manage service-focused operations. Within our single platform, our industry specific products are innately connected to a single data model and use embedded digital innovation so that our customers can be their best when it really matters to their customers—at the Moment of Service™.

The industry expertise of our people and of our growing ecosystem, together with a commitment to deliver value at every single step, has made IFS a recognized leader and the most recommended supplier in our sector. Our team of 4,500 employees every day live our values of agility, trustworthiness and collaboration in how we support our 10,000+ customers.

Learn more about how our enterprise software solutions can help your business today at [ifs.com](https://ifs.com).

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