

IFS IoT BUSINESS CONNECTOR™

FASTER TIME TO VALUE FROM YOUR IoT INVESTMENT



IFS HELPS

PREPARE FOR WHAT'S NEXT

The most successful enterprises know how to adapt to, and embrace, what's next in their market. IFS Applications™, IFS Field Service Management™, IFS Enterprise Operational Intelligence™ and IFS Maintainix™ help make our customers' businesses so agile they can view what's next not as a threat to be managed but an opportunity to be seized.

IFS SOLUTIONS:

- Are built on industry standards, so you aren't locked into a proprietary technology
- Have a modular architecture so you can quickly add, adapt, scale and integrate as you need to
- Are so user-friendly you will be using the rich functionality in no time
- Offer you greater visibility into your business to spot what's next early
- Give you greater knowledge of how your business needs to adapt
- Provide greater flexibility to take the necessary action to make change happen



WHAT'S NEXT?

CONNECTED BUSINESSES!

How do you plan to profit from the vast amounts of data that are generated by your products, assets, and equipment?

YOUR DATA IS AN ASSET

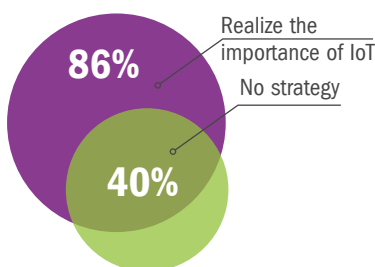
Recent research done by IFS shows that 86% of senior decision-makers realize the importance of the Internet of Things (IoT) and digital transformation, but 40% have no strategy in place to utilize these key technological innovations. With a strategy in place, you can prepare for what's next in your industry. And you minimize the risk of ending up with huge amounts of disparate, disconnected—and therefore underutilized—data.

MAKING DATA ACTIONABLE

IFS IoT Business Connector™ helps you bring your operational data together, analyze it, and provide relevant observations that you can act on. It's quick and easy to install and comes with connectivity to the Microsoft® Azure® IoT Suite and APIs to connect other third-party discovery solutions. With operational data transformed into observations and actions, you can increase the efficiency of business processes and expand into new business models enabled by IoT.

REAP THE BENEFITS

Connect your business and you will be able to lower costs, raise revenue and free up working capital. Maintenance, service and production processes will improve thanks to the real-time insights that are generated; service will be enhanced because facilities and equipment can issue alerts before actions are required, greatly reducing the need for—and costs related to—manual inspections.



In brief, **IFS IoT Business Connector** gives you greater insight into all aspects of your operations by transforming your enterprise into a 'connected business' and letting you grow incrementally as you gain more experience.

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ARE YOU READY FOR IoT?

Are you ready to fully benefit from IoT? Since Kevin Ashton coined the term in 1999, IoT has gone from being a fascinating trend to become an extremely important, facet of business life today. And it's now a key component in developing successfully as a business.

There's been a shift in emphasis in IoT growth in recent years, from consumers buying smartphones, smart watches and other personal equipment to the growth derived from industry connecting up products, assets and equipment. Often referred to as the Industrial Internet of Things (IIoT), it is a central element of asset management, service management and the fourth industrial revolution—Industry 4.0 or Smart manufacturing.

TECHNOLOGY IS CHANGING BUSINESS—AGAIN

The main reason for this shift in growth drivers is that previously expensive technologies are now available at more reasonable costs. For example, sensors and other devices that enable communication between

machines have become much cheaper, which has made it possible to make even inexpensive products 'smart'.

In addition, the building out of 3G and 4G networks has made it possible to communicate affordably and efficiently regardless of where equipment is located. In fact, we're even seeing the roll-out of 5G and LoRa, which specifically targets the requirements of enormous numbers of interconnected things.

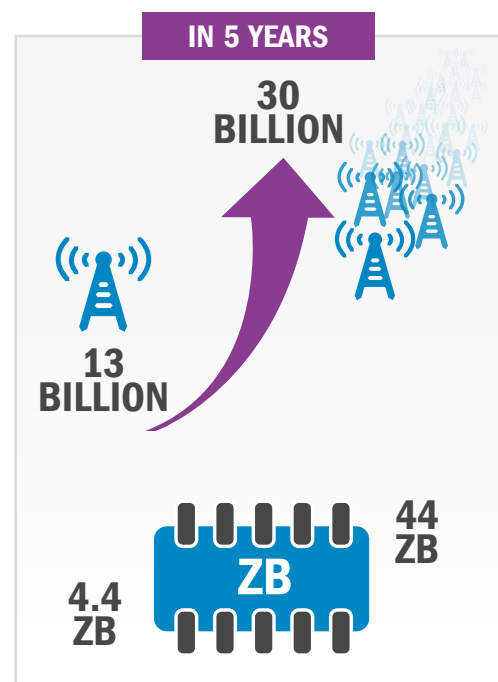
Affordable cloud-based platforms are now available that can handle the traffic and data volumes arising from the billions of objects that are starting to communicate with each other. More importantly, these platforms are able to analyze and translate raw information from sensors into valuable business insight and actionable observations.

A LOOK AT THE FIGURES

So what are the business implications of having so much data constantly available—and continuously growing? Let's take a look at some figures.

In five years, according to IDC, there will be seven times more IoT data than there is today. The installed base of IoT endpoints will grow to more than 30 billion by the end of the decade from just less than 13 billion units in 2015. As a consequence, machine-generated data will comprise an increasing share of stored data: by 2020, 10 percent of the 44 zettabyte digital universe will originate from IoT devices. The challenge in this situation is to assess the data you receive, identify the valuable information from the reams of irrelevant data, analyze its worth, and determine how it can benefit your business.

13 billion endpoints will have become 30 billion units, with machine-generated data growing from 4.4 ZB to 44 ZB.



TURNING CHALLENGES INTO OPPORTUNITIES

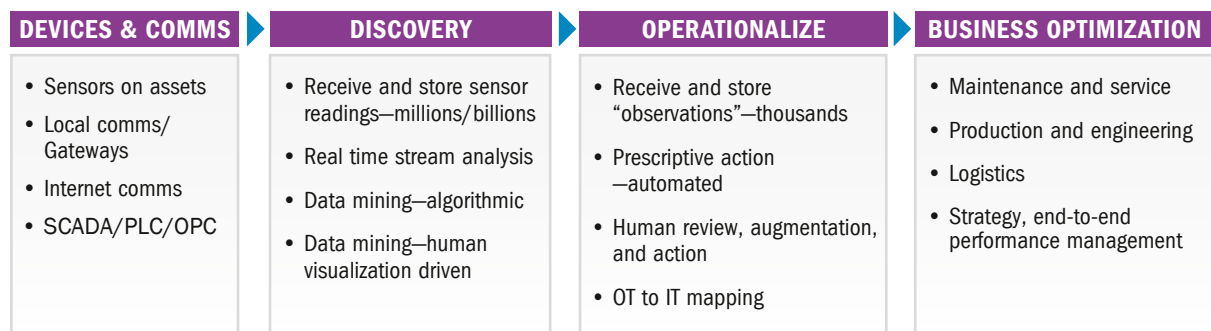
Already, enterprises like yours are using IoT technologies to boost their bottom line by increasing productivity, enhancing quality, reducing time to market, automating processes and cutting costs. And like them, you could do this in a number of ways.

To start with, exploit the objective insight that the data provides to spot the exact areas and processes that needed to be addressed, e.g. the most time-consuming, where the most material waste is, etc. Then use the data to automate processes and achieve further optimization as well as streamlining your service operations.

Another area is customer engagement. You can truly enhance the customer experience by offering individual product tracking to optimize inventory

levels, for example. But more importantly, by leveraging data from wearables, smart devices, connected cars etc., you can provide personalized context-aware customer service and communication.

Importantly, you can also monetize your data by leveraging it to develop new product services. Indeed, some manufacturers are already using the data collected to develop and sell software and consulting capabilities, as well as other value-added services. There's no reason why you can't do so too.

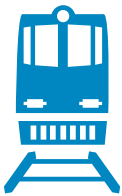


We see our role in the IoT spectrum as distilling actionable information from data and enabling business optimization

IFS IoT BUSINESS CONNECTOR helps you bring your operational data together, analyze it, and then provide relevant business insights that you can act on.

IFS CUSTOMERS ON TRACK FOR WHAT'S NEXT—TODAY

At IFS, we're enabling our customers to spot the opportunities related to the IoT and benefit from them by transforming their businesses. Among them, the following are opening up new operational and process efficiencies, productivity gains and cost savings:



A PUBLIC TRANSPORT COMPANY

... plans to reduce service disruptions by predicting door failures with a higher degree of accuracy—the knock-on effect of a train blocking a station is immense. It results in lost revenue and a great number of dissatisfied commuters. Instead of having the disruption of a door failing, an early warning system automatically triggers a service call-out before failure.



A PEST CONTROL COMPANY

... connected 80,000 rodent traps worldwide, allowing the business in Finland to double new sales and increase its NPS score by automatically generating, grouping and routing 10,000 work orders annually. Route optimization reduced miles traveled resulting in more efficient customer service, a reduction in cost and a lower environmental impact



A FACTORY MAINTENANCE COMPANY

... will better support its customers by predicting maintenance requirements from monitoring asset vibration, temperature, voltage and more—and prevent unscheduled downtime. Instead of having a machine fail during production, an early warning will trigger a maintenance call-out before it halts operations. This means production schedules are not impacted and commitments to customers are met. The result is optimal system uptime, efficient sourcing of spare parts and optimized scheduling of engineers.

IFS IoT BUSINESS CONNECTOR is already providing greater customer satisfaction, more efficient service and enhanced maintenance for IFS customers.

HOW IT WORKS

IFS IoT Business Connector shortens the time from ideas to tangible benefits by providing a proven end-to-end reference architecture and the ability to control what actions to take when discovering IoT observations relevant to your business. It comes with plug-n-play connectivity from Microsoft Azure into IFS software as well as an open API for integrating bespoke discovery solutions or third-party discovery applications.

IFS IoT BUSINESS CONNECTOR IS MADE UP OF THREE COMPONENTS

1

IFS IoT DISCOVERY MANAGER™

This provides additional management and monitoring capabilities when using the Microsoft Azure IoT Suite as the discovery platform. IFS IoT Discovery Manager enables you to automatically create and connect all IoT Suite components (hubs, streams, buses etc.) in accordance with the IFS IoT Business Connector reference architecture. Also, you can easily visualize the components and data flows involved.

2

IFS IoT GATEWAY™

This enables communications between the cloud-based discovery and analytics of IoT data and the on-premise or cloud-based IFS products. Its key features include secure bi-directional communication without the need to open a customer's firewall for inbound traffic. It has store-and-forward capability so that no data is lost if your network or the IFS software is temporarily unavailable.

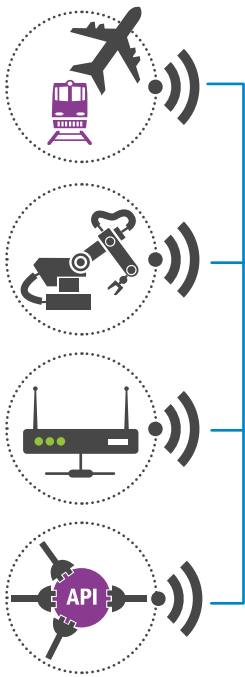
3

IFS IoT CONTROLLER™

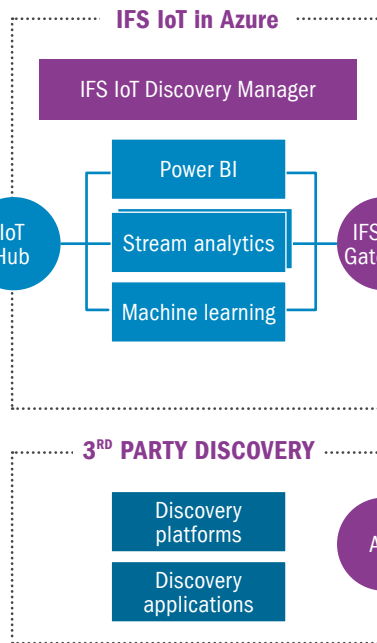
This functionality helps you determine what actions to take when IoT data analysis reveals observations relevant to the business. It solves a range of practical issues that occur when mapping operational technology (OT) into IT and business applications.



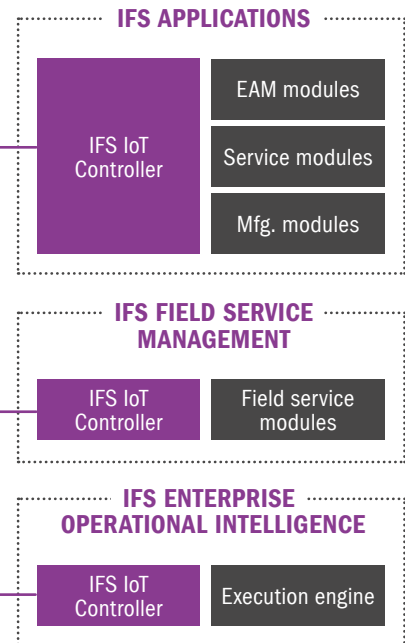
DEVICES/ASSETS & COMMS



DISCOVERY



OPERATIONALIZE AND OPTIMIZE



IFS IoT Architecture: IFS IoT Business Connector

“With the **IFS IoT Business Connector™**, users manage the complete business process starting with an alert extracted from incoming sensor data to execution of work to fix the problem and recording the history. All too often alerts get lost and bad things happen anyway; the IFS software keeps you in control.”

RALPH RIO, ARC ADVISORY GROUP

IFS IoT BUSINESS CONNECTOR

FASTER TIME TO VALUE FROM IoT

IFS IoT Business Connector gives you the means to capture and analyze sensor data; to translate events into observations; and initiate actions in IFS enterprise software. It provides the tools you need to quickly operationalize your IoT data and grow this capability incrementally as you gain more experience. By tapping into the value of your IoT data, it helps you predict what's next and become a "connected business". What's more, implementation is quick, the learning curve is reduced and the risks are low.

EACH IMPLEMENTATION PROVIDES ALL OR MOST OF THESE CAPABILITIES

- Rule-based determination of what actions to perform when a certain IoT observation is made
- Automated actions as well as actions with human review or guidance
- Integration with the task/event/workflow capabilities of the IFS software
- Template management to easily define new actions that can be taken for IoT observations
- Storing of IoT observations and actions taken for traceability and analysis
- Mapping of device identifications to objects (serial assets, functional assets, others...) in the IFS solutions
- Command templates to send back to devices
- Content for IFS Lobby to easily monitor the flow and observations that require human attention

Discover the business and operational benefits of knowing what's next before it happens.
Learn more about the IFS IoT Business Connector at [IFSworld.com/iot](https://www.ifs-world.com/iot)



ABOUT IFS

IFS develops and delivers enterprise software for customers around the world who manufacture and distribute goods, maintain assets, and manage service-focused operations. The industry expertise of our people and solutions, together with commitment to our customers, has made us a recognized leader and the most recommended supplier in our sector. Our team of 3,500 employees supports more than 10,000 customers worldwide from a network of local offices and through our growing ecosystem of partners.

For more information about IFS, visit **IFSworld.com**

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