Enterprise Asset Management (EAM), Field Service Management (FSM)

for Communications Service Providers, ***or both?***

IFS

Your guide to **driving value** in a **telecommunications** organization

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The modern Communications Service Provider (CSP) enterprise has access to more options and information than ever before. The telecom and mobile technology industry is in a constant technology evolution, with new 3GPP generations coming out at the same time as the entire IT and OT environments are transforming into the cloud. Buying the right technology is difficult–and a process that can overwhelm even the most experienced C-Suite executives and teams.

Many telecom CIOs are uncertain about the roles played by Enterprise Asset Management (EAM) and Field Service Management (FSM)–and whether their organization has a need for both. This uncertainty is compounded by technology analysts using different categories to classify a vendor's products and solutions–who, invariably, only offer the choice of one or the other capability.

To select the right solution for your CSP organization, you need the key facts to understand the differences, similarities and overlaps between the two technologies–and the value the combination can drive in your business.

This guide will give you and your team the insight needed to make an informed investment decision–and achieve the business value and outcomes you define.

EAM and **FSM** have many similarities but differ significantly to address changing business environments[1]. CIOs need to understand the differences between them to realize their full benefits.

Definitions and descriptions:

When it comes to deciding if you need EAM, FSM, or both, it helps to start at the beginning–with market definitions and descriptions.

What is enterprise asset management (EAM)?

EAM is a business application used in telecommunications and other asset-intensive industries to optimize the maintenance and repair of linear and point asset types, such as data centres, service vehicle fleets, telecom towers, new masts, radio sites, cables and fiber and other telecom equipment[2]. EAM software products are used to address physical asset support requirements.

IFS EAM software offers extensive support for diverse asset types in telecom industry, e.g. 5G network slicing, mobile edge deployments and private networks. Offering CSPs the ability to manage and optimize not only traditional linear and point assets but also new orchestrated 5G assets.

TechTarget

EAM is the process of managing the lifecycle of physical assets to maximize their use; save money; improve quality and efficiency; and safeguard health, safety and the environment[4]

Why is EAM important to CSPs[2]?

EAM enables you to manage asset maintenance and optimize the performance of your assets–from cradle to grave. It gives you visibility over your assets and equipment, helping you to make the most of your investments so you can make better maintenance decisions, improve day-to-day efficiencies, and enhance compliance. Especially within telecommunications, EAM enables efficient network rollout projects through proper demand and task planning for the assets to be put into service and then as the assets are taken into service, your teams can automatically switch to focusing on ISP and optimization of the assets.

EAM enables telecom companies to make better use of finite resources: tracking, overseeing, evaluating, and optimizing their assets throughout the asset management lifecycle. It gives maintenance teams the ability to monitor and control asset reliability and quality in complex environments. The immediate collection and analysis of operational data enable real-time insights into a networked asset's ability to fulfil performance requirements.

Many CSPs are in modernization 'catch-up' mode, replacing legacy disparate software systems with integrated platforms supporting the entire asset lifecycle. IFS Cloud, for example, enables telecom companies to adopt the EAM capabilities they need to reduce maintenance time, reduce costs and even reduce reactive asset maintenance, so they avoid the heavy fines associated with unplanned asset downtime and/or replacement.

But it also depends on how complex the asset is:

Simpler asset FSM

Complex assets with many requirements and parts and multi-level BoM EAM

Eltel provides comprehensive installation and maintenance services to major telecom operators, including networks and fiber-to-the-home. IFS is supporting Eltel across the Nordics to **deliver infrastructure and network maintenance** services to **Telia, another IFS customer**, where we drove 99% on-time arrival.

“We will maximize the efficiency of our working groups with a broader geo range and multiple expertise, executing different order types to drive our goals.”

Magne Lunde, Director, Operational Excellence, Eltel

Main components of EAM:

- **Work management**
- **Warranty management**
- **Maintenance procurement**
- **Resource and tool management**
- **Maintenance supply chain**
- **Monitoring**
- **Maintenance planning and scheduling**
- **Maintenance inventory**

Benefits:

Improve asset utilization

Monitor the reliability and usage of assets and enable maintenance at the right time and at optimal cost.

Drive business efficiency

Automate asset management and orchestrate the delivery of the right people, tools and equipment to maintain an asset. With a geographically widespread asset distribution, this saves not only money, but it also has an environmental impact with significant, trackable CO^2 emission savings . With standardized processes, data analytics and reporting, your organization can save time, reduce errors, and optimize asset performance and lifetime.

Support Environmental, Social, and Governance goals

Support ESG goals through better management and maintenance of assets. This includes monitoring assets for increased power consumption, identifying opportunities for extension of the asset lifespan, refurbishment, recycling, and reporting.

Meet operational targets

Your telecom network quality is a reflection of how you will be viewed by your customers, which is ultimately reflected in your net promoter score (NPS). Minimize asset downtime, reduce the cost of asset management, and extend asset lifespans. By so doing, your organization can maximize the profitability of the assets that makes up your network, enabling you to meet deadlines and remain profitable for longer periods of time.

What is field service management (FSM)?

FSM suites support field service providers (FSPs), whose technicians typically travel to customer locations to provide installation, repair and maintenance services for equipment and systems, like fibre to the home or private networks – consumer, commercial or industrial.[3]

FSPs may also manage, maintain and monitor these assets under a predefined service or maintenance contract. FSM suites are delivered primarily as cloud-based services and mobile apps. However, some FSM vendors in the telecom market also provide the option to deploy some components on-premises.

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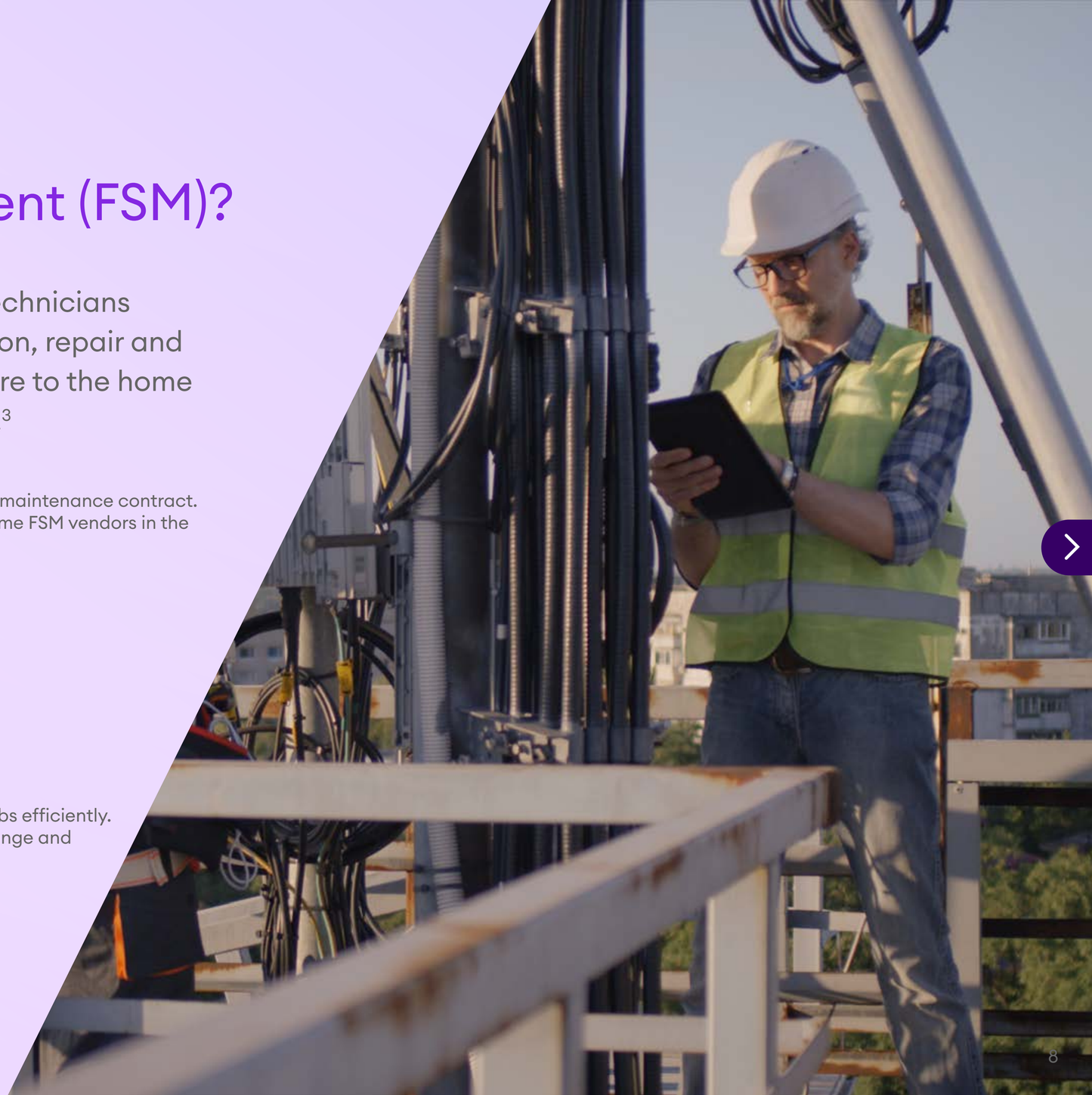
FSM is a system of managing off-site workers and the resources they require to do their jobs efficiently. Originally a manual process, today, FSM software handles much of the information exchange and manages the field service process[5]



Why is FSM important[3]?

FSM helps you manage essential field operations and processes–from assets and parts to contracts, invoices and warranties. It helps your end users to understand many aspects of your relationship with your customers, helping you move toward a service-oriented business model–building your business around improved outcomes for your clients. FSM suites are delivered primarily as cloud-based services and mobile apps.

FSM enables off-site workers to do their jobs correctly and efficiently. Software tools provide them with the resources they need and establish a communication channel among office workers, field workers and customers. The software also helps structure and automate repetitive tasks–reducing errors.

FSM applications are also important in improving customer satisfaction, providing customers with information on order scheduling, service requests, work progress and payment.

Main components of FSM:

Request management

Contract management

Work order management

Job scheduling

Inventory management

Dispatch management

Technician Portal / Mobile App

Discover how CSPs can make sustainability a reality, and achieve their carbon neutral goals, with simpler ESG compliance and reporting and electric vehicle fleet optimization and more from IFS.

Discover more

Benefits:

Increase business efficiency

Digitize and automate Field Service processes–reducing administration and connecting central and field teams. Our customers achieve **57%** faster field service scheduling activities.

Improve service margins

Maximize field worker utilization by an average of **18%** and reduce the use of subcontractors, with the ability to reduce annual subcontractor cost by **$18M**.

Increase customer satisfaction

Deliver more first-time fixes within contracted SLAs.

Improve visibility

Improve visibility into service performance across central and field-based service teams with more informed decision making.

Meet financial targets

Enable service teams to increase profitability by reducing SLA penalties and minimizing overtime. Our customers earn **$76M** in added value thanks to higher First Time Fix Rates.

Reduce carbon emissions

Benefit from reduced CO^2 emissions by reducing technician travel by an average of **28%.**

EAM or FSM? The right tools for the job

Both EAM and FSM play important roles in managing physical assets for CSPs, but in two different business scenarios:

EAM

- Maintenance of a large geographically spread network with advanced topology (Multiple BoM)
- Used by the asset owner itself, for their own assets

Manages[5]:

- Uses input from cell planning tools on how many and where the sites should be and then supports all asset life-cycle stages from demand planning to go-live during Network rollouts
- Entitlements and warranties for each asset and component
- Physical location of assets
- Maintenance/preventive maintenance schedules and repair history
- Monitoring and Internet of Things for performance, status, consumption, etc

FSM

- Servicing customer-owned assets
- Simpler assets (Single BoM)
- Used when servicing/maintaining asset externally where an expert is required to travel/visit somewhere else
- Typically used to secure a provided service – sometimes sub-contracted to either an equipment OEM or a third-party service agent

Manages[5]:

- Scheduling and dispatch of field technicians
- Field technician skills, experience and location
- Service level agreements by account/device
- Spare parts inventory and ordering

The need for both sets of technologies

Each set of technologies has its own strengths and potential benefits. But the differences between EAM and FSM are important to understand because you will need both to maintain a telecom network.

Typically, if you own assets that you need to maintain, you will need EAM. Since those assets are spread over multiple sites, and are geographically dispersed, you also need FSM. Conversely, if you service or maintain assets for customers you will need FSM–and increasingly EAM to fully understand and deliver these assets as a service. For Telecom, FSM will also play a role in owned-asset maintenance when automated schedule optimization and remote locations are considerations.

Assets are becoming more complex

Many assets are now becoming 'smart' with sensors and connectivity (the Internet of Things or IoT) to report their basic status and faults. This evolution will only continue for industrial, business and consumer products. This device data needs to be monitored and analyzed in real-time with events captured as part of asset history with EAM. These events drive the need for service and maintenance events in the field.

Assets have an increasing number of components that can be replaced and refurbished and reused as part of sustainability programs. Components can come from different suppliers with different warranty terms and life expectancies. EAM systems can track these, and your field service teams need access to this asset information to know what to service, replace, and return for refurbishment vs. waste.

As CSPs and other telecom organizations increase focus on managing and mitigating waste in their supply chain, they are adopting reverse logistics solutions that provide oversight into every element of their part and product lifecycle. IFS offers best-in-class forward and reverse logistics, service warranty management, service parts management and service & depot repair as part of their EAM and FSM software suites. This gives our CSP customers a single place to manage components across channels, dealer networks, and contingent workers.

According to Gartner[1], through 2025, companies offering equipment as a service through product servitization will need EAM products enabled with remote monitoring of assets and remote support of field service workers, which will increasingly overlap with FSM.

IFS was recognized in the 2022 Gartner® Magic Quadrant™ for Field Service Management for continuing to invest in areas such as the IoT and artificial intelligence as well as scheduling optimization and ad hoc sourcing for parts that are unexpectedly needed for jobs. That is why telecom organizations that must support complex equipment and have volatile scheduling needs should consider IFS.

Powered by the latest in machine learning, augmented reality, and digital twin technology, the IFS EAM solution lets you manage the entire asset life-cycle, from planning/commissioning to decommissioning. IFS EAM capabilities combine IoT data, machine learning, and stream analytics with other asset data to predict future maintenance and service needs better, deliver improved uptime and reliability, and predict future spares and parts requirements.

Benefits of combining EAM and FSM

EAM and FSM applications are converging–with some analysts raising the possibility that organizations will look for single vendors of combined EAM and FSM capabilities in the future.

Together, at a strategic level, EAM and FSM can support you in your progression from reactive to proactive, helping you to:

- Automate scheduling of preventive maintenance visits at a strategic level, EAM and FSM can support you in your progression from reactive to proactive
- Better inform repair appointments with accurate SLAs, entitlements, location, repair history, etc
- Proactively identify capacity, power, consumption or other issues
- Leverage AI to move from reactive to predictive maintenance

The total cost of ownership (TCO) is rising. Requirements for skills, time, parts, tools and resources are all contributing to rising costs. This in combination with the introduction of 5G slicing (where an asset can in a transient way float between slices) and the move to cloud as part of 5G stand-alone, for your organization to remain competitive, greater efficiencies are needed. As network assets become more complex, it's important to fully understand components, modules and operational data to deliver appropriate service–as preventive measures, not break-fix for EAM and to improve the efficiency and response times of teams in the field.

Incorporating EAM and FSM software into a single platform will reduce the complexity, costs and risks of integrating different data and systems. Enabling you to streamline business processes, boost productivity and, ultimately, make your organization more profitable.

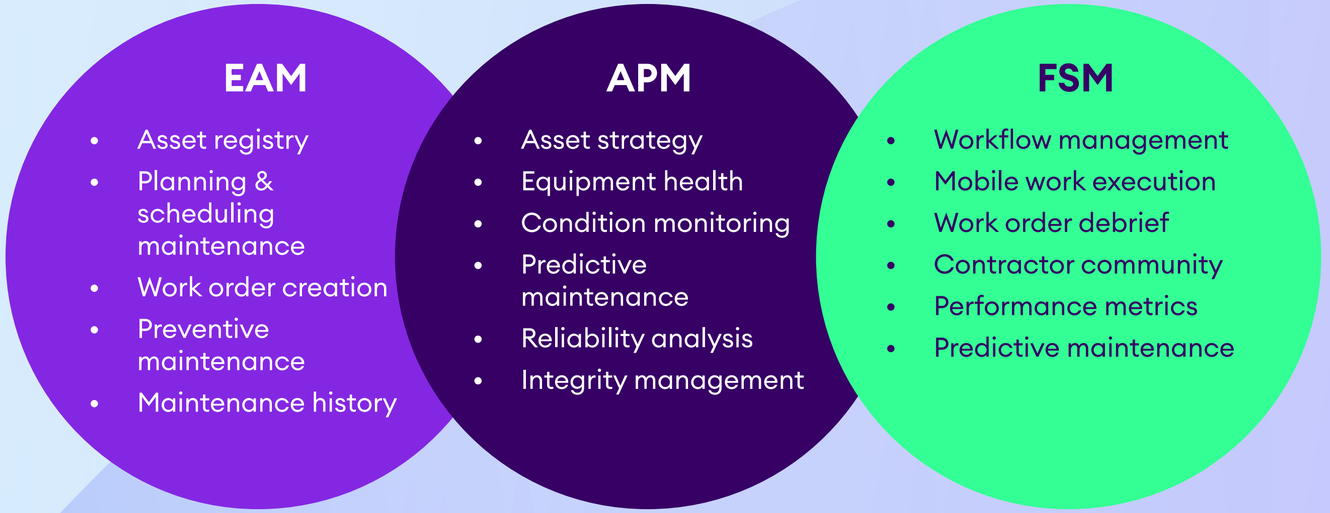
Adding Asset Performance Management (APM) to the equation

Within telecommunications, maintenance and the cost of capital assets represent a large portion of the balance sheet. As assets become more intelligent, and EAM more capable, EAM has become a tool for facilitating more rigorous maintenance approaches–a stepping stone towards asset performance management (APM).

According to Gartner[6], asset performance management (APM) encompasses the capabilities of data capture, integration, visualization and analytics tied together for the explicit purpose of improving the reliability and availability of physical assets. APM also includes the concepts of condition monitoring, predictive forecasting and reliability-centered maintenance (RCM).

Remember the assets are what is enabling you to use the spectrum that you own (Spectrum, which is your number one most valuable business entity). Together, with the right asset management software, APM can help you make asset management a strategic differentiator for your organization–as the role of assets in meeting corporate goals is clear.

Adding asset performance management (APM) creates incremental value around predictive maintenance



Define asset care requirements and provide historical record

Detect, predict & prevent equipment issues

Optimize execution of operations and maintenance activities

Source: Technology Services Industry Association (TSIA)

Staying ahead of the game

Meeting customer needs

In today's customer-driven environment, service is more important than ever before. It's the new product and will enable the move to outcome-based service.

With the increased focus on digital channels, your field service technicians are now the face of your organization–your ambassadors. They have the most direct customer contact and are best placed to improve the customer experience and drive customer satisfaction.

As a CIO, you must deliver the desired outcomes that customers have for their assets and equipment by looking for opportunities to better leverage technology–embracing the service delivery models of the future. But service is also about getting the right people to the right places at the right time, as efficiently as you can–meeting customer needs while saving money and time. Planning and scheduling optimization can help you to do that–working in real-time with FSM and EAM to help you look to the long-term.

In the future, there will be an increasing reliance within telecommunications on the use of EAM and FSM technologies to help set and achieve Environmental, Social and Governance (ESG) goals–underpinned by resilient asset management.

Communication Service Providers (CSPs) will take steps to selectively increase cost reduction measures and speed-up time to value by:

- Maximizing utilization of their workforce and assets, increasing first-time fix rates and eliminating unnecessary travel
- Right-sizing asset utilization
- Investing in planning and scheduling optimization
- Deploying remote assistance to eliminate lengthy response times, allowing experts to remotely connect and guide the repair immediately, versus time spent transporting them to attend onsite.

Communication Service Providers (CSPs) will take steps towards Maintenance 5.0 standards, where asset performance is actively managed for real-time optimization. They will rely on EAM and FSM to leverage new innovations, including AI, machine learning and other advances–for better, faster and more accurate operations. And Communication Service Providers (CSPs) will increase investment in stronger data strategies to support advances in EAM and FSM technologies and the proliferation of data from connected devices.

“In many ways, EAM and FSM are two sides of the same coin. They must be connected to optimize asset management and overall asset performance.”

Brian O’Rourke, IDC

Summary

Industry and technology trends driving the convergence of EAM and FSM are not going away. Whilst each set of technologies has its own strengths and potential benefits, the differences between them are important because telecommunication companies will need both.

As a CIO or other C-Suite executive, you must understand the overlaps and the value the combination can drive in your business. Supporting your company's progression from reactive to proactive and the ability to improve asset performance and service delivery outcomes.

Adding asset performance management (APM) to the equation creates incremental value around predictive maintenance. Incorporating both sets of technology into a single platform reduces the complexity, costs and risks of integrating different data and systems–enabling you to streamline business processes, boost productivity and make the organization more profitable.

Looking ahead

As assets become more complex and customers demand more outcome-based contracts, Communication Service Providers (CSPs) will continue to benefit from FSM & EAM– now and into the future.

IFS is excited to be leading the effort in the convergence of EAM and FSM technologies for organizations worldwide. Our combined service and operations model is important because it recognizes and supports existing inter-relatability between asset, service and field workforce management. By integrating EAM and FSM, these distinct aspects can work together.

IFS: Delivering amazing Moments of Service

IFS develops and delivers cloud enterprise solutions to telecommunication companies around the world who build and maintain assets, and manage service-focused operations.

IFS solutions for EAM, FSM allow your organization to have full control of all aspects of the asset, service and maintenance activities in real-time.

IFS Cloud is designed to handle the complex asset demands from telecommunications services.

The telecom industry expertise of our people and 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. IFS is truly the safe career choice for telecom C-suites.

“We selected IFS Cloud because it offered a modular and more efficient architecture that will enable us to become legacy-free and agile at scale. It will also help us create a baseline for AI, cloud and other digital solutions for our B2B customers.”

CTO, Proximus

IFS EAM

IFS EAM

IFS EAM software provides the optimal solution, use case and usage profile. Our solutions optimize the network rollouts, management of your assets, control asset maintenance, and enhance asset performance from cradle to grave. With IFS EAM solutions, you can maximize asset value, improve safety, and boost productivity.

IFS is helping CSPs to streamline network rollouts by providing a solution that encompasses the complete asset and project lifecycles, from dynamic intraday field workforce scheduling and mobile execution, long range maintenance planning and highly complex project-based business with longer-performance resourcing and procurement, through to complete asset performance management.

IFS FSM

IFS FSM

IFS FSM enables you to deliver service excellence to meet today's customer expectations. From first call to final sign-off, the true, end-to-end software improves business efficiency, ensuring fast response times and real-time activity. Transforming field worker productivity and enabling you to transform from traditional maintenance to lucrative outcome-based contracts.

“With IFS’ scheduling optimization, we’re able to dramatically improve SLA adherence, reduce fuel consumption, optimize worker efficiency, and increase first-time fix rate by assigning the right person with the right skills and parts to each job. The end result is a better customer experience.”

Senior Consultant, Konica Minolta

IFS is proud to be the only telco-focused vendor who is a Gartner® leader in both Field Service Management and Enterprise Asset Management.

- For the 7th time in a row, IFS has been named a Leader in the 2022 Gartner® Magic Quadrant™ for Field Service Management, with Gartner placing us highest for our Ability to Execute and furthest for Completeness of Vision in the report. Read the report: https://www.ifs.com/about/resource-library/gartner-mq-fsm-2022
- And we’re thrilled to be once again recognized as a Gartner Peer Insights Customers’ Choice for Enterprise Asset Management (EAM) Software. Read the report: https://www.ifs.com/about/resource-library/gartner-peer-insights-customers-choice-for-eam

References:

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Recommended further reading:

The Future of Field Service is More Intelligent, IDC Survey Spotlight by Aly Pinder, January 2023. Data comes from Future Enterprise Resiliency and Spending Survey, IDC, Wave 11 (December 2022) and SaaSPath Survey March 2022, IDC

Market Analysis Perspective: Worldwide Manufacturing Service Life-Cycle Management Applications, 2022, by Aly Pinder, November 2022, IDC

About IFS

IFS develops and delivers cloud 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 global team of over 5,500 employees every day live our values of agility, trustworthiness and collaboration in how we support thousands of customers.

Learn more about how our enterprise software solutions can help your business **today** at **ifs.com**.