

IFS Planning & Scheduling Optimization™

Continuous, AI-powered scheduling for complex field service operations



Beyond static scheduling:

Optimization across the whole service operation

Field service is shaped by competing priorities that rarely stay fixed. Demand shifts, jobs overrun, and the right skills, parts and capacity are not always available when needed. Every assignment affects travel, customer commitments, cost and the ability to respond effectively to other priorities and emergencies.

So how are leading organizations tackling this?

By treating scheduling as a connected optimization problem rather than a series of isolated assignments.

Instead of simply sending the nearest available technician, they optimize across all available work and resources. They consider not only whether an assignment can be made, but how that decision affects what remains possible across the wider schedule.

IFS Planning & Scheduling Optimization (IFS PSO) applies this approach at scale, evaluating planned, reactive and emergency work against available resources and business priorities. As conditions change, it reassesses the schedule in real time to identify a better overall outcome.

This helps organizations protect customer appointments and SLAs, use workforce capacity more effectively, reduce unnecessary travel and service delivery costs, and enable dispatchers to focus on the exceptions that require human judgment.

“PSO is a phenomenally powerful tool. It is key to us delivering the outcomes our customers want in the most efficient way possible.”

Mike Gosling
IT Service Platforms Manager
[Cubic Transportation Systems](#)

Why optimization matters at scale

Over 1 billion possible combinations

to assign just 10 work orders across 4 technicians

Add skills, parts, travel, SLAs, working-time requirements and cost, and the number of valid scheduling choices quickly becomes impossible for dispatchers or basic scheduling tools to evaluate in real time.

IFS PSO goes beyond fixed scheduling rules. Its AI-powered decision-making is:

- **Intelligent:** Uses 36 complementary optimization algorithms to evaluate complex scheduling choices at scale.
- **Autonomous:** Handles routine scheduling decisions and surfaces the exceptions that need attention.
- **Adaptive:** Evaluates multiple valid options and adjusts as conditions change.

Examples of reported customer outcomes* include:



76%
lower cost
per job



24%
more jobs
per day



35%
reduction in
travel time



49%
decrease in
subcontractor
spend

*Examples of reported customer outcomes. Results vary according to operational maturity, data quality and service complexity.

Optimize what matters:

Balance service value, urgency and cost

The shortest route is not always the best choice. Every job has its own urgency, customer impact and commercial value. IFS PSO weighs these factors together so that scheduling decisions reflect business priorities, not simply the geography of the day.

How does IFS PSO determine what matters most?



By weighing operational realities against the value and cost of each job.

IFS PSO evaluates each job in the context of resource and parts availability, geography, work type, SLAs and timing, and the business rules that govern delivery. It weighs priority, urgency and customer or contract value against travel, overtime and other delivery costs to identify the strongest overall schedule, rather than simply minimizing distance or maximizing job volume.

Priorities can also change over time. Urgent work may lose value quickly if a response target is missed, while planned or preventive work can become more important as its due date approaches. This helps protect critical commitments without allowing lower-priority work to disappear into the backlog.

Your organization remains in control, defining the objectives, values and costs that matter. IFS PSO applies them consistently across the schedule, balancing service performance with the cost to serve.

It automatically selects and combines the optimization algorithms best suited to the problem, recalibrating as conditions change without requiring planners to manually retune the scheduling model.

Connected planning across every horizon

IFS PSO provides comprehensive planning and scheduling capabilities across all relevant time horizons:

- **What-if Scenario Explorer (WISE)**
Model future demand, staffing, skills, territories, and achievable KPIs.
- **Advanced Resource Planner (ARP)**
Translates forecasts into shifts, rosters and capacity plans.
- **Appointment Booking Engine (ABE)**
Offers achievable appointment times based on workload, travel and constraints.
- **Dynamic Scheduling Engine (DSE)**
Continuously optimizes the live schedule as priorities and conditions change.

Together, these capabilities link long-term decisions with day-to-day execution, helping organizations plan ahead while keeping the live schedule responsive.

Explore the full IFS.ai-powered PSO guide to see how they work across strategic, tactical, operational and real-time planning.

[Get the guide](#)

More than a scheduling engine:

A foundation for stronger service performance

PSO changes more than who goes where and when. It reshapes how service work is coordinated, how capacity is used and how performance is measured, while fitting into the systems already running the operation.

How does the value of IFS PSO translate across the business?

- **Service Leaders** gain better control of capacity and performance, helping protect SLAs and workforce productivity.
- **Dispatchers** and planners spend more time on exceptions and higher-value decisions.
- **Field technicians** are matched to work based on skills and parts availability, helping improve first-time fix.
- **Finance and commercial teams** benefit from lower travel, overtime and subcontractor costs, supporting stronger margins.
- **Customers** benefit from more reliable appointments and faster response when priorities change.

Reducing unnecessary travel can also lower fuel use and environmental impact, supporting wider sustainability goals.

IFS customers are already seeing the impact, including a **25%** increase in the average number of daily jobs completed and a 21% rise in meeting SLA agreements at [Konica Minolta](#), a 40% increase in technician productivity at [PHS Group](#), and a 20% improvement in uptime at [Cubic Transportation Systems](#).

“The savings with IFS PSO represent not only significantly greater productivity but also translate into both cost and sustainability benefits.”

Ged Cranny
Senior Consultant
[Konica Minolta](#)

Built to integrate with your existing systems

IFS PSO can be deployed as a standalone optimization layer alongside your existing FSM, EAM and ERP systems, or as an extension to IFS Cloud.

Using a standardized API, it takes in the resources, skills, workload, SLA timelines and priorities, parts dependencies and real-time field updates needed for optimization, then returns optimized schedule plans and work assignments.

This means you can add specialist planning and scheduling optimization without replacing the systems already supporting your service operation.

Ready to take the next step?

Quantify your potential value

See how much you could save, from travel time to CO2 emissions, with the IFS Field Service Optimization Value Tool.

[Use the Calculator](#)

Explore the interactive PSO tour

Experience AI-powered Planning and Scheduling Optimization in this customized, interactive demo.

[Take the tour](#)

About IFS

IFS is the world's leading provider of Industrial AI and enterprise software for hardcore businesses that make, service, and power our planet. Our technology enables businesses which manufacture goods, maintain complex assets, and manage service-focused operations to unlock the transformative power of Industrial AI™ to enhance productivity, efficiency, and sustainability.

IFS Cloud is a fully composable AI-powered platform, designed for ultimate flexibility and adaptability to our customers' specific requirements and business evolution. It spans the needs of Enterprise Resource Planning (ERP), Enterprise Asset Management (EAM), Supply Chain Management (SCM), and Field Service Management (FSM). IFS technology leverages AI, machine learning, real-time data and analytics to empower our customers to make informed strategic decisions and excel at their Moment of Service™.

IFS was founded in 1983 by five university friends who pitched a tent outside our first customer's site to ensure they would be available 24/7 and the needs of the customer would come first. Since then, IFS has grown into a global leader with over 7,000 employees in 80 countries. Driven by those foundational values of agility, customer-centricity, and trust, IFS is recognized worldwide for delivering value and supporting strategic transformations. We are the most recommended supplier in our sector. Visit ifs.com to learn why.