FME AI FOR INDUSTRY JAAREVENT

Toepasbare innovatie in Field Service Management met AI

11 december 2024

150 YEARS BOON EDAM
YOUR ENTRY EXPERTS.

SAP

FME POWERED BY DUTCH TECHNOLOGY

FME PLATFORM AI FOR INDUSTRY

AGENDA

1. Ramon Hendriks – Boon Edam:
   Optimalisatie field service management processen bij Boon Edam
2. Jason Enti – SAP:
   De praktische toepassing van AI in SAP Field Service Management
3. Vragen & discussie

FME POWERED BY DUTCH TECHNOLOGY

OVER KONINKLIJKE BOON EDAM INTERNATIONAL

TROTS OP ONS WERK

Sinds 1873 houdt Boon Edam zich bezig met het ontwerpen en vervaardigen van hoogwaardige toegangsproducten die speciaal zijn gebouwd om mensenstromen in verschillende soorten gebouwen binnen allerlei industrieën te beheren.

ONS ERFGOED.

HEDENDAAGSE MEESTERS

Wat in 1873 begon als een kleine Amsterdamse timmerfabriek, is uitgegroeid tot een modern, innovatief bedrijf dat het gevoel voor vakmanschap en familiegeest nooit heeft verloren. Onze eerste draaideur werd in 1903 in die werkplaats geproduceerd. De waarden en het erfgoed die toen de kern van ons merk vormden, blijven doorschijnen in de manier waarop we tot op de dag van vandaag hand in hand met onze klanten samenwerken.

WORLDWIDE PRESENCE.

Worldwide
1400 people
employed

Factories located in in
Netherlands, US en China

16 International
Subsidiaries

Exclusive distributors
in more than 55 countries

Challenges to Field service management SAP

Change management

- Local support needed, key users teams to be available
- New solution Full training needed for end users

Local challenges

- Legal requirements
- Small Differences in way of working
- Accurate Time recording

System challenges

- Workmanager not supported
- FSM implemetation phasing needed due to time pressure, phasing out workmanger

Change to Field Service Management

Workmanager not sustainable for future

- Not supported
- Only in English language
- Not fool proof and lacking user friendliness

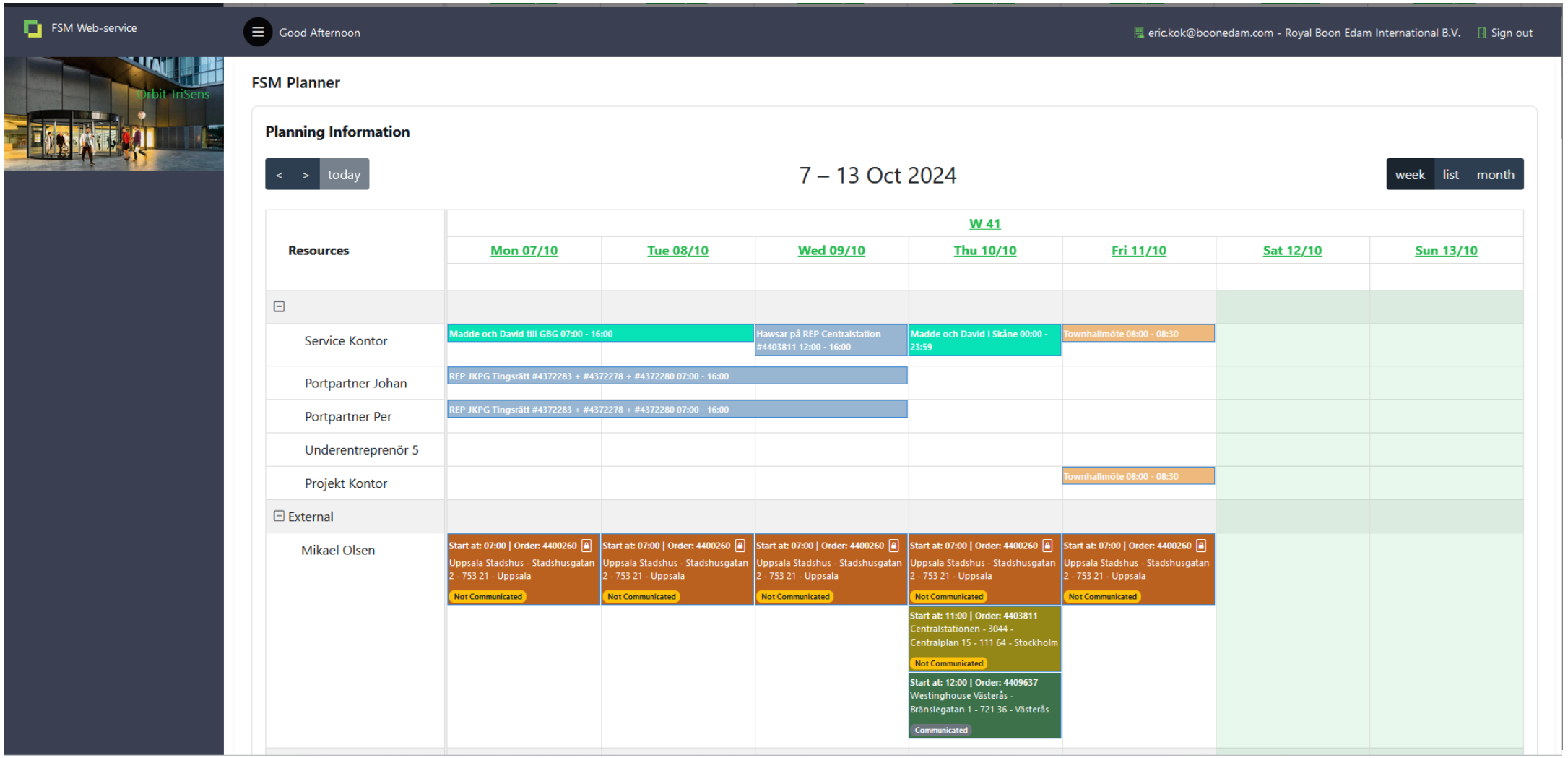
Planning optimization

- No Optimization in MRS possible
- Inefficient / manual planning (non-productive hours)
- Workarounds in place via Excel with additional work involved

Prepare for Future technological developments

Boon Edam FSM Web-service

Full service call details available, also available on I-pad for engineers.



Links, integrations, partners

ideo

delaware

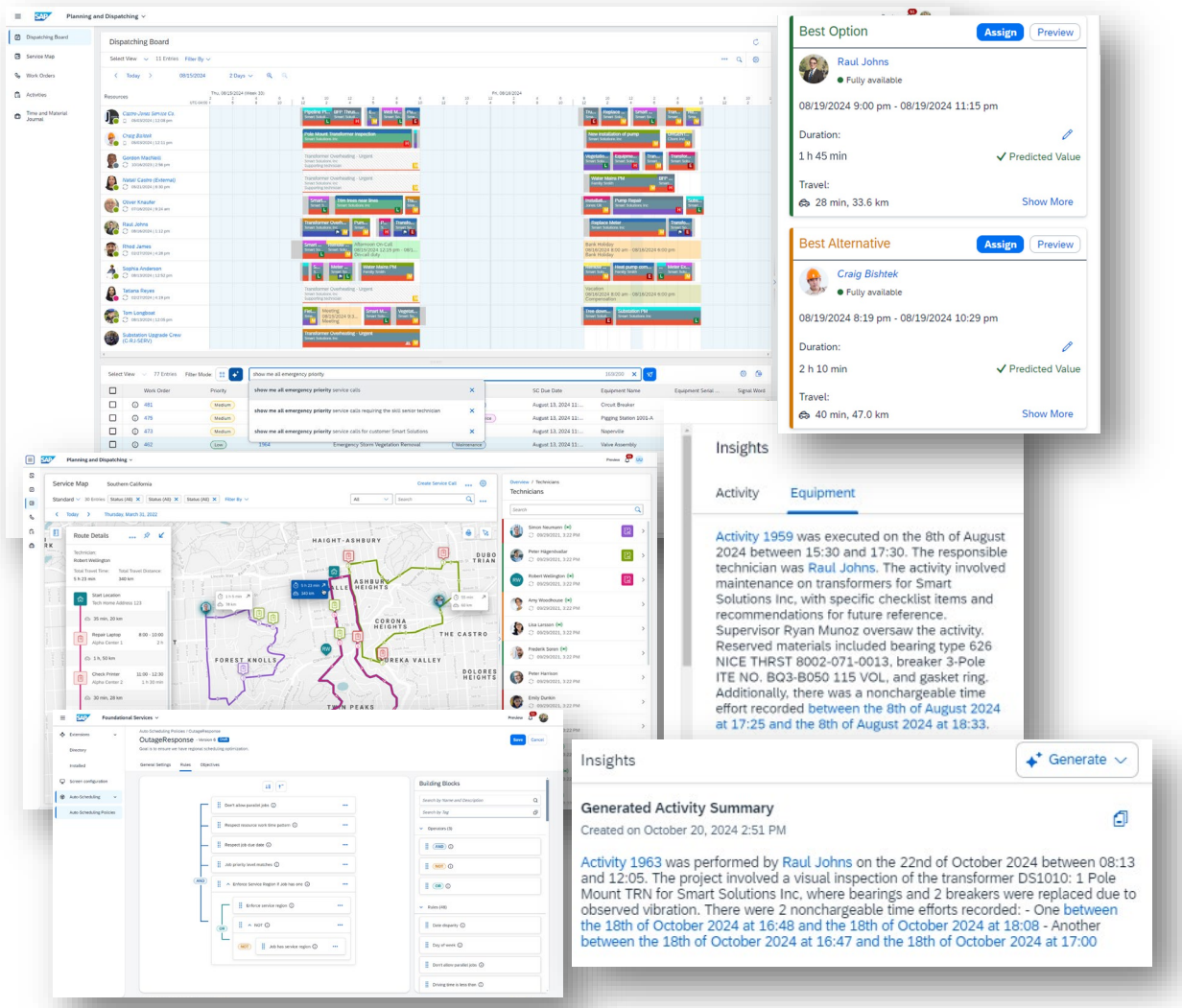
AI in SAP Field Service Management

Link to Documentation

AI Enabled Services in SAP Field Service Management

Unlock value for field service organizations using AI

- Intelligent Filtering
  Enhance efficiency by enabling natural language processing for intuitive and accurate job search.
- Equipment Insights
  Optimize operations through proactive maintenance and real-time insights into equipment performance based on past jobs.
- Activity Summary
  Quickly access past resolutions for similar issues, enhancing repair planning and efficiency.
- Predictive Routing
  Reduce travel times and find most optimal routes.
- Job Prediction Duration
  Predict job duration using Machine Learning.
- AI Policy Designer
  Design company specific policies for AI auto-scheduling.



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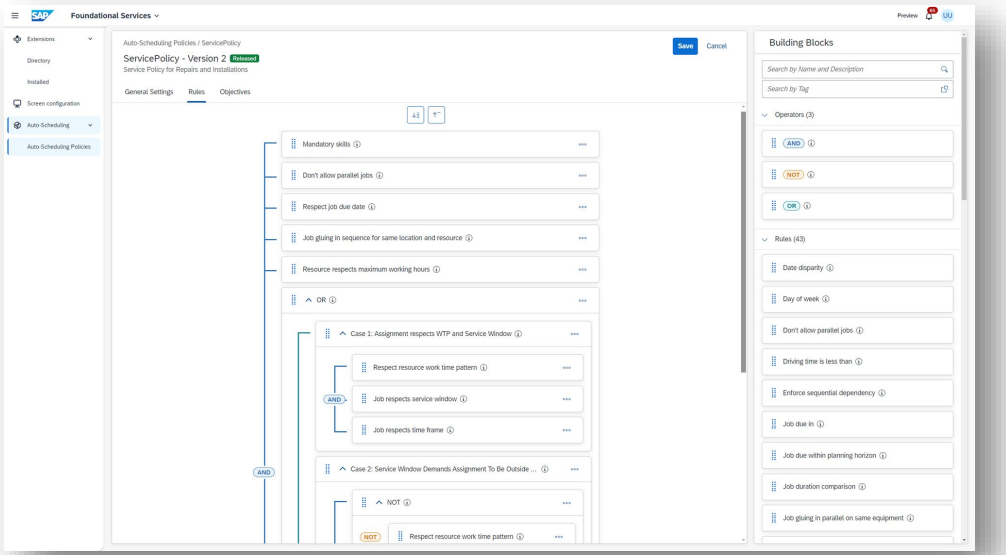
Link to Documentation

AI-based Scheduling and AI Policy Designer

Optimize field service delivery with AI-based scheduling and custom scheduling policies



CHALLENGE

Non optimized schedulers and lack of resources to efficiently schedule high volumes of maintenance and service activities.

SOLUTION

SAP Field Service Management, supplemental services

- Create company specific policies to meet company scheduling objectives and outcomes.
- Optimize schedule creation, and free up dispatchers to focus on high value added tasks.
- Increase resource utilization and allocation by reducing travel times and improving job-technician assignment.
- Define the best matching technician on demand.

OUTCOMES

Higher Utilization
Of resources

Optimized
Schedules and field service productivity

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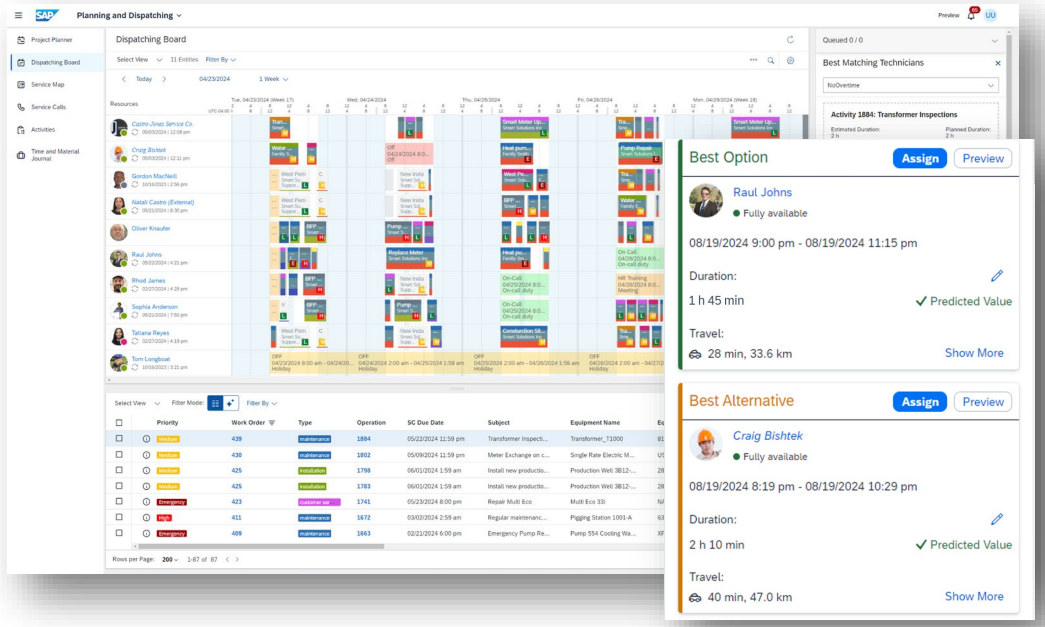
Prediction of Job Duration in Best Match Technician

Predict job duration using Machine Learning



CHALLENGE

Inaccurate times planned for field activities leads to delays and under utilization.

SOLUTION

- Implementing AI-based assignment duration prediction in auto-scheduling
- Supported by all semi and fully-automated scheduling use cases
- A machine learning model analyzes historical data to forecast future assignment durations based on technician's logged time efforts, equipment, skills, and other relevant factors.

OUTCOMES

Improved scheduling accuracy and enhanced customer satisfaction

by ensuring technicians arrive neither too early nor too late for appointments

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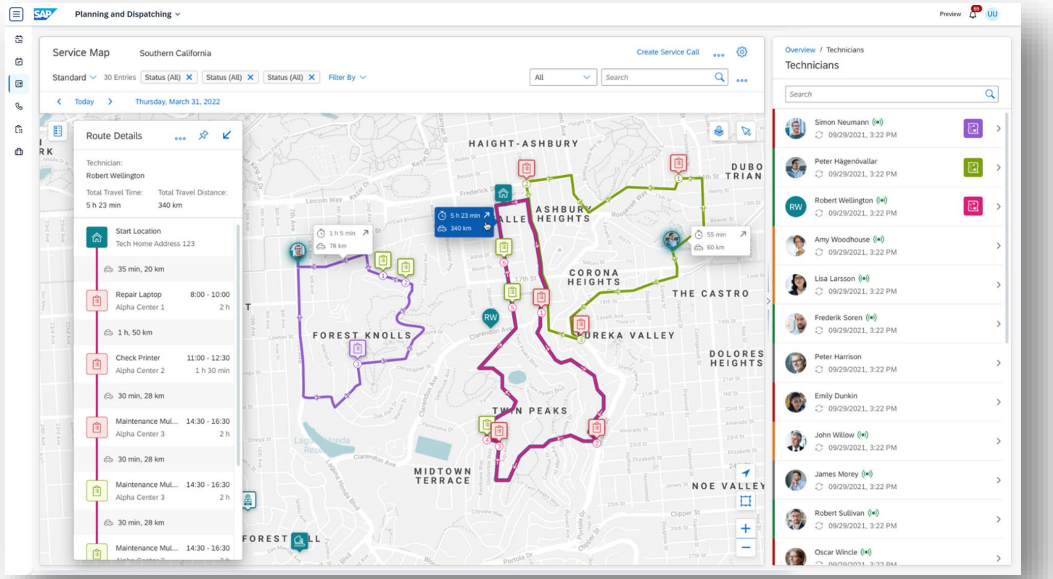
Predictive Traffic Routing from Service Map

Reduce travel times and find most optimal routes



CHALLENGE

Field technicians have to drive from one customer appointment to the next during their workday. In certain areas that means getting stuck in traffic during rush hours if routes are not planned taking traffic into consideration.

SOLUTION

SAP Field Service Management, supplemental services

- Improve prediction of travel times during assignment of activities to technicians.
- Reduce travel times and find most optimal routes based on predictive traffic AI patterns.

OUTCOMES*

40 metric tons reduction in CO_2 emissions

Per year due to better routing and reduced fuel usage

13 minutes saved per billed hour

of unbilled travel time freeing up time to provide care to more customers

(*) Outcomes based on customer success story Patterson

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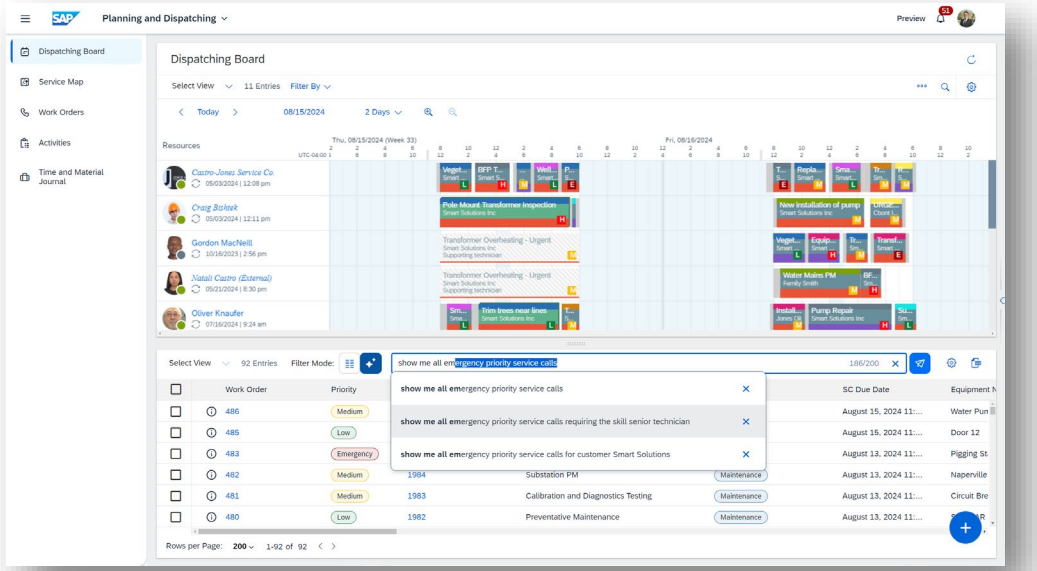
Link to Documentation

Intelligent order search with natural language filters

Boost dispatcher productivity with quick access to most important work supported by GenAI



CHALLENGE

Dispatchers struggle with time-consuming and error-prone service order search, hindering efficient task assignment.

SOLUTION

SAP Business AI

- Dispatchers use natural language filters for intuitive and swift searches, beyond traditional parameters, getting real-time feedback.
- Efficient order search, reduced errors, and enhanced user experience, leading to quicker service planning and execution.

OUTCOMES

Save up to 1 hour

per dispatcher a day by reducing average search time.

Errors reduced by 15%

leads to cost savings and improved customer satisfaction.

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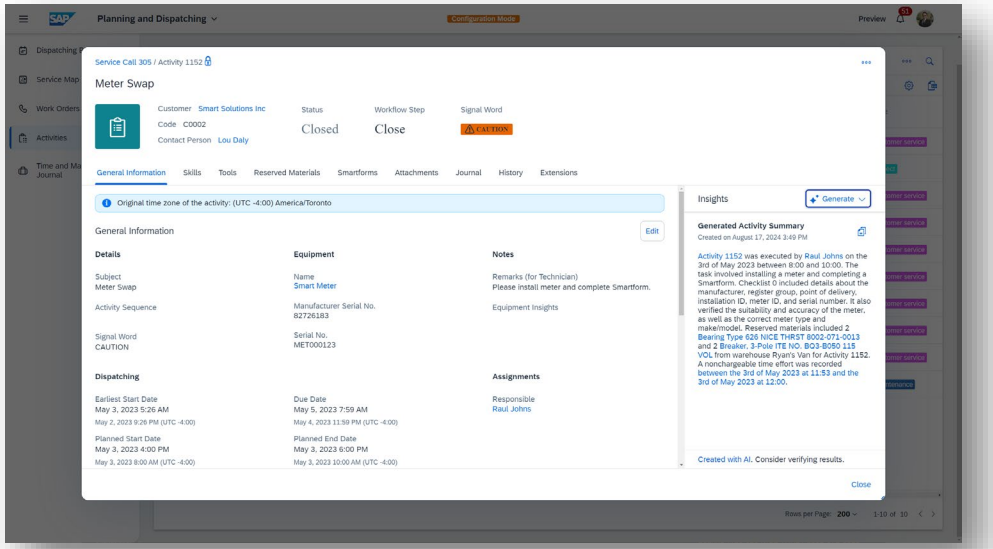
Activity Summary

Quickly access past resolutions for similar issues, enhancing repair planning and efficiency



CHALLENGE

Field service teams often struggle with gaining quick access to contextualized summaries of activities, requiring them to navigate through multiple documents, checklists, and operations. This process is time-consuming and inefficient.

SOLUTION

SAP Business AI

- Field service teams seamlessly integrate detailed service records into their workflow providing insights into how similar activities were resolved.
- Dispatchers and technicians leverage the comprehensive service history and self-diagnostic capabilities and use the info to plan more effectively the repair process for the ongoing problem.

OUTCOMES

Faster time to complete & close jobs

after providing easy access to activity summary.

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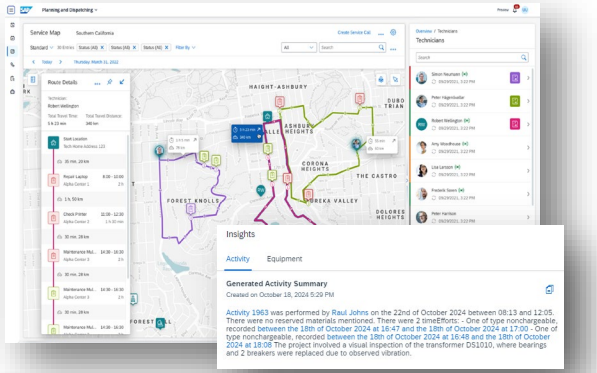
(FSM) Feature of SAP Field Service Manag mobile app

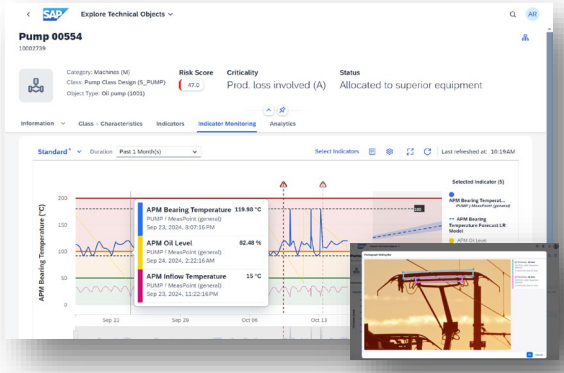
*Roadmap item

Artificial Intelligence in DSC Operate – Current and Planned Scenarios



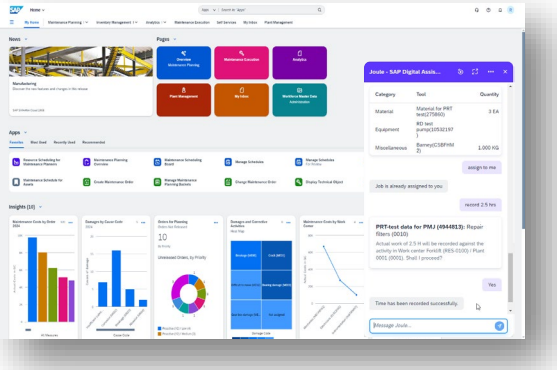
SAP Field Service Management

- AI-based scheduling
- Predictive routing
- Intelligent filtering and natural language search
- Job prediction duration
- Equipment insights
- Activity summary
- AI based assistance for screen configurations*
- Generative AI for Admin*
- Simulate and compare changes in scheduling policies*



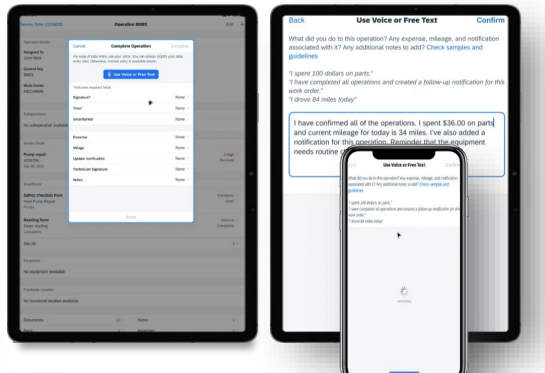
SAP Asset Performance Management

- Estimate time to failure and probability of failure based on Weibull analysis
- Detect anomalies and create alerts
- AI enabled visual inspection for condition monitoring (beta)
- Custom AI models and algorithms*
- Intelligent support for assessments and smart recommendations*



SAP S/4HANA Cloud Asset Management

- Schedule orders/operations automatically
- Intelligent maintenance order recommendation*
- Smart work order completion using text mining to propose object part and damage codes*
- Predict schedule attainment*



SAP Mobile Execution & Dynamic Forms

- AI driven maintenance execution: *
  - Voice recognition and voice to text functionality*
  - Completion work screen*
- Incorporating Joule Assistant* (FSM)
- AI-assisted browsing of knowledge bases* (FSM)
- Voice recognition and voice to text functionality* (FSM)
- Equipment & activity summary report* (FSM)
- Incorporating Joule Assistant* (FSM)
- AI generated report indicating state of equipment (FSM)

Joule Assistant

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BEDANKT VOOR JE AANDACHT!

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