PowerWorker for Asset Maintainers trial

Business first.
Technology second.

What we do

We're a contemporary technology partner that brings true business context to the Microsoft stack

Microsoft Partner

Microsoft

- Gold Data Analytics
- Gold Data Platform
- Gold Enterprise Resource Planning
- Gold Application Development
- Gold Collaboration and Content
- Gold Cloud Platform
- Gold Datacenter
- Gold Cloud Productivity
- Gold Cloud Customer Relationship Management

Microsoft Partner

Microsoft

2019 Partner of the Year Finalist
Dynamics 365 for Field Service Award

2018 Partner of the Year Winner
Dynamics 365 for Field Service Award

2019/2020 INNERCIRCLE
for Microsoft Dynamics

2019/2020 INNERCIRCLE
for Microsoft AI

2019/2020 PARTNERADVISORYCOUNCIL
for Microsoft Business Applications

We cover the region and are expanding globally.

Mining history

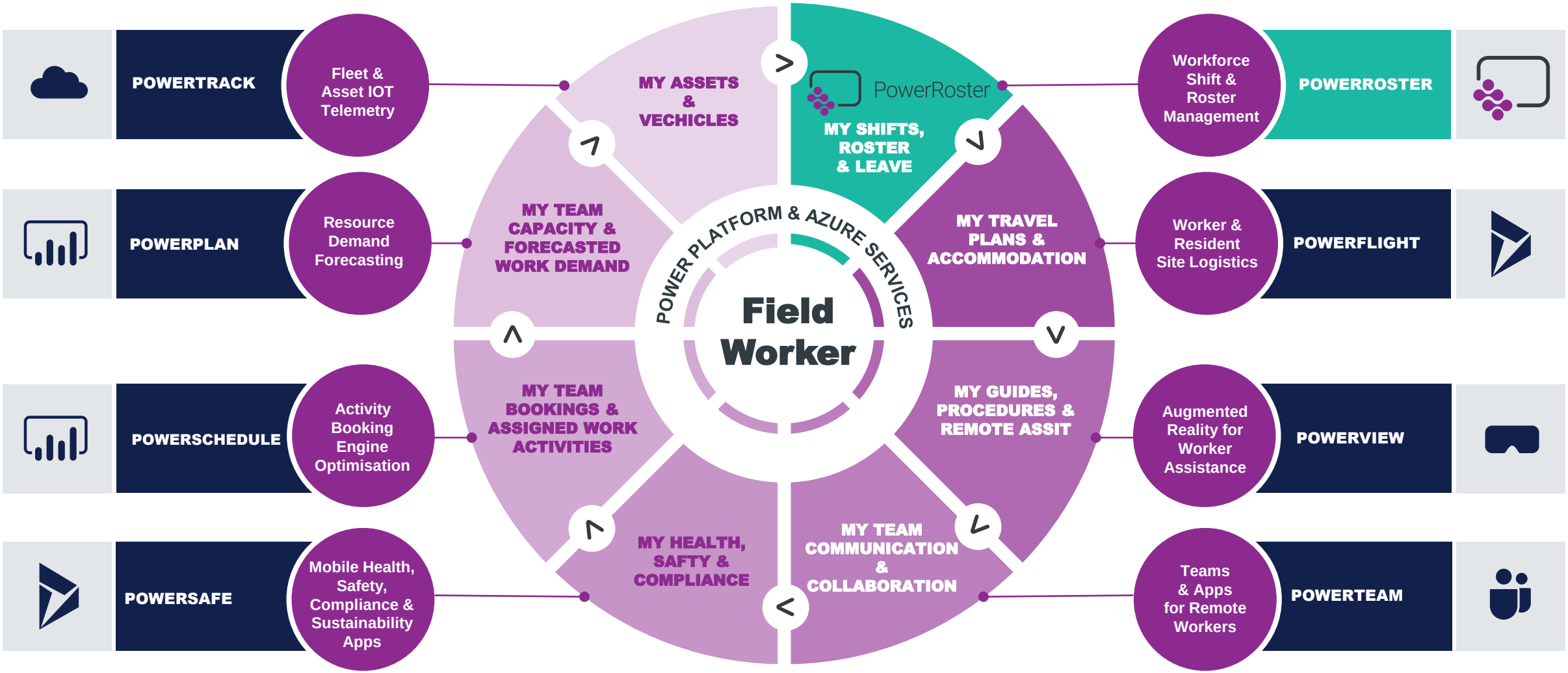
Who we've worked with in the Mining and Resources sector

BHP

RioTinto

Velrada *POWERWORKER*™ Solutions extending the Field Worker experience

Enterprise ready Field Worker empowerment and Service Delivery Management



PowerWorker for Asset Maintainers trial

A new approach to getting value from Digitised Asset Management

Asset Maintainers globally believe now, more than ever, that digitisation of their maintenance processes can lower a dependency on experts travelling to site, increase safety and create a more proactive approach to maintenance that empowers site based teams to do more with less. However, introducing that capability remains challenging with tech teams trying to introduce one-off proof of concepts that are difficult for field teams to support and larger implementations taking years to get off the ground.

PowerWorker for Asset Maintainers trial – a slice of the Velrada PowerWorker offer - is a low risk offering that allows a subset of Maintainers to evaluate the benefits of an end-to-end digitised process over an extended period of time. The offering provides all the hardware, configuration and support you need to get running and drive adoption whilst removing the risk having an unsupported and isolated solution or not having the people to support those using it in the field.

Key features of the trial

How does it work?

Edge IoT with Azure Stack

Enabling OT sensors to stream output to a local computer which can process the data without internet. It only connects to the cloud when it finds a problem.

AI on the Edge

Anomaly detection without the need for the cloud.

Identifies when assets perform in an abnormal way (based on history).

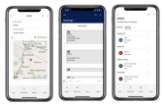
Azure IoT Hub

Auto creation of possible work notifications.

The Edge device uses AI to process sensor data and send a notification to the internet. IoT Hub then sends that to the relevant system.

Azure Integration

Integrate DataVerse and your EAM/ERP platform for the work order and asset maintenance data for the assets and team members in the trial.



PowerApps

Three apps to support your AM teams:

- Team Starts
- Job safety (Take 5) and Hazard identification
- Work order management

Mixed Reality Guides

Overlay virtual service/work tasks on physical assets to step workers through tasks.

We create those Guides with you.

Mixed Reality Remote Collaboration

Let specialists and OEMs see and hear what you see/hear. Let them share files, and annotate your world in real-time.

Implementation

Full implementation of all hardware: connection to your sensors, creation of 3 guides and integration to your ERP/EAM

Licenses

We remove the risk for you by providing all licenses under CSP. This ensures you separation but can roll into your EA when you need to.

Adoption support

Constant touch points with those in the trial. Training in how to use each part, creation of a backlog of changes and ongoing support.

- You select a subset of your Maintenance team
- You select a subset of Assets to monitor
- PowerWorker for Asset Maintainers includes all the software, hardware, skills support and training to digitise the asset maintainer job lifecycle for those in the trial and the assets being monitored.
- We set up a ring-fenced arear in your Azure tenant

- Within six weeks, we have everything installed, configured
- We spend the remainder of the time working with and supporting those I the trial to remove adoption barriers and understand what truly makes a difference
- After six months you can: extend for three months at a time, let your IT team start to support what's there, turn it off or extend one or more sections of the solution.

A day in the life of an Asset Maintainer

Meet George

George represents Asset Maintainers we meet on a regular basis

Role:

Maintenance engineer

Key challenges:

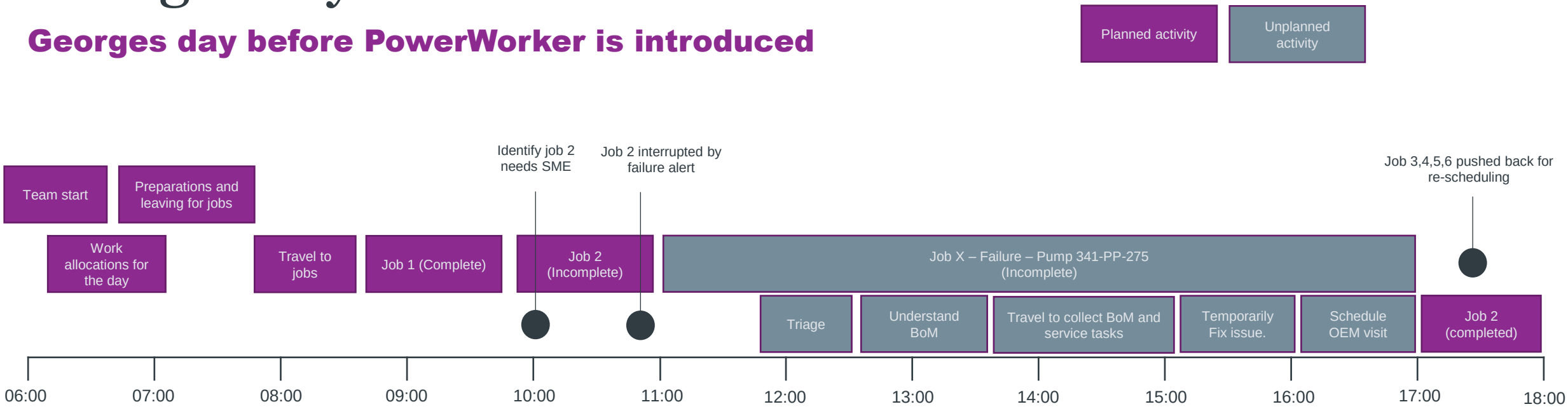
- Balancing planned vs unplanned work
- Not getting visibility of an asset issue until failure
- Availability of subject matter experts and OEMs
- Lead times in addressing issues that require SMEs

Some of the benefits George believes he can get if these challenges are resolved:

- Decreased downtime
- Increased first time fix rates
- Decreased back to base
- Improved safety in job execution

Georges day

Georges day before PowerWorker is introduced

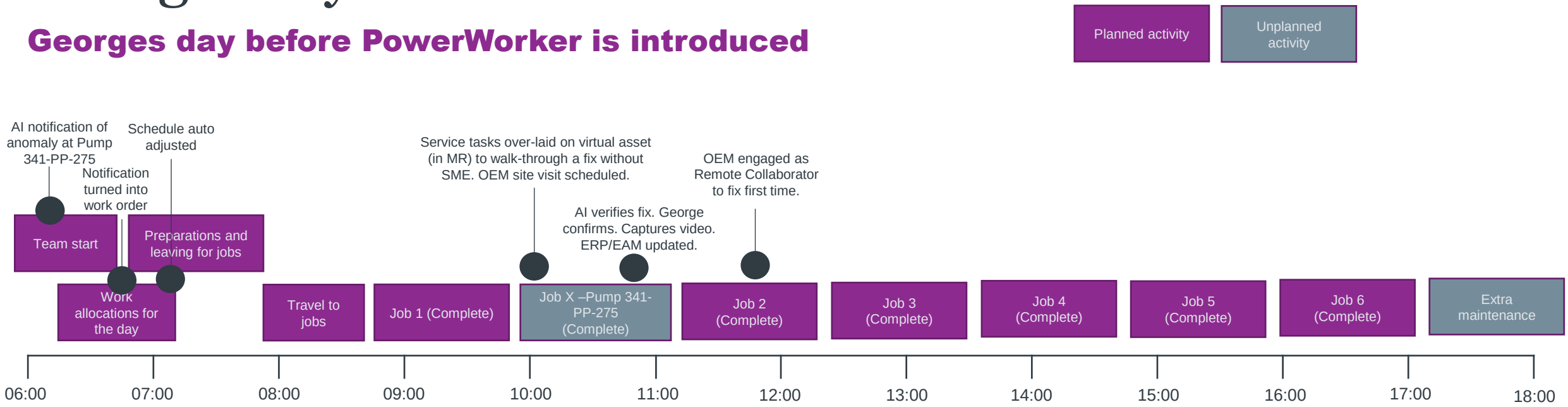


George's day starts, as it always does, with a Team meeting. This includes a safety share and allocation of six jobs for the day as scheduled by Lisa. After the meeting, George puts together what he needs for his jobs, gathers his paperwork and heads out to job 1. Job 1 goes off without a hitch so he moves to job 2. At job 2 he realises he requires an OEM or specialist and makes a note to organise for that expert to come to site. Then George gets notified that Pump 341-pp-275 has failed. He heads to the pump and tries to find the problem. He builds a bill of materials based on the suspected issue and returns to base to collect the parts and documentation of service tasks to get job 2 and X done. He returns to job X, gets the pump running but realises he still needs some further expertise to he makes a note to get the OEM to site. He then gets back to job 2 with the service expert he collected when he returned to base and closes the job.

George then returns to base, schedules the OEM to come to site for the pump, writes up his paperwork and asks Lisa to reschedule the other 4 jobs he'd hoped to do today.

Georges day

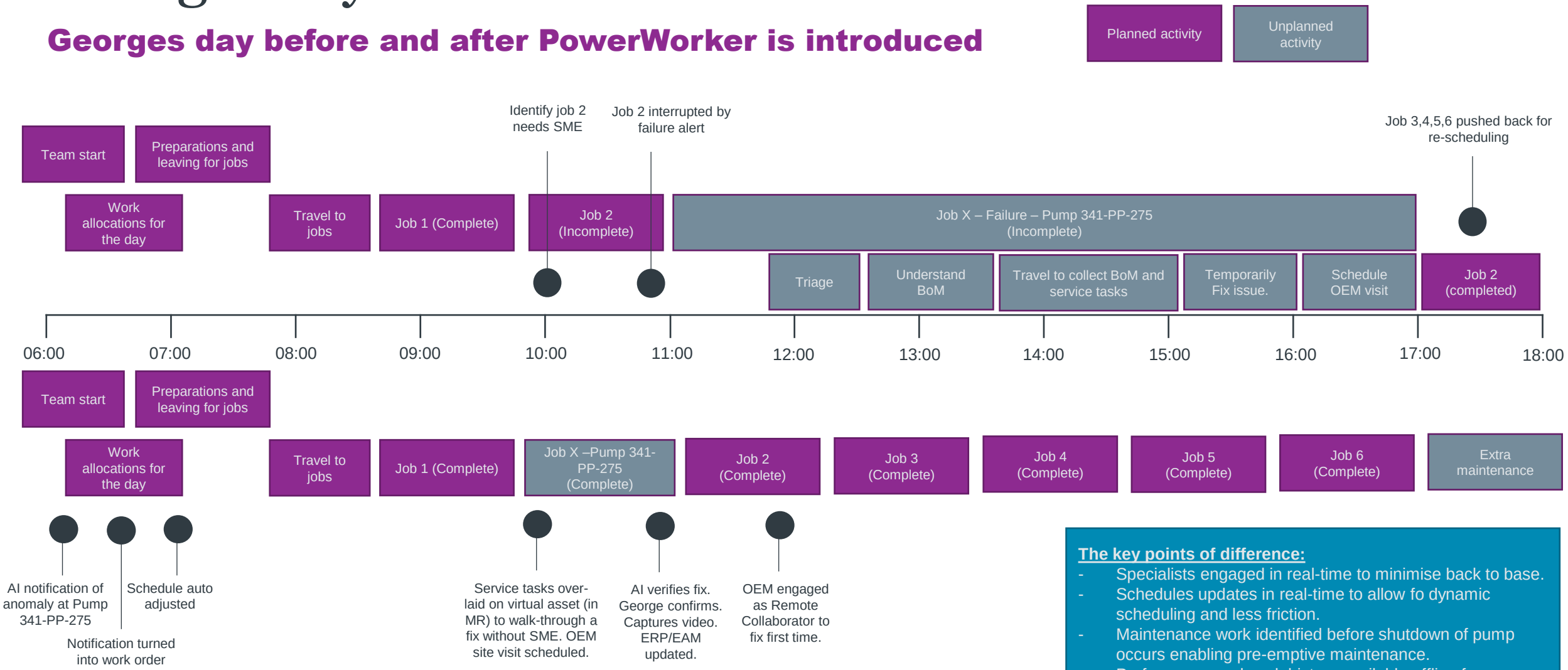
Georges day before PowerWorker is introduced



George's day starts, as it always does, with a Team meeting. This includes a safety share and allocation of six jobs for the day as scheduled by Lisa. During the Team start, George receives a notification on his app, from Pump 341-PP-275 that there may be a problem. He looks at the data and the work history in the app and turns the notification into work order that needs to be covered today. Lisa readjusts the days scheduled immediately and this allows George to prepare everything he needs for all jobs in the day. This prep includes the service tasks for all jobs being downloaded to his app and Mixed Reality device. George heads off and completes job 1 without issue. He then heads to Pump 341-PP-275 which is out of cell service. He uses the downloaded data in his app to again review history and then uses his Mixed Reality device to bring up the service tasks related to the problem. He overlays virtual tasks on the physical machine and is guided through a fix. The screen next to the pump showing real-time performance and predicted future performance, suggest that the pump is fixed so he marks the job as done and moves to job 2. As he regains service, his app asks him to confirm if the job is done and the ERP platform is updated, At job 2 he realises he requires the support of a specialist back at base so he dons his Mixed Reality device and calls in the specialist. Between them, using Remote Collaboration tools so the specialist can see what George sees, they resolve the job swiftly and George moves on to complete the other 4 jobs for the day, updating the history as he goes and recording photos, videos and sounds to make it easier for the next person doing the job.

Georges day

Georges day before and after PowerWorker is introduced



The key points of difference:

- Specialists engaged in real-time to minimise back to base.
- Schedules updates in real-time to allow fo dynamic scheduling and less friction.
- Maintenance work identified before shutdown of pump occurs enabling pre-emptive maintenance.
- Performance and work history available offline for analysis.
- Work instructions available offline for job execution.

Key changes in Georges day

How does Georges day change

George goes from……		…..to:
Knowing about a problem with an asset only when a failure occurs	→	Getting a notification of a potential problem and being able to get to it before a problem does occur.
Having to rely on bringing specialists physically to the job	→	Being able to have the same personnel see what he sees and work through the problem with him in real-time.
Unable to leverage forecasted performance models offline.	→	Viewing real-time and future performance measures running off-line and next to the asset.
Having to use paper based service tasks.	→	Using service tasks, overlaid on the physical asset to allow contextual instructions to occur on maintenance tasks.
Cloud based apps with ERP data and work order history don't work offline.	→	Viewing ERP/EAM data offline and in a simple format that also allows him to update records offline and sync back later. All on his mobile phone or tablet.
ERP/EAM linked apps don't allow the capture of rich information such as video footage.	→	Using his mobile phone to capture video footage, link it to w work order and asset and allows others to view this when they come to the job next time.

What does PowerWorker for Asset Maintainer mean for others

For technology teams supporting Asset Maintainers

The building blocks to make this possible

- No risk - Fully managed environment means that your teams don't need to support the solution through the trial.
- Full ownership of solution - Everything is deployed into your tenant so you keep everything at the end.
- Puts extensible building blocks in place - You'll have a number of building blocks in place you can leverage moving forward including:
  - Integration between your ERP/EAM and Dataverse for assets and work order history;
  - PowerPlatform configuration and a demonstration of how this can be linked to your ERP/EAM system via the Dataverse to drive value;
  - Pre-built Mixed Reality Guides
  - IoT Edge patterns in place and Azure IoT Hub configured;
  - Models for AI model creation and deployment to the Edge.
- A focus on adoption – Implementation of the solution is quick due to pre-defined IP. The focus is then on supporting adoption with ongoing training.
- Costs don't fluctuate – It's all included in the price.

Maintenance Schedulers, Specialists and OEMs

Supporting the whole ecosystem

Schedulers:

- Real-time access to information for dynamic scheduling;
- Improved relationships with maintainers;
- Less moving jobs as more is done in a particular period;

Specialists:

- Able to support a wider range of jobs and teams without needing to travel as much;
- Ability to help digitise low complexity tasks and make them available to all;
- Able to contribute to early problem identification through teaching AI;

OEMs:

- Ability to support customer without coming to site;
- Greater transparency of a job before setting foot on site, allowing every hour on site to be more productive;
- Quicker throughput of jobs from identification to resolution across a wider range of customers and locations;

FAQs

Frequently Asked Questions

What if I want to extend the trial to other users during the trial?
You can extend part or all of the solution to other members of your organisation just by increasing your license count. The trial puts in place a basic version of all the technology foundations required, if you want to roll-out across your whole organisation then lets talk about what that looks like to ensure your solution is capable of being supported and managed at an enterprise scale.

Which asset management platforms do you integrate with?
We have integration patterns for SAP, Maximo, IFS, JD Edwards, Pronto and a number of others. We have prebuilt patterns. We understand that not every organisation wants to integrate with their EAM platform so there is the option to integrate with an exported and then uploaded set of data, but this is not ideal.

What if I already have a work order management platform?
This is no problem. We do not have to introduce the automatic creation of work-orders, but can surface the outputs from to an API to initiate work-order creation. We are flexible in this regard.

What can I customise?
The focus of this trial is live assessment and validation of a range of technologies. As such, there are very few customisations. The exception to this are the sensors we connect, the integration we do (depending on customisations in your EAM)

What happens when the trial completes?
If you would like to continue using the solution choose to cease the support model, decreasing your costs immediately or you can stop paying for licenses and we can deprecate all aspects or some aspects of the solution.

How long does it take to get up and running?
We have extensive IP to ensure you are up and running as quickly as possible. We could be ready in as little as two weeks and we say up to 6 weeks to handle challenges such as availability of your staff, site access (when required) and the typical challneges that happen in many technology projects.

What's in the monthly cost and would that continue beyond the 6 months?
The cost includes licenses, hardware rental, implementation and ongoing support. When the 6 months are completed, the implementation cost is no longer required, so the price will drop if you subscribe for another 6 months.

Who owns the IP?
We are implementing our code into your environment and expect it to be changed over time to better suit your organisation as it changes. We will also continue to develop our solutions off the back of multiple engagements to ensure we continuously improve our offering.

What if I don't want to connect to my ERP/EAM?
The life of an Asset Maintainer is based around the data in the ERP/EAM platform so working with this data is a key aspect to adoption. However, if it proves really impossible to integrate with your ERP/EAM, we can work with a data set that is pushed out everyday, updated in PowerApps provided and then can be uploaded back into your ERP/EAM when ready. This does, of course come with risk.

Our Asset Maintenance team already use an app for work orders, so do we need yours?
Simply, no. But we swap this out for an app that allows for data enrichment when carrying out workorders. You'll be able to capture videos, pictures and sound snippets which will be stored in the Dataverse and accessible via a hyperlink which can be loaded back into your ERP/EAM.

What is Azure Stack Edge and IoT?
Azure Stack Edge is like a computer that is local to the assets you want to monitor. They can run on the OT network and also have connectivity to the internet. Your sensors connect to the Stack Edge device and that device processes the data, runs AI models and then raises and issue over the internet when it has a problem. This means it's very effective on low bandwidth areas and can run for a significant period completely off-line.

What if I don't have sensors on the assets I'd like to monitor?
We can either help you procure what you need or we can select other assets.

Progress is impossible without change.

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