KPI PROCESS IMPROVEMENT

Project Proposal

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Higher Diploma in Science in Computer Science

Project Type

This is a work-based project, where I will be learning new skills in relation to developing a KPI dashboard utilising the knowledge acquired from the course modules. The internal company mentor will be the Chief Financial Officer. This means that I will be allowed to spend time on this as part of my day-to-day work

Current Situation

The company has over the summer of 2022, revised the KPI process and in September rolled out a new KPI process where departmental stakeholders fill in excel spreadsheet reports with various KPI data. For example, hours spent by employee per contract and other data like work site accident frequency etc.

The company is aware that this is a time-consuming process and when its well established is looking to improve the efficiencies in this process. The company has already identified that business intelligence tools like Power BI can be used to display almost real-time dashboard views of the business data. During 2022 there has been internal talks about identifying and bringing in business intelligence consultants/developers to do this work during 2023. Within the project, I will investigate business intelligence products for example the Microsoft Power BI platform. It's worth noting that the company has fully migrated to Office365/SharePoint during 2022 and is using the SharePoint platform as Intranet and repository for company data.

What is the problem.

The two main problems are:

1. Manual input of data by staff into excel spreadsheets is time consuming and this time can be better spent on other business processes.

2. The time difference between the live situation and the compiled report by staff leads to delays in business understanding, for example if work is profitable or not.

Mainline Group is therefore looking for a solution to display KPI information on the SharePoint internet website.

System Background and Project Scope

Mainline Group has several systems that hold business information. Finance, Health and Safety and Operations staff query this data on a regular basis to produce business performance reports and to generate KPI (Key Performance Indicators) metrics for the different departments. The reports are generated on a weekly or monthly basis but there are also ad hoc reports.
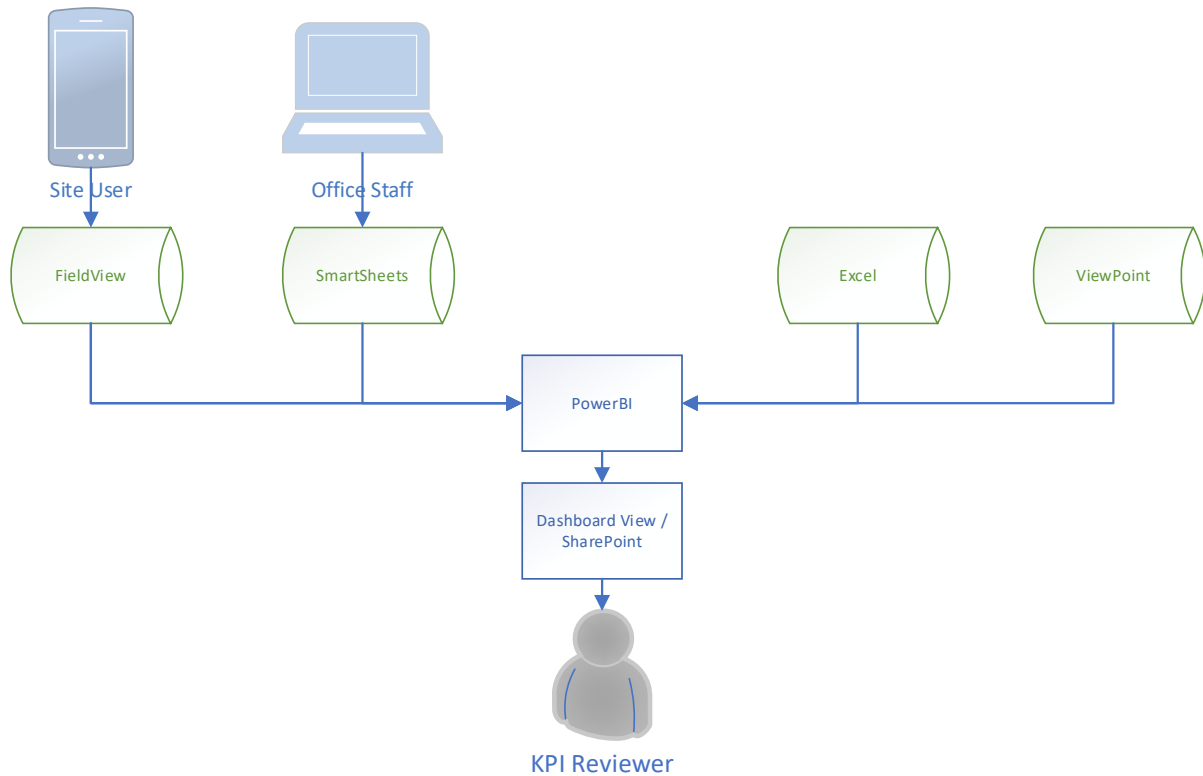
Figure 1: Overview of existing potential systems available to the project

The current systems identified for the initial project scope are:

System	Function	Location	Has API	Users
Fieldview	Record QA/QC/Admin forms and Timesheet for site staff	Cloud	Yes - JSON	On-Site Staff / Operations
Smartsheet	Record timesheets for Salaried Staff	Cloud	Yes	All management & admin staff
Office365	SharePoint, Excel, word etc	MS Cloud	Yes	All
Viewpoint	Contract Management System and design review	Cloud	Yes	Operations / Design

Technologies & Tools

Potential Technologies:

- Office365
- SharePoint
- Microsoft Power Platform

Potential Tools:

- Power BI Desktop
- Power BI Data Gateway
- Power BI Report Server

- Power Query Editor
- Postman API

Languages:
- Html
- M language and DAX
- JSON

Potential Issues

As the project will have access to commercially sensitive and potentially personal data, measures will be put in place to minimise exposure of this data. This may limit the scope of which systems and data that will be incorporated in the project. If it's not feasible to limit the exposure, test data will be utilised.