Revision 1.0

Published Feb 23, 2021

Solution Architecture

OVPP Solution

Prepared for: Chris Gaine, on behalf of Sanjel Energy Services (Sanjel)

Prepared by: Garrick van der Lee, on behalf of Convverge

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**Revision History**

|  |  |  |
| --- | --- | --- |
| **Date** | **Person** | **Description of Change** |
| Feb 23, 2021 | Garrick van der Lee | First working draft created |
| Feb 23, 2021 | Garrick van der Lee | Updated after review session with Sanjel |
| Mar 01, 2021 | Garrick van der Lee | Updated after Sanjel Document Markup/Feedback |

# Introduction

This document describes the overall solution architecture for the OVPP Solution.

# Architecture Overview

This section describes the high-level architecture overview. The overall solution will be delivered using a combination of SharePoint with data provided from Sanjel, Power Apps, Power BI And Power Automate.

# Features

This section details all the included features for the OVPP Solution.

## Pay Entry

The pay entry screen will be used by DAs to enter in Pay Entries manually as well as modify imported generated variable pay records.

### Business Requirements

The features table details the requirements of the Tracked Time Review feature.

|  |  |
| --- | --- |
| **ID** | **Business Requirements** |
| 1 | Ability to add new pay entries into the Pay Entry list |
| 2 | Grid view which will allow the ability to update existing pay entries items |
| 3 | DAs will have the ability to modify Pay entry details (Not Calculated Value) after Approved, this will trigger a new approval for the modified entry |
| 4 | DAs will have the ability to delete pay entries, causing the manager to approve the change |
| 5 | After a pay period is cut off, all pay entries for that cut-off date will be locked |
| 6 | Pay Types have specific calculations rule which will be provided by Sanjel for the PowerApp implementation |

### SharePoint Architecture

This section defines the SharePoint architecture used to deliver the OVPP Solution feature. SQL IDs do not have to be GUIDs they can be strings that uniquely identify the corresponding values from SQL. All column names apart from internal SharePoint columns will have an abbreviated list prefix on it name. Eg. (PE\_PayPeriod).

#### Pay Entry List (Prefix PE)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | No | Internal SharePoint ID |
| PayPeriod | Text | No | Pay Period Name |
| HomeServicePoint | Text | No | Home Service Point Name |
| WorkingServicePoint | Text | No | Working Service Point Name |
| ClientCompany | Text | No |  |
| Employee | Text | No | Employee Full Name |
| JobNumber | Text | No |  |
| ServiceLine | Text | Yes | Position, Remedial |
| Revenue | Number | Yes |  |
| PayPosition | Text | Yes | Name from Pay Position List |
| WorkAssignment | Text | Yes | Name of Work Assignment |
| WorkType | Text | Yes | Name of Worktype |
| PayType | Text | Yes | Name from PayType List |
| PayArea | Text | Yes | Name from Area List |
| PayEntryQuantity | Number | Yes |  |
| Description | Text | No |  |
| MtsNumber | Text |  |  |
| JobUniqueID | Text |  | Reference only, not visible |
| JobDate | DateTime |  |  |
| ApprovedBy | Text |  | Approver Name |
| Status | Text |  | Approved/Needs Approval/Cut Off |
| LoadQuantity | Number |  |  |
| JobProvince | Text |  | Two-digit abbreviation |
| UniqueId | Text | Yes | GUID |
| Modified | DateTime | Yes | Internal SharePoint Field (UTC timestamp) |
| ModifiedByName | Text | Yes | Name from Employee List |

#### Pay Roll Status List (Prefix PRS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | No | Internal SharePoint ID |
| Name | Text | No | Open/CutOff/PendingApproval/Approved/Closed |
| Value | Number | No | 1/2/4/8/16 |

#### Pay Period List (Prefix PP)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | No | Internal SharePoint ID |
| Name | Text | No | ID or String |
| StartDate | Text | No | Foreign key to Job collection |
| EndDate | Text | No |  |
| Status | Text | No | Approved/Needs Approval/Cut Off |

#### Approver List (Prefix AP)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Approver | User | Yes | Active Directory User for notification flow |
| EmployeeName | Text | Yes | Name from Employee List |
| ServicePoint | Text | No | Name of Service Point |

#### Pay Summary List (Prefix PS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| PayPeriod | Text | Yes | Name of Pay Period |
| ServicePoint | Text | Yes | Name of Service Point |
| Status | Text | Yes | Reference to Payroll Status List |

#### Employee Pay Summary List (Prefix EPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| PaySummaryID | Number | Yes | SharePoint Pay Summary Id |
| PayPeriod | Text | Yes | Name from Pay Period List |
| ServicePoint | Text | Yes | Name from Service Point List |
| Employee | Text | Yes | Name from Employee List |
| Status | Text | Yes | Reference to Payroll Status List |

#### Employee List (Prefix EP)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Employee Name | Text | Yes |  |
| Position | Text | Yes | Name from Position List |
| HomeServicePoint | Text | Yes | Name from Service Point List |
| Employee Email | Text | Yes | Email of employee, should line up directly with azure ad |

#### Pay Position List (Prefix PPOS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| PositionName | Text | Yes |  |

#### Base Variable Pay Schedule List (Prefix BVPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Area | Text | Yes | Name from Area List |
| Position | Text | Yes | Name from Position List |
| RevenueStart | Number | Yes |  |
| RevenueEnd | Number | Yes |  |
| BaseAmount | Number | Yes |  |
| Percentage Rate | Number | Yes |  |

#### Extended Travel Pay Schedule List (Prefix ETPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Base Rate | Text | Yes | Name from Pay Type List |

#### Standby Pay Schedule List (Prefix SPPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Position | Text | Yes | Name from Position List |
| Rate | Number | Yes |  |

#### B-Train Transport Bonus Pay Schedule List (Prefix BTPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Per Load | Number | Yes | Name from Position List |
| Per Km | Number | Yes |  |

#### Hot Shot Bonus Pay Schedule List (Prefix HTPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Per Km Rate | Number | Yes |  |

#### Self-Load Bonus Pay Schedule List (Prefix SLPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Per Load Rate | Number | Yes |  |

#### Product Haul Pay Schedule List (Prefix PHPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Area | Text | Yes | Name from Area List |
| PerHaulRate | Number | Yes |  |
| PerKMRate | Number | Yes |  |

#### Remedial Travel Bonus Adjustment Pay Schedule List (Prefix RTPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Rate | Number | Yes |  |

#### Extended Location Premium Pay Schedule List (Prefix RTPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Position | Text | Yes |  |
| Rate | Number | Yes |  |

#### Pay Types List (Prefix PT)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Name | Text | Yes |  |
| Service Line | Text | Yes | Name from Service Line List |
| Pay Summary Type | Text | Yes | Variable, OVPP, Standby/Ext |
| ADP Description | Text | Yes |  |
| Earning Code | Number |  |  |

#### Service Point List (Prefix SP)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Location | Text | Yes |  |

#### Area List (Prefix AR)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Area | Text | Yes |  |

#### Variable Pay Percentages List (Prefix VPP)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| Position Name | Text | Yes | Name from Position List |
| Area | Text | Yes | Name from Area List |
| Threshold | Number | Yes |  |
| Percent | Number | Yes |  |

#### Pay Period Summary List (Prefix PPS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Column Type** | **Required** | **Comments** |
| ID | Number | Yes | Internal SharePoint ID |
| PayPeriodSharePointID | Number | Yes |  |
| District | Text | Yes |  |
| PayPeriod | Text | Yes | Name from Pay Period List |
| Amount | Number | Yes |  |
| Status | Text | Yes | Reference to Payroll Status List |

## Pay Summary Screen

The pay summary screen will be used by DA and approving Manager to review and approve pay summaries and to cut off pay periods.

### Business Requirements

The features table details the requirements of the Invoice module update feature.

|  |  |
| --- | --- |
| **ID** | **Business Requirements** |
| 1 | VP summary is updated dynamically |
| 2 | VP summary can be broken into pay type |
| 3 | Pay Period can only be cut off per District/Service Line by DA |
| 4 | Approval for entry id done by the working district manager and Approval for summary is done by Home District Manager |
| 5 | Once Cut off, all entries are considered pending locked, can still be edited by the DA and if so, they need to be reapproved before being cutoff again |
| 6 | Once a Pay period has been cut off all pay entries and work activities are locked |
| 7 | Employee Statement can be printed in batch or individually |
| 8 | The ability to lock out pay period for specific users |

# Workflows

All workflows are to be created using Power Automate. The following workflows are required:

|  |  |
| --- | --- |
| **ID** | **Workflows** |
| 1 | Printed Employee Summary |
| 2 | Notification Flow for Managers with Pending Approvals |

Details for each of these workflows are described in the following subsections.

## Printed Employee Summary

This workflow generates a PDF using HTML templating and the required SharePoint data related to the employees selected for summary for a pay period.

## Notification Flow for Managers with Pending Approvals

Signals managers to go through their pay periods and approve pending pay summaries.

# Reports

The following limitations are pertinent to the solution architecture:

|  |  |
| --- | --- |
| **ID** | **Limitation** |
| 1 | Payroll Summary report |

## Payroll Summary Report

This report will be built in Power BI and will enable payroll users to view summarize pay periods, from which they will be able to view individual pay summaries based on Service Line/District and export the pay period to an appropriate ADP CSV file.

### Business Requirements

|  |  |
| --- | --- |
| **ID** | **Business Requirements** |
| 1 | Pay Period Summary is updated dynamically while pay period is cut off or approved. |
| 2 | Payroll Admin can export payroll summaries within the pay period by pay code into separated CSVs for ADP import purposes. |
| 3 | Once the Pay Period Summary is exported, the pay, all pay entries and work activities underneath are not able to re-open for modification |
| 4 | Pay Period can only be re-opened by Payroll Admin to allow pay entries and work activities to be modified and re-approved. |

# Integrations

The following is assumed:

|  |  |
| --- | --- |
| **ID** | **Assumption** |
| 1 | Sanjel’s SQL Data warehouse will have all data mapped to their corresponding SharePoint lists |
| 2 | The imported data will only contain values past quantity thresholds for OVPP entries, this way thresholds are not needed on pay schedule lists unless there are multiple tiers of rates |
| 3 | DAs will only enter the effective quantity for each pay entry (this way no threshold calculations are need) |

# Outstanding Questions

|  |  |
| --- | --- |
| **ID** | **Question** |
| 2 | Can we make assumptions about approvers from employee position data? |

# Contacts and Notices

Please do not hesitate to contact us with any questions or concerns you may have. We are always here to help.

Sincerely,

**Garrick van der Lee**

garrickv@convverge.com

587-323-5172