#### **Introduction**

The Aaseya SAP Integrated Inspection Solution is a comprehensive system designed to streamline and enhance the process of inspections within organizations. Integrated with SAP's Productive Maintenance System and Camunda BPM, this solution automates workflows, ensures compliance, reduces risks, and improves operational efficiency. It allows seamless incident reporting, dynamic checklist creation, and real-time collaboration between SAP and Camunda.

#### **Solution Architecture**

1. **Incident Reporting**:
2. SAP users detect anomalies or issues with machinery and report incidents via the SAP Productive Maintenance System. These incidents trigger notifications with essential metadata.
3. **Camunda Integration**:

Incidents reported in SAP are sent to Camunda for further processing. Camunda initializes inspection cases, assigns tasks, and manages workflows dynamically.

1. **Inspection Execution**:

Tasks are allocated to inspectors based on the type of inspection required. Inspectors complete dynamic checklists and provide evidence for their findings.

1. **Approval and Feedback**:

Approvers review inspection reports, provide feedback, and trigger updates to both Camunda and SAP.

1. **Final Status Update in SAP**:

Once the case is completed in Camunda, SAP receives updated information, including status, evidence, and actions taken.

#### **Features**

1. **Seamless SAP-Camunda Integration**:
   1. SAP sends real-time incident notifications to Camunda with all required metadata.
   2. Camunda workflows manage the inspection lifecycle and return updates to SAP.
2. **Dynamic Checklist Creation**:
   1. Automatically generates checklists based on inspection types and equipment details.
   2. Supports flexible configurations for different inspection scenarios.
3. **End-to-End Workflow Automation**:
   1. Automates task allocation, notifications, and case progression.
   2. Real-time updates for inspectors, managers, and approvers.
4. **Evidence-Based Reporting**:
   1. Inspectors can attach images, documents, and notes during inspections.
   2. Comprehensive reports are generated for approvers and SAP systems.
5. **Compliance and Risk Management**:
   1. Ensures all inspections are compliant with organizational and regulatory standards.
   2. Reduces risks by addressing issues promptly through automated workflows.

#### **Usage Steps**

1. **Incident Reporting in SAP**:
   1. A SAP user identifies an issue and raises a notification for specific equipment.
   2. This notification includes metadata like Notification ID, equipment type, and issue description.
2. **Case Initialization in Camunda**:
   1. SAP sends the notification details to Camunda.
   2. Camunda creates an inspection case and allocates it to an inspector manager.
3. **Inspection Assignment and Execution**:
   1. Inspector managers assign tasks to inspectors based on their skills and zones.
   2. Inspectors log in, complete checklist items, and attach evidence for each item.
4. **Approval Process**:
   1. Approvers receive notification of completed inspections.
   2. They review evidence and either approve or request further action.
5. **Status Update to SAP**:
   1. Once the case is closed, SAP receives updates, including the final status and attached reports.
   2. SAP reflects these updates, allowing users to view detailed reports.

#### **Technical Integration**

* **SAP to Camunda**:
  + Incident notifications are sent via APIs from SAP to Camunda.
  + Metadata such as Notification ID, equipment details, and incident descriptions are included.
* **Dynamic Checklist Generation**:
  + Checklists are dynamically created based on the type of inspection.
  + Configured templates and rules govern the checklist creation process.
* **Camunda Workflow Execution**:
  + BPMN workflows manage task assignments, approvals, and case closures.
  + Variables such as inspection status, evidence, and feedback are tracked throughout the process.