**EID Generation**

**High Level Architecture**

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# Introduction

## Purpose of the document

This document contains the high-level architecture for the implementation of a new EID generator.

## Intended Audience

The audience for this document is everyone in Enterprise Holdings Inc. who manages, is responsible for, develops, or uses the existing EID generation system; including any third parties engaged to work on behalf of Enterprise whose remit includes management and/or associated services relating to EID generation and consumption.

# Project Overview

The intention of this project is to provide infrastructure and services to support EID generation.

## Scope

### In Scope

The following items are in scope for this document:

* High-level system architecture for moving the EID generation off the AS/400 platform
* High-level integration requirements suitable for business and development partners to allow initial high-level estimates to be produced.

### Out of Scope

The following sections in the requirements document have not been reviewed:

Any changes outside the migration of the EID generation process from the AS/400 platform.

## Related documents

[LHRS High Level Architecture](https://confluence.ehi.com/display/ES/LHRS+High+Level+Architecture)

## Assumptions

The following assumptions are being made:

1. The existing system will continue to support EID generation until the replacement is in place.
2. For the duration of the remaining life of the AS/400 system it will receive EID’s from the HRMS system included in the person record.

## Dependencies

The following dependencies have been identified:

* + ERD Oracle database
  + PeopleSoft Application
  + AS400

## Constraints

Development lifecycles for other systems – e.g. HR replacement project, AS400 migration, TempMast.

# ERD Current State Overview

## Functional capabilities

The existing EID generation system creates EID’s for new/rehire events for employee/non-employee and is hosted inside the AS/400 platform. This EID is moved back to the HRMS system of record (PeopleSoft) before the employee/non-employee record is released to the ERD or other systems.

## Architectural overview

### High-level integration overview

Existing high level integrations are in place between PS and the AS/400 are shown below in Figure 1.



Figure 1 - Overview of current HRMS and AS/400 landscape

### Current Interface overview

* Interface methods
  + AS/400
    - REXEC RPG method execution for New Hire/Rehire
    - Export of EID from the AS/400 EID generator to PeopleSoft
* Live interfaces cover the following types of data:
  + Employee HR data including PII, EID
* Interfaces currently in development cover:
  + TempMast phase 2

# 

# EID Generation Proposed State Overview

## High-level logical overview of new EID generation system

Below is the high-level overview of the replacement system.



Figure 2: High-level overview of new EID Generation System

### Proposed architecture highlights

The proposed system consists of a new PL/SQL function that generates an EID on demand. The HRMS system (PeopleSoft) will request a new EID from the new EID generator and add it to the HR record prior to sending hire or new hire event notifications to the AS/400 or other systems.

The following numbered events are notated on the previous figure (2) above.

* Number 1
  + Specific HR event is detected
    - New Hire
    - Rehire event
      * No EID is associated with this person record
  + Call is made to the new EID generator asking for a new EID
* Number 2
  + EID is generated and returned to the HRMS (PeopleSoft) system to be added to the person record
* Number 3
  + Person/Non-Person record has a cross-reference id added mapping PS internal id with the new EID
  + Record is released to other parts of the HRMS system in addition to the AS/400

## PeopleSoft HRMS Logical System overview

Below is the proposed systems high-level logical overview



Figure 3: High-level logical overview of the new EID Generation

### High Level Logical highlights

The following flows are notated on the previous figure (3) above. There are two sources of person record trigger tables resulting in two separate post insert triggers[[1]](#footnote-1).

* Employee Person Events
  + Specific HR event is detected
    - New Hire
    - Rehire event
      * No EID is associated with this person record
  + PLSQL call is made to the new EID generator asking for a new EID
  + New id is inserted into the PS Employee PSID/EID cross-reference table
  + PS bridge code will be modified to look for the existence of a cross-reference record before it will process the pending record.[[2]](#footnote-2)
* TempMast Events
  + Non-Employee Person Events
    - Specific HR event is detected
      * New Hire
      * Rehire event
        + No EID is associated with this person record
    - PLSQL call is made to the new EID generator asking for a new EID
    - New id is inserted into the PS Employee PSID/EID cross-reference table
    - PS bridge code will be modified to look for the existence of a cross-reference record before it will process the pending record.[[3]](#footnote-3)
  + Non-Person Events
    - Specific HR event is detected
      * New Hire
      * Rehire event
        + No EID is associated with this person record
    - PLSQL call is made to the new EID generator asking for a new EID
    - New id is inserted into the PS Non-Person PSID/EID cross-reference table
    - PS bridge code will be modified to look for the existence of a cross-reference record before it will process the pending record.[[4]](#footnote-4)

## PeopleSoft Workflows

This section describes the high-level workflow for the PeopleSoft HRMS.

### High-level Data Flow Overview for Employee Person Trigger Events



Figure 4: Workflow for EID Generator Call – PS for Employee Person Events

### High-level Data Flow Overview for Non-Employee Person Trigger Events



Figure : Workflow for EID Generator Call – PS for Non-Employee Person Events

## EID Generator Workflow

This section describes the high-level workflow for the PeopleSoft HRMS.

### High-level Data Flow Overview



Figure 6: EID Generator High Level Workflow

# 

# Appendix A – Business service classifications

## Definitions, Acronyms and Abbreviations

The following abbreviations and acronyms have been used in this document.

Table : Definitions, Acronyms and Abbreviations

|  |  |
| --- | --- |
| **Term** | **Meaning** |
| **PS** | People Soft |
| **ERD** | Employee Reference Data |
| **SQL** | **Structured Query Language**: language used to access data held in a database |
| **TBD** | **To Be Determined** |
| **REST** | **Representational State Transfer**: Interface standard that allows for interchanging data between systems via web services. |
| **JSON** | **JavaScript Object Notation**: a lightweight data-interchange format easily read by humans and processed by computers |
| **ACL** | **Access Control List**: a list that tells a computer system which access rights a user or client has to a particular data object such as allowed access to PII data elements |
| **RESTful** | Interfaces that implement a REST like service |
| **DB** | **Database**: a system used to store large record sets allowing for standard methods to manage CRUD operations. |
| **CRUD** | **Create Retrieve Update Delete**: a basic set of operations done on data sets |
| **ETL** | Method to Extract, Translate, Load data from one system to another |
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Table 2: Service Definitions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Characteristic** | **Aspect** | **Mission Critical** | **Business Critical** | **Business Operational** | **Administrative Services** |
| **Service Hours** | Operational hours | 7 x 24 | 7 x 24 | 5 x 24 | 5 x 8 |
| Maintenance window | 4 hours / month | 8 hours / month | 48 hours / week | 60 hours / week |
| **Service Availability** | Availability | 99.99% | 99.9% | 99% | 99% |
| Backups | No impact to availability | No impact to availability | May impact availability | May impact availability |
| Availability measurement | Required | Required | Required | Required |
| **Reliability** | Unplanned outage | 1 / year | 4 / year | 8 / year | N/A |
| **Customer Support** | Maximum priority of helpdesk call | 0 | 0 | 1 | 2 |
| **Service performance** | Metrics defined in SLA | Required | Required | Required | Not required |
| Backups | No impact to service performance | May impact service performance | May impact service performance | May impact service performance |
| Restore metrics defined in SLA | Required | Required | Required | Not required |
| **Change Management** |  | Required | Required | Required | Not required |
| **IT Service Continuity** | DR Solution | Required with full operational capability | Required with full operational capability | Not required | Not required |
| Availability in DR mode | 99.99 | 99.5% | N/A | N/A |
| Data loss | None | Some, defined in SLA | N/A | N/A |
| Service recovery time | 2 hours | 72 hours | N/A | N/A |
| **Security** | Compliance | Required | Required | Required | Required |
| **Service Reviews** | Frequency | Monthly | Monthly | Six monthly | Not required |

1. The logic in the triggers is part of a low-level document [↑](#footnote-ref-1)
2. Only applies to New Hire and Re-Hire events [↑](#footnote-ref-2)
3. Only applies to New Hire and Re-Hire events [↑](#footnote-ref-3)
4. Only applies to New Hire and Re-Hire events [↑](#footnote-ref-4)