The OpenEAI Integration Analysis Template

Revision history: the OpenEAI project strongly recommends that you use a versioning system such as CVS, Subversion, or something similar to track changes to analysis artifacts, and that you clearly indicate the current revision of artifacts within them. For example, see the revision information in header on each page of this document.

Application Name: XXXXXXXXXXXX

Module Name (if appropriate): XXXXXXXXXXXX

Phase (if appropriate): XXXXXXXXXXXX

Integration Timeframe: XXXXXXXXXXXX

Target Template Completion Date: XXXXXXXXXXXX

Template Owner Name: XXXXXXXXXXXX

Total Work Estimate: XXXXXXXXXXXX

Resources Named in Template:

1. XXXXXXXXXXXX
2. XXXXXXXXXXXX
3. XXXXXXXXXXXX
4. XXXXXXXXXXXX

Location of Detailed Project Plan: XXXXXXXXXXXX

Template Change Reviewers:

1. XXXXXXXXXXXX
2. XXXXXXXXXXXX
3. XXXXXXXXXXXX

Template Status:

Step 1 ☐ Step 2 ☐ Step 3 ☐ Step 4 ☐
Step 5 ☐ Step 6 ☐ Step 7 ☐ Step 8 ☐
Step 9 ☐ Step 10 ☐ Step 11 ☐ Step 12 ☐
Step 13 ☐ Step 14 ☐ Step 15 ☐ Step 16 ☐

Overview:

The integration analysis and design process consists of the following steps. **Steps 1 and 2 should be completed prior to the integration design meetings with EAI staff.**

**Step 1: Describe Existing Integrations** - Describe and define present application interfaces for the application named in this template. This information will be used to help define enterprise data objects for use in messages when design teams meet with integration staff. It is recommended that this section be completed prior to integration design meetings with integration staff.

**Step 2: Describe Data Involved in Proposed Integrations** - Define the data for which the application named in this template is authoritative. That is, which data in this application will other applications need. Also describe which data this application will need for which other applications are authoritative. This
information will also be used to help define enterprise data objects for use in message when design teams meet with integration staff. It is recommended that this section be completed prior to integration design meetings with integration staff.

Step 3: Describe the Flow of Data in the Proposed Integrations - Define (at a high level) the flow of data between the application named in this template and other applications to support the interfaces defined in steps 1 and 2. This section should be completed during the integration design phase with integration staff.

Step 4: List Existing and New Enterprise Data Objects Required for the Integrations - List existing enterprise data objects that will be reused and new enterprise data objects that will be defined to support application interfaces for the application named in this template. This section should be completed during the integration design phase with integration staff.

Step 5: Name the Messages that will be used to Implement the Integrations - Name the messages that use the enterprise data objects to implement the integration flows. This section should be completed during the integration design phase with integration staff.

Step 6: Name the Existing and New Messaging Applications Required - Name the existing messaging applications that will be used or define the new messaging applications that must be implemented to produce, consume, transform, and route the messages listed in step 5. This section should be completed during the integration design phase with integration staff.

Step 7: Provide Technical Stories for the Primary Application - For the primary application named in this template, list the messages it must produce and consume and provide detailed stories describing the prescribed production and consumption logic. The owner of the application, who is also responsible for implementing message production and consumption, should prepare the detailed stories. This section should be completed during the integration design phase with integration staff.

Step 8: Provide Technical Stories for the other Applications Named in the Template - For each remaining application listed in step 7, list the new messages each application must produce and consume and provide brief stories describing the prescribed production and consumption logic. This section should be completed during the integration design phase with integration staff.

Step 9: Summarize all Outstanding Questions, Issues, and Action Items - Record all questions, issues and action items during the analysis and design sessions.

Step 10: Perform Work Estimation and Scheduling – Identify resources and estimate work for each aspect of the project enumerated in the template and prepare a detailed project plan.

Step 11: Functional Approval of Analysis, Scope, and Scheduling - Functional team members must signoff to indicate completion of the analysis, design, and planning.

Step 12: Initiate Template Change Control Processes – Identify the integration change reviewers and begin the process of convening them to review every subsequent change to the template. These reviews should answer the following questions and ensure the appropriate follow-up actions are taken:

- Does the change impact the scope or timeline established for the integration?
- Does the change impact the overall design of the integration?
- Has the impact been properly reflected in the project plan and timeline?
- Do all approvers who initially approve this template also approve of this change?
Step 13: Provide Testing Specifications – Develop detailed testing specifications for the integration. This will usually consist of one or more OpenEAI Test Suites and some functional application use cases that can be used to certify the functionality of the integration. Typically, test specifications will also include a load testing strategy for the integration, which may again use OpenEAI test suites or involve testing the integration in a production-like environment. Finally, some production readiness test procedures should be specified. This testing can be performed in production after the integration is deployed to verify that it is properly deployed. The procedures can be reused whenever changes are made to the production deployment of this integration. Usually, production readiness testing is implemented with an OpenEAI test suite or application use-case scenarios that can be automated using monitoring or testing tools.

Step 14: Develop and Test Integrations – Develop the required message support for the gateways and applications using the technical stories and test specifications provided in the template. Most development processes are iterative, so changes in stories and requirements should be documented and trigger the template change control process. In this step, tests are often expanded and improved as a concrete picture of the integration functionality emerges.

Step 15: Prepare Implementation and Rollout Plan – Prepare a deployment diagram that visually depicts the deployment and complete an implementation rollout plan enumerating the steps required to implement the new integration in production.

Step 16: Implement in Production – Execute the rollout plan and production readiness testing.

The next sections of the document describe the details required for the steps listed above.
Step 1: Describe Existing Integrations

Describe and define present application interfaces for the application named in this template. This information will be used to help define enterprise data objects for use in messages when design teams meet with integration staff. This section should be completed prior to integration design meetings with integration staff.

What data does this application store and operate on that it does not create itself? Typically, this data is usually acquired by the application through batch extracts and feeds, remote procedure calls, or data replication. For example, a payroll history database and an employee change of status application may both maintain and in some cases update employee job data. This data is kept synchronized with the payroll system by scheduled batch feeds from the payroll system to these applications. Changes made to this data in these applications are updated in the payroll system through scheduled batch feeds from these applications back to the payroll system. Another way to ask this question is: What business events occur in other applications that the current application must know about and what business events occur in this application that other applications must know about?

1.1. Describe the current business processes that the primary application named in the template supports, how data is presently acquired, the timeline in the case that some of these existing integrations are being phased out, and the current flow of data between applications. This should be a high-level description in plain English prose not to exceed one page of text. No charts or diagrams should be provided.

Description: XXXXXXXXXX

Timeline: XXXXXXXXX

Flow: XXXXXXXXXX
1.2. List current application interfaces for the primary application named in the template that synchronizes data changes made in other applications to the primary application named in this template.

[For each application, provide the name, description, source data structure, target data structure and how the source data is used to update the target. Use the structure below for the first application and repeat for other applications. If not applicable indicate above by N/A.]

List of interfaces: XXXXXXXX, XXXXXXXX

1.2.1. Source application details:

<table>
<thead>
<tr>
<th>Source Application Name:</th>
<th>XXXXXXXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Application Description:</td>
<td>XXXXXXXX (Brief description)</td>
</tr>
</tbody>
</table>

Source Data Structure: (repeat for each table or filename related to this interface)

<table>
<thead>
<tr>
<th>Database Name:</th>
<th>XXXXXXXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table Name:</td>
<td>XXXXXXXX</td>
</tr>
<tr>
<td>File Name:</td>
<td>XXXXXXXX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source Field Name</th>
<th>Field type</th>
<th>Width</th>
<th>Nullable</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example TAPPOINTMENT.APPT_REF_NB R</td>
<td>CHAR</td>
<td>1</td>
<td>NO</td>
<td>The appointment reference number in the employee change of status application</td>
</tr>
</tbody>
</table>

1.2.2. Target application details:

<table>
<thead>
<tr>
<th>Target Application Name:</th>
<th>This is the application named in the template</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Application Description:</td>
<td>Description already given for the Application named in the template.</td>
</tr>
</tbody>
</table>

Target Data Structure: (repeat for each table or filename related to this interface)

<table>
<thead>
<tr>
<th>Database Name:</th>
<th>XXXXXXXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table Name:</td>
<td>XXXXXXXX</td>
</tr>
<tr>
<td>File Name:</td>
<td>XXXXXXXX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target Field Name</th>
<th>Field type</th>
<th>Width</th>
<th>Nullable</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example APPOINTMENT-REF-NUM-60</td>
<td>VARCHAR</td>
<td>60</td>
<td>NO</td>
<td>The appointment reference number in the payroll system</td>
</tr>
</tbody>
</table>
1.3. List the interfaces that take data changes from the primary application named in the template to other existing applications.

[For each application, provide the name, description, source data structure, target data structure and how the source data is used to update the target. Use the structure below for the first application and repeat for other applications. If not applicable indicate above by N/A.]

List of interfaces: XXXXXXXX, XXXXXXXX

1.3.1. Source application details:

<table>
<thead>
<tr>
<th>Source Application Name:</th>
<th>This is the application named in the template</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Application Description:</td>
<td>Description already given for the Application named in the template.</td>
</tr>
<tr>
<td>Source Data Structure:</td>
<td>Database Name: XXXXXXXX</td>
</tr>
<tr>
<td>(repeat for each table or filename related to this interface)</td>
<td>Table Name: XXXXXXXX</td>
</tr>
<tr>
<td></td>
<td>File Name: XXXXXXXX</td>
</tr>
<tr>
<td>Source Field Name</td>
<td>Field type</td>
</tr>
<tr>
<td>Example LAST-NAME-10</td>
<td>CHAR</td>
</tr>
</tbody>
</table>

1.3.2. Target application details:

<table>
<thead>
<tr>
<th>Target Application Name:</th>
<th>XXXXXXXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Application Description:</td>
<td>XXXXXXXX (Brief description)</td>
</tr>
<tr>
<td>Target Data Structure:</td>
<td>Database Name: XXXXXXXX</td>
</tr>
<tr>
<td>(repeat for each table or filename related to this interface)</td>
<td>Table Name: XXXXXXXX</td>
</tr>
<tr>
<td></td>
<td>File Name: XXXXXXXX</td>
</tr>
<tr>
<td>Target Field Name</td>
<td>Field type</td>
</tr>
<tr>
<td>Example TPERSON.LAST_NAME</td>
<td>VARCHAR</td>
</tr>
</tbody>
</table>
Step 2: Describe Data Involved in Proposed Integrations

Describe and define the data that may be involved in interfaces with the application named in this template. This information will also be used to help define enterprise data objects for use in message when design teams meet with integration staff. This section should be completed prior to integration design meetings with integration staff.

2.1. Describe the proposed business processes that the application named in the template will support, how data will be acquired, the timeline and the proposed flow of data between applications. This should be a high-level description in plain English prose not to exceed one page of text. No charts or diagrams should be provided.

Description: 

Timeline: 

Flow: 

2.2. What data will this application require from other authoritative sources?

[Provide the name, description, authoritative source data structure, target data structure, and how the data will be used to update the application named in the template. Use the structure below for each authoritative source table and Target table and repeat as needed. If not applicable indicate above by N/A.]

2.2.1. Module details:

<table>
<thead>
<tr>
<th>Source Application Name:</th>
<th>(name of the other authoritative system)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Application Description:</td>
<td>(Briefly describe the authoritative source module or business function involved in this interface.)</td>
</tr>
<tr>
<td>Source Data Structure:</td>
<td>Database Name: XXXXX</td>
</tr>
<tr>
<td>(repeat for each table or filename related to this interface)</td>
<td>Table Name: XXXXXXXX</td>
</tr>
<tr>
<td>Source Field Name</td>
<td>Field type</td>
</tr>
<tr>
<td>Example GENDER</td>
<td>VARCHAR</td>
</tr>
</tbody>
</table>

2.2.2. Target application details:

<table>
<thead>
<tr>
<th>Target Application Name:</th>
<th>This is the application named in the template</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Application Description:</td>
<td>Description already given for the application named in the template</td>
</tr>
</tbody>
</table>
Target Data Structure:
(repeat for each table or
filename related to this
interface)

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Table Name</th>
<th>File Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXXXXXXXX</td>
<td>XXXXXXXXX</td>
<td>XXXXXXXXX</td>
</tr>
</tbody>
</table>

Target Field Name | Field type | Width | Nullable | Comments
Example LEGACY_GENDER | CHAR | 1 | NO | Gender code stored by the legacy system

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2.3. For what data will this application be the authoritative source?

[Provide the name, description, and how the inputs will used to update the application named in the template. Use the structure below for each source data structure. If not applicable indicate above by N/A.]

### 2.3.1. Source application details:

<table>
<thead>
<tr>
<th>Source Application Name</th>
<th>(This is the application named in the template)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Application Description</td>
<td>(Description already given for the Application named in the template.)</td>
</tr>
</tbody>
</table>

Source Data Structure:
(repeat for each table or
filename related to this
interface)

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Table Name</th>
<th>File Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXXXXXXX</td>
<td>XXXXXXXXX</td>
<td>XXXXXXXXX</td>
</tr>
</tbody>
</table>

Source Field Name | Field type | Width | Nullable | Comments
Example LAST-NAME-10 | CHAR | 23 | NO | The last name of a person in the legacy system

---

### 2.3.2. Target module details:

<table>
<thead>
<tr>
<th>Target Application Name</th>
<th>Other system that requires data from our legacy system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Application Description</td>
<td>(Briefly describe the module involved in this interface.)</td>
</tr>
</tbody>
</table>

Target Data Structure:
(repeat for each table or
filename related to this
interface)

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Table Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>XXXXXXXXX</td>
</tr>
</tbody>
</table>

Target Field Name | Field type | Width | Nullable | Comments
Example LAST_NAME | VARCHAR | 60 | NO | The last name of a person in the target system
Step 3: Describe the Flow of Data in the Proposed Integrations

Define (at a high level) the flow of messages between the application named in this template and other applications to support the interfaces defined in steps 1 and 2. This section should be completed during the integration design phase with integration staff.

3.1. Application 1: Payroll System (Example)

1. As basic person and basic employee information changes the Payroll System, the Payroll System publishes synchronization messages to keep the ERP and Identity Service up-to-date.
2. ...

3.2. Application 2: Identity Service (Example)

1. The Identity Service must handle incoming ID number query and generate requests and send the appropriate replies.
2. The Identity Service must handle incoming basic person and basic employee synchronization messages and apply any changes to the Identity Service database to keep its data current.
3. ...

3.3. Application 3: ERP (Example)

1. The ERP must consume basic person and basic employee synchronization messages from the legacy Payroll system to keep its data current.
2. ...

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Step 4: List Existing and New Enterprise Data Objects Required for the Integrations

List existing enterprise data objects that will be reused and new enterprise data objects that will be defined to support application interfaces for the application named in this template. This section should be completed during the integration design phase with integration staff.

XML’s Naming Convention:
- \(?\) – Optional (0 or 1)
- \(*\) – Optional (0 or more)
- \(+\) – At least 1 or more

Example:
```xml
<ELEMENT ParentElement (ChildElementOne, ChildElementTwo?, ChildElementThree*, ChildElementFour+)>
   <ATTLIST ParentElement
      parentAttributeOne CDATA #REQUIRED
      parentAttributeTwo CDATA #IMPLIED
   >
```

All attribute names begin with lowercase. All element names begin with uppercase. In this example, ChildElementOne is required, ChildElementTwo is either “null” or has a single value, ChildElementThree is either “null” or can have one or more values, and ChildElementFour cannot be null but must have one or more values. Attribute parentAttributeOne must be provided in the XML message, whereas parentAttributeTwo is optional.

Object Hierarchy Naming Convention:
The following naming conventions are equivalent:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ParentObject @ parentAttribute</td>
<td>ParentObject parentAttribute</td>
<td>ParentObject.parentAttribute</td>
</tr>
</tbody>
</table>

[Existing enterprise data objects are found in the Segments.dtd files.] These are available as part of the integration documentation at:

[location to the Segment file(s)]

4.1 Existing enterprise data objects that will be reused or modified. This section should include the current definition of the enterprise objects as they appear in the enterprise message repository at the time the analysis was performed and any proposed changes.

[List the enterprise objects to be reused or state ‘None’ if no objects are available.]

1. LightweightPerson (Example)
2. UnknownPerson (Example)

4.2 New enterprise data objects proposed. This section should include the proposed name and structure of the new data objects.
<table>
<thead>
<tr>
<th>File</th>
<th>Name</th>
<th>Proposed Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segments</td>
<td>InstitutionalIdentity</td>
<td>&lt;!ELEMENT InstitutionalIdentity (InstitutionalId, UnknownPerson)&gt;</td>
</tr>
</tbody>
</table>
Step 5: Name the Messages that Will Be Used to Implement the Integrations

Name the existing and proposed messages that use the enterprise data objects to implement the integration flows. This section should be completed during the integration design phase with integration staff.

5.1. Existing Messages
[List existing messages to be used in this interface or indicate that none are available for use.]


5.2. Proposed Messages
[List proposed messages to be used in this interface or indicate that none are proposed for this interface.]

Step 6: Name the Existing and New Messaging Applications Required

Name the existing messaging applications that will be used or define the new messaging applications that must be implemented to produce, consume, transform, and route the messages listed in step 5. This section should be completed during the integration design phase with integration staff.

6.1. Existing Messaging Components
[List existing components to be used in this interface or indicate that none are available for use]

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Status</th>
<th>Responsible Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Example) Identity Service</td>
<td>Gateway</td>
<td>Implemented</td>
<td>Unit responsible for supporting this service (both the data and the implementation)</td>
</tr>
</tbody>
</table>

6.2. New Messaging Components

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Status</th>
<th>Responsible Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Example) Payroll system</td>
<td>gateway</td>
<td>planned</td>
<td>Unit responsible for supporting this service (both data and the implementation)</td>
</tr>
<tr>
<td>(Example) ERP Gateway</td>
<td>gateway</td>
<td>In development</td>
<td></td>
</tr>
</tbody>
</table>

6.3. Other interface Components

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Status</th>
<th>Responsible Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Example) Payroll extract</td>
<td>application</td>
<td>planned</td>
<td></td>
</tr>
</tbody>
</table>


Step 7: Provide Technical Stories for the Primary Application

For the messaging component(s) of the application named in this template, list the messages that component must produce and consume and provide detailed stories describing the prescribed production and consumption logic. The owner of the application who is also responsible for implementing message production and consumption should prepare the detailed stories. This section should be completed during the integration design phase with integration staff.

7.1. Messages

Messages to produce

Messages to consume

7.2. Message Production Logic

[Describe the message production logic, the XML format for each message and mapping to source data that the application or gateway must produce.]

(Example) The legacy payroll system gateway must send InstitutionalIdentity.Query-Request and InstitutionalIdentity.Generate-Request messages to determine if each new employee is already known by the identity service and to generate a new identity for each new employee who is not already known by the identity service. This gateway must also publish BasicPerson and BasicEmployee synchronization messages as person and employee information changes. This process will occur whenever the legacy payroll system gateway is provided with new payroll data. Presently, new payroll files are produced nightly.

   (provide DTD link| Sample message link)

Data Area Element values:
(Example) UnknownPerson element (provide Segments link)
The UnknownPerson/SocialSecurityNumber element value is taken from the Payroll SSN-10 field.

<table>
<thead>
<tr>
<th>Enterprise Object Element / Attribute</th>
<th>Source Database Table</th>
<th>Source Database Field and transformations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Example Paymaster Field</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UnknownPerson</th>
<th>Paymaster</th>
<th>SSN-10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>This must be numeric</td>
</tr>
<tr>
<td>SocialSecurityNumber</td>
<td>Paymaster</td>
<td>FIRST-NAME-10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convert to mixed case</td>
</tr>
</tbody>
</table>

Name/FirstName
Implementation resources:

Work estimate in hours:

2. `org.any-openeai-enterprise.CoreApplication.InstitutionalIdentity-Generate-Request` (provide DTD link| Sample message link)

Data Area Element values:

<table>
<thead>
<tr>
<th>Enterprise Object Element / Attribute</th>
<th>Source Database Table</th>
<th>Source Database Field and transformations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Implementation resources:

Work estimate in hours:

7.3. Message Consumption Logic

[Describe the message consumption logic, the XML format for each message and mapping to target data that the application or gateway must consume.]

(Example) The Payroll gateway will consume messages in response to each of the messages it produces and sends to other messaging components. The messages it must consume are:

3. `org.any-openeai-enterprise.CoreApplication.InstitutionalIdentity-Provide-Reply` (provide DTD link| Sample message link)

(Example) The payroll gateway will expect this reply message from the Identity Service gateway in Response to an `org.any-openeai-enterprise.CoreApplication.InstitutionalIdentity.Query-Request` message.

Data Area Element values:

<table>
<thead>
<tr>
<th>Enterprise Object Element / Attribute</th>
<th>Target Database Table</th>
<th>Target Database Field and transformations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Implementation resources:

Work estimate in hours:

<table>
<thead>
<tr>
<th>Enterprise Object Element / Attribute</th>
<th>Target Database Table</th>
<th>Target Database Field and transformations</th>
</tr>
</thead>
</table>

Implementation resources:

Work estimate in hours
Step 8: Provide Technical Stories for the other Applications Named in the Template

For each remaining messaging component listed in step 6, list the new messages that component must produce and consume and provide brief stories describing the prescribed production and consumption logic. This section should be completed during the integration design phase with integration staff.

8.1. Messaging Component 1: ERP Gateway (Example)

8.1.1. Messages

1. com.sct.Person.BasicPerson.Create-Sync (Example)
2. com.sct.Person.BasicPerson.Delete-Sync (Example)

8.1.2. Brief Story

(Example) The ERP Gateway must consume the BasicPerson and BasicEmployee synchronization messages.

8.2. Messaging Component 2: Identity Service (Example)

8.2.1. Messages

1. org.any-openeai-enterprise.CoreApplication.InstitutionalIdentity-Query-Request (Example)
2. org.any-openeai-enterprise.CoreApplication.InstitutionalIdentity-Generate-Request (Example)
3. org.any-openeai-enterprise.CoreApplication.InstitutionalIdentity-Provide-Reply (Example)

8.2 Brief Story

(Example) The Identity Service must field incoming InstitutionalIdentity query request and provide replies. It must also ….
Step 9: Summarize all Outstanding Questions, Issues, and Action Items

Record all questions, issues and action items during the analysis and design sessions. Status will be indicated only when it is “closed”.

<table>
<thead>
<tr>
<th>#</th>
<th>Question / Issues /Actions</th>
<th>Who?</th>
<th>Resolution</th>
<th>Date Resolved</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
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<td>10</td>
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</tbody>
</table>
Step 10: Perform Work Estimation and Scheduling

Review work estimates provided with each story and messaging application. Sequence implementation work into a detailed project plan using your preferred project management tools.

10.1 List New Messaging Applications to Develop and Summary Work Estimates

<table>
<thead>
<tr>
<th>Messaging Application</th>
<th>Resources</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Example) Payroll System</td>
<td>1. Chris Analyst, analysis and test suite development (24 hours)</td>
<td>72</td>
</tr>
<tr>
<td>Gateway</td>
<td>2. Suzy Developer, BasicPerson message support (12 hours)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Joe Developer, BasicEmployee message support (12 hours)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Q.A. Masters, Test Suite Review and Certification (24 hours)</td>
<td></td>
</tr>
</tbody>
</table>

10.2 List New Message Support to Add to Existing Messaging Applications and Summary Work Estimates

<table>
<thead>
<tr>
<th>Messaging Application</th>
<th>Resources</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Example) Identity Service</td>
<td>1. Chris Analyst, analysis and test suite development (36 hours)</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>2. Suzy Developer, InstitutionalIdentity synchronization message support (20 hours)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Q.A. Masters, Test Suite Review and Certification (24 hours)</td>
<td></td>
</tr>
</tbody>
</table>

10.3 Detailed Work Plan

Location of detailed implementation project plan: [provide link to location here]
Step 11: Functional Approval of Analysis, Scope, and Scheduling

Functional team members must give approval to indicate completion of the analysis and design. An e-mail stating approval may be copied and pasted here instead of a signature on paper.

While many may consider this a pedantic step, experience teaches that this level of explicit approval is often required to support a strict scope management and change control process.

<table>
<thead>
<tr>
<th>Project Role</th>
<th>Team member name</th>
<th>Signature</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Step 12: Initiate Template Change Control Processes

<table>
<thead>
<tr>
<th>Application name:</th>
<th>Payroll System Gateway (example)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requestor name(s):</td>
<td>xxxx xxxxxxx</td>
</tr>
<tr>
<td>Priority:</td>
<td>XXXX (Low, Medium, High. Please give details in later section for priority)</td>
</tr>
<tr>
<td>Change Request Number:</td>
<td>1 (starts at 1 and increments by 1 for each application change request)</td>
</tr>
<tr>
<td>Brief change request description:</td>
<td>xxxxxxxxxxx</td>
</tr>
</tbody>
</table>

**Process for change requests:** The EAI template should be completed during the period allocated to do the analysis and design work. Any changes subsequent to approval and acceptance of the template should follow the change request process. The change requests will be submitted by the requesting team to the EAI project manager who will forward the request to management for approval.

All items in this template must be filled out completely otherwise it may delay processing. For items that are not relevant to the change being requested please indicate that by typing in “Not Applicable”.

The change requests must be packaged each week and delivered to the EAI project manager by Thursday noon. The review will be generally completed by the following Tuesday.

12.1 New requirements information: Please fill out the story and the details for the new functionality or services the gateway or application must support. This section must also be completed if there are new tables or fields in the requirements with or without any new functionality or services being requested.

[Provide story here]

12.2 Reference section in the existing EAI template which is impacted by the new request:

[Provide template section numbers or messages that are impacted by the new requirements]

12.3 Impact on other known integrations:

[example: Same change required in IdentityService template]

12.4 Describe priority (LOW, MEDIUM, HIGH):

[Describe the reasons behind the priority assessment in story format. If this requires a faster turnaround describe why and what dependencies it may share with other tasks]
12.5 New source system table and fields, if applicable:

[List the table and fields]

12.6 New target system table and fields, if applicable:

[List the table and fields]

12.7 New transformation requirements, if applicable:

<table>
<thead>
<tr>
<th>Source table or file:</th>
<th>XXXXXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target table or file:</td>
<td>XXXXXX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source field</th>
<th>Target field</th>
<th>Transformation and reformatting rules</th>
<th>Message object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example Last-Name-10</td>
<td>Last_Name</td>
<td>None</td>
<td>BasicPerson/Name/LastName</td>
</tr>
</tbody>
</table>

12.8 Message Object changes:

[Enumerate message object definition changes.]

12.9 Work impact:

[Describe the anticipated impact on the project plan and timeline.]

12.10 Approval:

Management will sign and send documents back to the EAI team and the requestor. Approval implies acceptance of the change in timeline.

<table>
<thead>
<tr>
<th>Approval Request date:</th>
<th>mm-dd-yyyy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Role</td>
<td>Name</td>
</tr>
<tr>
<td>Project director</td>
<td></td>
</tr>
<tr>
<td>Project manager</td>
<td></td>
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<tr>
<td>Project manager</td>
<td></td>
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<tr>
<td>Project manager</td>
<td></td>
</tr>
<tr>
<td>Project manager</td>
<td></td>
</tr>
</tbody>
</table>
Step 13: Provide Testing Specifications

13.1 Test Stories

For every messaging application and gateway listed in this template, provide a brief description of how it will be tested for functional, performance, and production readiness certification.

(Example) Payroll System Gateway

Functional testing of the payroll system gateway will be accomplished by preparing an OpenEAI test suite to test the gateway’s ability to handle BasicPerson and BasicEmployee query, create, update, and delete request messages as well as its ability to publish the corresponding synchronization messages. The goal of this test suite is to cover all actions on both BasicPerson and BasicEmployee objects using an appropriately diverse set of data.

Performance testing of the payroll system gateway will be accomplished by preparing an OpenEAI test suite with multiple series that can be run concurrently from one or more deployments of the test suite application to simulate the peak anticipated production load of concurrent requests. This suite will be used to test a deployment of the payroll system gateway to determine if the performance of deployment will handle the anticipated peak load. Additionally performance tests of web applications that send request messages to this gateway will be conducted independently of the gateway testing.

A self-contained production readiness OpenEAI test suite will be prepared that creates, queries for, updates, and deletes several bogus users and employees using realistic data. This test suite will be executed to certify the deployment in both non-production and production environments.

13.2 Links to Testing Artifacts Listed in the Test Stories and Preparation Status

<table>
<thead>
<tr>
<th>Testing Artifact Description</th>
<th>Location</th>
<th>Preparation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Example) Payroll System Gateway Functional Test Suite</td>
<td>CVS Repository Project/TestSuites PayrollSystemGateway.TestSuite1.xml</td>
<td>100%</td>
</tr>
<tr>
<td>(Example) Payroll System Gateway Performance Test Suite</td>
<td>CVS Repository Project/TestSuites PayrollSystemGateway.TestSuite2.xml</td>
<td>70%</td>
</tr>
</tbody>
</table>
Step 14: Develop and Test Integrations

At this point, development tasks for each messaging application and service should be enumerated in the integration project plan or master project plan. Developers and quality assurance staff should be developing and testing applications and gateways and reporting status on their assigned tasks.

A summary of tasks and their status could be maintained here in the integration template, but it is strongly encouraged to maintain this information and refer to it in a master project plan.

Step 15: Prepare Implementation and Rollout Plan

A rollout plan differs from the overall project plan in that it provides clear, step by step instructions for deployment and production readiness testing activities. This plan should be completed prior to production implementation and executed in a non-production environment as a practice or “dress rehearsal” run.

Step 16: Implement in Production

At this stage, production implementation should be anti-climactic. Execute the rollout plan, which should include production readiness testing, and celebrate.
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