PUBLIC

Case Study
SAP Application Extension Methodology

Based on the learning journey "Becoming an SAP Solution Architect" on www.learning.sap.com

SAP BTP

Table of contents

Case Study: Business Partner Validation at ACME Corporation

Description of the Case Study

The validation of new business partners is to be made more efficient to ensure the quality and reliability of the data in the company systems.

The company ACME is commissioned to check and validate new business partners that are created in SAP S/4HANA. This is to ensure that only reliable and verified partners can be actively used in the system. The following process is planned:

1. **Notification of new business partners**

- As soon as a new business partner is created in SAP S/4HANA, an automatic notification is generated.
- This notification is sent to John, an employee of the service provider iCredible.

2. **Review and validation**

- John receives the notification and accesses the details of the new business partner.
- He checks the submitted data and performs the necessary background checks to assess the seriousness and trustworthiness of the business partner.

3. **Updating the status**

- Upon completion of the check, John updates the status of the business partner in the system.
- The checked status is saved in SAP S/4HANA so that the business partner can be used for further business processes.

Tasks and goals of the case study

A blueprint architecture is to be projected with the help of AEM. We mainly deal with the following phases of AEM.

- Phase 1: Assess Extension Use Case
- Phase 2: Technology evaluation
- Phase 3: Define Extension Target Solution

Practice is not considered in this case study.

Instructions for working on the case study

There is a solution sheet for each exercise.

Phase 1: Assess Extension Use Case - Description

Tasks to be processed

- Understanding the system context.
- Detailed description of the application extensions.

- Which personas are involved and where.
  - Enterprise Architect
  - Solution Architect
  - Business User

Procedure

1. Define System Context Basic architecture assessment of the relevant systems and components as part of the extension project.
2. Define Business Context and Requirements. Brief description of the general business requirement and its scope for your use cases.
3. Define Application Extension Use Case. Define a target scenario for solving your business requirement by creating a detailed description of the use cases.

Outcomes

- System context.
- Business context and requirements.
- Application extension use case descriptions.

Phase 1: Task 1: System context

Basic architecture assessment of the relevant systems and components as part of the extension project. The following system context is planned:

1. Participants Systems:
- SAP S/4HANA
- SAP BTP
- SAP HANA Cloud

2. Used Interfaces:
- SAP Event Mesh
- Public APIs for business partner data
- Third Party APIs

3. Identified Use Cases:
- Creation of a new business partner in SAP S/4HANA.
- Validation of the partner through a side-by-side extension.
- Setting the validation flag and returning the business partner data to SAP S/4HANA.

Phase 1: Task 2: Business context and requirements

Below are the requirements as far as they are already known.

Architecture Principals and Business Context:

- Extensions must be upgradeable.
- Easy maintenance and use of standard software/services are preferred.
- Side-by-side options are preferred due to the cloud-first strategy.
- Only internal ACME Corporation employees must have access to the SAP S/4HANA system.
- Employees are used to working with SAP Build Work Zone, standard edition.

Further definition:

- Extension Name:
  - Business Partner Validation Extension
- Business Context:
  - Validation of new business partners by external auditors. After successful validation, a status flag is set in the business partner API.
- Contributors and Roles:
  - ACME Enterprise Architects
  - ACME Employees
  - iCredible employees
- Volumetrics:
  - Up to 100 new business partners daily.
- Data Description:
  - Business partner data in SAP S/4HANA.
  - Intermediate storage of Business Partner Data in SAP HANA Cloud on SAP BTP.

Phase 1: Task 3: Application extension use case description

To understand the complete use case in detail, you need to visualize the individual steps. One possibility is a scene-based representation. Another possibility is to use an activity diagram and/or sequence diagram.
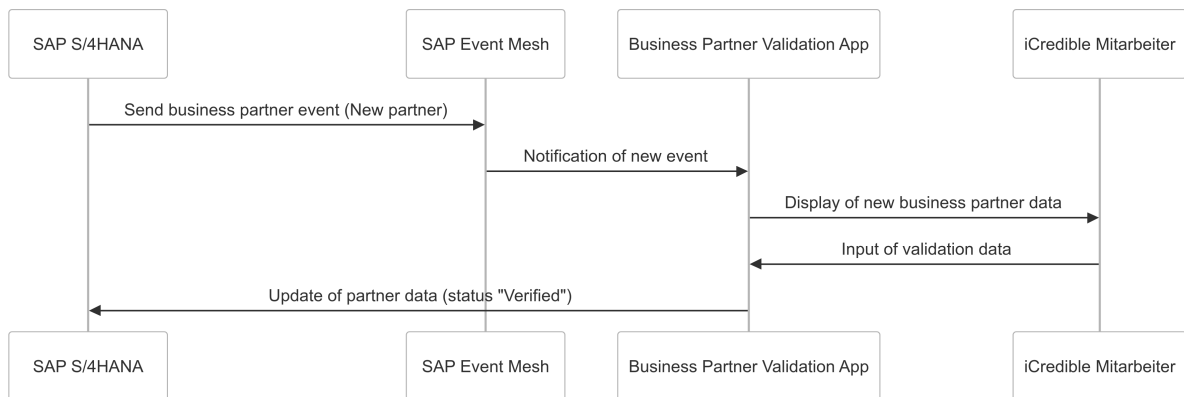
Figure 1 – Use Case as Sequence Diagram

Sequence Diagram

- **SAP S/4HANA (ACME)**: Creates a new business partner and sends an event to SAP Event Mesh.
- **SAP Event Mesh**: Forwards the event to the Business Partner Validation App.
- **Validation App**: Displays the data of the new business partner to the iCredible employee.
- **iCredible employee**: Validates the data and updates it in the app.
- **Validation App**: Writes the updated data back to SAP S/4HANA with the status "Verified".

Scenes Descriptions

The following is the example use case in individual scenes. The more detailed and extensive the scenes are modeled, the better the subsequent steps and the understanding of the parties involved. The individual steps are noted on the cards. This representation is more detailed than a sequence diagram.

Figure 2 – All Scenes

Activity diagram

The following is the scene description as an activity diagram to better visualize the use case. The colored coding of the components corresponds to the scenes. The activity diagram shows the individual tasks and their relationship.
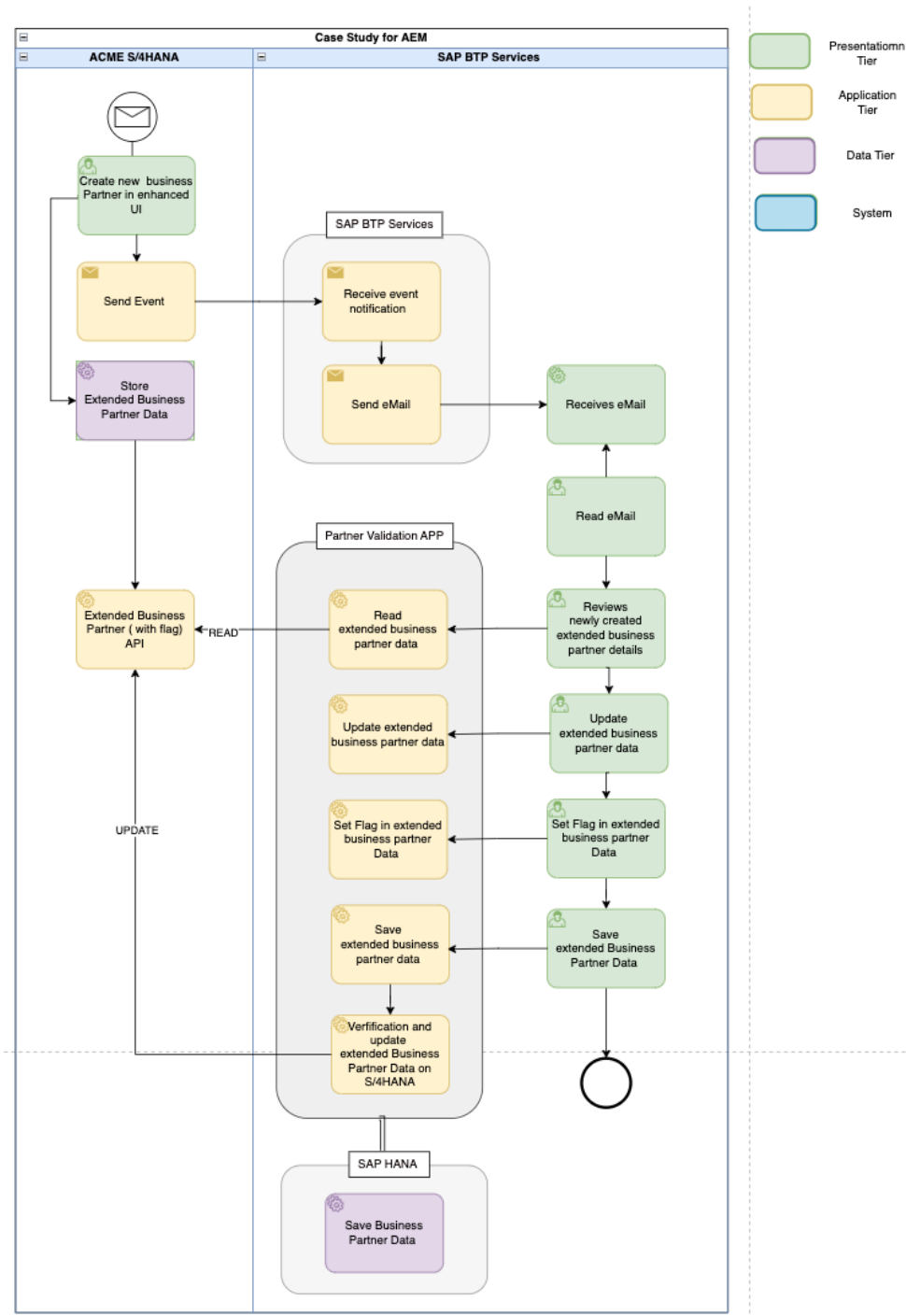
Figure 3 – Activity Diagram

Table 1 Scene 1: Creation of a new business partner

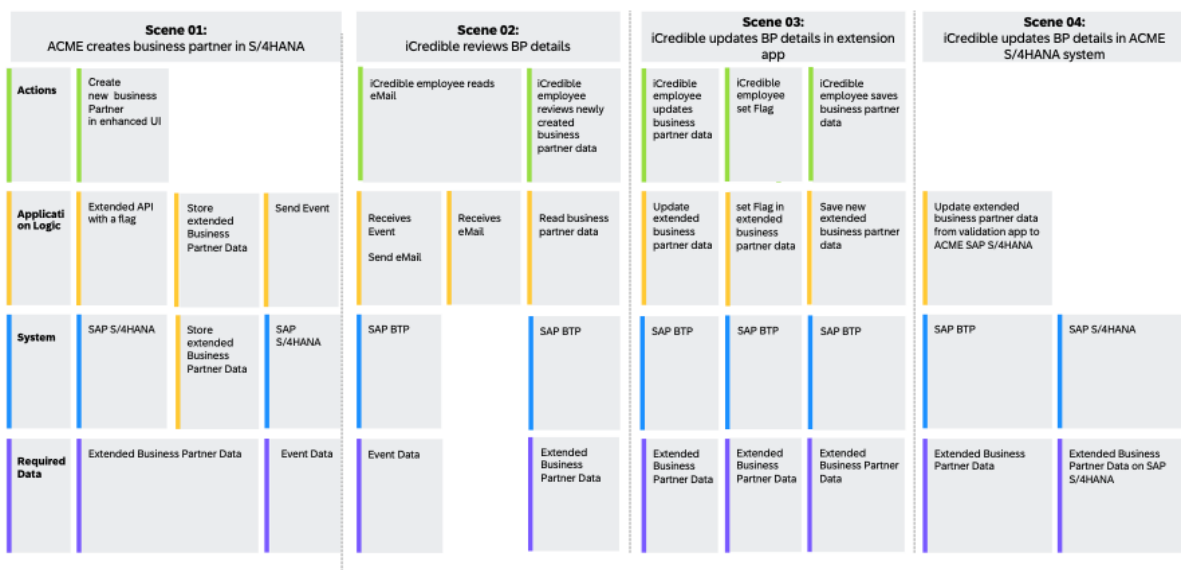| Action	App Layer	System	Data
Create new business partner in enhanced UI	Extend API with validation Flag; Store extended Business Partner Data; Send Event	SAP S/4HANA on-Premise	Business Partner Data; Event Data

Table 2 Scene 2: Event notification and e-mail dispatch:

Action	App Layer	System	Data
iCredible employee reads e-mail	Receives Event; Send e-Mail	Receives e-mail	E-mail data; Event data
iCredible employee reviews newly created business partner data	Read business partner data	SAP BTP	Business Partner Data

Table 3 Scene 3: Validation and updating of business partner data

Action	App Layer	System	Data
iCredible employee updates business partner data	Update extended business partner data	SAP BTP	Extended Business Partner Data
iCredible employee set Flag	Set Flag in extended business partner data	SAP BTP	Extended Business Partner Data
iCredible employee saves business partner data	Save new extended business partner data	SAP BTP	Extended Business Partner Data

Table 4 Scene 4: Verification and storage in SAP S/4HANA

Action	App Layer	System	Data
Automatic process after saving	Update extended business partner data from validation app to ACME SAP S/4HANA	SAP BTP; SAP S/4HANA	Extended Business Partner Data

Phase 2: Technology Evaluation

In this phase, the technological requirements are defined. The result of this phase is the basis for the creation of a solution diagram. For this purpose, the extension styles, the associated extension tasks and finally the technologies that can be used for them are determined and identified. Understand extension styles, extension tasks and get an overview about possible technical extension building blocks. These help you to translate the business requirements into technical requirements.

Tasks to be Processed

- Understand and map extension styles, extension tasks to the use case.
- Get an understanding about the available technical extension building blocks.

Procedure

1. **Define the Extension Styles**
   Frame the overall technology for building extensions and structure extension tasks. Extension styles can be categorized into the three-tier architecture model: Presentation Tier, Application Tier, and Data Tier.
2. **Define Extension Tasks**
   Describe technology-agnostic extension task to solve a specific part of your extension use case description. Extension tasks can be categorized in extension styles.
3. **Take Extension Technology Mapping**
   The extension technology mapping outlines the relationship between extension task and technical extension building blocks. Extension tasks can be implemented by using one or more technical extension building blocks. A technical extension building blocks can be categorized into extension domains such as core solution extension domain and side-by-side extension domain.

Outcomes

- Extension tasks
- Indication of extension technology mapping

Phase 2: Task 1: Assess Extension Technology - Extension Styles

In this phase, we only look at the efforts in SAP S/4HANA on Premise and on SAP BTP. To make it easier to understand, we use an activity diagram that is closely based on the scenario presentation. Some technology decisions are already made here.

I. Extension Styles

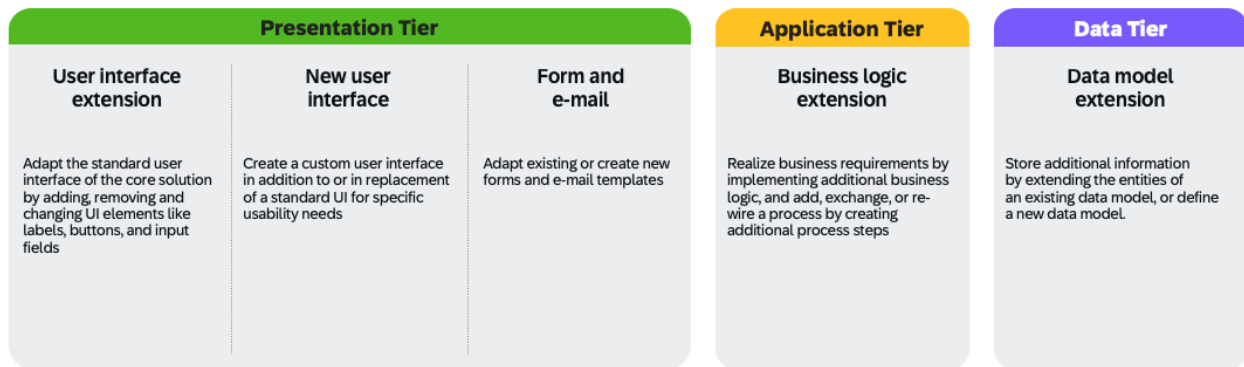| Presentation Tier			Application Tier	Data Tier
User interface extension	New user interface	Form and e-mail	Business logic extension	Data model extension
Adapt the standard user interface of the core solution by adding, removing and changing UI elements like labels, buttons, and input fields	Create a custom user interface in addition to or in replacement of a standard UI for specific usability needs	Adapt existing or create new forms and e-mail templates	Realize business requirements by implementing additional business logic, and add, exchange, or re-wire a process by creating additional process steps	Store additional information by extending the entities of an existing data model, or define a new data model.

Figure 4 – Ex. Styles

Overview of usable extension styles according to methodology

Activity diagram

The following is the scene description as an activity diagram to better visualize the use case. The colored coding of the components corresponds to the scenes.
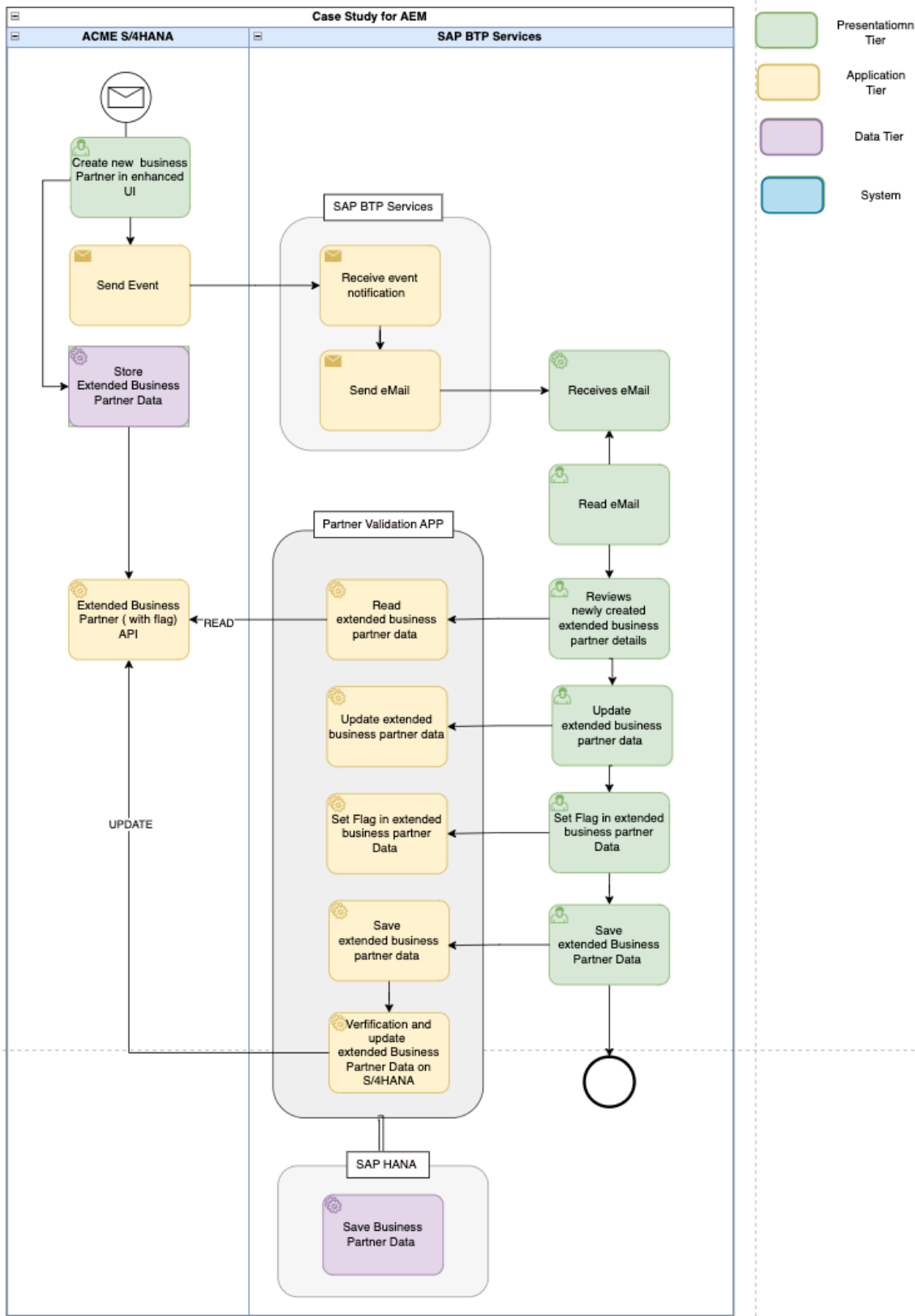
Figure 5 – Activity Diagram

Extension Styles

The extension styles determined according to the scenario are shown below. No 1 refers to the SAP S/4HANA on Premise area. No 2 to the SAP BTP in various services.

Abbreviations in the Tables

- Dev = Developer Extensibility
- SbS = Side-by-Side Extensibility

Table 5 Extension Style User Interface Extension

These are the green cards in the activity diagram.

App Layer	Ex. Domain	Ex. Style	System
Create new business Partner in enhanced UI	Dev	User interface extension	1: SAP S/4HANA on Premise
Receives e-mail	SbS	User interface extension	2: SAP BTP
Read e-mail	SbS	User interface extension	2: SAP BTP
Reviews newly created extended business partner details	SbS	User interface extension	2: SAP BTP
Update extended business partner data	SbS	User interface extension	2: SAP BTP
Set Flag in extended business partner Data	SbS	User interface extension	2: SAP BTP
Save extended Business Partner Data	SbS	User interface extension	2: SAP BTP

Table 6 Extension Style Business Logic Extension

These are the yellow cards in the activity diagram.

App Layer	Ex. Domain	Ex. Style	System
Send Event	Dev	Business logic extension	1: SAP S/4HANA on Premise
Extended Business Partner (with flag) API	Dev	Business logic extension	1: SAP S/4HANA on Premise
Receive event notification	SbS	Business logic extension	2: SAP BTP
Send e-mail	SbS	Business logic extension	2: SAP BTP

Read extended business partner data	SbS	Business logic extension	2: SAP BTP
Update extended business partner data	SbS	Business logic extension	2: SAP BTP
Set Flag in extended business partner Data	SbS	Business logic extension	2: SAP BTP
Save extended business partner data	SbS	Business logic extension	2: SAP BTP
Verification and update extended Business Partner Data on SAP S/4HANA	SbS	Business logic extension	2: SAP BTP
Save Business Partner Data	SbS	Business logic extension	2: SAP BTP

Table 7 Extension Style Data Model Extension

These are the purple cards in the activity diagram.

App Layer	Ex. Domain	Ex. Style	System
Store Extended Business Partner Data	Dev	Data model extension	1: SAP S/4HANA on Premise
Save Business Partner Data	SbS	Data model extension	2: SAP BTP

Phase 2: Task 2: Assess Extension Technology - Extension Tasks

After we have determined the extension styles and integration domains depending on the steps to be created in a previous step, we now assign the extension tasks depending on the extension styles.

Overview of the extension tasks to be used according to the methodology

The following is an overview of the standard extension tasks. These can of course be supplemented with your own.

Extension Styles   Extension Task   Extension Technology Mapping

II. Extension Tasks for Presentation Tier

ID	Extension Style	Extension Task
P01	User Interface Extension	Adapt standard UI: add/hide/create/re-name/re-arrange field/label/headlines
P02	New User Interface	Create custom UI
P03	New User Interface	Create central entry point
P04	Form	Adapt custom form templates based on standard process
P05	Form	Create custom form
P06	E-Mail	Adapt e-mail template based on standard process
P07	E-Mail	Create custom e-mail

Extension Styles   Extension Task   Extension Technology Mapping

II. Extension Tasks for Application Tier

ID	Extension Style	Extension Task
A01	Business Logic Extension	Add custom field to UI service
A02	Business Logic Extension	Add custom field to API
A03	Business Logic Extension	Adapt standard business process with custom logic (e.g. pre-fill/validate field, within LUW)
A04	Business Logic Extension	Create application logic
A05	Business Logic Extension	Create API for UI
A06	Business Logic Extension	Create API for integration
A07	Business Logic Extension	Consume API
A08	Business Logic Extension	Create event
A09	Business Logic Extension	Consume event
A10	Business Logic Extension	Create workflow
A11	Business Logic Extension	Create rules
A12	Business Logic Extension	Create and schedule a background job

II. Extension Tasks for Data Tier

ID	Extension Style	Extension Task
D01	Data Model Extension	Add custom field to existing database table
D02	Data Model Extension	Create persistence

Figure 6 – Ex. Tasks for Data Tier

Activity Diagram with Extension Tasks

The following are the extension tasks assigned to the individual steps depending on the extension styles (color-coded). Again, we are only looking at the application logic that we want to implement.
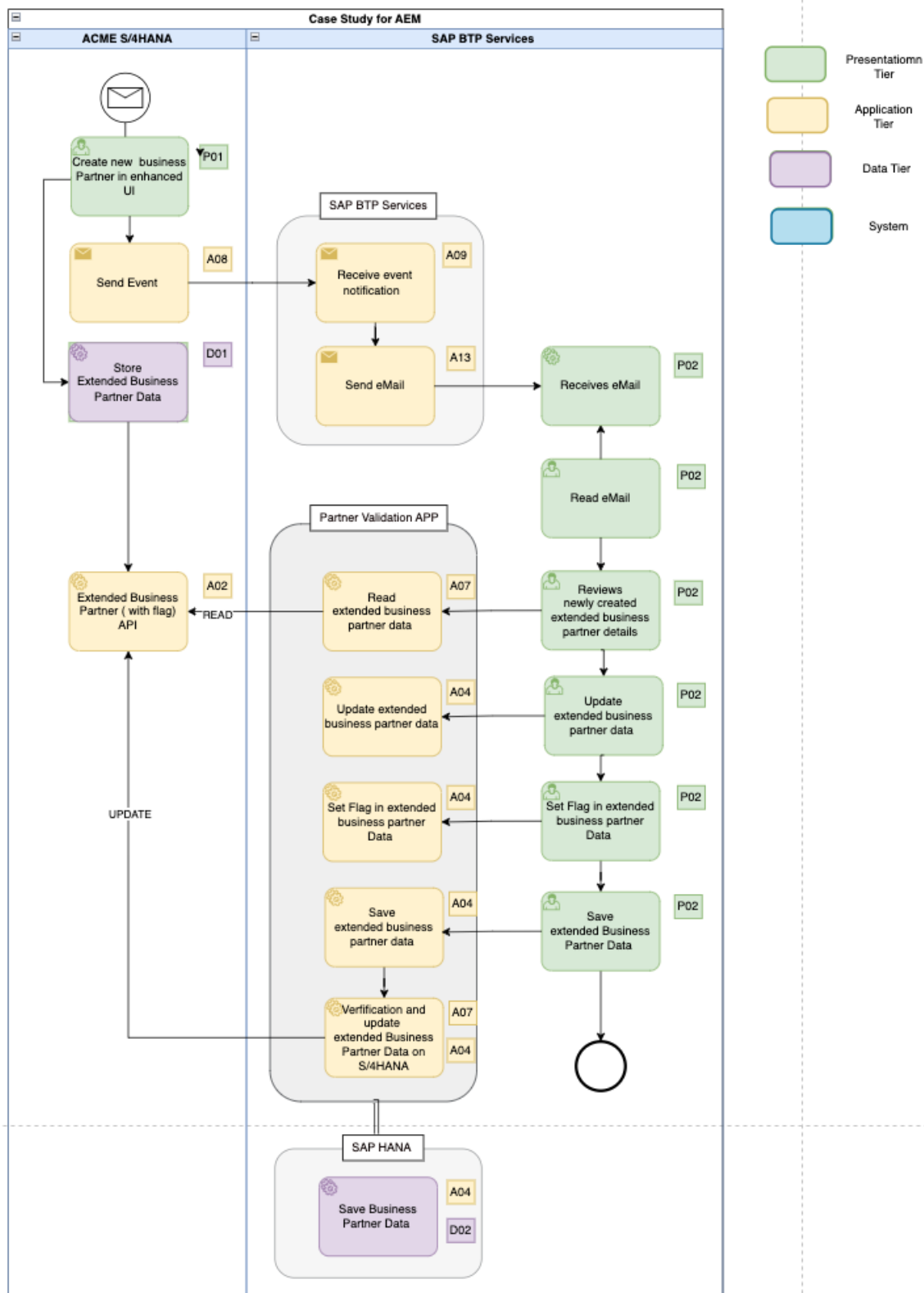
Figure 7 – Activity Diagram

The following are the tasks of the application layer and the classification by extension task.

The following overview is organized by extension styles. The finer and more detailed you model the individual tasks and extension styles, the easier it will be to define the technological mapping and ultimately

the development. Sometimes several extension styles can be assigned to a task, as shown in the following example.

Abbreviations in the Tables

- Dev = Developer Extensibility
- SbS = Side-by-Side Extensibility

Table 8 Extension Style User Interface Extension

These are the green indicators in the activity diagram.

App Layer	Ex. Domain	Ex. Task	System
Create new business Partner in enhanced UI	Dev	P01: Adapt standard UI	SAP S/4HANA on Premise
Receives e-mail	SbS	P02: Create custom UI	SAP BTP
Read e-mail	SbS	P02: Create custom UI	SAP BTP
Reviews newly created extended business partner details	SbS	P02: Create custom UI	SAP BTP
Update extended business partner data	SbS	P02: Create custom UI	SAP BTP
Set Flag in extended business partner Data	SbS	P02: Create custom UI	SAP BTP
Save extended Business Partner Data	SbS	P02: Create custom UI	SAP BTP

Table 9 Extension Style Business Logic Extension Extension

These are the yellow indicators in the activity diagram.

App Layer	Ex. Domain	Ex. Task	System
Send event	Dev	A08: Create event	SAP S/4HANA on Premise
Extended Business Partner (with flag) API	Dev	A02: Add custom field to API	SAP BTP
Receive event notification	SbS	A09: Consume event	SAP BTP
Send e-mail	SbS	A13: Send e-mail	SAP BTP
Read extended business partner data	SbS	A07: Consume API	SAP BTP
Update extended business partner data	SbS	A04: Create application logic	SAP BTP
Set Flag in extended business partner Data	SbS	A04: Create application logic	SAP BTP

Save extended business partner data	SbS	A04: Create application logic	SAP BTP
Verification and update extended Business Partner Data on SAP S/4HANA	SbS	A04: Create application logic	SAP BTP
Save Business Partner Data	SbS	A07: Consume API	SAP BTP
	SbS	A04: Create application logic	SAP BTP

Table 10 Extension Style Data Model Extension

These are the purple indicators in the activity diagram.

App Layer	Ex. Domain	Ex. Task	System
Store Extended Business Partner Data	Dev	D01: Add custom field to existing database table	SAP S/4HANA on Premise
Save Business Partner Data	Dev	D02: Create persistence	SAP BTP

Phase 2: Task 3: Assess Extension Technology - Extension Technology Mapping

Extension Technology Mapping

Based on existing licenses and the defined extension domains, styles and tasks, the following tools and services are proposed:

For Production

- SAP S/4HANA on Premise
- SAP Cloud Connector
- SAP IAS (Custom IdP)
- SAP BTP Services:
    - SAP Connectivity service
    - SAP Destination service
    - Cloud Foundry Environment
    - SAP Integration Suite - Cloud Integration
    - SAP Integration Suite - Event Mesh
    - SAP Build Work Zone, standard edition

Additional for Development, Transport and CICD

- SAP Business Application Studio
- SAP Build Code
- SAP Continuous Integration and Delivery
- SAP Cloud Transport Management
- SAP Content Agent Service

Additional for Observability

- SAP Application Logging Service for SAP BTP
- SAP Alert Notification service for SAP BTP
- SAP Monitoring service for SAP BTP

Technology Mapping for Production

The technologies assigned below, Fiori Elements and CAP App, are created at design time with SAP Build Code.

Abbreviations in the Tables

- Dev = Developer Extensibility
- SbS = Side-by-Side Extensibility

Table 11 Extension Style User Interface Extension

These are the green indicators in the activity diagram.

App Layer	Ex. Domain	Ex. Task	System
Create new business Partner in enhanced UI	Dev	P01: Adapt standard UI	SAP S/4HANA on Premise
Receives e-mail	SbS	P02: Create custom UI	Ex. e-mail Program
Read e-mail	SbS	P02: Create custom UI	Ex. e-mail Program
Reviews newly created extended business partner details	SbS	P02: Create custom UI	SAP Fiori Elements at SAP BTP
Update extended business partner data	SbS	P02: Create custom UI	SAP Fiori Elements at SAP BTP
Set Flag in extended business partner data	SbS	P02: Create custom UI	SAP Fiori Elements at SAP BTP
Save extended Business Partner Data	SbS	P02: Create custom UI	SAP Fiori Elements at SAP BTP

Table 12 Extension Style Business Logic Extension

These are the yellow indicators in the activity diagram.

App Layer	Ex. Domain	Ex. Task	System
Send event	Dev	A08: Create event	SAP S/4HANA on Premise – Event Framework
Extended Business Partner (with flag) API	Dev	A02: Add custom field to API	SAP S/4HANA on Premise Extended API
Receive event notification	SbS	A09: Consume event	Event Mesh
Send e-mail	SbS	A13: Send e-mail	Cloud Integration
Read extended business partner data	SbS	A07: Consume API	CAP - APP
Update extended business partner data	SbS	A04: Create application logic	CAP - APP
Set Flag in extended business partner data	SbS	A04: Create application logic	CAP - APP

Save extended business partner data	SbS	A04: Create application logic	CAP - APP
Verfification and update extended Business Partner Data on SAP S/4HANA	SbS	A04: Create application logic	CAP - APP
	SbS	A07: Consume API	CAP - APP
Save Business Partner Data	SbS	A04: Create application logic	CAP - APP

Table 13 Extension Style Data Model Extension

These are the purple indicators in the activity diagram.

App Layer	Ex. Domain	Ex. Task	System
Store Extended Business Partner Data	Dev	D01: Add custom field to existing database table	SAP S/4HANA
Save Business Partner Data	SbS	D02: Create persistence	SAP BTP, SAP HANA Cloud

Phase 3: Define Extension Target Solution

Based on the overall requirements and technology mapping in the previous phase, you can decide on technical extension building blocks to create your target solution.

Tasks to be Processed

Created extension target solution, for example, as a diagram.

Procedure

Extension technology per extension task

For each extension task (from the previous phase), analyze and decide which technical extension modules are suitable.

Decision Guidance Assets

Use the decision guidance assets such as extensibility guides, SAP Discovery Centre missions, use case patterns and reference architectures to select your technical extension modules.

Extension Target Solution

Develop a target solution for the extension, for example, in the form of a diagram. This will be the preparation for your implementation.

Outcomes

- Extension tasks guidance.
- Decision on technical extension building blocks.
- Extension target solution reasoning.

Phase 3: Task 3: Solution Diagrams

It is possible to create different solution diagrams with different focal points. For example, the perspective of the user in production or the perspective of development can be adopted. Depending on the respective focus, different SAP BTP services are drawn in. Different tenants (sub-accounts) are also usually used for this.

Solution Diagram for Production

The following is the Solution Diagram for Production based on the technology mapping in Phase 2 - Extension Technology Mapping.
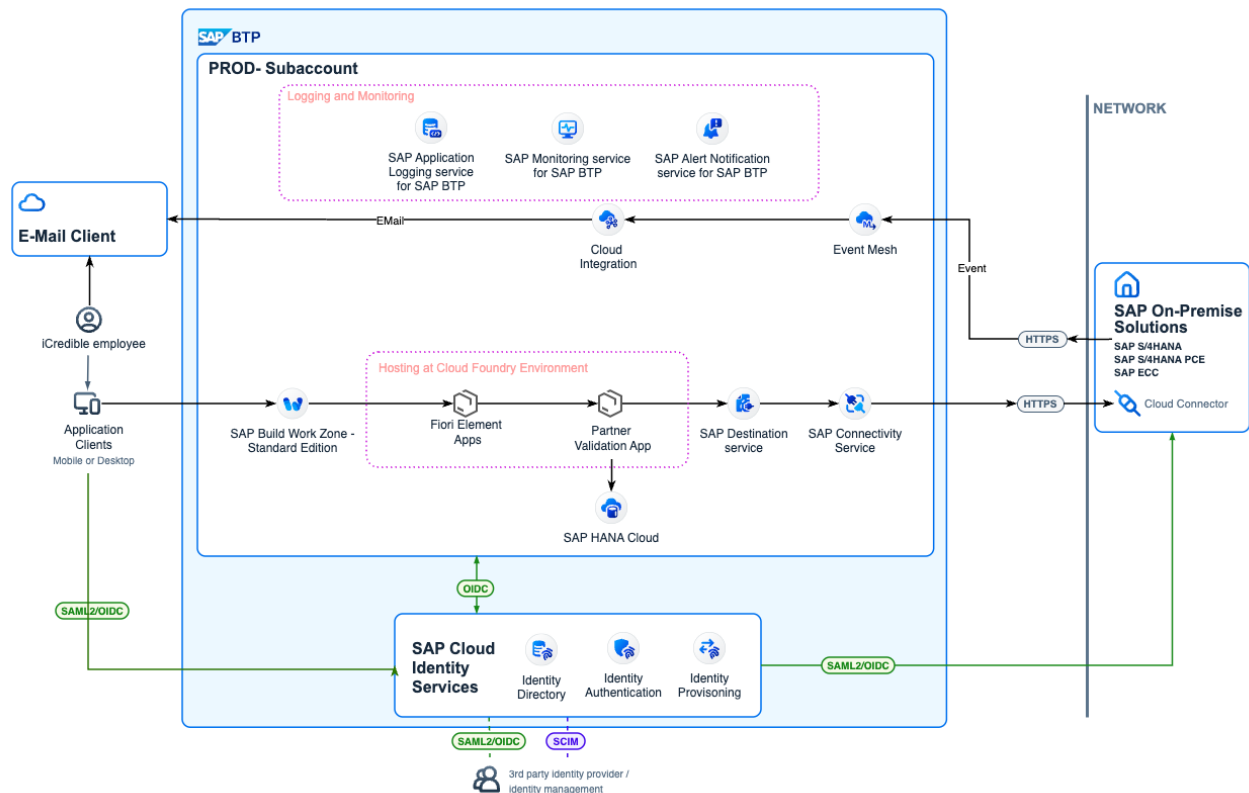
Figure 8 – Solution Diagram for Production

Description of the solution diagram

The diagram describes an architecture for the integration of SAP On-Premise Solutions and SAP Business Technology Platform (BTP) with a focus on user access, validation, and data integration. The individual components and their relationships are as follows:

1. **SAP On-Premise Solutions**

- Components: SAP S/4HANA

- Function: SAP S/4HANA provides the business partner data via an API

- Connection to the BTP:

  – Via the Cloud Connector, which enables secure communication between on-premise systems and SAP BTP.

  – Uses HTTPS for data transfer.

2. **SAP BTP Services for business**

- Event Mesh:

  – Receives events from SAP S/4HANA on Premise, such as "Business partner created".

  – Triggers the IFlow in the cloud integration via Webhook.

- **Cloud integration**: Is triggered by an incoming event in the event mesh and sends an e-mail to the e-mail client of iCredible.

- SAP Destination service:

  – Stores and manages connection information to destination interfaces.

- Supports the Partner Validation App in communicating with on-premise systems.
- **Sap Connectivity service**: Enables the secure connection of applications in the BTP with on-premise systems via the Cloud Connector.
- SAP Hana Cloud:
  - Storage location for the validated business partner data.
  - Serves as a central database for the Partner Validation App.
- Fiori Element Apps:
  - Applications that provide the user interface for Partner Validation.
  - These applications are hosted in the Cloud Foundry environment.
- Partner Validation App:
  - Core application for checking and validating business partner data.
  - Reads data from the SAP HANA Cloud and updates it after validation.
  - This application is hosted in the Cloud Foundry environment.
- SAP Build Work Zone, standard edition:
  - Provides a user interface for employees, for example, iCredible Employee.
  - Enables access to relevant Fiori apps or workflows through desktop or mobile devices.

3. **SAP BTP Services for Logging and Monitoring**

- **SAP Application Logging service for SAP BTP**: The SAP Application Logging service for SAP BTP lets you stream logs of bound applications to a central application logging stack. SAP Application Logging service for SAP BTP uses Elastic Stack to store and visualize your application log data.
- **SAP Monitoring service for SAP BTP**: The SAP Monitoring service for SAP BTP allows you to access application monitoring data and get notified of subscribed events. Configure custom metrics, thresholds, and alerts. Use the SAP BTP cockpit, the console client, or a REST API to manage monitoring data.
- **SAP Alert Notification service for SAP BTP**: SAP Alert Notification service offers a common API for providers to publish alerts and for consumers to subscribe to these alerts. It is designed to automatically send real-time notifications and alerts about events that may be of interest to the business and operations.

4. **SAP Cloud Identity Services**

- Components:
  - **Identity Directory**: Manage user identities.
  - **Identity Authentication**: Authenticates users, for example, employees through standards such as SAML2 or OIDC.
  - **Identity Provisioning**: Synchronizes identities with third-party systems (SCIM).
- Integration:
  - Authenticates users, for example, iCredible Employee, and enables single sign-on (SSO) for access to SAP BTP services.

5. **e-mail client (Third Party - out of focus)**

- **Function**: Receives e-mails sent from SAP BTP through Cloud Integration, for example, for notifications or events.

Exercises

Here are three small exercises to help you better understand the procedure.

Ex01: Using S/4HANA cloud public Edition in Phase 1

Exercise Description At a board meeting, it was decided to use the SAP S/4HANA Cloud Public Edition as the API supplier for the business partner instead of S/4HANA on Premise as the business system.

Your task is to determine the impact of this change on the planning that has already been completed and to adapt the corresponding artifacts.

To do this, please go through the individual documents/definitions/diagrams that have already been completed in the individual phases.

Phase 1: Assess Extension Use Case

Task 1: System context

- Examine the section: **Phase1: Task 1: System context** and identify the changes that are required.
- Briefly summarize these changes.

The following must be changed:

1
2
3

Figure 9 – Changes

Task 2: Business context and requirement

- Examine the section: Phase1: Task 2: Business context end requirement and note the changes.

- Briefly summarize these changes.
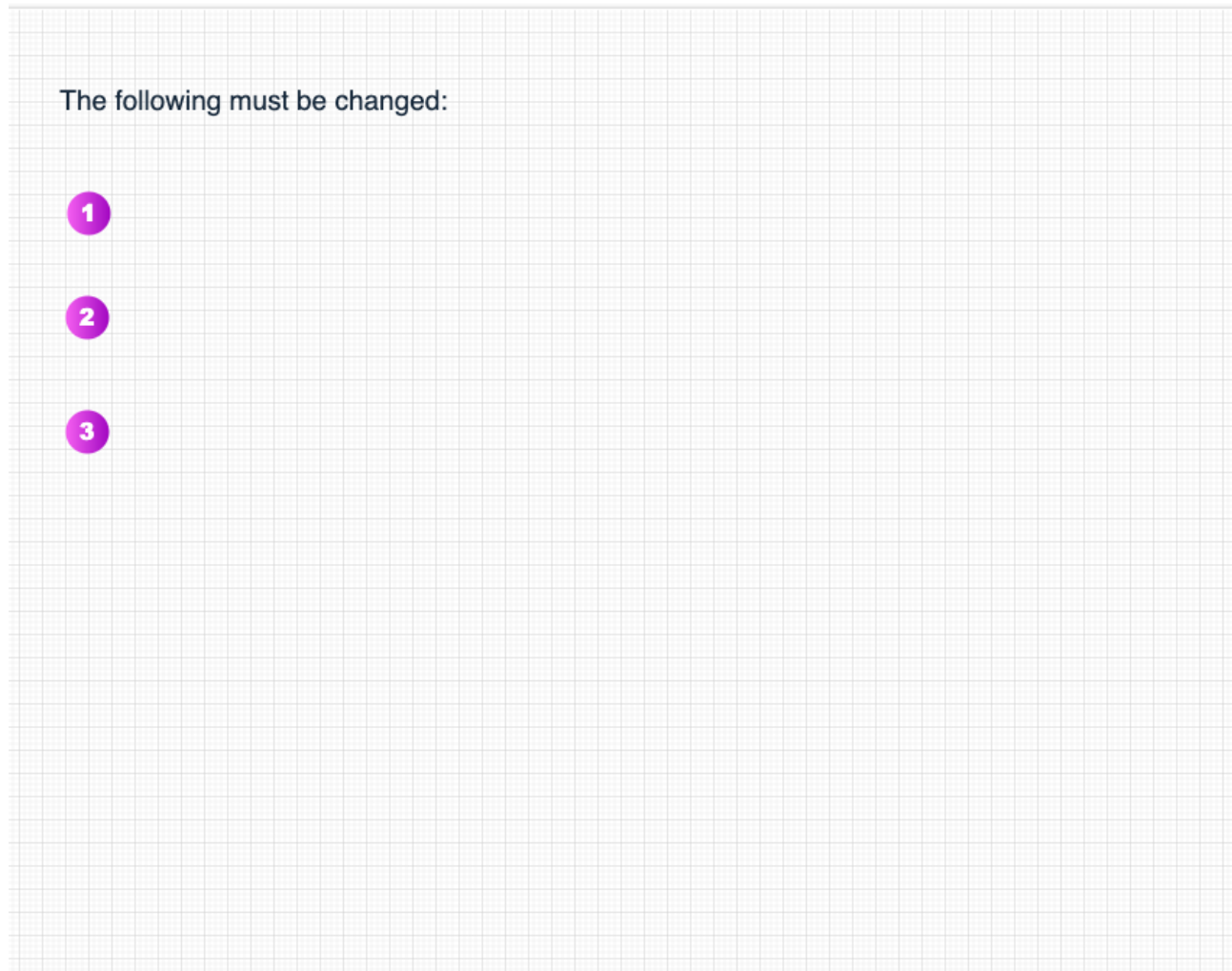

The following must be changed:

1

2

3

Figure 10 –Changes

Task 3: Application extension use case description

A colleague has already created a modified activity diagram with the new requirements and would like your opinion on it.
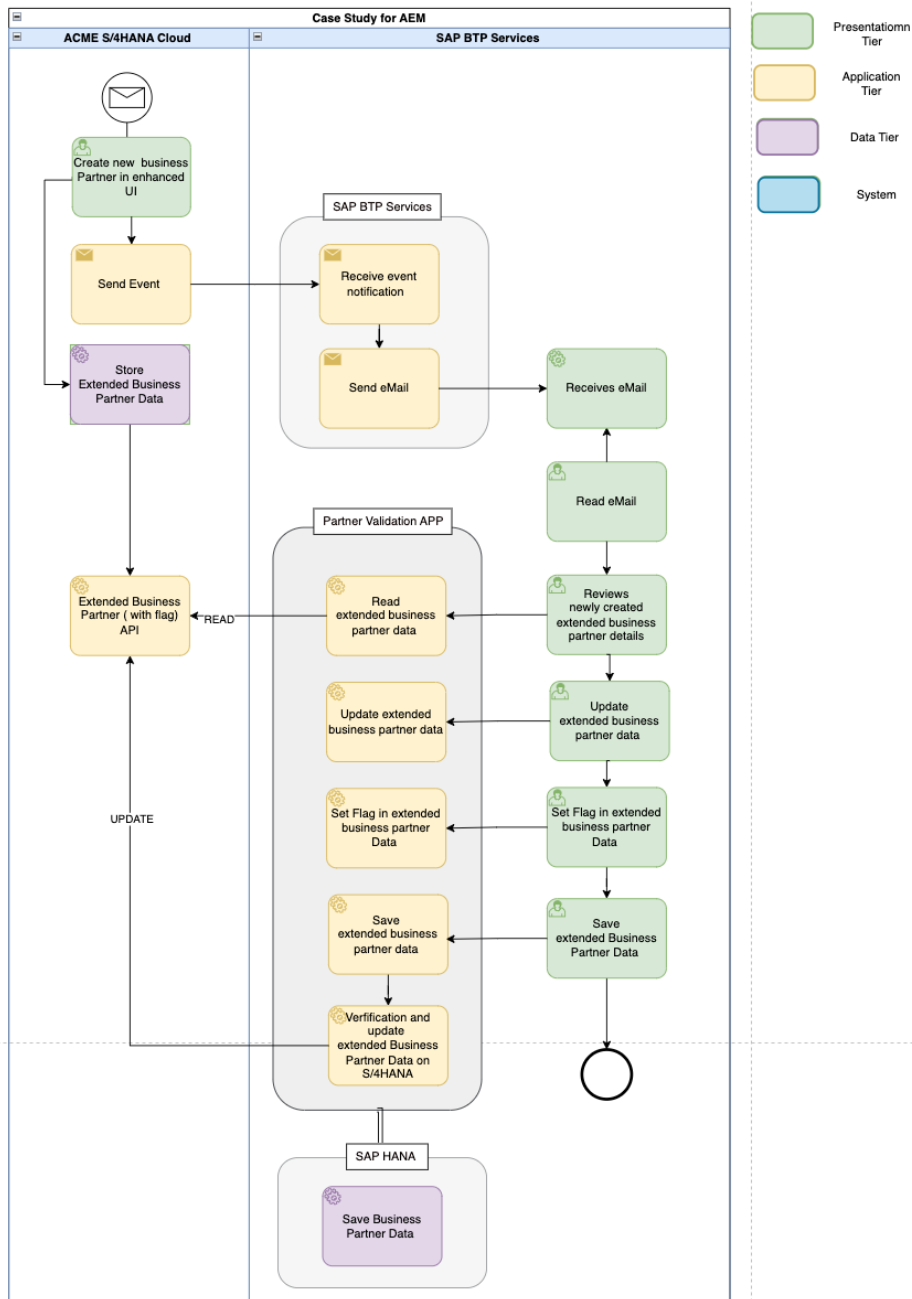
Case Study for AEM

ACME S/4HANA Cloud | SAP BTP Services

Create new business Partner in enhanced UI

Send Event → **Receive event notification**

SAP BTP Services
- Receive event notification
- Send eMail

Store Extended Business Partner Data

Send eMail → **Receives eMail**

Read eMail

Extended Business Partner (with flag) API ← READ

Partner Validation APP
- **Read extended business partner data** ← **Reviews newly created extended business partner details**
- **Update extended business partner data** ← **Update extended business partner data**
- **Set Flag in extended business partner Data** ← **Set Flag in extended business partner Data**
- **Save extended business partner data** ← **Save extended Business Partner Data**
- **Verification and update extended Business Partner Data on S/4HANA**

UPDATE

SAP HANA
- **Save Business Partner Data**

Legend
- Presentatiomn Tier (green)
- Application Tier (yellow)
- Data Tier (purple)
- System (blue)

Figure 11 – Changed Activity Diagram

Figure 12 – My Assessment

My Assessment

Solution for Ex01: Using S/4HANA cloud public Edition in Phase 1

Exercise Description

At a board meeting, it was decided to use the S/4HANA Cloud Public Edition as the API supplier for the business partner instead of S/4HANA on Premise as the business system.

Your task is to determine the impact of this change on the planning that has already been completed and to adapt the corresponding artifacts.

To do this, please go through the individual documents/definitions/diagrams that have already been completed in the individual phases.

Phase 1: Assess Extension Use Case.

Task 1: System context

- Examine the section: **Phase1: Task 1: System Context** and identify the changes that are required.
- Briefly summarize these changes.

The following must be changed:

1. The description of the system context is technology agostic, even if statements are already made here about the systems involved.

2. It is therefore only the description of SAP S/4HANA onPremise to SAP S/4HANA Cloud public Edition

Task 2: Business context and requirement

- Examine the section: **Phase1: Task 2: Business context and requirement** and note the changes.
- Briefly summarize these changes.

The following must be changed:

1. The description of the Business context & requirement is technology agostic, even if statements are already made here about the systems involved.

2. It is therefore only the description of SAP S/4HANA onPremise to SAP S/4HANA Cloud public Edition

Task 3: Application extension use case description

A colleague has already created a modified activity diagram with the new requirements and would like your opinion on it.
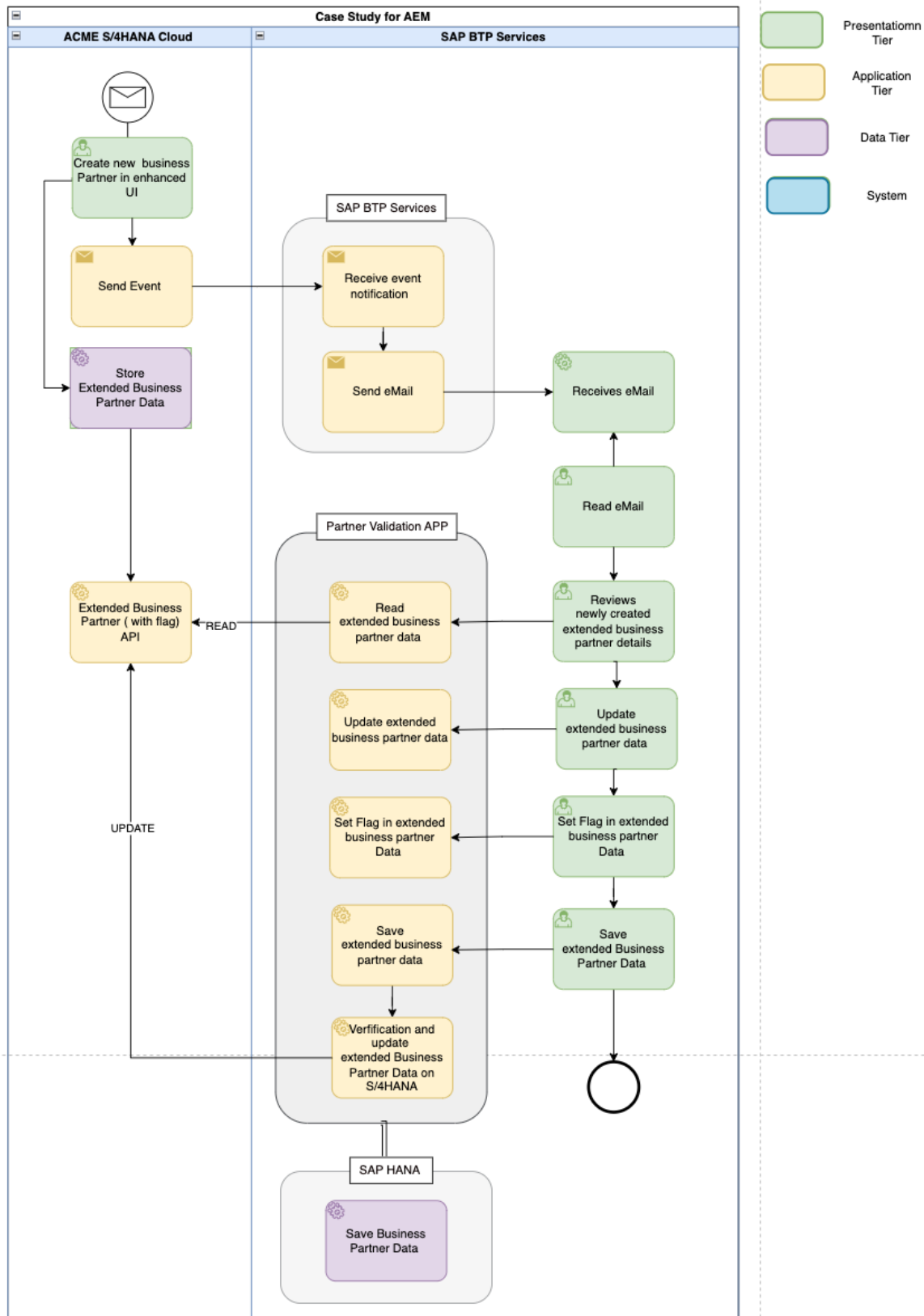
Figure 13 – Changed Activity Diagram

My assessment

The activity diagram is correct according to the current state of knowledge. The activities, such as **Create new Business Partner** etc. are possible both on an S/4HANA onPremise system, as well as in a SAP S/4HANA Cloud public edition.

Ex02: Using S/4HANA cloud public Edition in Phase 2

Exercise Description

At a board meeting, it was decided to use the SAP S/4HANA Cloud Public Edition as the API supplier for the business partner instead of SAP S/4HANA on Premise as the business system.

Your task is to determine the impact of this change on the planning that has already been completed and to adapt the corresponding artifacts.

To do this, please go through the individual documents/definitions/diagrams that have already been completed in the individual phases.

Phase 2: Technology evaluation

Task 1: Define the Extension Styles

- Examine the section: **Phase 2: Task 1: Assess Extension Technology - Extension Styles** and identify the changes that are required.
- Briefly summarize these changes.

The following must be changed:

1
2
3

Figure 14 – Changes

Task 2: Define Extension Tasks

- Examine the section: **Phase 2: Task 2: Assess Extension Technology - Extension Tasks** and identify the changes that are required.
- Briefly summarize these changes.

The following must be changed:

1

2

3

Figure 15 – Changes

Task 3: Define Extension Technology Mapping

- Examine the section: **Phase 2: Task 3: Assess Extension Technology - Extension Technology Mapping** and identify the changes that are required.
- Briefly summarize these changes.

The following must be changed:

1

2

3

Figure 16 – Changes

Solution for Ex02: Using S/4HANA cloud public Edition in Phase 2

Exercise Description

At a board meeting, it was decided to use the S/4HANA Cloud Public Edition as the API supplier for the business partner instead of SAP S/4HANA on Premise as the business system.

Your task is to determine the impact of this change on the planning that has already been completed and to adapt the corresponding artifacts.

To do this, please go through the individual documents/definitions/diagrams that have already been completed in the individual phases.

Phase 2: Technology Evaluation

Task 1: Define the Extension Styles

- Examine the section: **Phase 2: Task 1: Assess Extension Technology - Extension Styles** and identify the changes that are required.
- Briefly summarize these changes.

The following must be changed:

1. The definition of the integration Styles does not change due to the replacement of SAP S/4HANA onPremise with the SAP S/4HANA Cloud public edition.

2. It is therefore only the description of SAP S/4HANA onPremise to SAP S/4HANA Cloud public Edition

3. The Ex. Domain must be renamed to **Core Solution Extension Domain** as we are now operating all systems in the cloud

Task 2: Define Extension Tasks

- Examine the section: **Phase 2: Task 2: Assess Extension Technology - Extension Tasks** and identify the changes that are required.
- Briefly summarize these changes.

The following must be changed:

1 The definition of the integration Tasks does not change due to the replacement of SAP S/4HANA onPremise with the SAP S/4HANA Cloud public edition.

2 It is therefore only the description of SAP S/4HANA onPremise to SAP S/4HANA Cloud public Edition

3 The Ex. Domain must be renamed to **Core Solution Extension Domain** as we are now operating all systems in the cloud

Task 3: Define Extension Technology Mapping

- Examine the section: **Phase 2: Task 3: Assess Extension Technology - Extension Technology Mapping** and identify the changes that are required.
- Briefly summarize these changes.

The following must be changed:

1 The definition of Extension Technology Mapping change due to the replacement of SAP S/4HANA onPremise with the SAP S/4HANA Cloud public edition.

2 It is therefore only the description of SAP S/4HANA onPremise to SAP S/4HANA Cloud public Edition

3 The Ex. Domain must be renamed to **Core Solution Extension Domain** as we are now operating all systems in the cloud

Ex03: Using S/4HANA Cloud public Edition for Phase 3

Exercise Description

At a board meeting, it was decided to use the SAP S/4HANA Cloud Public Edition as the API supplier for the business partner instead of S/4HANA on Premise as the business system.
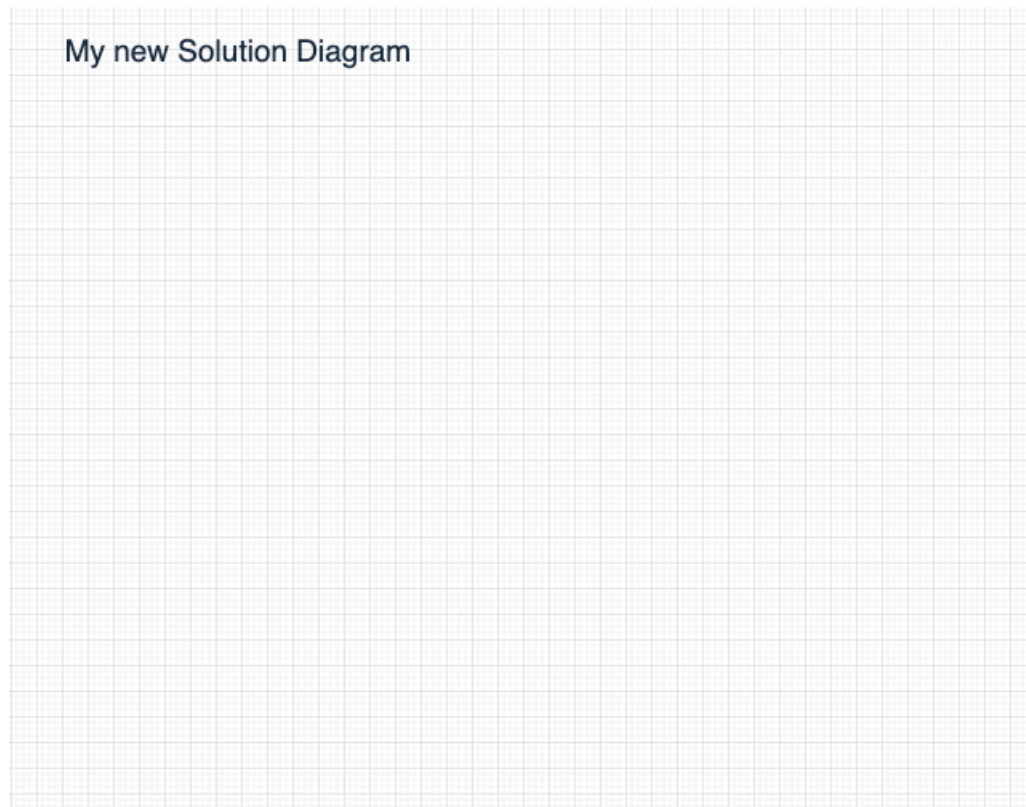
Your task is to determine the impact of this change on the planning that has already been completed and to adapt the corresponding artifacts.

To do this, please go through the individual documents/definitions/diagrams that have already been completed in the individual phases.

Phase 3: Define Extension Target Solution

Task 3: Solution Diagrams

Create a new solution diagram with the changed specifications.

My new Solution Diagram

Solution for Ex03: Using S/4HANA Cloud public Edition for Phase 3

Exercise Description

At a board meeting, it was decided to use the SAP S/4HANA Cloud Public Edition as the API supplier for the business partner instead of SAP S/4HANA on Premise as the business system.

Your task is to determine the impact of this change on the planning that has already been completed and to adapt the corresponding artifacts.

To do this, please go through the individual documents/definitions/diagrams that have already been completed in the individual phases.

Phase 3: Define Extension Target Solution
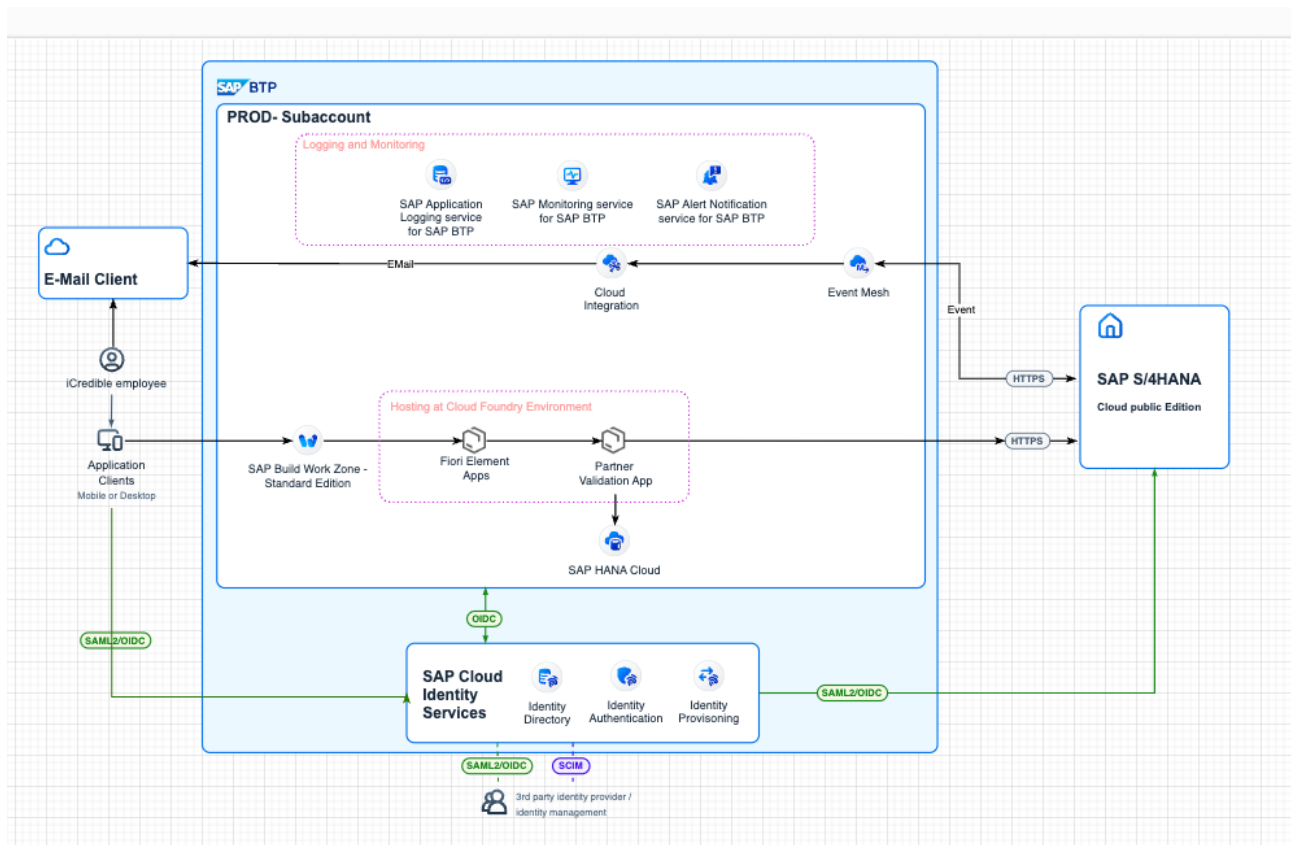
Task 3: Solution Diagrams

The following is a modified solution diagram.

Figure 17 – Possible Solution