



TECHNICAL DESIGN DOCUMENT

Supplier Onboarding Application (SOAPPV1)

Author	Greystar IT
Date	5/20/2024
Business Sponsor	Amanda Goldberg
Project Manager	Austin Cochren
Jira	
Reference Document	FSD Global Supplier Onboarding Application.docx

Contents

1.1	Purpose.....	2
1.2	Scope.....	2
1.3	Assumptions.....	2
2.	Business Objectives.....	3
2.1.	Objectives.....	3
3.	High Level Functional Design Overview.....	4
3.1.	High Level Supplier Compliance Process Flow.....	4
3.2.	Supplier Compliance Cross- Functional Process Flow.....	4
3.3.	Avetta Compliance Process.....	5
4.	Detailed Technical Design.....	6
4.1.	High Level SOAPP Wireframe Diagram.....	6
4.2.	Data Contract.....	6
	Supplier Compliance Data Mapping/Data Contract.....	6
4.3.	Lookups.....	6
	Lookups for SOAPP Wireframe.....	6
4.4.	Screen Design.....	6
4.4.1.	SOAPP Portal Login Page.....	6
4.4.2.	SOAPP Portal Home Page.....	7
4.4.3.	Supplier Intake Form.....	7
5.	ERD.....	13
6.	Integration with Avetta.....	15
6.1.1.	Trigger Supplier Invite to Avetta.....	15
6.1.2.	Import from Avetta into SOAPP.....	15
7.	Integration with Yardi.....	15
7.1.1.	Preparation of Data for Yardi.....	16
7.1.2.	Procedure of Integration into Yardi.....	16
7.2.	Integration with Oracle ERP.....	16
7.2.1.	Preparation of Data for Oracle ERP.....	16
7.2.2.	Procedure of Integration into Oracle ERP.....	16
8.	Test Requirements.....	17
8.1.	Test Requirements.....	17
8.2.	Test Cases.....	17

Introduction

1.1 Purpose

Greystar is a leading, fully integrated global real estate company offering expertise in property management, investment and development services in rental housing, logistics and life sciences sectors. Greystar manages and operates in more than \$300 billion of real estate in 249 markets globally throughout North America, Europe, South America and Asia Pacific region.

Greystar aims to enhance its supplier management process by collaborating with Avetta for credentialing services. The objective is to create a comprehensive, global application for supplier onboarding and offboarding (SOAPP) that will not only integrate with Avetta but also accommodate additional validation services, including bank account verification, in the future.



Primary location for the Supplier Compliance Portal is here.

<https://greystar365.sharepoint.com/sites/SupplierComplianceInitiative704-CoreProjectTeam/Shared%20Documents/Forms/AllItems.aspx?newTargetListUrl=%2Fsites%2FSupplierComplianceInitiative704%2DCoreProjectTeam%2FShared%20Documents&viewpath=%2Fsites%2FSupplierComplianceInitiative704%2DCoreProjectTeam%2FShared%20Documents%2FForms%2FAllItems%2Easpx&id=%2Fsites%2FSupplierComplianceInitiative704%2DCoreProjectTeam%2FShared%20Documents%2FCore%20Project%20Team%2FAvetta&viewid=73ac9dc9%2D1edf%2D43d5%2D8369%2D9312a870510f>



NOTE : This document mainly discusses the technical design approach for the Supplier Onboarding application, covering different screens, integrations, and other technical components, but not in a specific order.

1.2 Scope

Greystar is planning to implement this new application in two phases as illustrated below:

Phase	Countries	Functionality
I	Australia, India, China, Singapore, Japan, Brazil, Mexico & Canada	<ol style="list-style-type: none"> 1. Supplier Onboarding Form (Automated) 2. Avetta Credentialing Services (Automated) 3. Bank Account Verification (Manual)
II	USA	- Same as above -
III	European Countries	- Same as above -

1.3 Assumptions

The design document is based on several critical assumptions:

- The Oracle ATP database will serve as the primary source of truth or Master Data system for supplier information.
- Local systems (Yardi and Oracle) will transition to read-only access for vendor maintenance, with editing capabilities removed. Supplier Admin team will have access to editing only on exception basis.
- The Supplier Onboarding and Administration Portal (SOAPP) will handle all updates, subject to an approval process initiated by requestors and sanctioned by the Supplier Administration Team.

- All existing supplier data in Yardi and Oracle ERP will undergo a cleanup process before being migrated to the Oracle Supplier MDM. This migration will enable users to efficiently request modifications or terminations for the existing suppliers.

2. Business Objectives

This functional specification provides a high-level functional design for both business users and developers and is based on a series of business objectives.

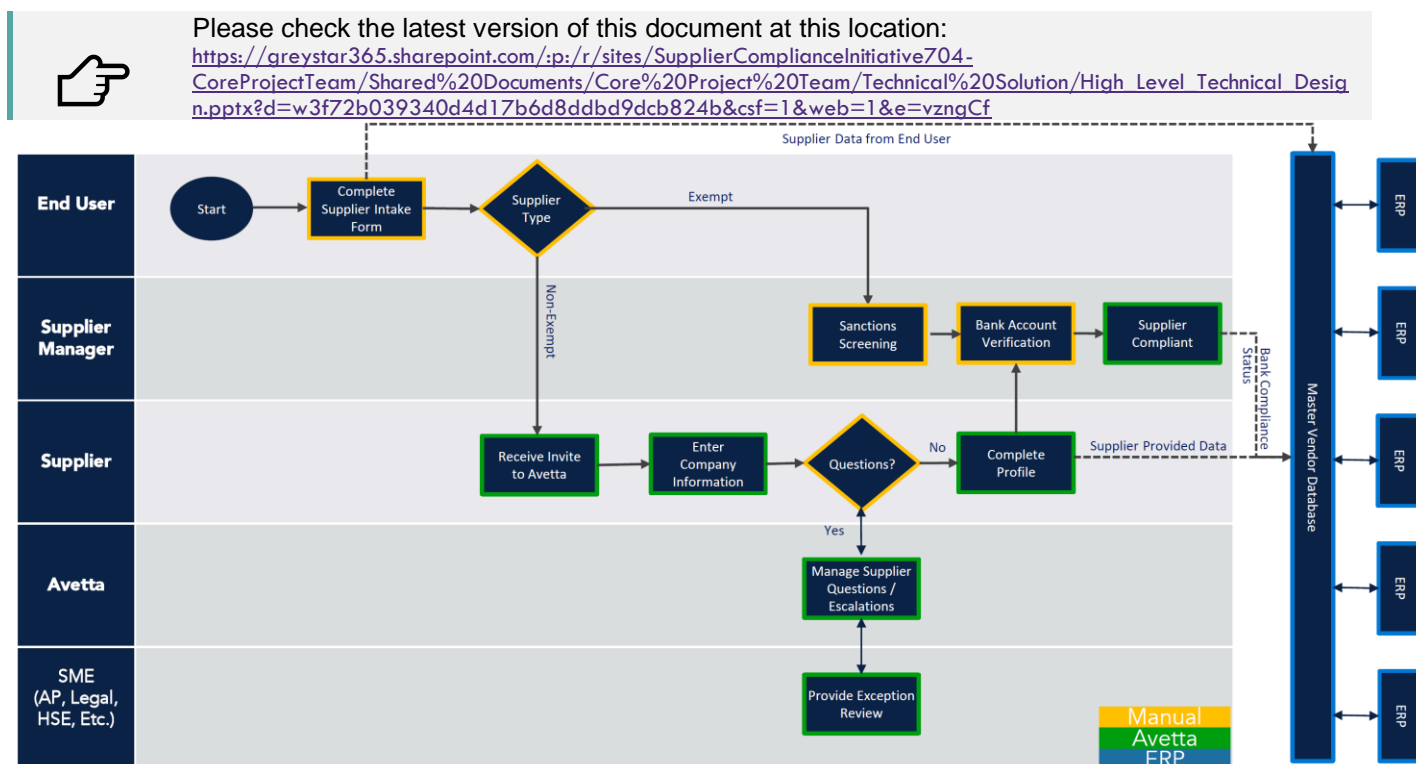
2.1. Objectives

- **Risk Management:** Implement structured vendor risk assessment protocol and insurance requirements to enable monitoring and active risk management to safeguard Greystar.
- **Standardized workflows:** Design and implement standardized workflows for vendor screening and onboarding, ensuring accuracy, consistency, and adherence to policies.
- **Global operating model:** Establish a global operating model for supplier support and onboarding, while accommodating region, country, and business level customization.
- **System integration:** Harmonize data across finance, legal, compliance, and risk systems while automating integration flow.
- **Compliance:** Execute and document required screening for vendors in each jurisdiction with a Greystar presence.
- **Control Environment:** Design safeguards and access controls around vendor banking/payment data to mitigate fraud.

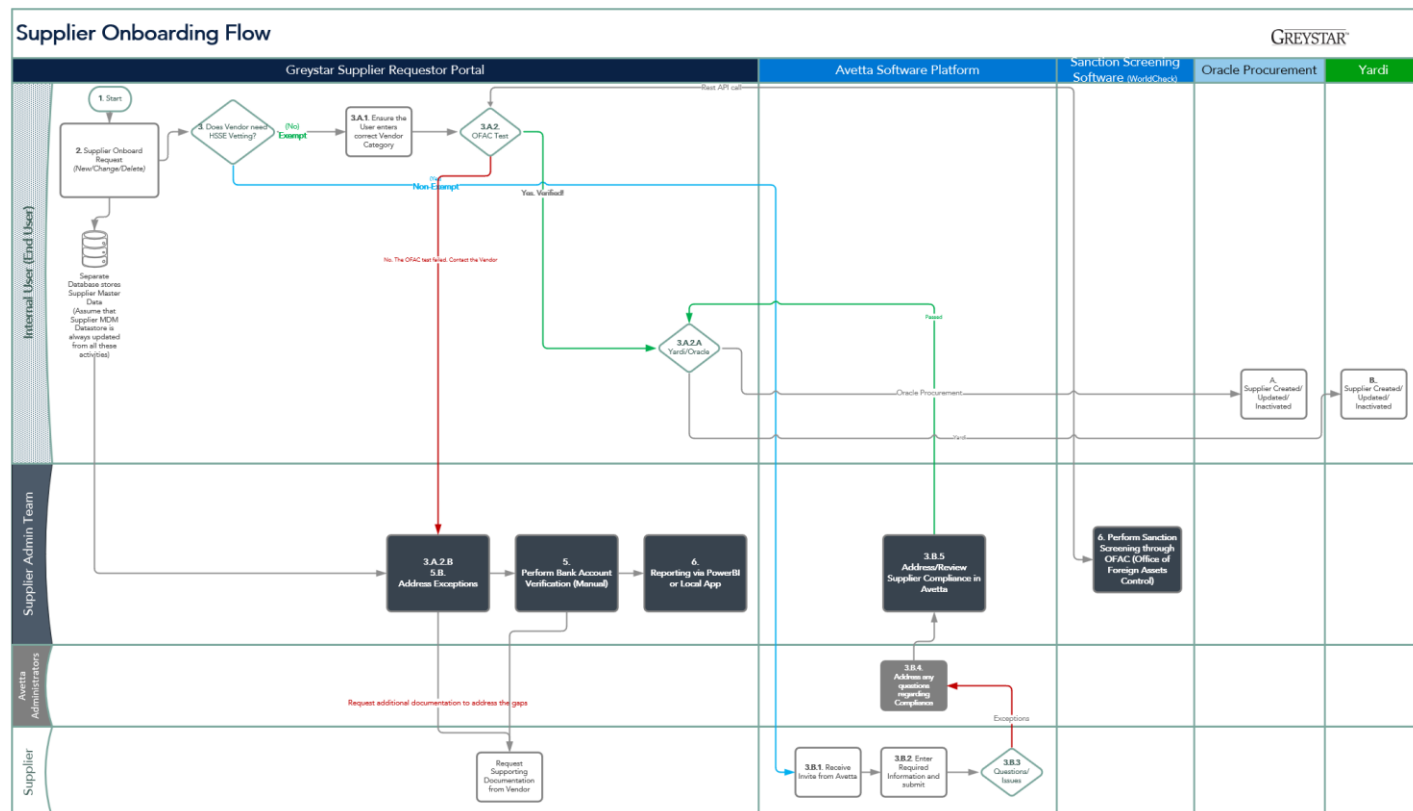
3. High Level Functional Design Overview

This section provides a high-level overview of the design for the functionality that will meet the business objectives, listed in this document. It should only address one business area and as such can form one of many functional specifications for any given release.

3.1. High Level Supplier Compliance Process Flow



3.2. Supplier Compliance Cross- Functional Process Flow



3.3. Avetta Compliance Process

After a supplier is identified for onboarding to Avetta, the items below are included in the Avetta compliance platform.

Compliance Item	Description
Avetta Questionnaire	<p>Questions requested to all suppliers involve:</p> <ul style="list-style-type: none"> • Company: Name, Address, Key contacts • Information Technology: Data policies, Security policies, certifications • Transportation: Driving policies, number of vehicles, accident prevention policies • Quality: Quality Assurance policies, preventative maintenance, inspection records • ESG: Ethics, waster mgmt., emissions programs • Additional questions specific to country of operations
Insurance Collection & Verification	<ul style="list-style-type: none"> • Questions designed to evaluate a suppliers insurance requirements • Tailored by country to Greystar requirements • Insurance verification provided by Avetta if supplier criteria is met
Greystar Supplier Service Addendums	<ul style="list-style-type: none"> • Requires supplier approval of a Greystar supplier service agreement • Future enhancement to include Information Security and Data Privacy Agreements

4. Detailed Technical Design

4.1. High Level SOAPP Wireframe Diagram



Please check the latest version of this document at this location:
[SOAPP- Diagram for Wireframe 5.17.2024 1.pdf](#)

4.2. Data Contract

Supplier Compliance Data Mapping/Data Contract

The data contract between Supplier Master Database, Oracle and Yard is located here.



Please check the latest version of this document at this location:
[Supplier Compliance Data Mapping.xlsx](#)

4.3. Lookups

Lookups for SOAPP Wireframe

List of values to be use in SOAPP Wireframe is located here.



Please check the latest version of this document at this location:



SOAPP Lookup
Import Template 1 (1)

4.4. Screen Design



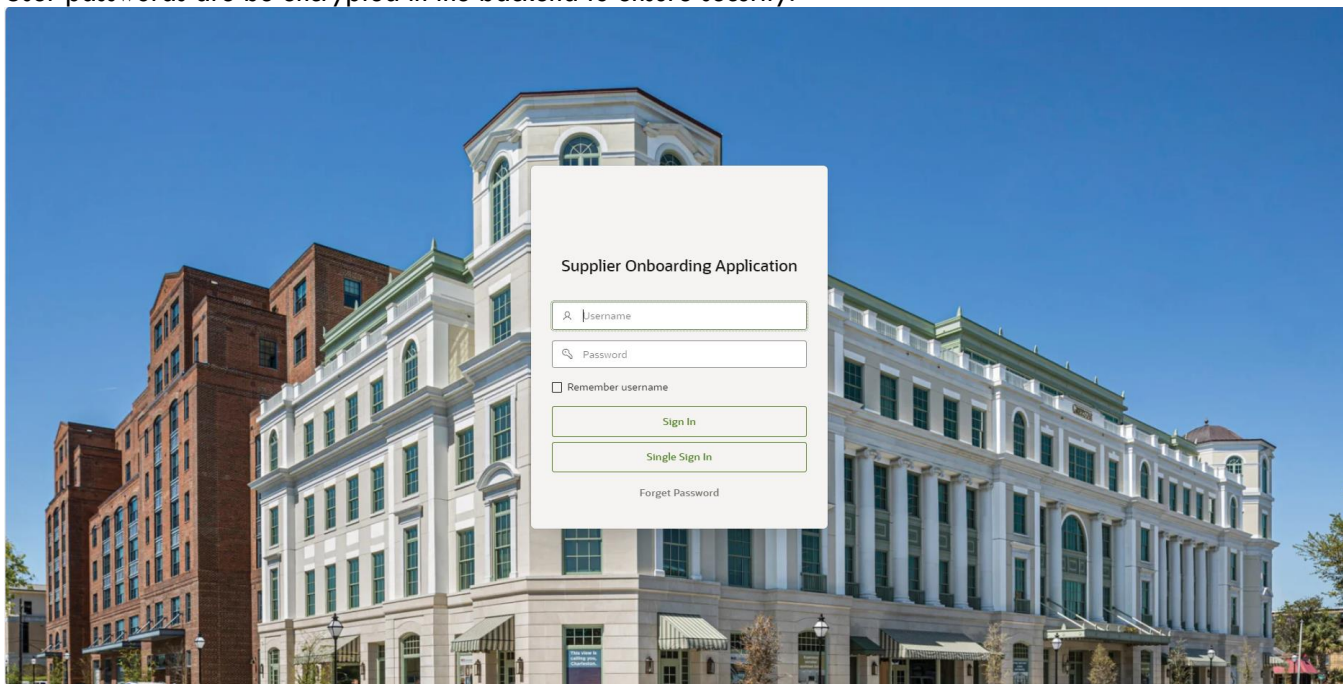
Screen Design Slide deck is located here:
[SOAPP Screen UI Wireframe V2.pptx](#)

4.4.1. SOAPP Portal Login Page

This page will have manual or SSO login options.

1. Users can enter either Single Sign-On (SSO) credentials or manual credentials to log into the SOAPP portal.
2. Users must be predefined in the system before they can log into the SOAPP portal.
3. If users are logged into SSO-related applications in another tab within the same browser, their SSO credentials should automatically be used to log into the SOAPP portal upon refreshing the login page.
4. If a user is defined with SSO login enabled, they will only be able to log in using Greystar SSO credentials. System administrators have complete control over enabling either manual or SSO login for each user.

5. User passwords are be encrypted in the backend to ensure security.



4.4.2. SOAPP Portal Home Page

1. After a successful login with SSO, users will be navigated to the home page.
2. Menu and tiles access on the home page will be displayed based on the user's role as defined during user setup.

4.4.3. Supplier Intake Form

4.4.3.1. Guidance & Submitter Info:

In the following section, we will primarily discuss the logic for SOAPP Wireframe fields.

1.1.1.1. Supplier → Guidance & Submitter Info

Home	Registration Request Number Auto populated	For Greystar Team Member Use Only
Search	Instructions 1. Carefully review and complete each section. Upload required documents where indicated. After submission, the request will be routed to the appropriate regional Greystar Supplier Support Team. 2. A successfully submitted e-mail confirmation will be sent, followed by a request complete confirmation after support completes the request. If any information is missing, or if support has any questions, we will reach out. Please check the dashboard on your homepage for status updates. <i>Requests are processed in the order submitted, within 1-2 business days. If urgent, please follow up with Supplier Support contacts by region here</i> <i>For additional resources visit the OneGreystar Supplier Support page here</i>	
Supplier		
Guidance		
Profile		
Contact		
Payment		
Tax		
Additional Notes		
Requests		

Supplier Category*	<input type="text" value="LOV (Will determine if supplier is Exempt or not)"/>	? Add help text
Country*	<input type="text" value="LOV (Single Country)"/>	
Greystar Line of Business*	<input type="text" value="List of Values (Corp/D&C/GIG-PM)"/>	
Team Member Title	<input type="text"/>	
Pay Group (Oracle Only)	<input type="text" value="LOV"/>	
Payment Terms - Consolidated	<input type="text" value="LOV"/>	

STRICTLY CONFIDENTIAL

Back **I** Next

1. Supplier Category:

- This is a List of Values (LOV). Refer to the 'Supplier Category' from the lookup sheet.
- If the attribute1 is 'non-exempt', then it is a non-exempt supplier.
- If the attribute1 is 'exempt', then it is an exempt supplier.
- If the attribute1 is 'Internal', then it is an internal supplier.

2. Country:

- This is a LOV. Refer to 'Country' from the lookup sheet.
- The requester will select one country at a time.
- Based on the selected country, a supplier site record will be created in the child tables of the vendor master database and following integration systems.

3. Greystar Line of Business:

- This is a LOV. Refer to the 'Greystar Line of Business' lookup from the lookup sheet.
- Based on the Country and Greystar Line of Business, the Business Unit column will be updated in the supplier-level table in the vendor master database.
- There is a separate page (Wireframe to ERP Mapping) in the SOAPP Portal where supplier administrators can define the business unit based on the Greystar Line of Business and Country.

4. Team Member Title:

- This field is required when the supplier category is 'Internal'. It is a free-form field.

5. Pay Group (Oracle Only):

- This is a LOV. Refer to 'Pay Group' from the lookup sheet.

6. Payment Terms – Consolidated:

- This is a LOV. Refer to 'Payment Terms - Consolidated' from the lookup sheet.
- This column is displayed only if the Pay Group column value is 'Consolidated'. In this case, the attribute1 column value should be set to consolidated.

4.4.3.2. Profile and Address Info:

In the following section, we will primarily discuss the logic for SOAPP Wireframe (Profile and Address Info) fields.

Exempt/Internal:

Supplier → Profile Info

No additional comments

Global

Home
Search
Supplier
Guidance
Profile & Address
Contact
Payment
Tax
Additional Notes
Requests

Profile

Registration Request Number Auto populated

Supplier Name* DBA/Remit To *Required

Language LOV (Optional)

Tax ID / Registration #* Validation

Supplier Email*

Supplier Phone

Supplier Website

Remit to Address ?

Address Line 1*	Address Line 2	Address Line 3	City/Town*	State/Province*	Country*	County	Postal Code*

Add help text about remittance address, Address must be Pay to Address

Cancel Save Next

Non-Exempt:

Supplier → Profile Info

No additional comments

Global

Home
Search
Supplier
Guidance
Profile & Address
Contact
Payment
Tax
Additional Notes
Requests

Profile

Registration Request Number Auto populated

Supplier Name* DBA/Remit To *Required

Language List of Values (Optional)

Tax ID / Registration #* *Required/Validation

Add notification text when the Tax ID identified potential duplicate

Remit to Address ?

Address Line 1	Address Line 2	Address Line 3	City/Town	State/Province	Country	County	Postal Code

? Add help text about remittance address

Cancel Save Next

STRICTLY CONFIDENTIAL

GREYSTAR™ 26

1. **Supplier Name (DBA/Remit to):**
 - This is a free-form field with a maximum length of 30 characters.
 - This is a mandatory field for all the supplier categories (Exempt/Non-Exempt/Internal)
2. **Language:**
 - This is a LOV (List of Values). Refer to 'Supplier Language' from the lookup sheet.
 - This is an optional field.
3. **Tax ID / Registration #:**
 - This is a free-form field. When the tab key is pressed, it should validate against the vendor master database (ATP) to check its existence in the system. If the tax registration number already exists, a popup should display the supplier name, supplier code, and tax registration number. Clicking on the supplier code hyperlink in the popup should route to the manage supplier page to review the existing supplier details.
 - This is a mandatory field if the supplier category is exempt or non-exempt. For internal supplier categories, this field is not mandatory.
4. **Supplier Email:**
 - This field is required when the supplier category is 'Internal' or 'External'.
 - It is a free-form field.
 - For non-exempt supplier categories, this column should not be displayed.
5. **Supplier Phone:**
 - This is an optional field when the supplier category is 'Internal' or 'External'.
 - It is a free-form field.
 - For non-exempt supplier categories, this column is not needed.
6. **Supplier Website:**
 - This is an optional field when the supplier category is 'Internal' or 'External'.
 - It is a free-form field.
 - For non-exempt supplier categories, this column is not needed.
7. **Remit to Address:**
 - This is an add table within the tab. Click on "Add Row" to insert a new entry.
 - Address Line 1, City, State, Country, and Postal Code are mandatory fields.
 - Primary validation: When a country is selected, the state LOV (List of Values) should display automatically. When a state is selected, the city LOV should update accordingly.
 - Secondary validation (For future): If a ZIP code is entered and the tab key is pressed, the system should automatically populate the city, state, and country values.
 - Users can add multiple remit to addresses.

4.4.3.3. Contact Info:

Exempt or Internal:

- Contact info tab does not need to be shown for exempt or internal suppliers. This tab is only displayed for non-exempt suppliers.

Non-Exempt:

Supplier → Contact Info (Non-Exempt)

No additional
comments

Global

Home	Contact Details							
Search	First Name*	Last Name*	Supplier Contact Title	Contact E-mail Address*	Phone Number	Fax Number	Language*	Primary
Supplier			e.g. Accounts Receivable Specialist	e.g. jsmith@companyname.com	e.g. 555-555-5555	e.g. 555-555-5555	LOV	<input checked="" type="checkbox"/>
Guidance			e.g. Accounts Receivable Specialist	e.g. jsmith@companyname.com	e.g. 555-555-5555	e.g. 555-555-5555		
Profile			e.g. Accounts Receivable Specialist	e.g. jsmith@companyname.com	e.g. 555-555-5555	e.g. 555-555-5555		
Contact			e.g. Accounts Receivable Specialist	e.g. jsmith@companyname.com	e.g. 555-555-5555	e.g. 555-555-5555		
Payment								
Tax								
Additional Notes								
Requests								

Cancel Save Next

1. **First Name:** This is a free-form field and is mandatory.
2. **Last Name:** This is a free-form field and is mandatory.
3. **Supplier Contact Title:** This is a free-form field and is optional.
4. **Contact E-mail Address:** This is a free-form field and is optional.
5. **Phone Number:** This is a free-form field and is optional.
6. **Fax Number:** This is a free-form field and is optional.
7. **Language:** This is a LOV (List of Values) and is a required field. Refer to lookup sheet (Supplier Language).
8. **Primary:** The user will be able to select one record as primary when multiple records are present. This selection is mandatory.

4.4.3.4. Payment Info:

- Exempt/Internal: Payment info tab is shown only for exempt or internal suppliers. This tab is not displayed for non-exempt suppliers.

Supplier → Payment Info (Int'l - Exempt & Internal Supplier)

Payment

Pending Decision from Accounting on Payment Method

Invoice Currency* Show existing banks in the database and let user type new one as well.

Payment Currency*

Bank Name*

Bank Account Holder's Name*

Bank Account Number*

Remittance Email Address*

Payment Method* (Select One)

Bank Routing Number*

Sort Code*

IBAN*

SWIFT/BIC Code (if applies)

Cancel Save Next

4.4.3.5. Tax:

Exempt/Internal: The Tax info tab is only needed for exempt or internal suppliers and for suppliers in the US and Canada. This tab is not displayed for non-exempt suppliers or suppliers outside these countries.

Supplier → Tax Info (Canada)

Tax

No additional comments

 Canada

Upload Tax Information: Form W-8 BEN

Choose File Remove File No File Chosen

4.4.3.5. Additional Notes:

Exempt/Internal:

Supplier → Additional Notes Info

Home

Search

Supplier

Guidance

Profile

Contact

Payment

Additional Notes

Additional Notes / Comments

Other Supporting Documents (If applies)

Choose File

Remove File

No File Chosen

? Add Help Text

Non-exempt:

Supplier → Additional Notes Info

me

arch

upplier

Guidance

Profile

Contact

Additional Notes

Additional Notes / Comments

5. ERD



6. Integration with Avetta

The following are the key integration points between SOAPP and Avetta:

6.1.1. Trigger Supplier Invite to Avetta

In this process, Oracle sends a trigger for Avetta to initiate compliance request to the supplier. Avetta then sends an email to the supplier requesting to sign-up for Greystar and upload all necessary information.

They following are the key payload details (Avetta Receives the information INTO):

Field Category	Field	Sample Data	I/O
Supplier Details	SupplierID	123456	In
	CompanyName	ABC Corp	In
	LegalName	ABC Corporation	In
	TaxID	98-7654321	In
	DUNSNumber	123456789	In
	BusinessType	Manufacturer	In
Address	Street	1234 Main St	In
	City	Metropolis	In
	State	NY	In
	Country	USA	In
	PostalCode	10001	In
Primary Contact	FirstName	John	In
	LastName	Doe	In
	Email	johndoe@abccorp.com	In
	Phone	+1234567890	In
Bank Account Details	BankName	Bank of Metropolis	In
	AccountNumber	123456789012	In
	RoutingNumber	110001234	In
	SwiftCode	BKMUS33	In
Compliance Checks	HealthSafety	true	In
	Environmental	true	In
	QualityCertifications	["ISO 9001", "ISO 14001"]	In
Contract Details	StartDate	2024-01-01	In
	EndDate	2029-01-01	In
	ContractValue	500000	In

6.1.2. Import from Avetta into SOAPP

In this process, Oracle receives input from Avetta all the necessary information and Compliance status check:

Field Category	Field	Sample Data	I/O
Compliance Details	SupplierID	123456	In
	ComplianceStatus	Compliant	In
	NonComplianceReasons	[]	In
	AdditionalNotes	All required certifications verified.	In

7. Integration with Yardi

The following are the key integration points between SOAPP and Yardi:

7.1.1. Preparation of Data for Yardi

There can be three different types of integration:

1. Create New Supplier
2. Update the Supplier Information
3. Terminate the Supplier

7.1.2. Procedure of Integration into Yardi

The following are the steps to import the Supplier Information into Yardi:

7.2. Integration with Oracle ERP

The following are the key integration points between SOAPP and Yardi:

7.2.1. Preparation of Data for Oracle ERP

There can be three different types of integration:

4. Create New Supplier
5. Update the Supplier Information
6. Terminate the Supplier

7.2.2. Procedure of Integration into Oracle ERP

The following are the steps to import the Supplier Information into Oracle ERP:

8. Test Requirements

8.1. Test Requirements

8.2. Test Cases

#	Test Case	Acceptance Criteria