Technical Design Document

Prepared For

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Contents

1. 1 Revision History

Date	Changed By	Document Version	Revision Made
April, 2023	MP Team	Draft v1	Initial document

2 Document Overview

2.1 Project Purpose & Scope

IFG is seeking a Salesforce Experience Cloud solution to provide access to Order and Shipment information for their customers via a secure web portal. The Digital Experience solution must provide secure login access to Account, Order, and Shipment records in Salesforce, and offer customizable visibility and editing permissions. The solution must allow Customers to obtain access to real time updates related to their Orders and Shipments. In addition, the solution must lay the foundation for a scalable solution capable of utilizing additional Salesforce functionality through enhancements in later phases.

The purpose of the Solution Design Document (SDD) is to provide a high-level outline for the system design and configuration. This document should correlate to additional deliverables created during the design phase (Data Workbooks, etc.) and does not replace the final solution or other documentation that contributes to the design of the system.

2.2 Design Assumptions

The following are assumed as part of the Design

- Mountain Point is not responsible for the management of outside systems, unless stated explicitly in the Scope of Work

2.3   Client Terminology

The following terminology has been noted and may appear throughout the Solution Design Document

Idaho Forest Group Systems & Applications	
LumberTrack (Epicor)	Enterprise Resource Planning
Sales Cloud	Customer Relationship Management
Experience Cloud	Secure portal that will provide Customers access to their Account, Order, and Shipment information

3 Future State

3.1 Future State User Stories

The following user stories represent the high level functionality requests captured by the IFG team during discovery sessions and build reviews. These user stories serve as the foundation for User Acceptance Testing and will be further broken down into business requirements in later sections of the document.

ID	User Story	Functional Area
ST1	As a member of the Sales team, I would like to have access to LumberTrack Account information within Salesforce.	Account Management, Integration
ST2	As a member of the Sales team, I would like to have access to LumberTrack Product information within Salesforce.	Product Management, Integration
ST3	As a member of the Sales team, I would like to have access to LumberTrack Order & Order Product information within Salesforce.	Order Management, Order Product Management, Integration
ST4	As a member of the Sales team, I would like to have access to LumberTrack Shipment & Shipment Line information within Salesforce.	Shipment Management, Shipment Line Management, Integration

ID	User Story	Functional Area
ST5	As a member of the Sales team, I would like to share up-to-date information with my customers in respect to their past & current Orders and the IFG products that comprise those Orders.	Order Management, Order Product Management, Experience Cloud Community
ST6	As a member of the Sales team, I would like to share up-to-date information with my customers in respect to their past & current Shipments and the IFG products that comprise those Shipments	Shipment Management, Shipment Line Management, Experience Cloud Community
ST7	As a member of the Sales team, I would like to share up-to-date information with my customers in respect to the IFG products that comprise their Orders	Order Product Management, Experience Cloud Community
ST9	As a member of the Sales team, I would like to share up-to-date information with my customers in respect to their IFG Account.	Page Layouts, Experience Cloud Community
ST10	As a member of the Sales Team, I would like to have a centralized location for tracking my customer's Orders & Shipments.	
ST11	As a member of the Sales team, I would like to have access to LumberTrack Contact information within Salesforce.	Contact Management, Integration
EX1	As a member of the Executive Leadership Team, I would like to have a centralized location for reporting on IFG customer's sales volume and interactions with the Customer Community.	Integration
EX2	As a member of the Executive Leadership Team, I would like to provide IFG customers with an exclusive Digital Experience from which to track their latest Orders & Shipments	Contact Management, Experience Cloud Community

ID	User Story	Functional Area
EX3	As a member of the Executive Leadership Team, I would like to control which data points are exposed to IFG customers via Digital Experience	Security

3.2 High-Level Object Diagrams

The following diagrams outline the primary SFDC objects and their relationships, outside ERP systems, and business processes.

3.2.1 Salesforce ERD

The following ERD outlines the objects that will be utilized within the Sales Cloud configuration and their relationship with one another.

Figure 1:   Salesforce ERD

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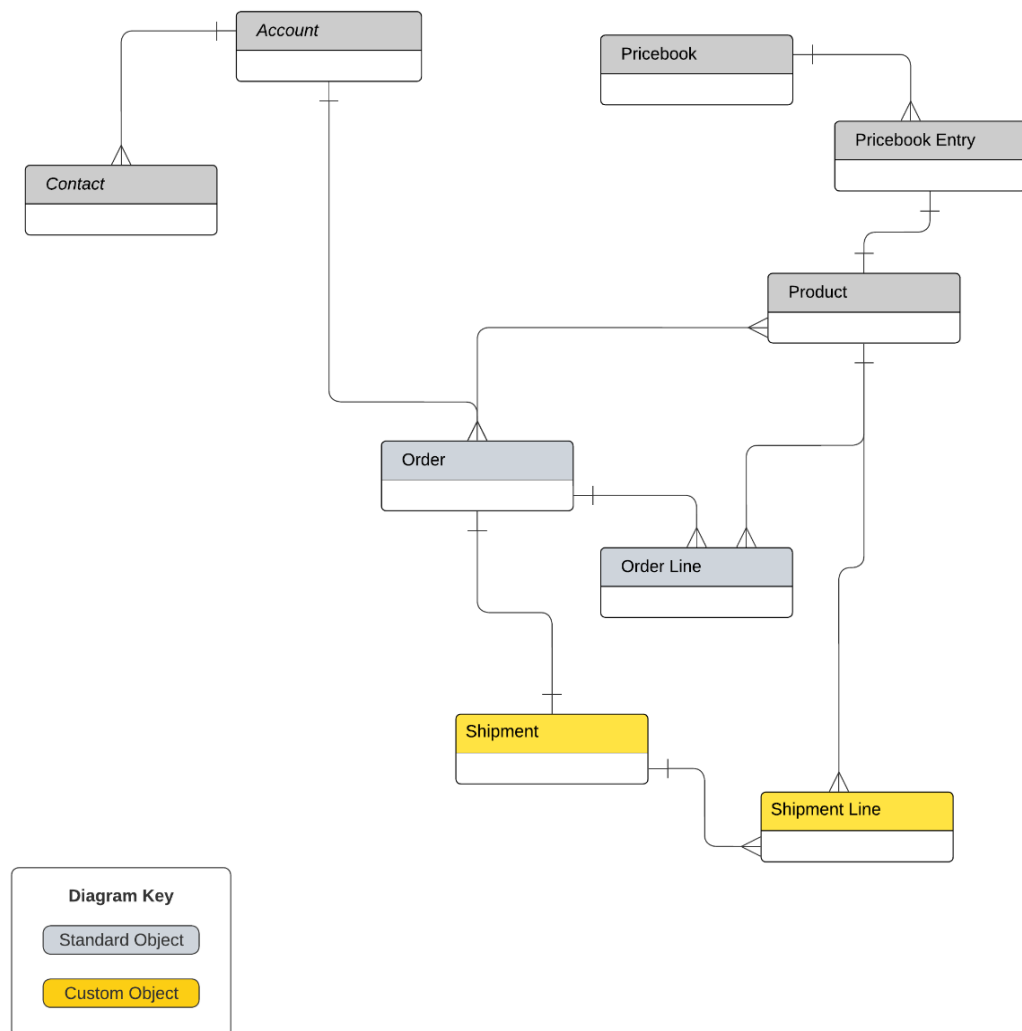
3.2.2 Salesforce & LumberTrack ERD

The following ERD captures the relationships between the Salesforce objects and Lumbertrack objects for integration purposes.

Figure 2:   Salesforce/LumberTrack ERD

Diagram Key

Standard Salesforce Object

Custom Salesforce Object

LumberTrack Object
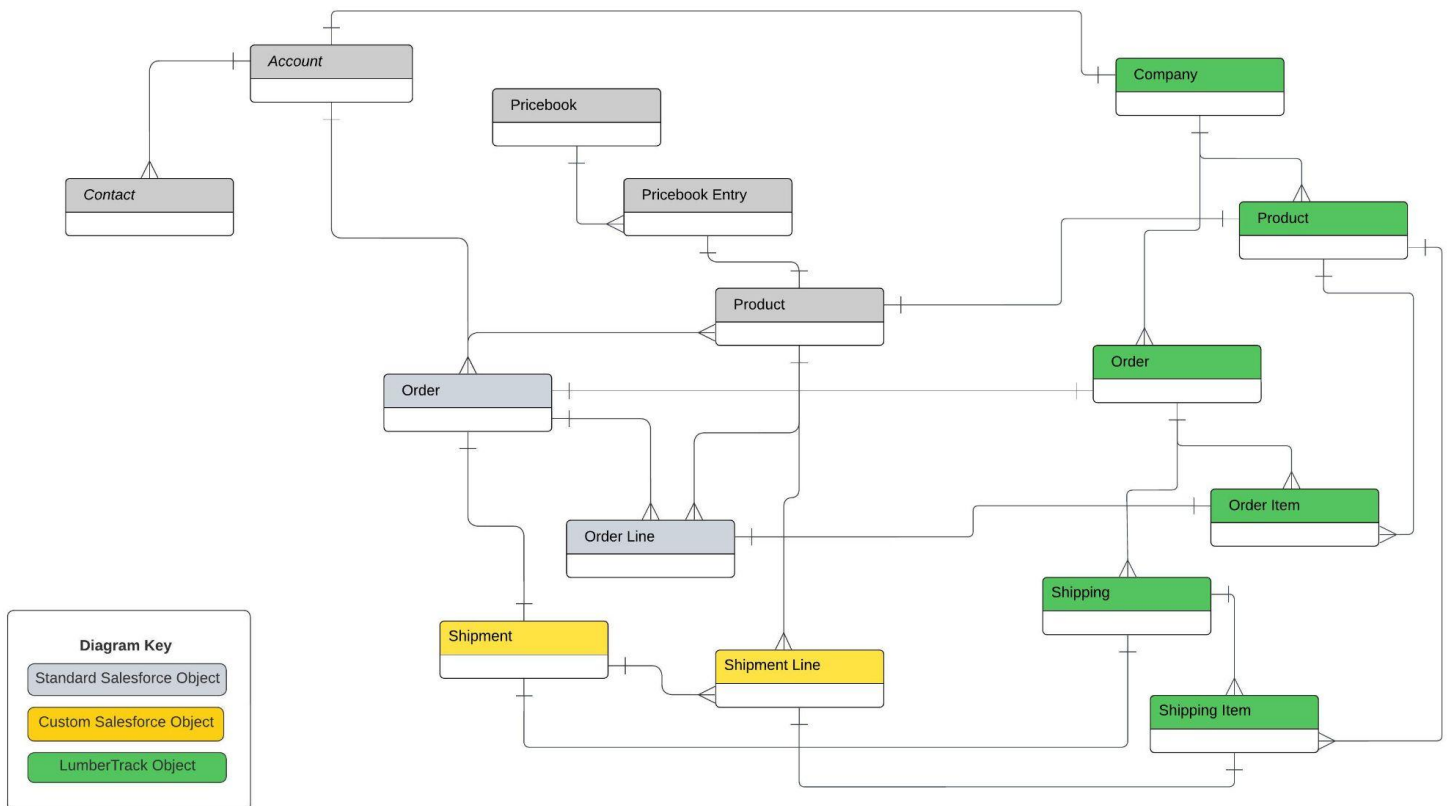
4 Sales Cloud Overview

Salesforce Sales Cloud will serve as the system of record for data relating to Idaho Forest Group's customers and their respective employees, orders, and shipments. The following section of this document outlines the configurations needed within Salesforce to ensure the Customer will have access to the information they need within the Community. All Lumbertrack data will be loaded into Salesforce via an Integration.

Table 1   Object Configuration Overview

| Object	Standard	Definition
Account	Yes	Idaho Forest Group's current and potential customers
Contact	Yes	Representatives who work for or with Idaho Forest Group Customer
Pricebook	Yes	DataTable of products & prices
Product	Yes	Data representing items and/or services sold by Idaho Forest Group
Order	Yes	Data representing Order Header
Order Line	Yes	Data representing a requested product's specifics and current price
Shipment	No	Data representing Shipment Header
Shipment Line	No	Data representing a shipped product's specifics and current price

4.1 Account Overview

The Standard Account object within Salesforce will be utilized to store all data related to Customers that Idaho Forest Group has direct and indirect relationships with. This object will serve as the central point for the Sales and Customer Service team to have a 360 degree view of their Customer at any given time.

4.1.1 Business Requirements

The following are the approved in-scope business requirements that are included in these design elements. Security requirements will be captured in the Security portion of the document

ID	Requirement	Solution Design Element
ST1	Must have ability to access LumberTrack Account information within Salesforce.	Key Fields
ST9	Must have the ability to share Account data with customers.	Page Layouts

4.1.2 Key Fields

The following outlines the proposed key fields. Any standard field that must be edited or any custom field that must be created should be listed below

No.	Name	Field Type	Comment	Standard/Custom
1	Customer Code	External ID Text(200)	LumberTrack UID	Custom
2	Name	Text (200)		Standard
3	Billing Address	Address		Standard
4	Phone Number	Phone		Standard
5	Parent Account	Lookup Relationship		Standard
6	Parent	Formula	If this field = TRUE, Community User sees IFG Navigation for Parent Account Users	Custom

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4.1.3 Page Layouts

The following outlines any fields that should be included/excluded from page layouts associated with record types that need to be created

Page Layout	Key Fields Included	Key Fields Excluded
Account Layout	All Key Fields	
Community Account Layout		Parent

4.2 Contact Overview

The standard Salesforce Contact object will be utilized to store all details regarding an Individual associated with a customer of Idaho Forest Group. Contacts will be associated with a primary Account, and granted visibility into related Accounts via Account Hierarchy settings.

4.2.1 Business Requirements

The following are the approved in-scope business requirements that are included in these design elements. Security requirements will be captured in the Security portion of the document

ID	Requirement	Solution Design Element
EX3	Must have ability to provide IFG customers with an exclusive Digital Experience from which to track their latest Orders & Shipments	Design Notes

4.2.2 Key Fields

The following outlines the proposed key fields rules for the Contact object. Note: fields listed are not an exhaustive list of fields. Only key or critical fields required for call-out in design are mentioned.

No.	Name	Type	Comment
1	Account	Lookup Relationship	Standard Field
2			

4.2.3 Design Notes

The following outlines the additional business rules that will be implemented to support the overall design of the object and related components.

No.	Condition	Result
1	Must have ability to grant Community Login Access customers as needed	Enable Experience User Button
2	Must have ability to remove Community Login Access from customers as needed	Disable Experience User Button

4.3 Order Overview

The standard Salesforce Order object will be utilized to store details regarding an order placed by a customer of Idaho Forest Group.

4.3.1 Business Requirements

The following are the approved in-scope business requirements that are included in these design elements. Security requirements will be captured in the Security portion of the document

ID	Requirement	Solution Design Element
ST3	Must have ability to access LumberTrack Order information within Salesforce	Key Fields
ST5	Must have ability to share up-to-date information with my customers in respect to their past & current Orders	Page Layouts

4.3.2 Key Fields

The following outlines the proposed key fields rules for the Order object. Note: fields listed are not an exhaustive list of fields. Only key or critical fields required for call-out in design are mentioned.

No.	Name	Type	Field Values (If Applicable)	Comment
1	Account	Lookup Relationship		
2	Mode	Picklist	• Rail • Truck • VMI	API Name for picklist values will align with Lumbertrack data format
3	IFG Order Number	External ID Text(100)		
4	PO Number	Number (18, 0)		
5	Order Date	Date		
6	Due Date	Date		
7	Load Pickup Date	Date		

No.	Name	Type	Field Values (If Applicable)	Comment
8	Status	Picklist	Shipped In Progress Void	API Name for picklist values will align with Lumbertrack data format
9	Location	Text		
10	Ship To Address	Address		

4.4 Order Product Overview

The standard Salesforce Order Product object will be utilized to store current details of the purchased products requested by a customer of Idaho Forest Group, including description and current price.

4.4.1 Business Requirements

The following are the approved in-scope business requirements that are included in these design elements. Security requirements will be captured in the Security portion of the document

ID	Requirement	Solution Design Element
ST3	Must have ability to access LumberTrack Order Product information within Salesforce.	Key Fields
ST7	Must have ability to share Order Product status and desired field values with end customer.	Page Layouts

4.4.2 Key Fields

The following outlines the proposed key fields. Any standard field that must be edited or any custom field that must be created should be listed below

No.	Name	Field Type	Comment	Standard/Custom
1	Customer Code	External ID Text(200)		Custom
2	Account	Lookup Relationship		Standard
3	Order	Lookup Relationship		Standard
4	IFG Order	Lookup Relationship		Custom
5	Order Item	Number (18,0)		Custom
6	Product	Lookup Relationship		Standard
7	Product Description	Formula (Text)	HYPERLINK("/" & Id, Product2.Description)	Custom
8	Length	Number (16,2)		Custom
9	Weight	Number (16,2)		Custom
10	Order Quantity	Number (18,0)		Custom
11	Pieces	Number (18,0)		Custom
12	Unit Price	Currency		Standard
13	Freight Cost	Currency		Custom
14	Total Price	Currency		Standard

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4.5 Shipment Overview

The custom Salesforce Shipment object will be utilized to store details regarding an order that has been requested by a customer and accepted by Idaho Forest Group. The Shipment object has a master-detail relationship to the Order object and cannot be created without an associated Order.

4.5.1 Business Requirements

The following are the approved in-scope business requirements that are included in these design elements. Security requirements will be captured in the Security portion of the document

ID	Requirement	Solution Design Element
ST4	Must have ability to access LumberTrack Shipment information within Salesforce.	Key Fields
ST6	Ability to share up-to-date information with customers in respect to their past & current Orders.	Page Layouts

4.5.2 Key Fields

The following outlines the proposed key fields. Any standard field that must be edited or any custom field that must be created should be listed below

No.	Name	Field Type	Comment	Standard/Custom
1	Customer Code	External ID Text(200)		Custom
2	Account	Lookup Relationship		Custom
3	Order	Lookup Relationship	Master-Detail	Custom

4	Shipment Number	Name		Standard
5	Mode	Picklist		Custom
6	Ship Date	Date		Custom
7	Picked Date	Date		Custom
8	Status	Picklist		Custom
9	Unit Number	Text (200)		Custom
10				

4.6 Shipment Line Overview

The custom Salesforce Shipment Line object will be utilized to store current details related to the shipped products including description and current price.

4.6.1 Business Requirements

The following are the approved in-scope business requirements that are included in these design elements. Security requirements will be captured in the Security portion of the document

ID	Requirement	Solution Design Element
ST4	Must have ability to access LumberTrack Shipment & Shipment Line information within Salesforce.	Key Fields
ST8	Must have ability to share up-to-date information with customers in respect to the IFG products that comprise their Shipments	Page Layouts

4.6.2 Key Fields

The following outlines the proposed key fields. Any standard field that must be edited or any custom field that must be created should be listed below

No.	Name	Field Type	Comment	Standard/Custom
1	Customer Code	External ID Text(200)		Custom
2	IFG Order Number	Lookup Relationship		Custom
3	Shipment Number	Lookup Relationship	Master-Detail	Custom
4	Customer PO	Number (18,0)		Custom
5	Product Description	Formula (Text)	HYPERLINK("/" & Id, Product2.Description)	Custom
6	Product	Lookup Relationship		Custom
7	Length	Number (16,2)		Custom
8	Pack Size	Number (16,2)		Custom
9	Volume	Number (16,2)		Custom
10	Weight	Number (16,2)		Custom
11	Number of Tags	Number (16,2)		Custom
12	Status	Picklist	Value inherited from Shipment	Custom

4.7 Product Overview

The custom Salesforce Product object will be utilized to store details pertaining to items and/or services sold by Idaho Forest Group

4.7.1 Business Requirements

The following are the approved in-scope business requirements that are included in these design elements. Security requirements will be captured in the Security portion of the document

| ID	Requirement	Solution Design Element
ST2	Must have ability to access LumberTrack Product information within Salesforce.	Key Fields

4.7.2 Key Fields

The following outlines the proposed key fields. Any standard field that must be edited or any custom field that must be created should be listed below

No.	Name	Field Type	Comment	Standard/Custom
1	Product Name			Standard
2	Active	Checkbox		Standard
3	Product Description	Text (1000)		
4	Product Code	Text (255)		Standard
5	Unit Price	Currency		Custom
6	Pieces Per Pack	Number (16,2)		Custom

7	Volume	Number (14,4)		Custom

5 Experience Cloud Community

Figure 3: Data Flow from Sales Cloud to Experience Cloud Community
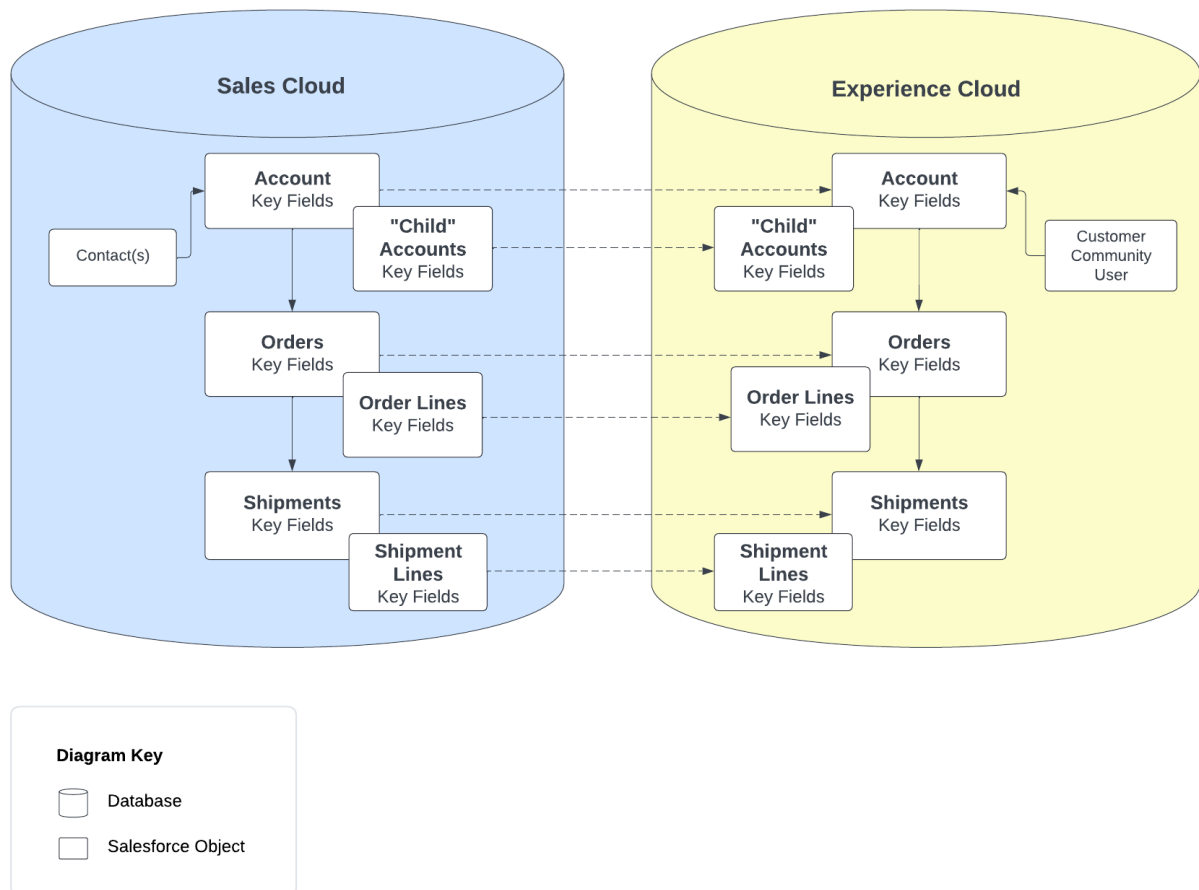
5.1 Community Overview

The Salesforce Experience Cloud Community will be utilized to allow customers of IFG the ability to view their own Account Information as well as check on the status of current & past Orders as well as Shipments.

The objectives met through the following design elements include:

- Provide secure login access to Account & Order records in Salesforce
- Offer customizable visibility and editing permissions
- Give users the ability to access the most current order status information

5.1.1 Business Requirements

The following are the approved in-scope business requirements that are included in these design elements. Security requirements will be captured in the Security portion of the document

ID	Requirement	Solution Design Element
ST5	Must have the ability to share up-to-date information with customers in respect to their past & current Orders.	Navigation
ST6	As a member of the Sales team, I would like to share up-to-date information with my customers in respect to their past & current Shipments.	Navigation
ST7	Must have ability to share up-to-date information with customers in respect to the IFG products that comprise their Orders	Related List Component
ST8	As a member of the Sales team, I would like to share up-to-date information with my customers in respect to the IFG products that comprise their Shipments	Related List Component
ST9	Must have the ability to share up-to-date information with customers in respect to their IFG Account.	Personalized Navigation
EX3	Must have ability to provide IFG customers with an exclusive Digital Experience from which to track their latest Orders & Shipments	Design Notes

5.2 Navigation

5.2.1 Object Navigation

All Community Users will be granted access to the following Objects via Navigation Tabs:

- Account
- Order
- Shipment

The following objects will be exposed to the Community via Related Lists and will not have a dedicated Navigation Tab:

- Order Product
- Shipment Item

5.2.2 Personalized Navigation

To accommodate Community Users with differing Account access, two Navigation Menus will be created:

No.	Navigation Menu	Menu Labels & Destinations	Criteria
1	IFG Primary Navigation	- Account, Account Page - Orders, My IFG Orders List - Shipments, My IFG Shipments List	N/A (default)
2	IFG Navigation for Parent Account Users	- Accounts, My Accounts List - Orders, My IFG Orders List - Shipments, My IFG Shipments List	User > Contact > Account > Parent = TRUE

5.2.3 Design Notes

The following outlines the additional business rules that will be implemented to support the overall design of the object and related components.

No.	Condition	Result
1	Must allow access to select customers	Customers who have been granted login access via Salesforce will have ability to access the Community

6 Security

The following section outlines the security configuration that has been built within Salesforce to support the business requirements.

6.1 Security Requirements

Requirement	Object
Must provide limited, read only access to Community Users	Account, Order, Order Product, Shipment, Shipment Line
Must provide no access to Community Users	Contact

6.2 Organization Wide Defaults

Organization Wide Defaults (OWD) define the minimum level of access for the objects in your Salesforce instance, setting the foundation of security. These defaults in combination with Profiles help dictate the overall security before adding in Permission Sets and Sharing Rules. Below is an explanation of the different options for Organization Wide Defaults.

- **Private**: Only the owner can see the Record
- **Public Read:** All Users can see the Record, despite who the Owner is
- **Public Read/Write:** All Users can see and edit the Record, despite who the Owner is
- **Public Read/Write/Transfer:** This mainly applies to Leads. All Users can see, edit, and transfer Ownership of the Record despite who the Owner is

	Default Internal	Default External
Account	Public Read	Public Read

Contact	Controlled by Parent	Controlled by Parent
Order	Public Read/Write	Public Read/Write
Order Product	Public Read/Write	Public Read/Write
Shipment	Public Read	Public Read
Shipment Line	Controlled by Parent	Controlled by Parent

6.3 Roles

Salesforce Roles will be utilized to define record visibility and access. Users are automatically granted access to all records that Users below them in the role Hierarchy own or have Read access to.

Figure 6: Idaho Forest Group Role Hierarchy
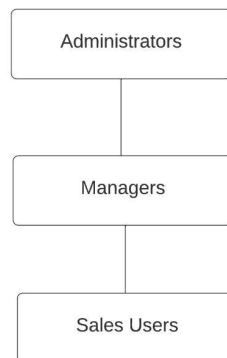
6.4 Custom Profiles

The following profiles have been created to support the security requirements of the IFG team:

- IFG Community User
- IFG Sales User
- IFG Service Agent

- Integration Profile:
  - **Only utilized for the Integration User record within Salesforce**
  - Password set to never expire
  - Access can only be granted via API login
  - Exempt from MFA requirements

6.5 Profile Object Permissions

C – Create, R – Read, E – Edit, D - Delete

Object	IFG Community User	IFG Sales User	IFG Service Agent	Integration Profile	System Admin
Account	R	R	R	CRED	CRED
Contact		R	R	CRED	CRED
Order	R	R	R	CRED	CRED
Order Product	R	R	R	CRED	CRED
Shipment	R	R	R	CRED	CRED
Shipment Line	R	R	R	CRED	CRED

6.6 Public Groups

Public Groups will be utilized to share records and List Views with specific users as needed

Group Name	Members
All Internal Users	IFG Sales User Profile, IFG Service Agent Profile, System Admin

Community Users	IFG Community User Profile

6.7 Sharing Sets

Object	Criteria	Permission
Account	User > Account = Account>Parent	Read

7 Analytics

The following Reports will be utilized to track Idaho Forest Group customer sales volume and Community adoption.

7.1 Report Design Details

Table 3   Report Details

No.	Report Requirement	Objects Involved	Known Data Points Included	Known Filters
1				
2				
3				

7.2   Dashboard Design Details

Table 4   Dashboard Details

No.	Dashboard Title	Type	Running User	Dynamic
1	Customer Activity		Dashboard Viewer	No
2	Customer Sales		Dashboard Viewer	No

8 Data Integration

Data Integration between Salesforce CRM and LumberTrack (Epicor) will be established by the Idaho Forest Group IT team.

The data mapping will be detailed in the Mapping Workbook.

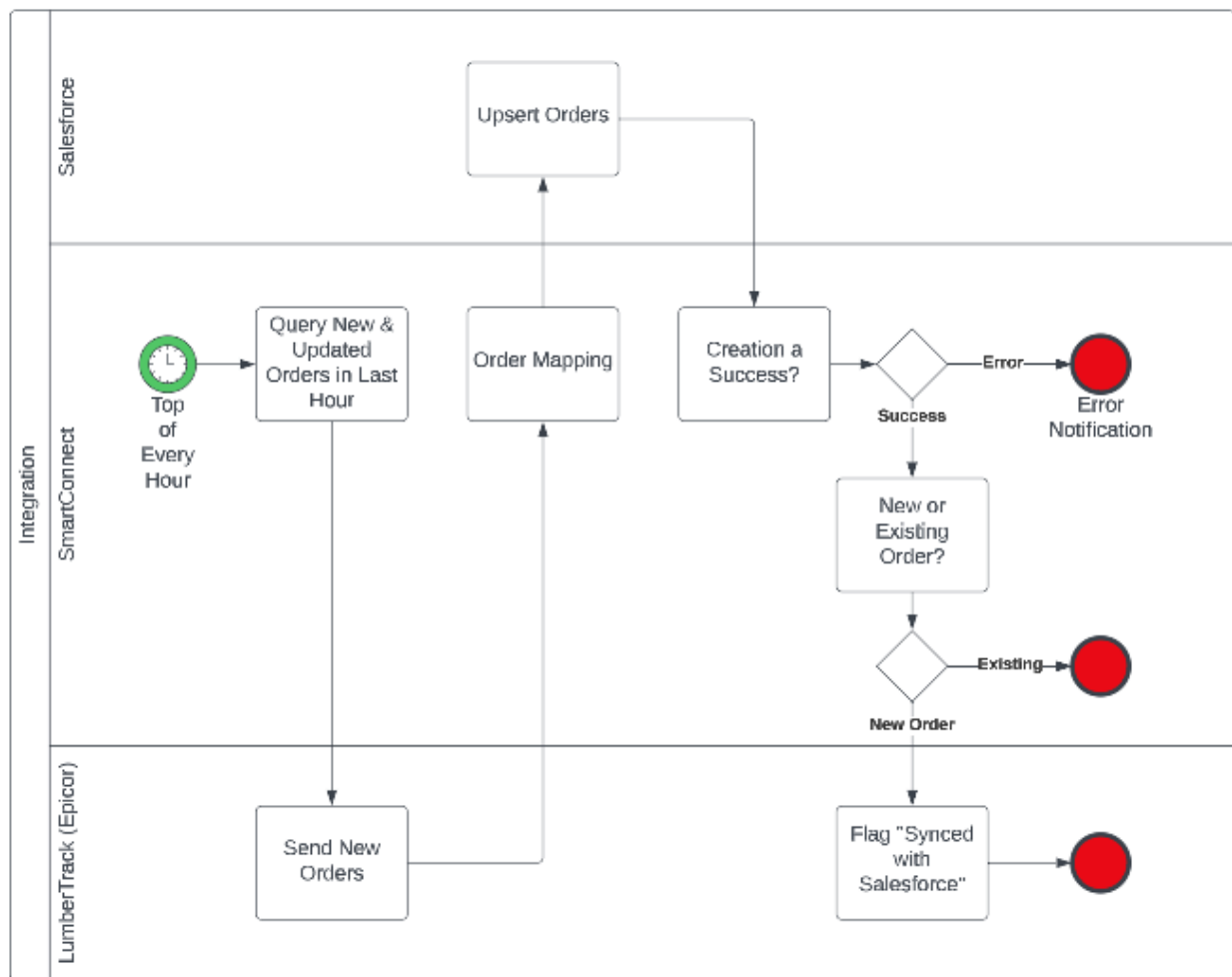## 8.1 Data Integration Process Flows

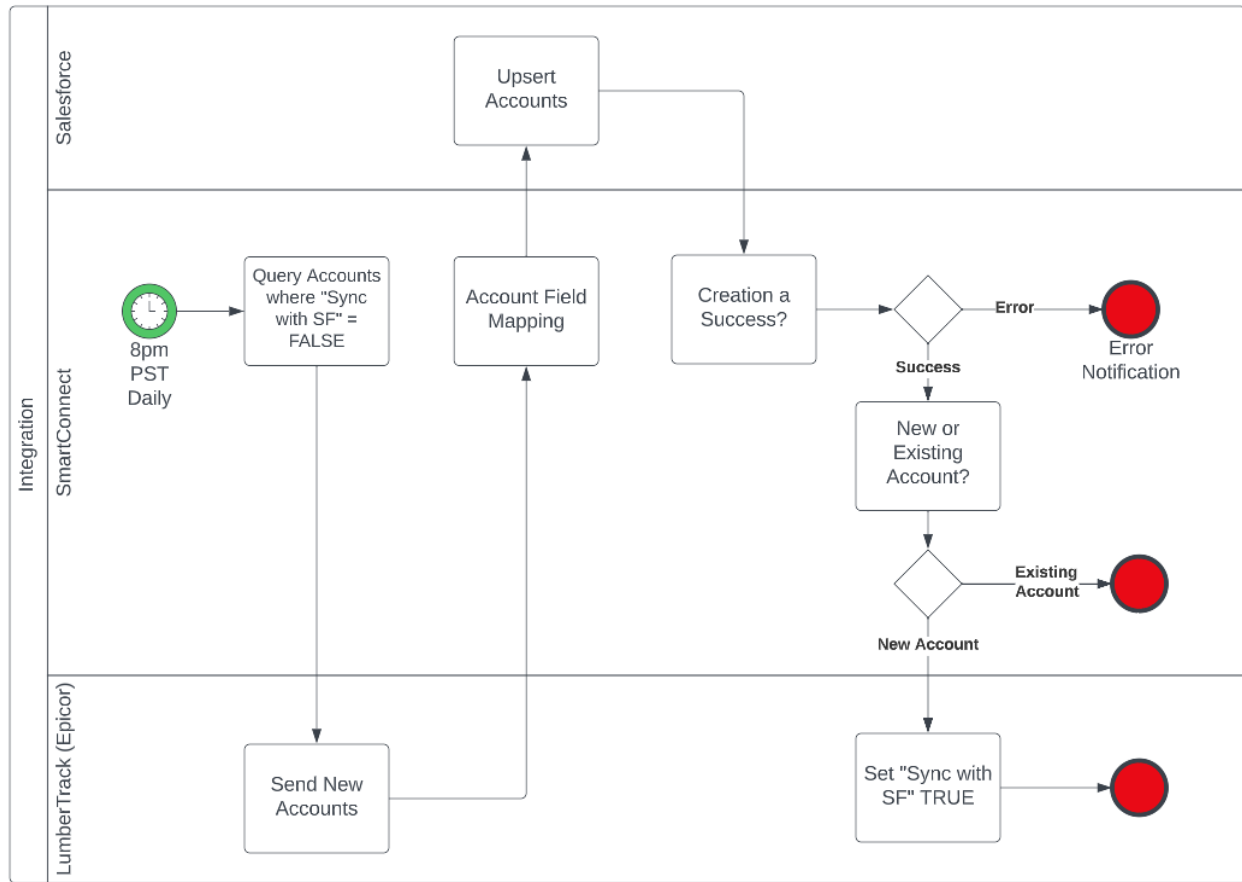Figure 4: Order Integration
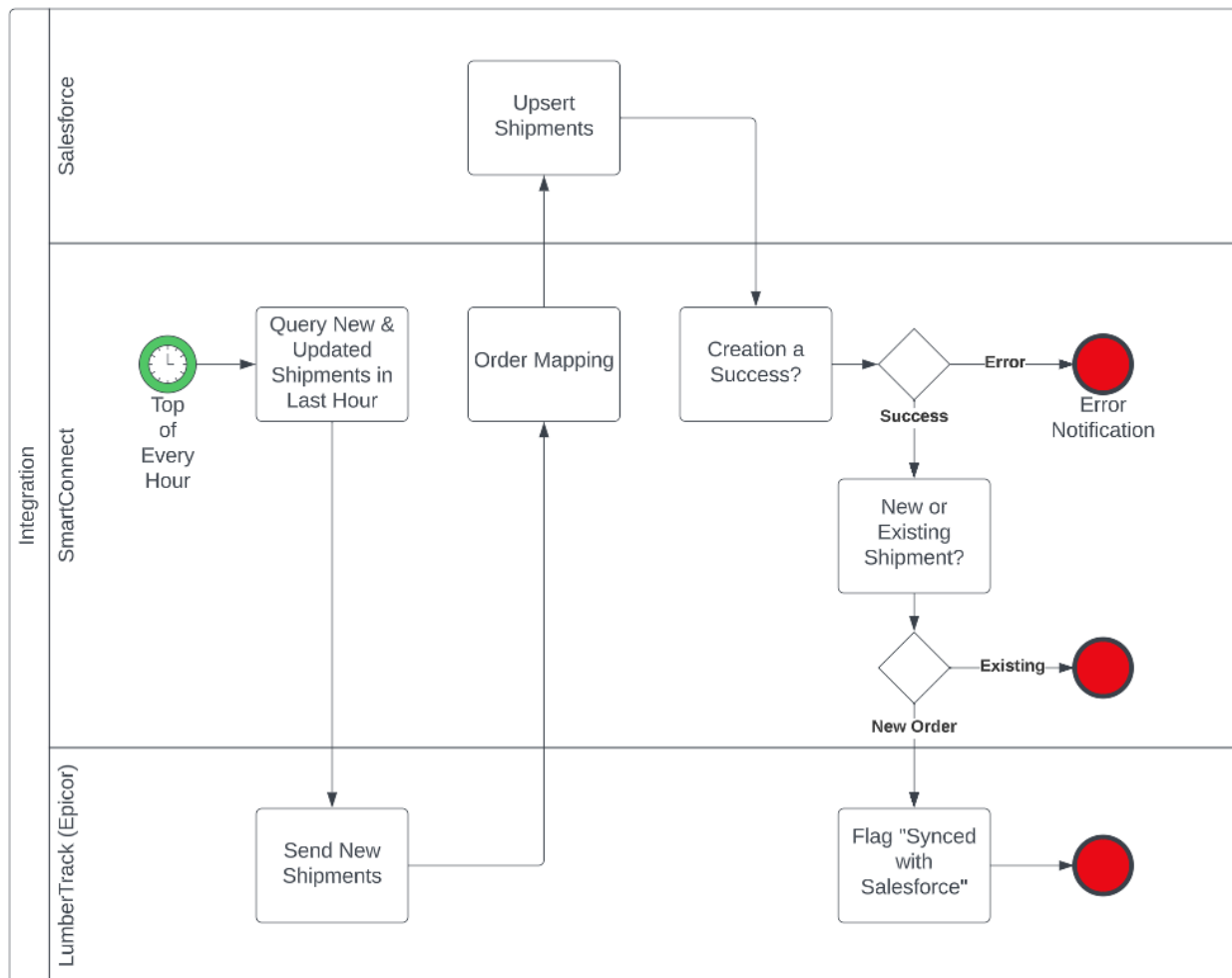
Figure 5: Account Integration

Figure 6: Shipment and Shipment Line Integration

8.2 Data Integration Requirements

The following are the in-scope integration requirements that have been captured.

Requirement	Object

ST1	Must have the ability to accurately map data originating in Lumbertrack into the Salesforce Account records	Account
ST11	Must have the ability to accurately map data originating in Lumbertrack into the Salesforce Contact records	Contact
ST3	Must have the ability to accurately map data originating in Lumbertrack into the Salesforce Order records	Order
ST2	Must have the ability to accurately map data originating in Lumbertrack into the Salesforce Order Product records	Order Product
ST4	Must have the ability to accurately map data originating in Lumbertrack into the Salesforce Shipment records	Shipment
ST4	Must have the ability to accurately map data originating in Lumbertrack into the Salesforce Shipment Line records	Shipment Line

8.3 Data Integration Design

The following outlines the data integration design for data passing from LumberTrack (Epicor) to SFCD.

Table 6   Data Integration Requirements

ID	Source System	Target System	Frequency	Direction
1	LumberTrack (Epicor)	Salesforce CRM	Hourly	Unidirectional