

# ● Offers & Contracts IT Architecture

Arch. Guidelines and Business Process Mapping

Arpit Chouksey

come

and

see

Canon

# Offers & Contracts ⇔ Architecture Guiding Principles for Pearlchain

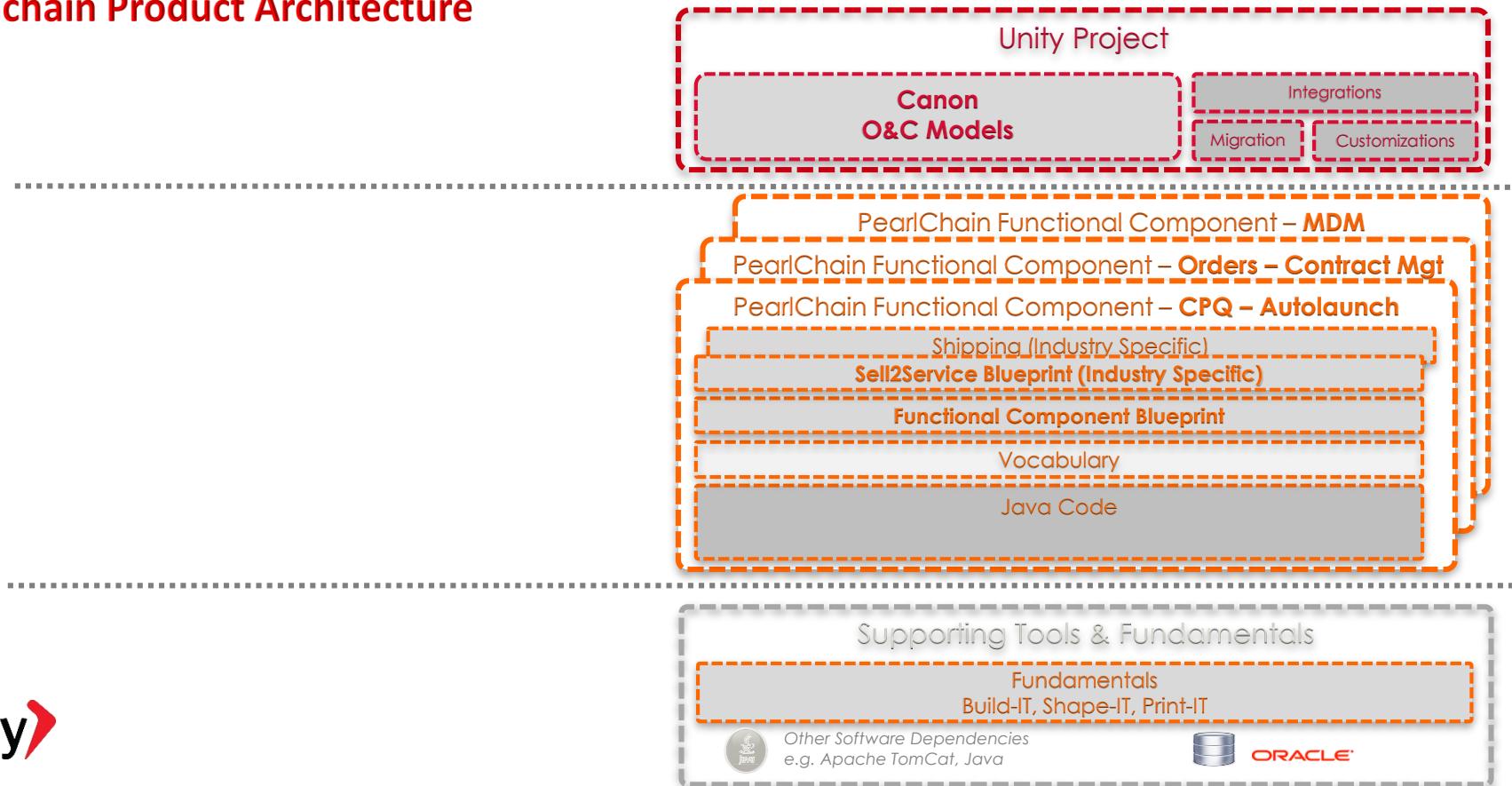
- **Configuration** – Pearlchain will provide IT capability to configure products for offer. Supports the global and local configuration rules and other required business logic. It should effectively decommission OSLO and SOL systems.
- **Pricing** – Pearlchain will provide IT capability for Pricing Framework as per the Pricing Strategy decided by Enterprise Architecture.
- **Quote** – Pearlchain will provide IT capability for creating and managing Opportunity & Quotes. It will also provide the capability to do credit check with credit management application. It is not positioned to cover all the proposal related requirements like marketing collaterals. This is beyond the scope. It should effectively decommission OSLO and SOL systems.
- **Document Management** – Pearlchain will provide IT capability for enabling the document management as per the Enterprise Architecture guidelines on DPA (Therefore, Cosmos & Inspire). Pearlchain is not positioned to build this capability but instead providing necessary input to DPA to enable document management.
- **Contract Management** – Pearlchain will provide IT capabilities to enable Contract Management supporting the required Canon & OCE practices inline with X-TOM principles. It should effectively decommission the OKS, OKL, OMSI/OCS systems.
- **Autolaunch** – Pearlchain will provide IT capability to enable the seamless integrated journey/user experience from CPQ to Contract Management and other required fulfillment order systems without the need to re-type or manage the CPQ information.
- **Install Base** – Pearlchain will provide IT capability to enable the Install Base Management for Canon & OCE practices and effectively decommission the Oracle Install Base Module. Pearlchain will provide the IT capability to send and receive updates Install Base from other applications.
- **Entitlements** – Pearlchain will provide IT capability to setup Entitlements for CPQ & Contract Management. Pearlchain will provide or enable IT capability to transfer the necessary entitlement data to support the Service execution system.
- **Usage** – Pearlchain will provide IT capability to capture the Usage data manually and electronically where required.
- **Billing** – Pearlchain will provide IT capability to calculate and generate the Contract related Billing data to the required specifications. Pearlchain will also provide the IT capability to provide the necessary Contract billing data to Invoicing/Tax systems to generate the final invoice towards customer.

# Offers & Contracts ⇔ Architecture Guiding Principles for Pearlchain

- **Event Based Accounting** – Pearlchain will provide IT capability to calculate and generate the Contract related Events data to the required specifications. Pearlchain will also provide the IT capability to provide the necessary Contract related Events data to Accounting Hub to generate the Accounting string and posting towards General ledger.
- **Leasing** – Pearlchain will provide IT capability to enable the External and Internal Leasing of Assets to customer as per Canon Leasing guidelines. Pearlchain is not positioned to do Asset life cycle management. Pearlchain will provide IT capability to enable creation and update of Assets in Oracle FA.
- **Customer Master** – Pearlchain will provide IT capability to manage the Customer/Prospect master data as per the agreed Architecture on MDM including CLM.
- **Product Master** – Pearlchain will provide IT capability to manage Product Master and Bill of Material as per the agreed Architecture on MDM including PLM.
- **Integrations** – Pearlchain will provide IT capability to integrate with other systems in Canon IT Landscape as per the agreed architecture. Integration framework capability should be able to support the exception management for inbound/outbound and messages/data moving within the application also.
- **Migrations** – Pearlchain will provide IT capability to migrate the Open Master & Transaction Data from Legacy Applications where applicable keeping intact the data integrity and all the required business logic to process it further.
- **IAM & Security** – Pearlchain will provide IT capability to enable the Identity Access Management – Single Sign On as per Canon Enterprise Architecture guidelines on IAM and Security when it is required by certain processes. Example Manage Opportunity.
- **User Access Control** – Pearlchain will provide IT capability to enable the Function and Multi – Org based access control to the Users.
- **Reporting** – Pearlchain will provide IT capability to enable the Operational and BI reporting. This is as per the agreed architecture of BI.
- **Portal** – Pearlchain will provide IT capability to enable the Canon Web Portal requirements as per the agreed architecture.
- **Archiving** – Pearlchain will provide IT capability to enable the Archiving of old and closed data as per the architecture guidelines.

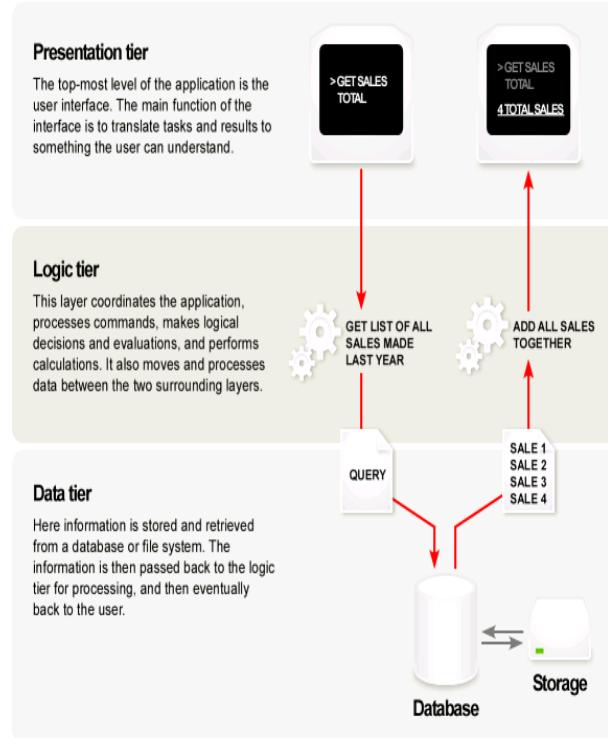
# Offers & Contracts ⇔ Pearlchain

## Pearlchain Product Architecture

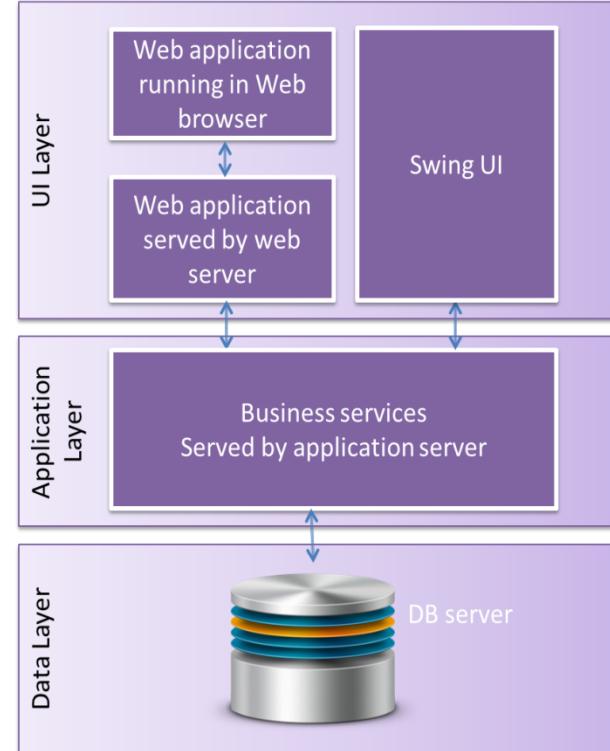


# Offers & Contracts ⇔ Pearlchain

## Pearlchain Multi-tier Architecture



Multi-tier architecture



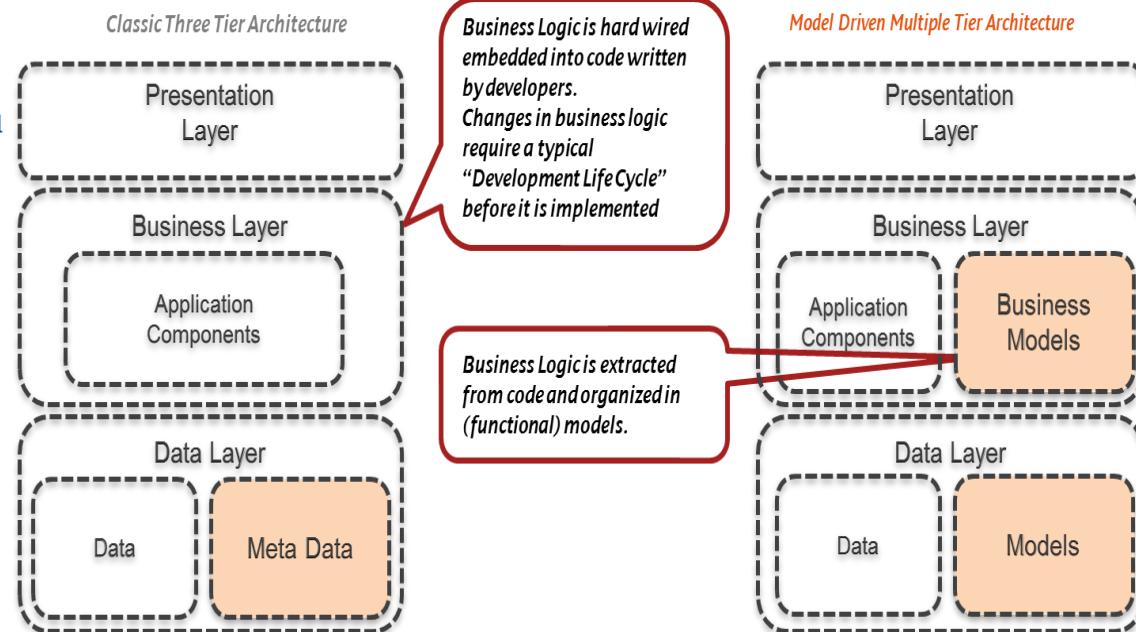
High-level PearlChain architecture

# Offers & Contracts ⇔ Pearlchain

## Adaptive Object Modeling

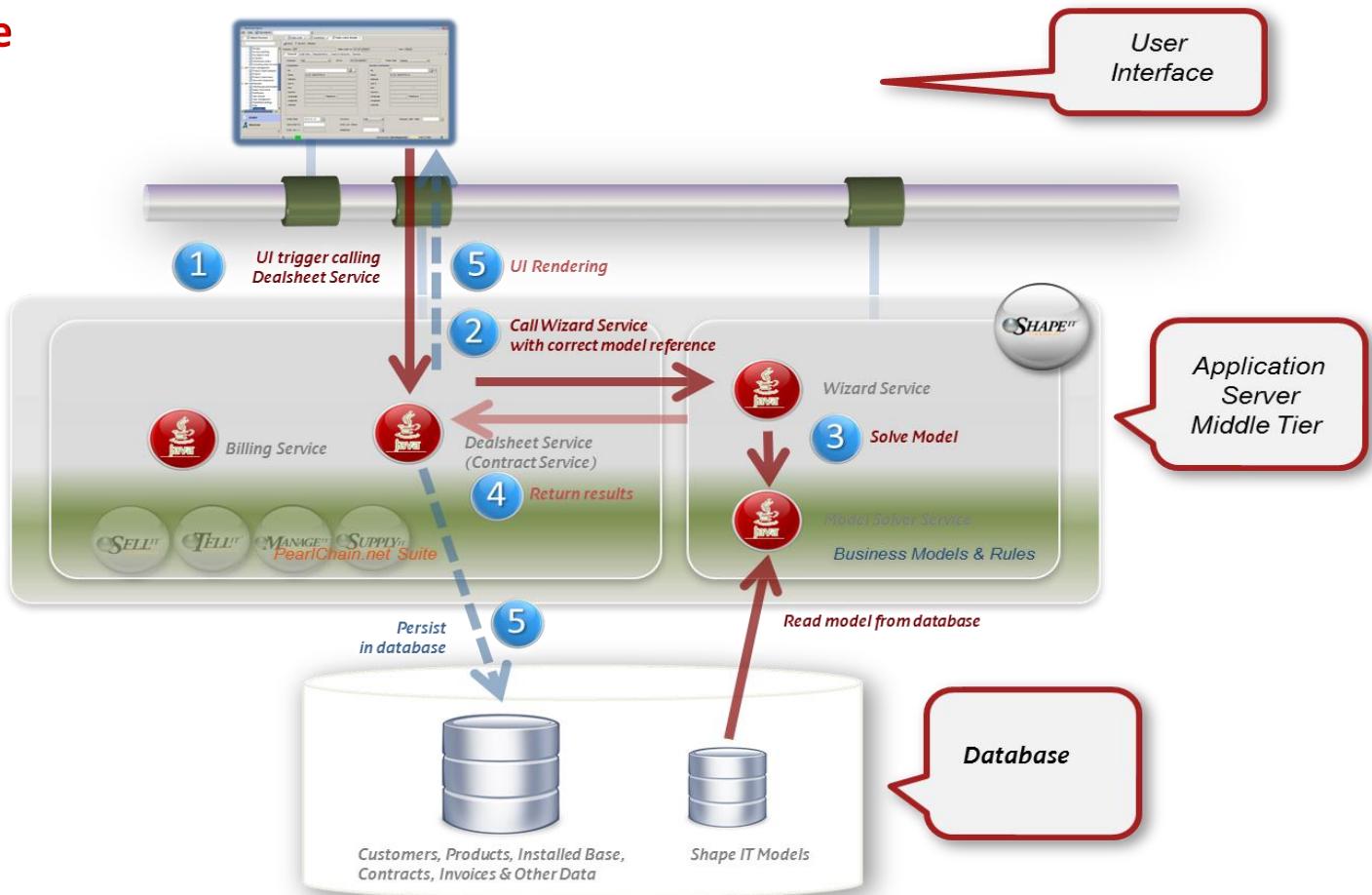
Architectures that can dynamically adapt to changing requirement are sometimes called reflective or meta-architectures. We call a particular kind of reflective architecture an Adaptive Object-Model (AOM). An Adaptive Object-Model is a system that represents classes, attributes, relationships, and behavior as metadata. It is a model based on instances rather than classes. Users change the metadata (object model) to reflect changes to the domain model. AOM stores its Object-Model in XML files or in a database and interprets it. Consequently, the object model is adaptive; when the descriptive information for the object model is changed, the system immediately reflects those changes.

## Model Driven Architecture



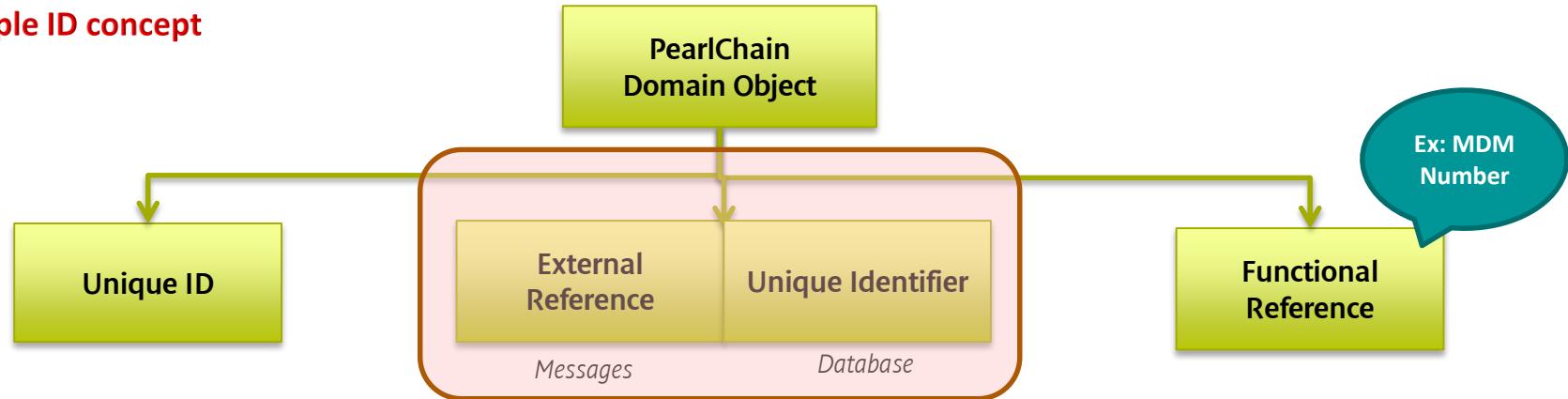
# Offers & Contracts ⇔ Pearlchain

## Model Driven Software



# Offers & Contracts ⇔ Pearlchain

## Pearlchain Triple ID concept



### *Unique Identification*

- Technical, internal
- Unique (!)
- **Mutable**
- Not to be exposed
- Internally used for high performance relationships between data objects

### *External Reference*

- Unique (!)
- **Permanently immutable**
- Used for *correlation* : uniquely map messaged data with internal object instances for inbound or outbound messages

### *Functional Reference*

- Not guaranteed unique
- Human readable
- **Mutable**

# Offers & Contracts ⇔ Pearlchain

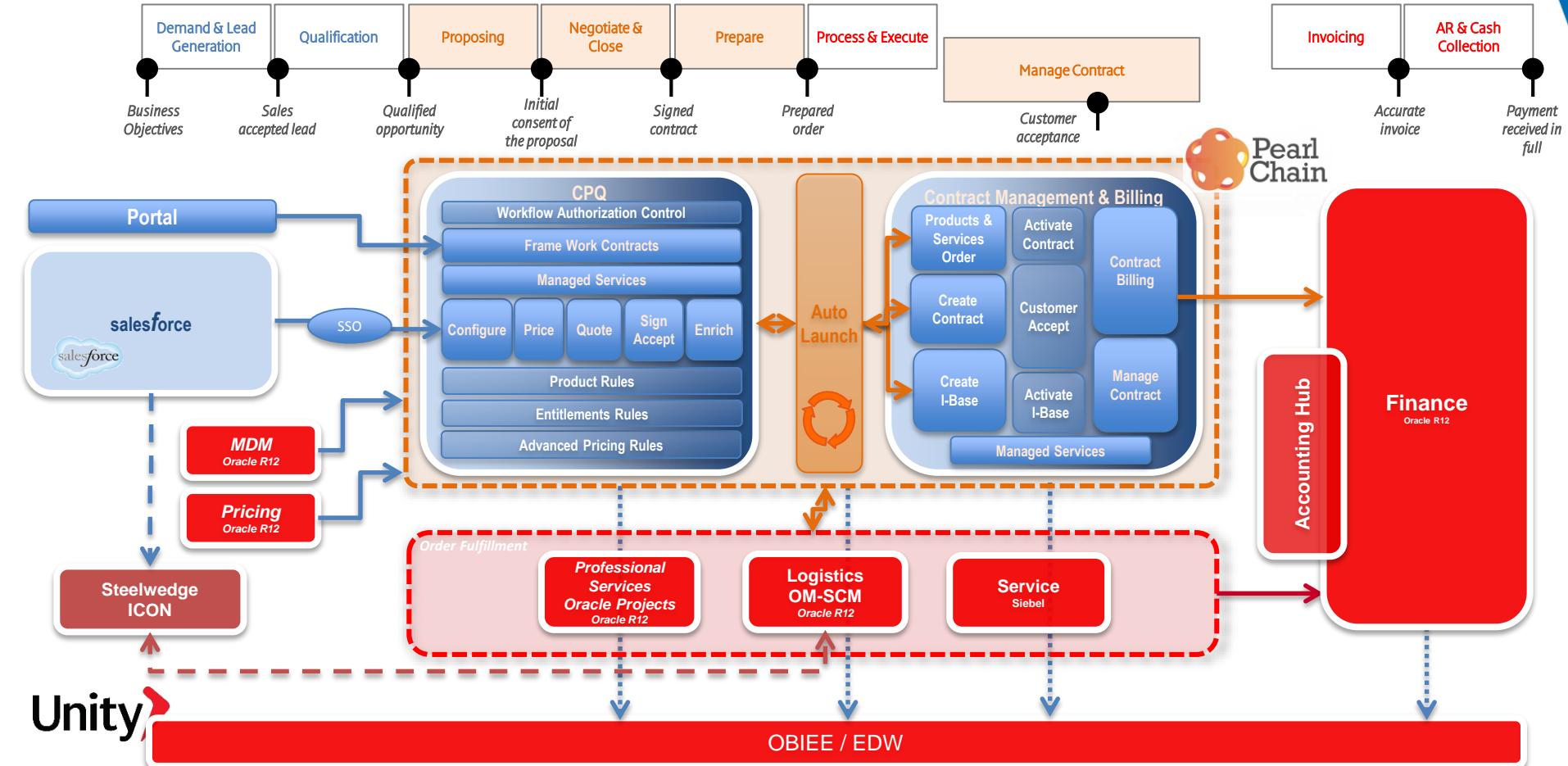
## Organizational Scope\*

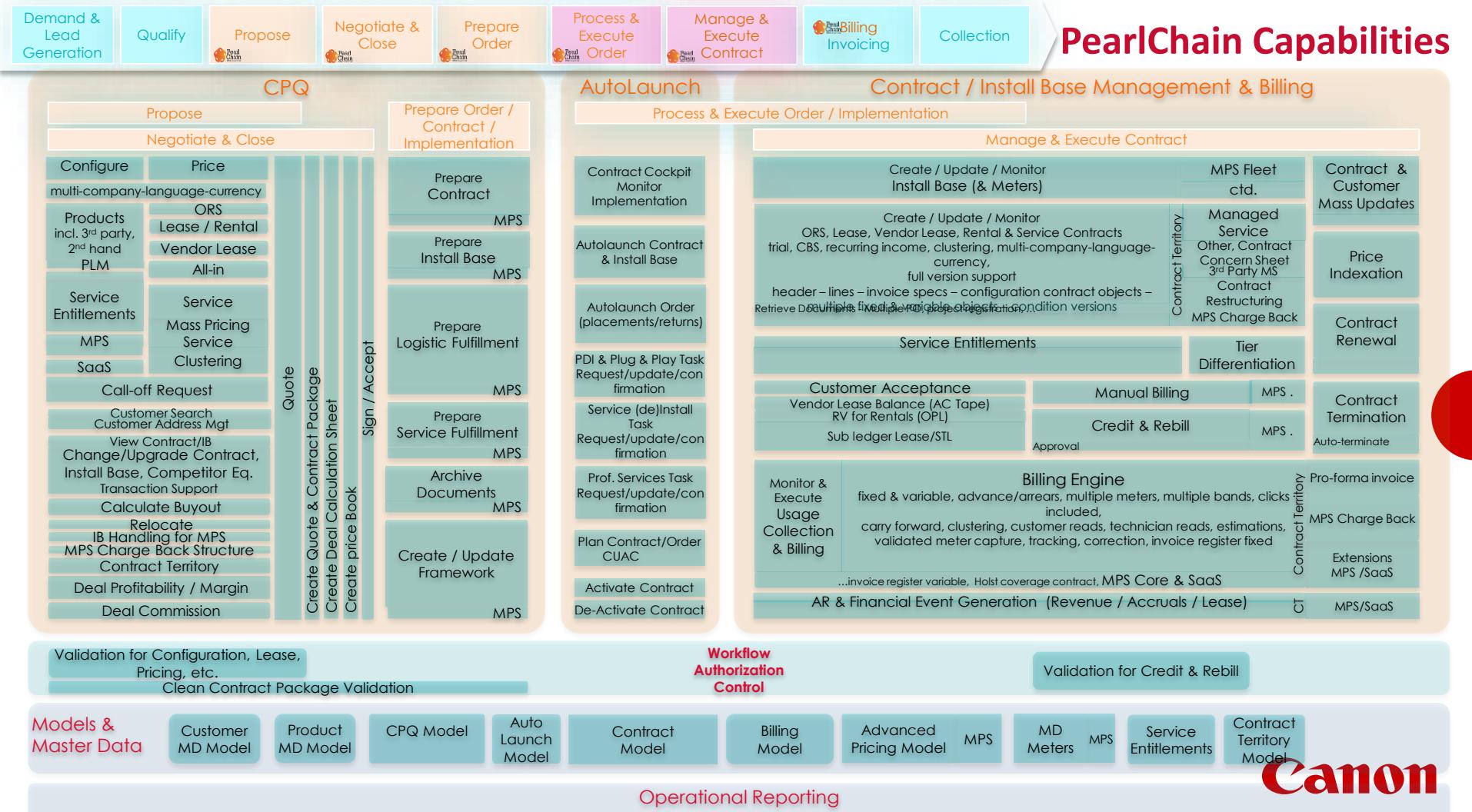


- Data is organized in organizational scope's, we mapped the Scope with the “Operating unit”-entity
- The “Master” level is used the manage data in scope independent way. With data we refer here to Master Data

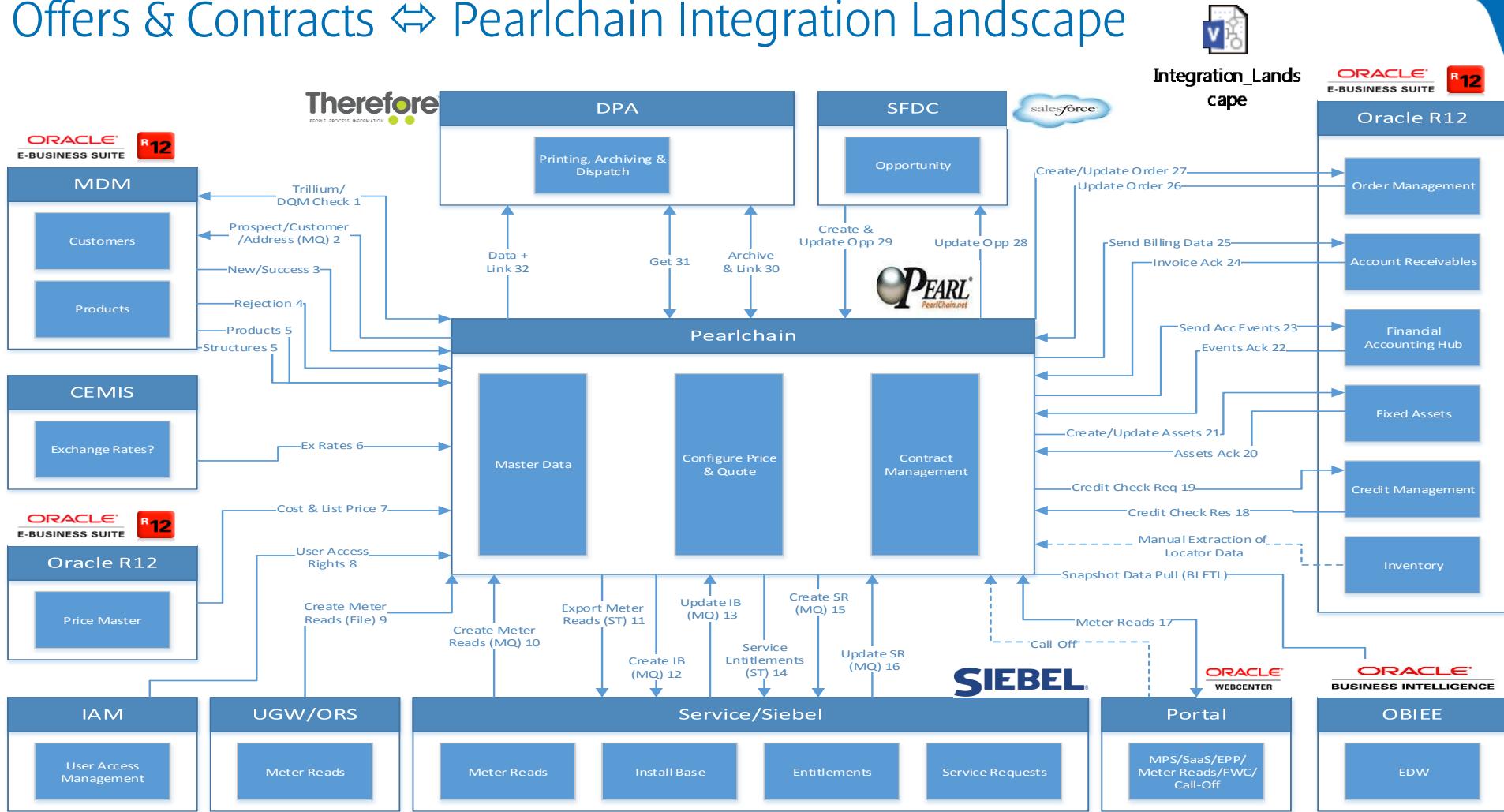


# Offers & Contracts ⇔ Campaign to Cash (Direct)





# Offers & Contracts ⇔ Pearlchain Integration Landscape



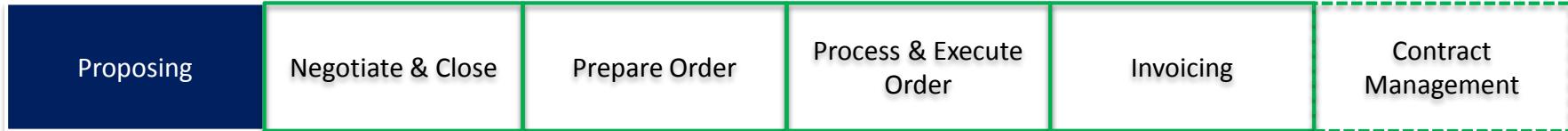
# Offers & Contracts ⇔ Campaign to Cash (Direct)



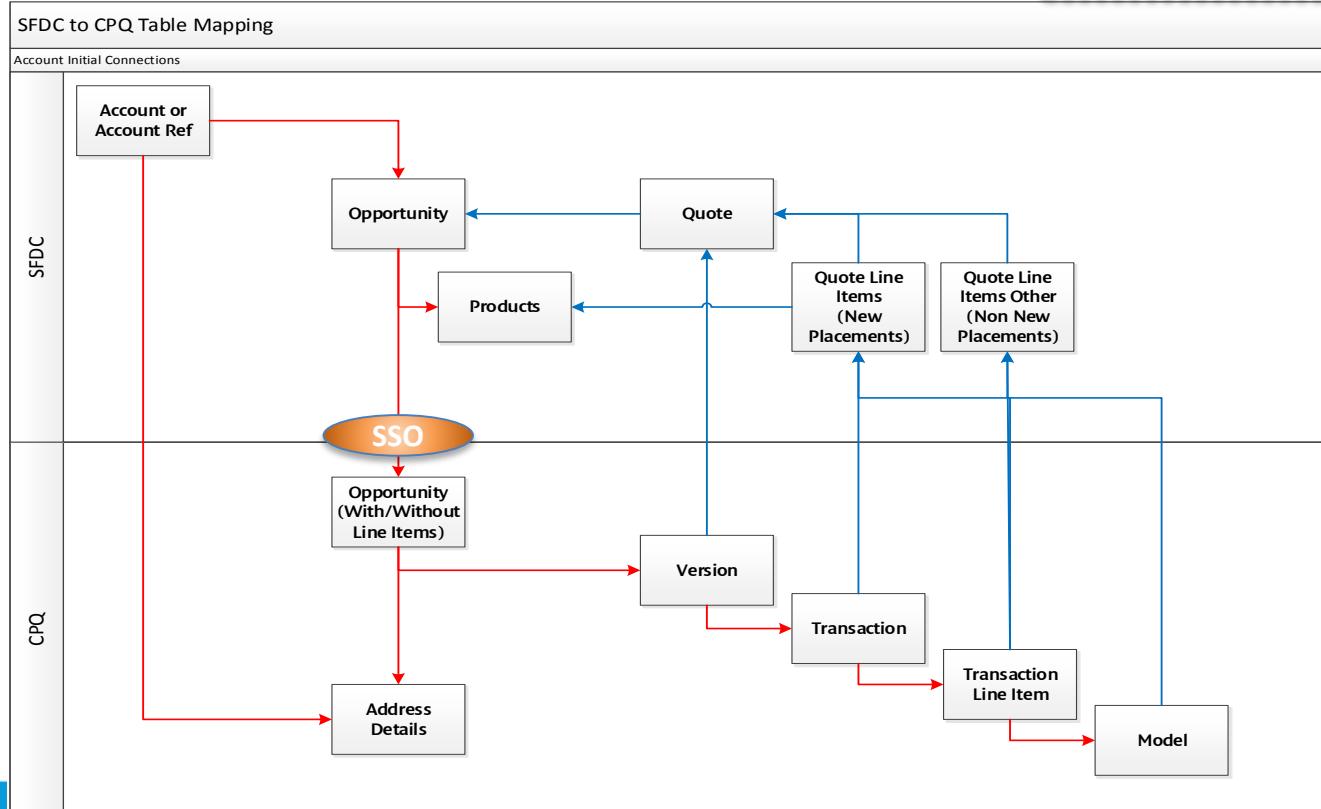
## Proposing

Align Customer requirements	PEARLCHAIN + SFDC
Configure Product Options	PEARLCHAIN + SFDC
Validate Customer requirements	PEARLCHAIN + SFDC + DPA
Change Finance Method	PEARLCHAIN
Set Price Condition Options	PEARLCHAIN + SFDC + DPA
Set Quote Price	PEARLCHAIN + SFDC
Create Quote	PEARLCHAIN + SFDC + DPA + PROPOSAL TOOL
Validate Quote reaction	PEARLCHAIN + SFDC + STEELWEDGE
Close Lost Opportunity	PEARLCHAIN + SFDC + STEELWEDGE

# Offers & Contracts ⇔ Campaign to Cash (Direct)



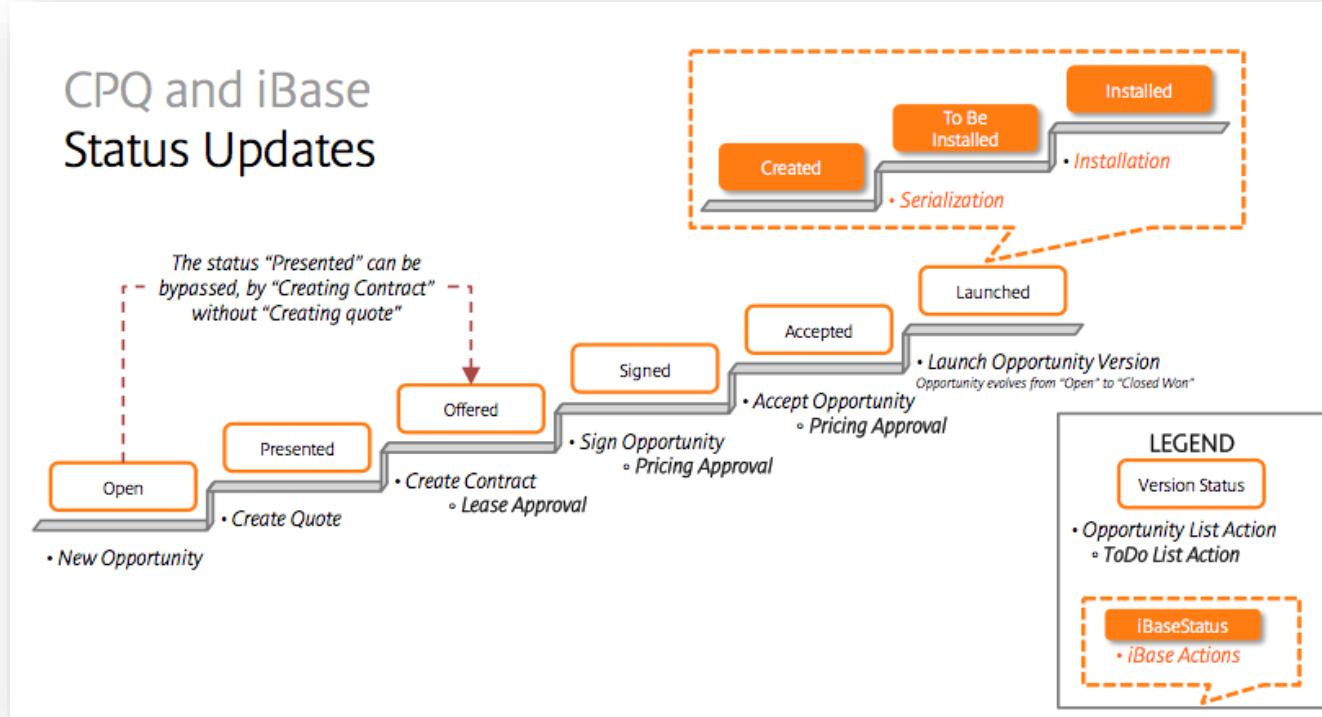
## Manage Opportunity



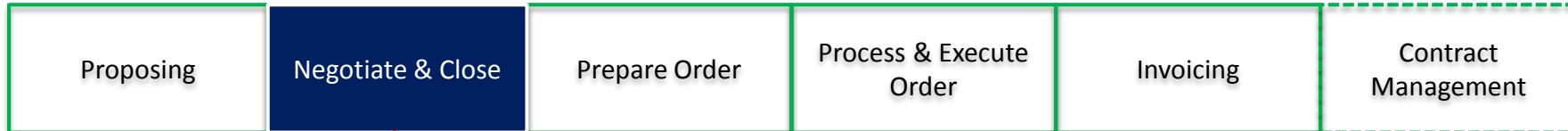
# Offers & Contracts ⇔ Campaign to Cash (Direct)



## Opportunity – IB Updates



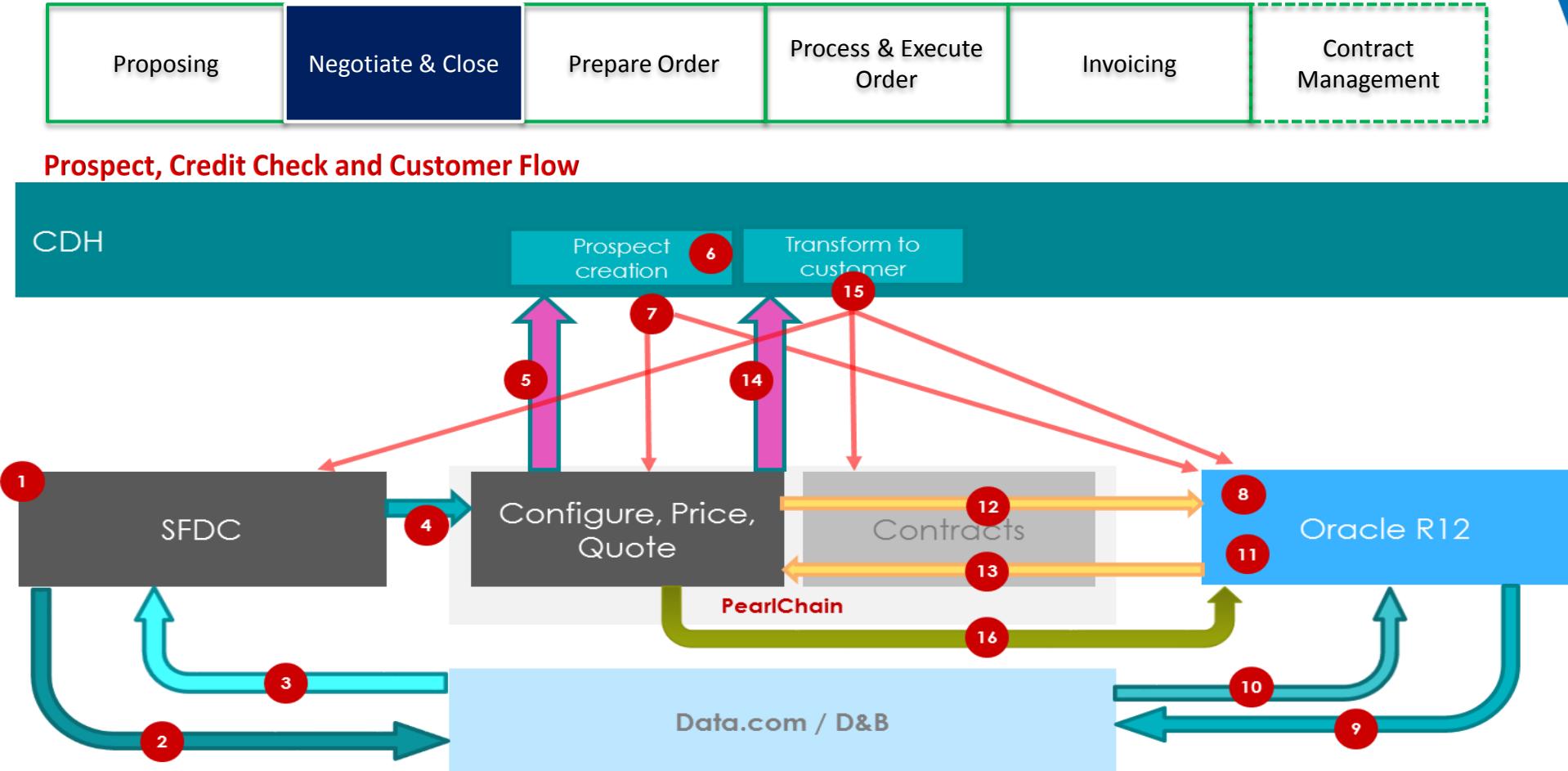
# Offers & Contracts ⇔ Campaign to Cash (Direct)



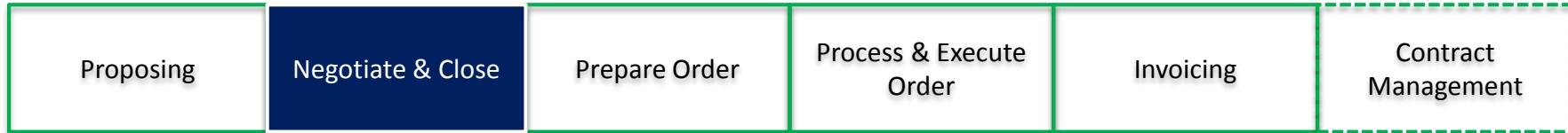
## Negotiate & Close

Add General Terms & Conditions	PEARLCHAIN + SFDC
Request Approval of Finance Method	PEARLCHAIN + EBS MDM CDH + EBS R12 FIN
Non-Listed 3rd Party Assortment Check	PEARLCHAIN
Create Contract Package	PEARLCHAIN + SFDC + DPA
Close Lost Opportunity	PEARLCHAIN + SFDC + STEELWEDGE
Change Created Contract Package	PEARLCHAIN
Check Contract Documents	PEARLCHAIN + DPA
Counter Sign Contract Documents	PEARLCHAIN + DPA
Close Opportunity Won	PEARLCHAIN + EBS MDM CDH + SFDC + STEELWEDGE
Prepare Contract Execution	PEARLCHAIN

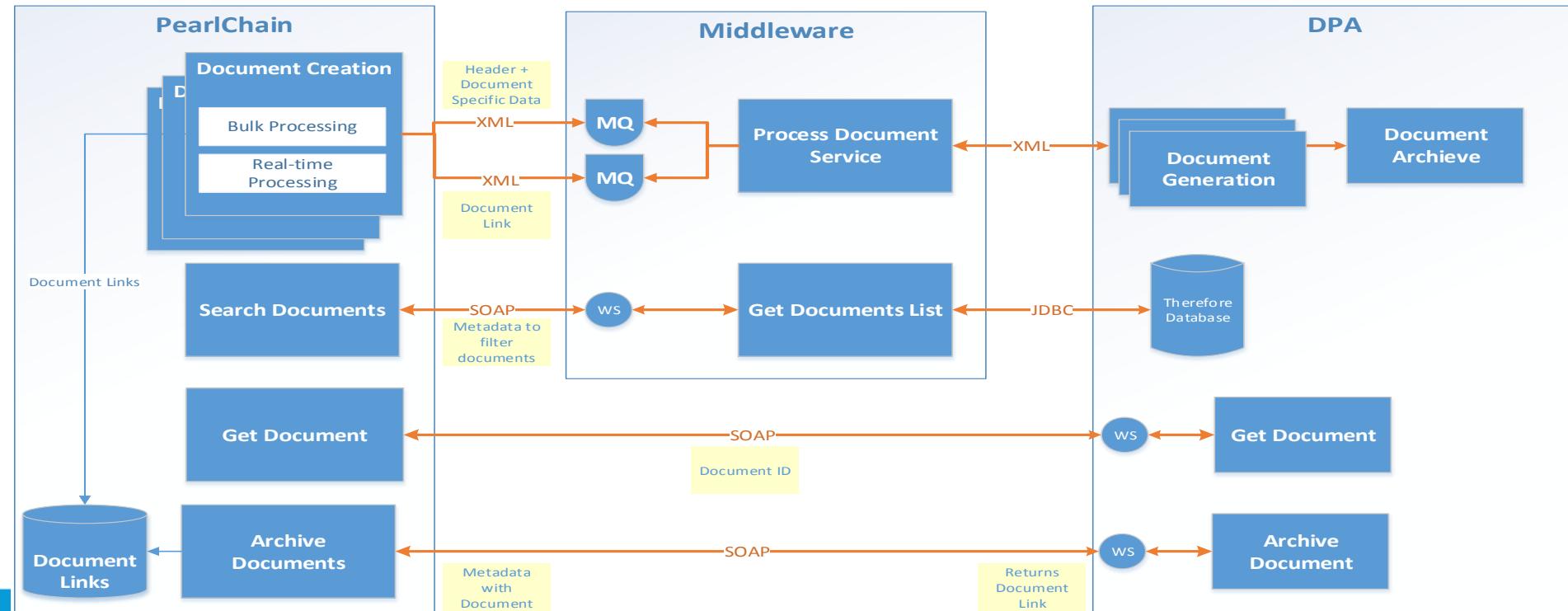
## Offers & Contracts ⇔ Campaign to Cash (Direct)



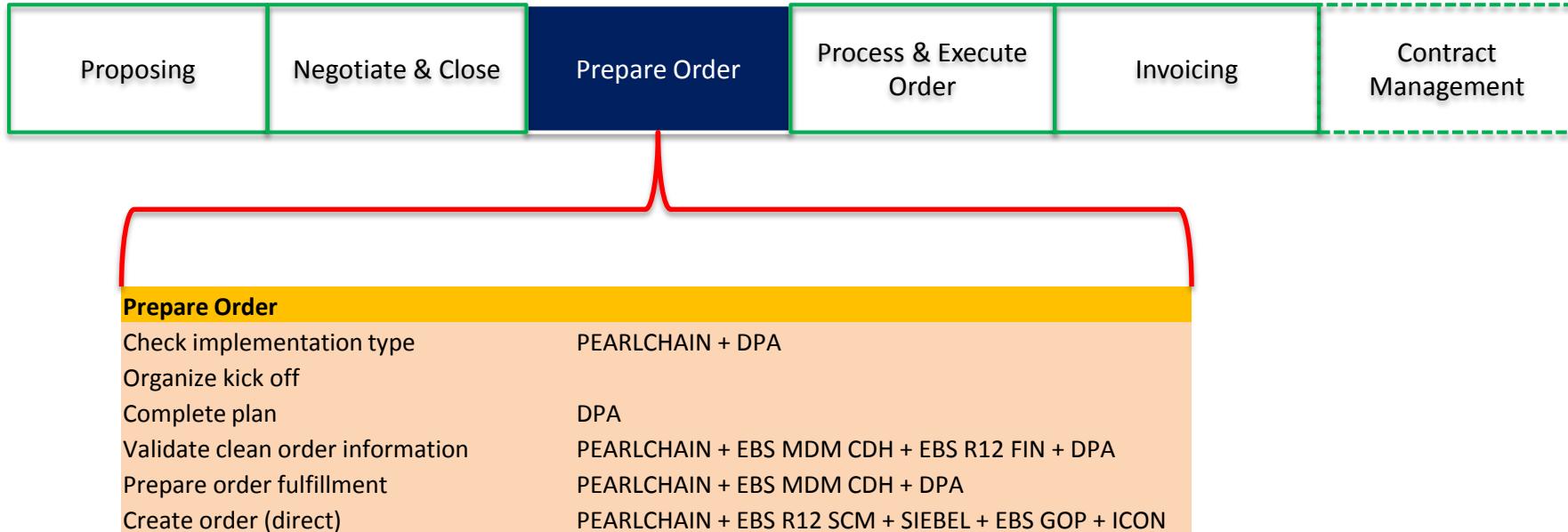
# Offers & Contracts ⇔ Campaign to Cash (Direct)



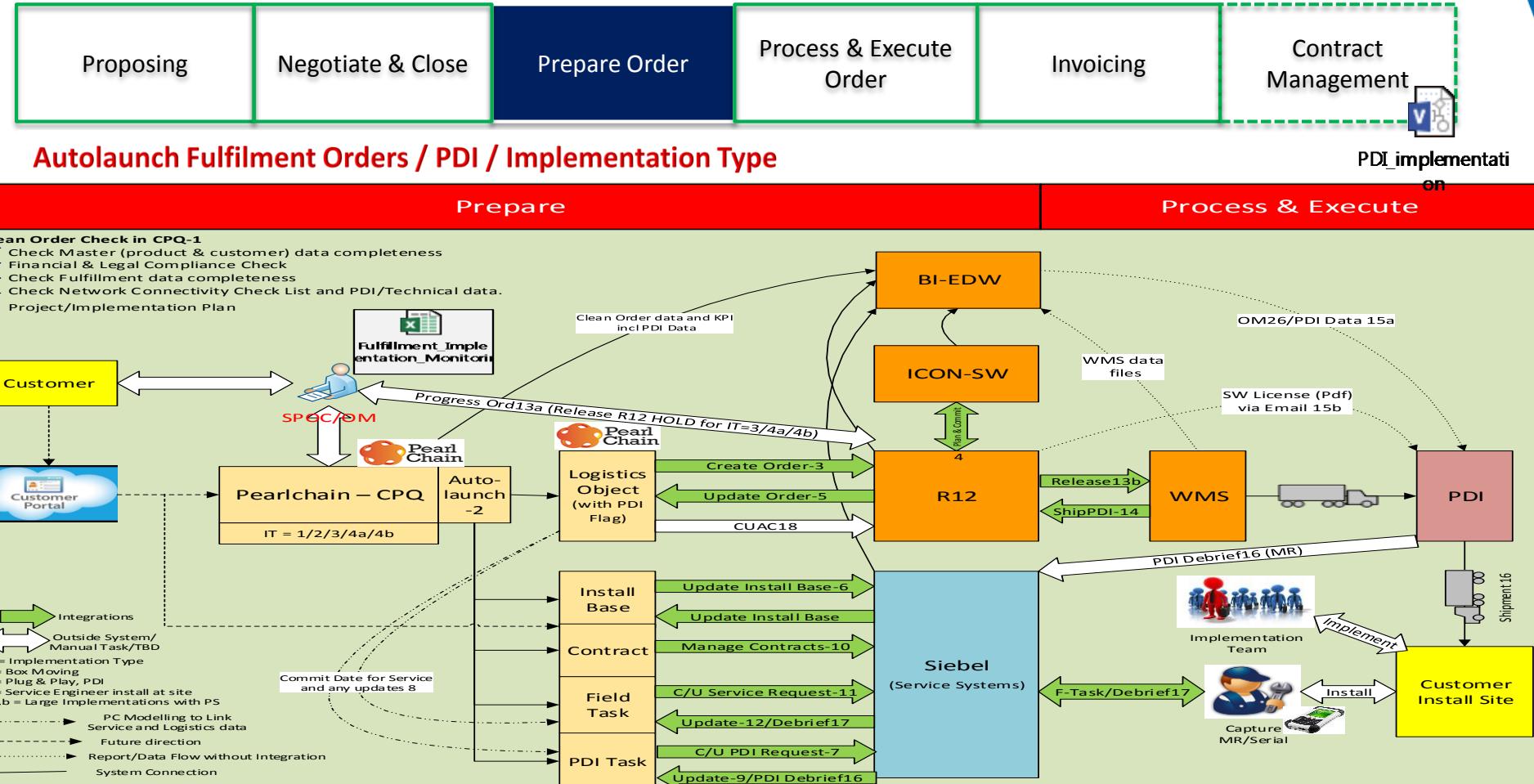
## Document Printing & Archiving – Contract Package (Search documents will be internal PC call)



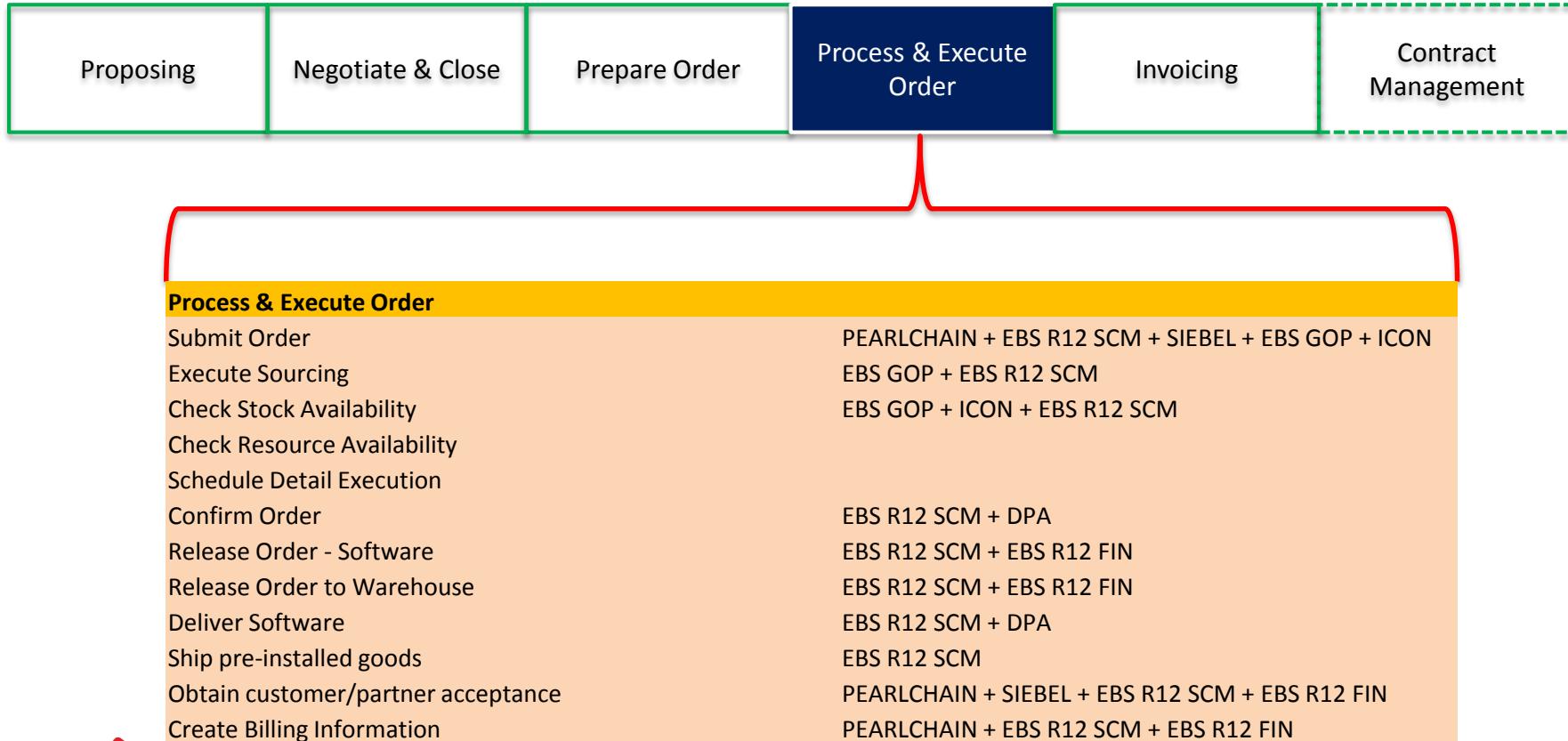
# Offers & Contracts ⇔ Campaign to Cash (Direct)



## Offers & Contracts ⇔ Campaign to Cash (Direct)



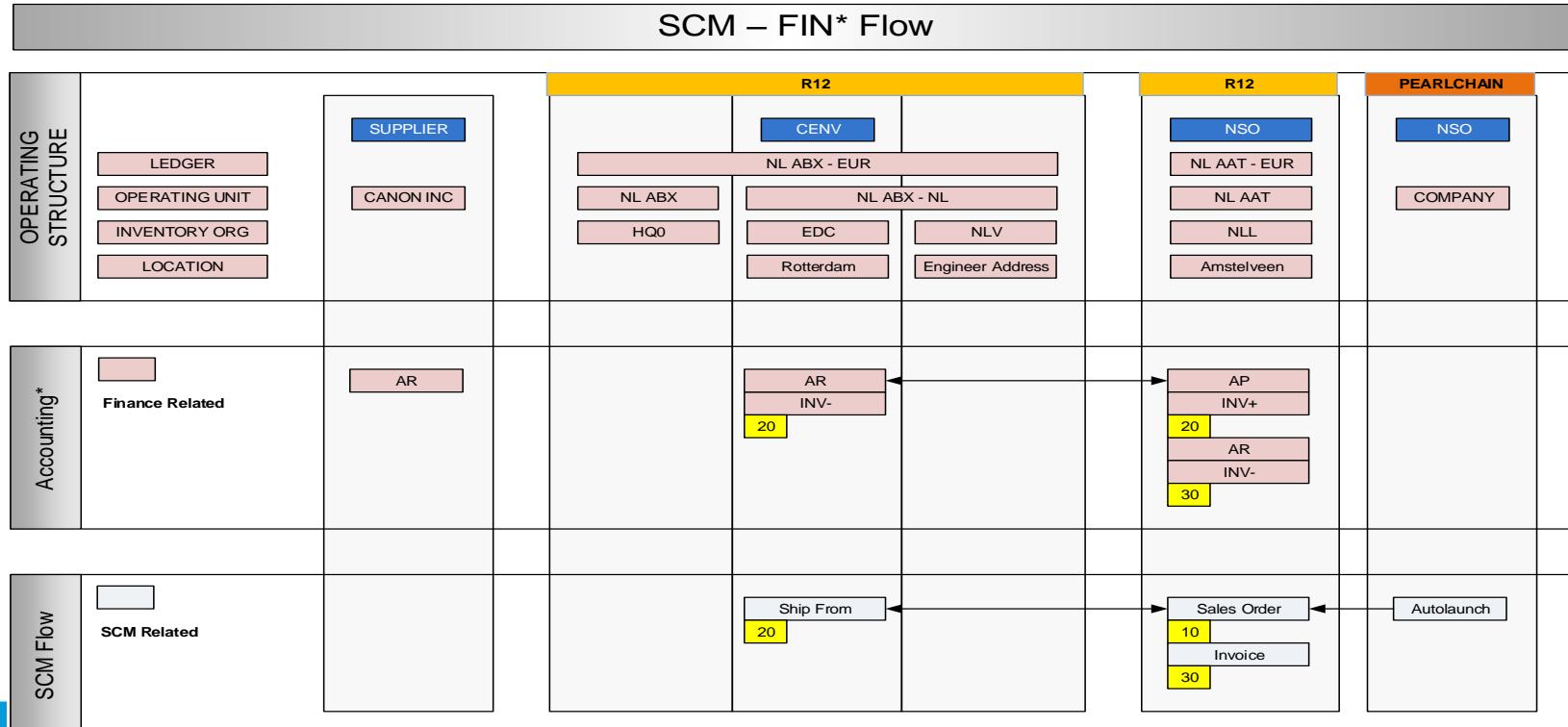
# Offers & Contracts ⇔ Campaign to Cash (Direct)



# Offers & Contracts ⇔ Campaign to Cash (Direct)



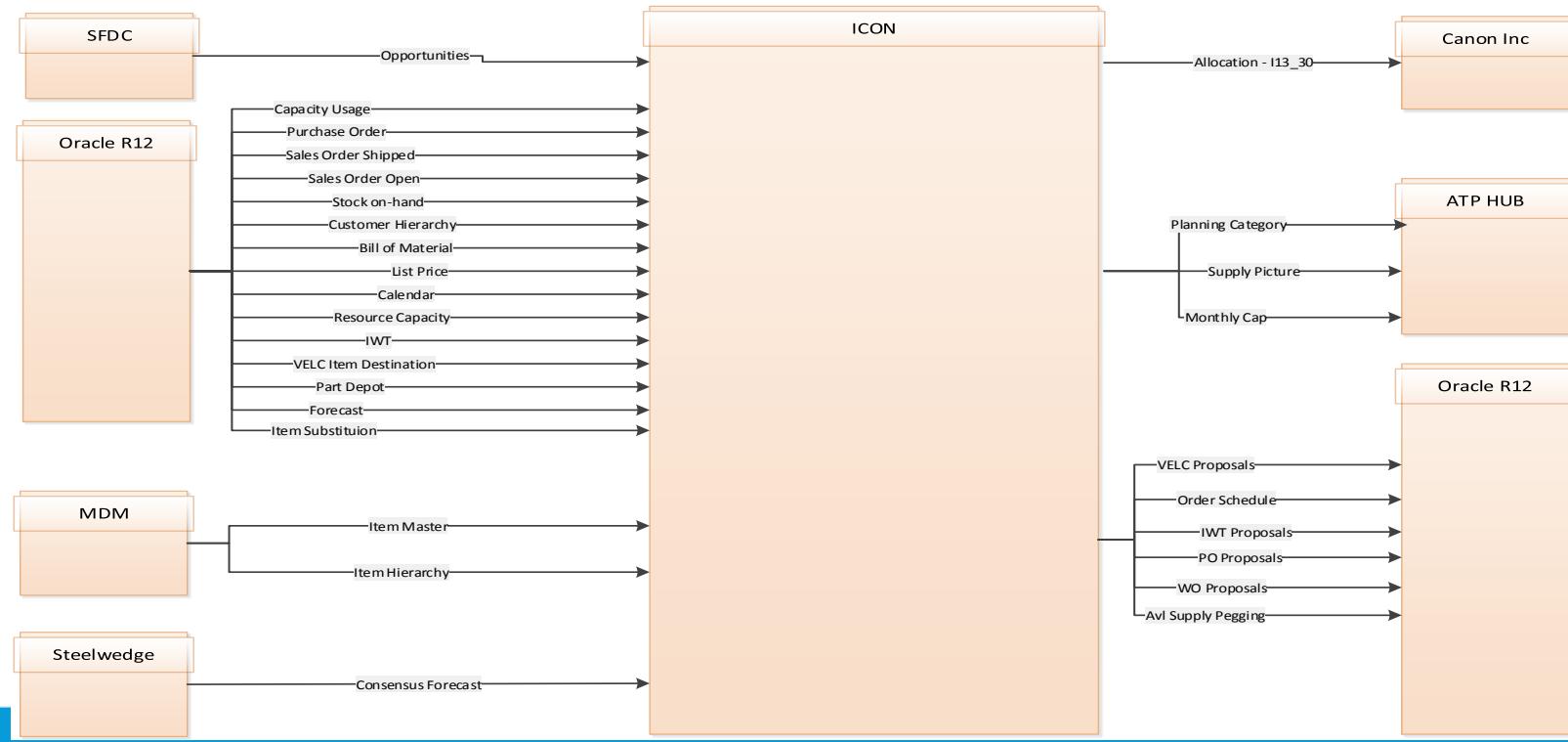
## OM – LOGISTICS – FIN (ORS – With No Contract)\* Flow



# Offers & Contracts ⇔ Campaign to Cash (Direct)



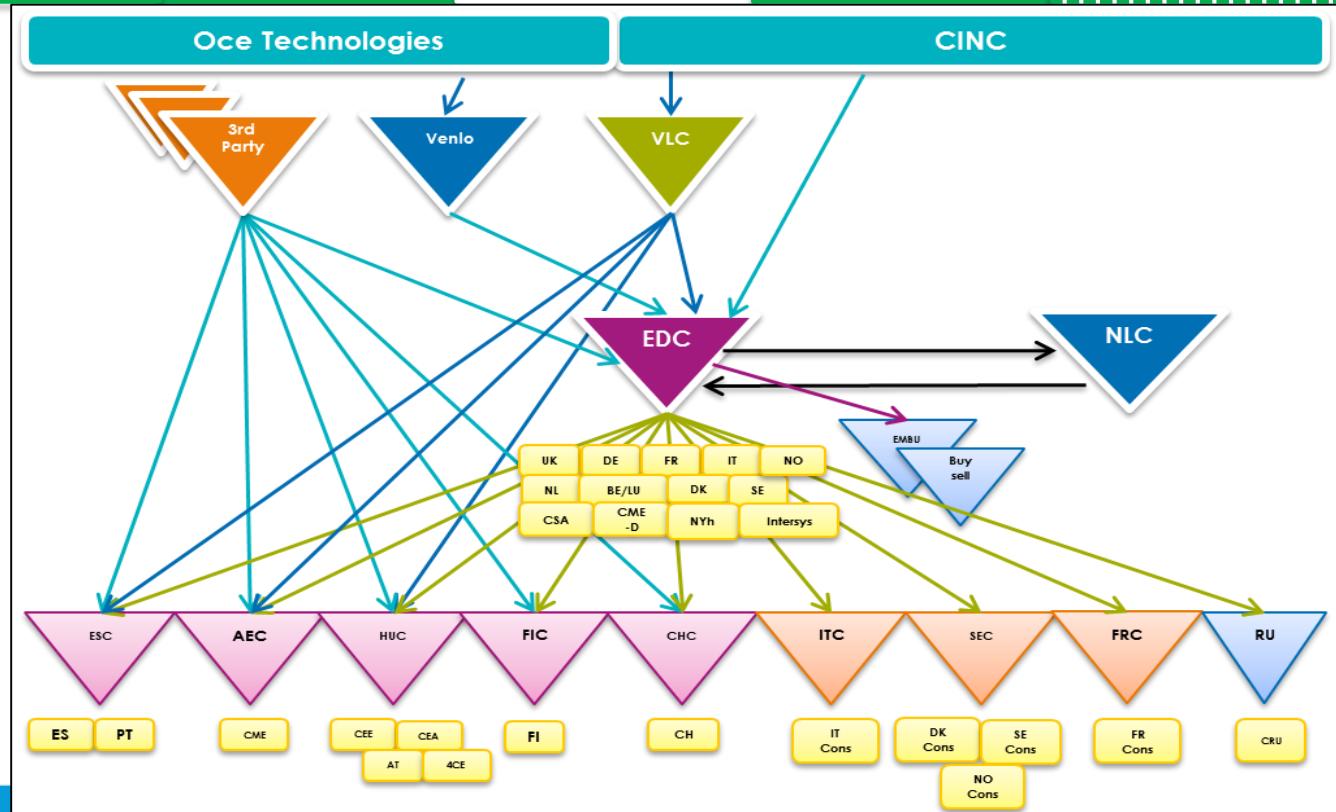
## Scheduling – Commitment (F2P Overlap)



# Offers & Contracts ⇔ Campaign to Cash (Direct)



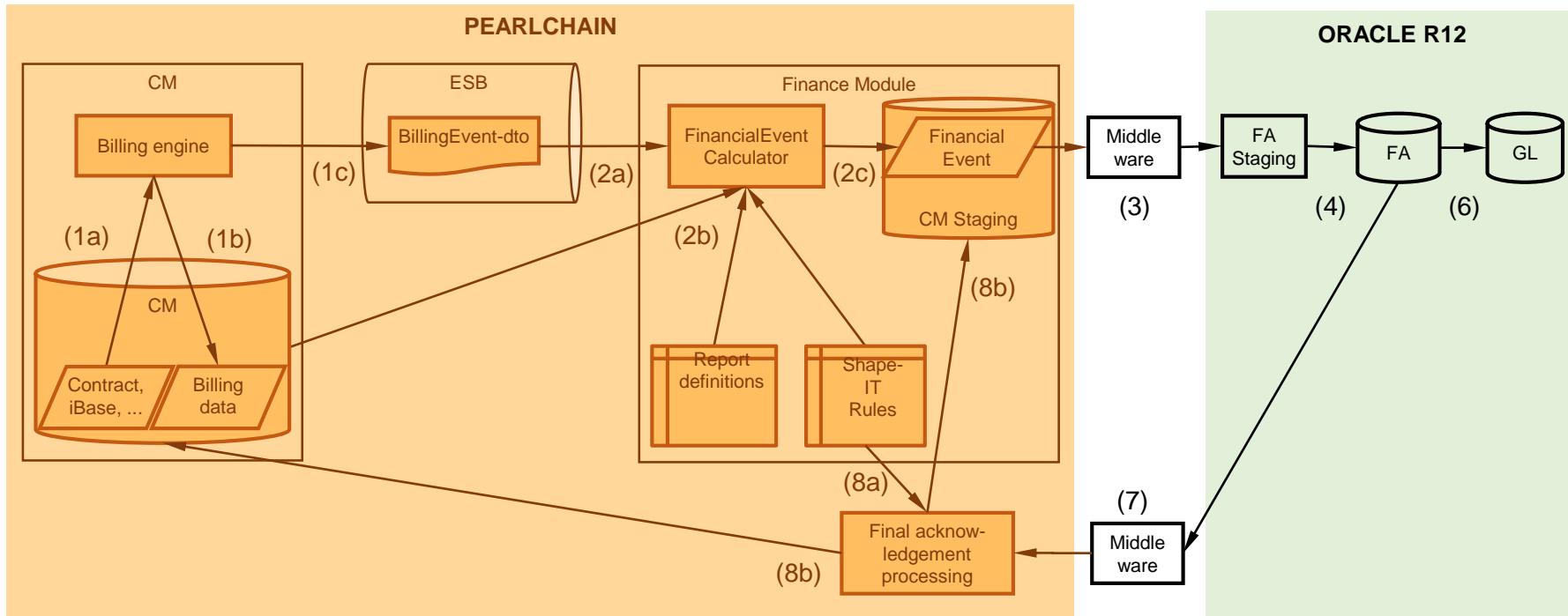
**Scheduling – Commitment (F2P Overlap)**



# Offers & Contracts ⇔ Campaign to Cash (Direct)



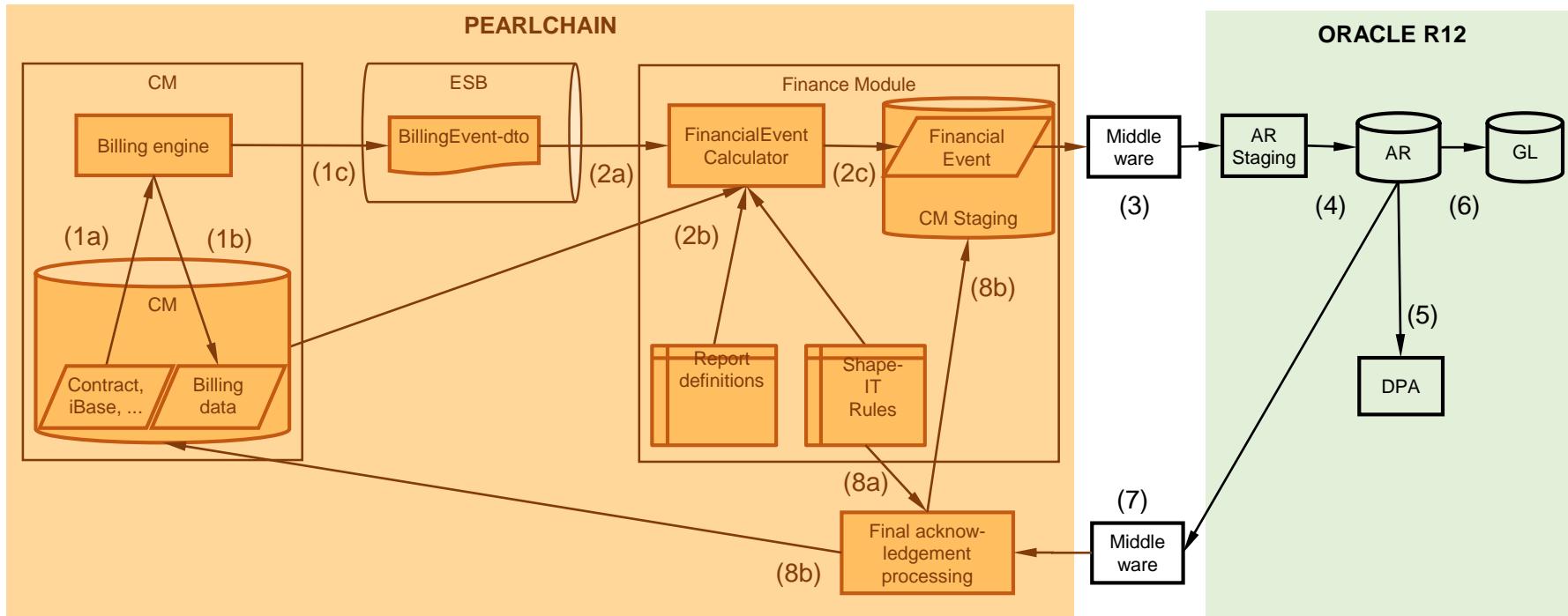
**Fixed Assets Flow – at Customer Acceptance with the installation of Machines.**



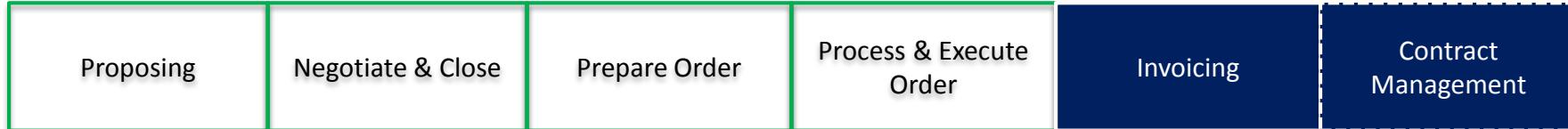
# Offers & Contracts ⇔ Campaign to Cash (Direct)



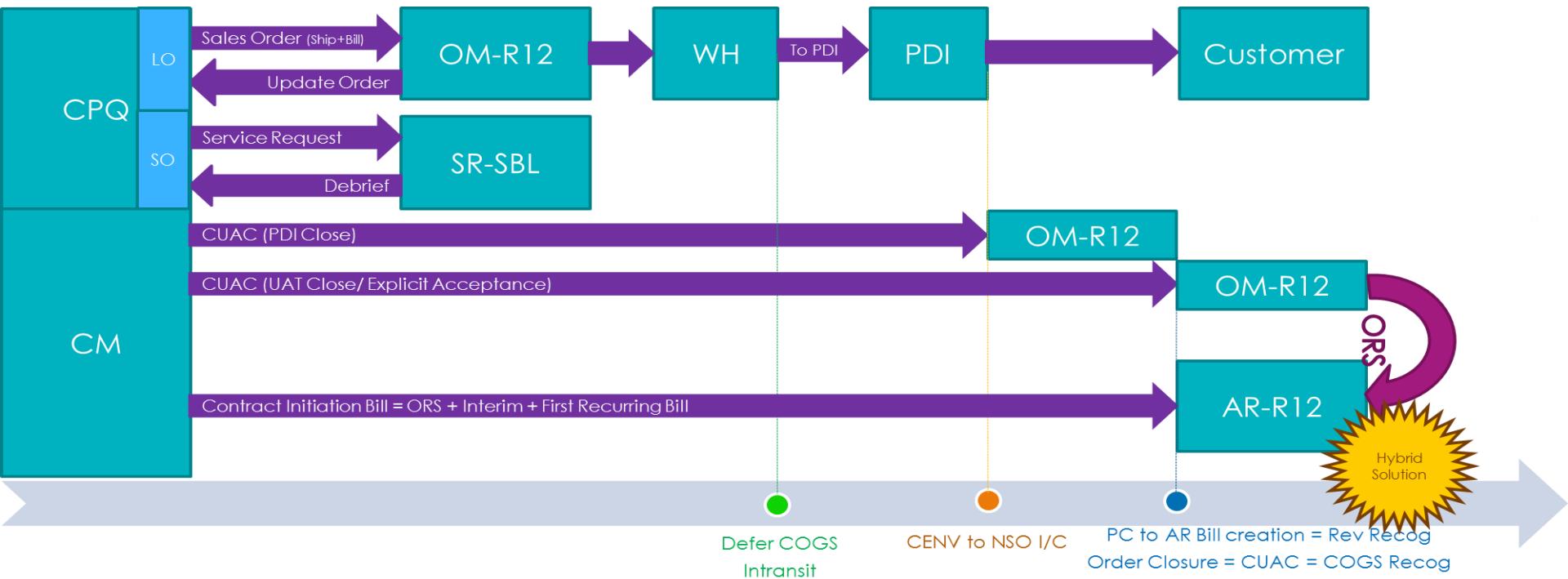
## Contract First Bill with Revenue Recognition (with Marry Concept in AR Staging)



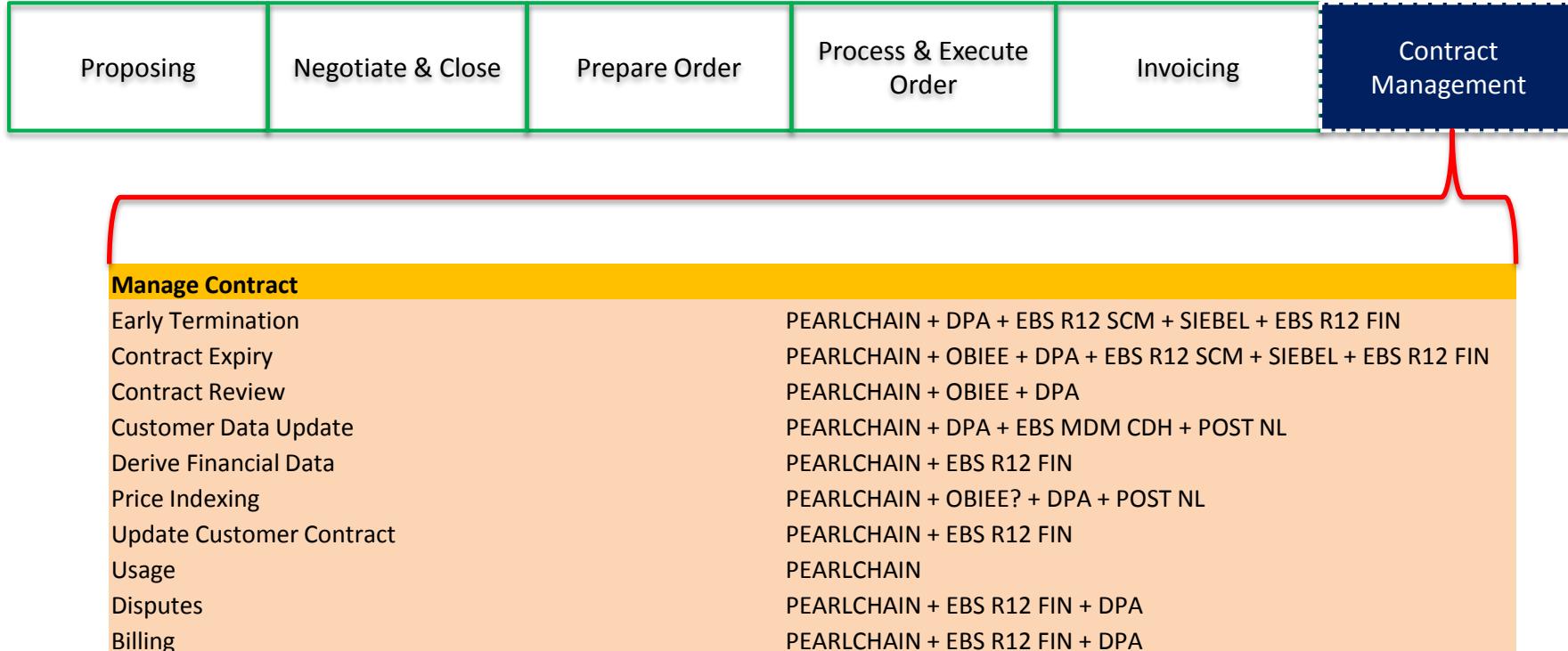
# Offers & Contracts ⇔ Campaign to Cash (Direct)



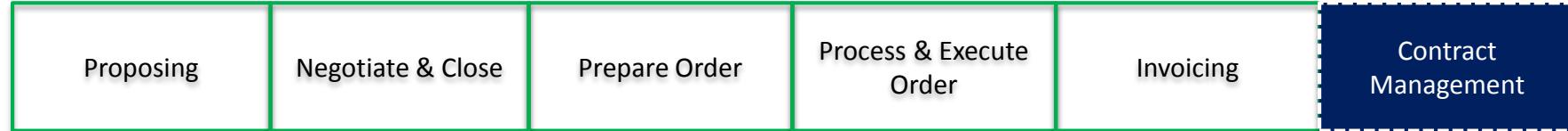
## Value Flow (with Marry Concept in AR Staging)



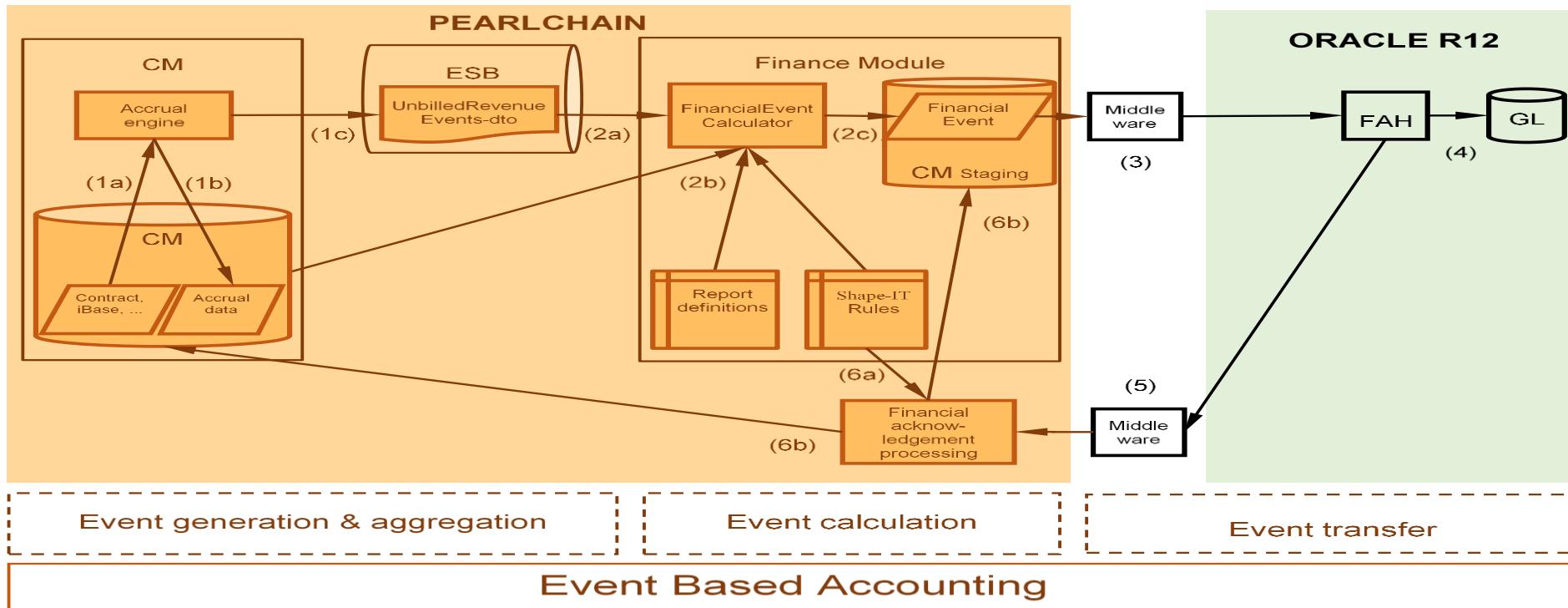
# Offers & Contracts ⇔ Campaign to Cash (Direct)



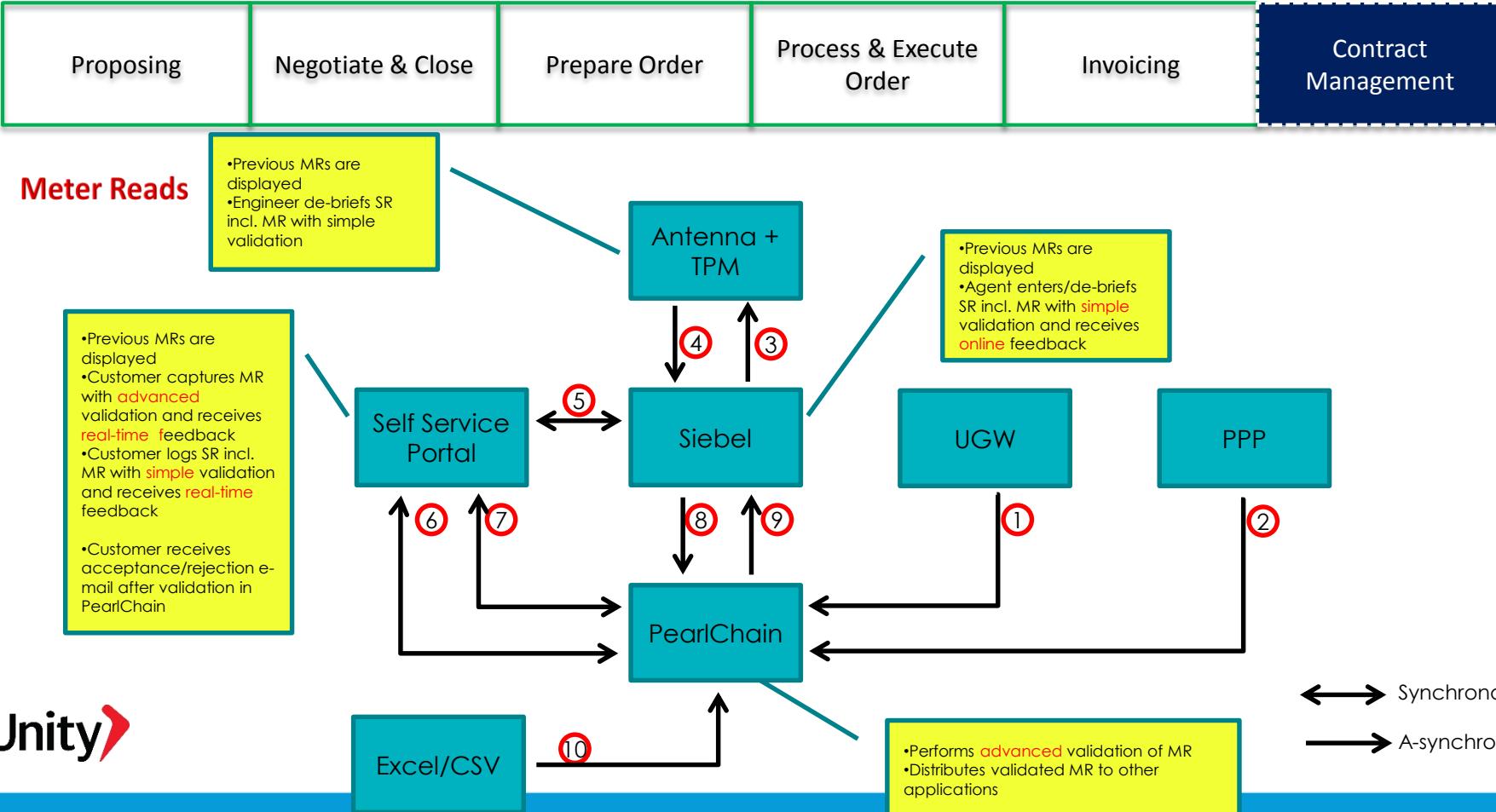
# Offers & Contracts ⇔ Campaign to Cash (Direct)



## Contract Events (Inception/Termination) / Accrual Flow



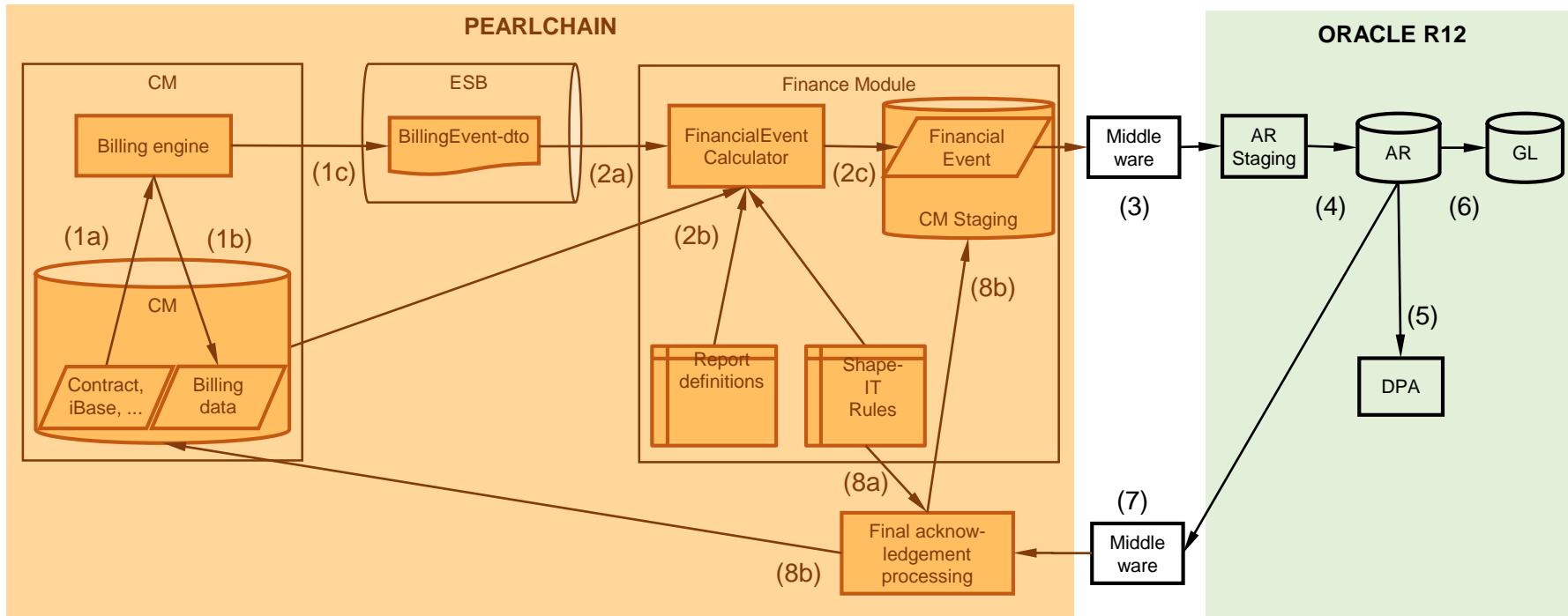
# Offers & Contracts ⇔ Campaign to Cash (Direct)



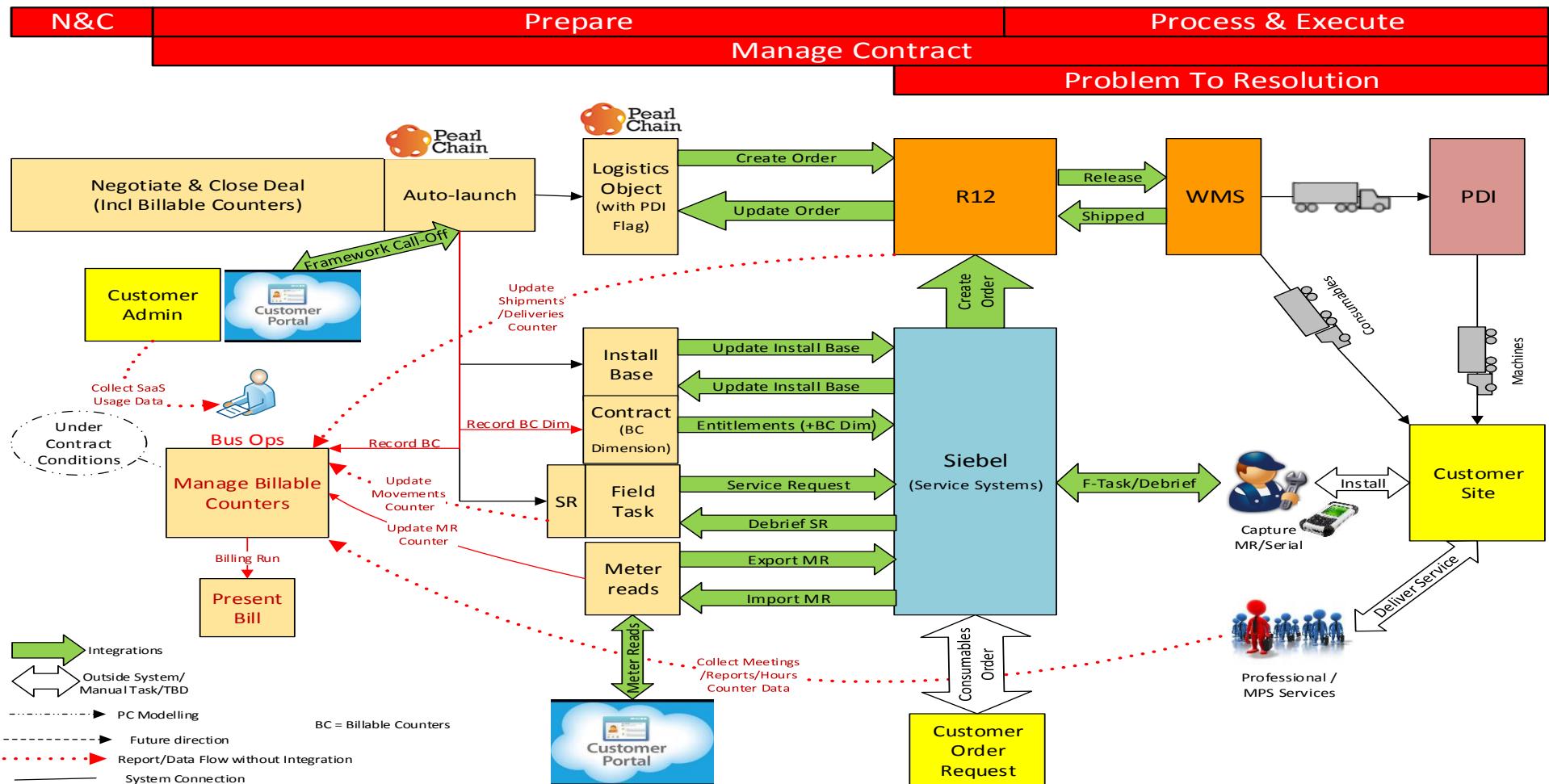
# Offers & Contracts ⇔ Campaign to Cash (Direct)



## Contract Repetitive Billing with Revenue Recognition



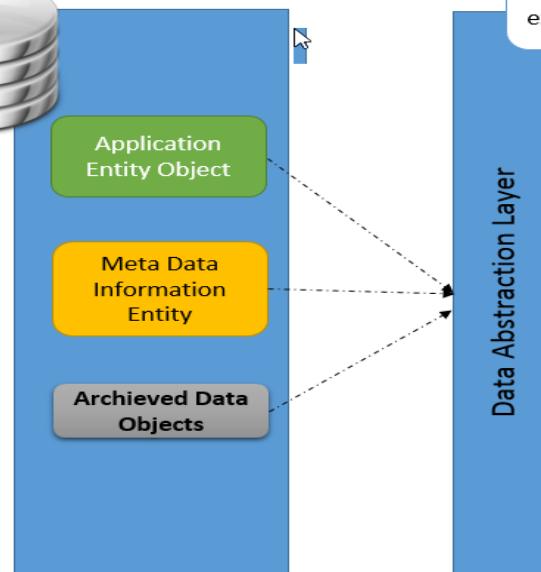
# Offers & Contracts ⇔ P2R - C2C - Virtual/Billable Counters



# Offers & Contracts ⇔ Campaign to Cash (Direct)



**OBIEE Reporting\***

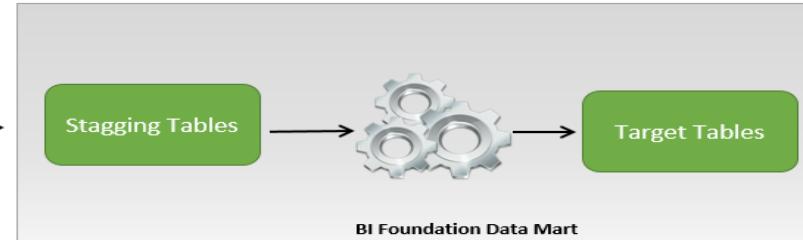


### Data Abstraction Layer

View Would be created on top of the Pearl Chain Tables , to avoid Upstream data extraction(ETL) impacts for Object changes , Column Name/Mapping Changes

### Change Data Capture Logics based on the Creationdate and Modificationdate

Transformation Logic according to the Dimensional modeling rules



Staging Tables



Target Tables

BI Foundation Data Mart

### ETL Platform : Informatica

**Orchestration Platform :** DAC ,  
Objects would be build based on BIAPPS Standards

**Cloned Database / Prestage Database** , if there is any constraint on the Connectivity timeslot like in EBS System .

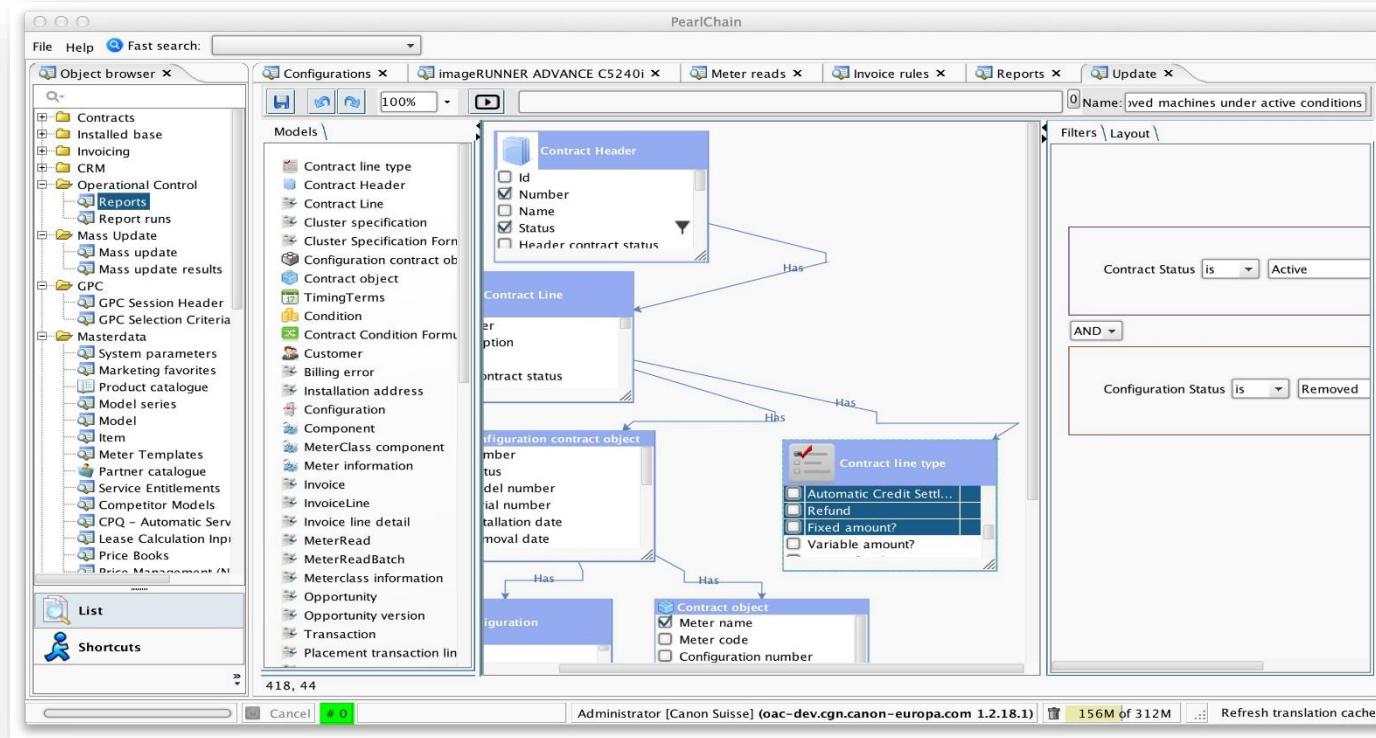
# Offers & Contracts ⇔ Campaign to Cash (Direct)

Reporting

Master Data Management

User Security

Pearlchain Reporting



# Offers & Contracts ⇔ Campaign to Cash (Direct)

Reporting

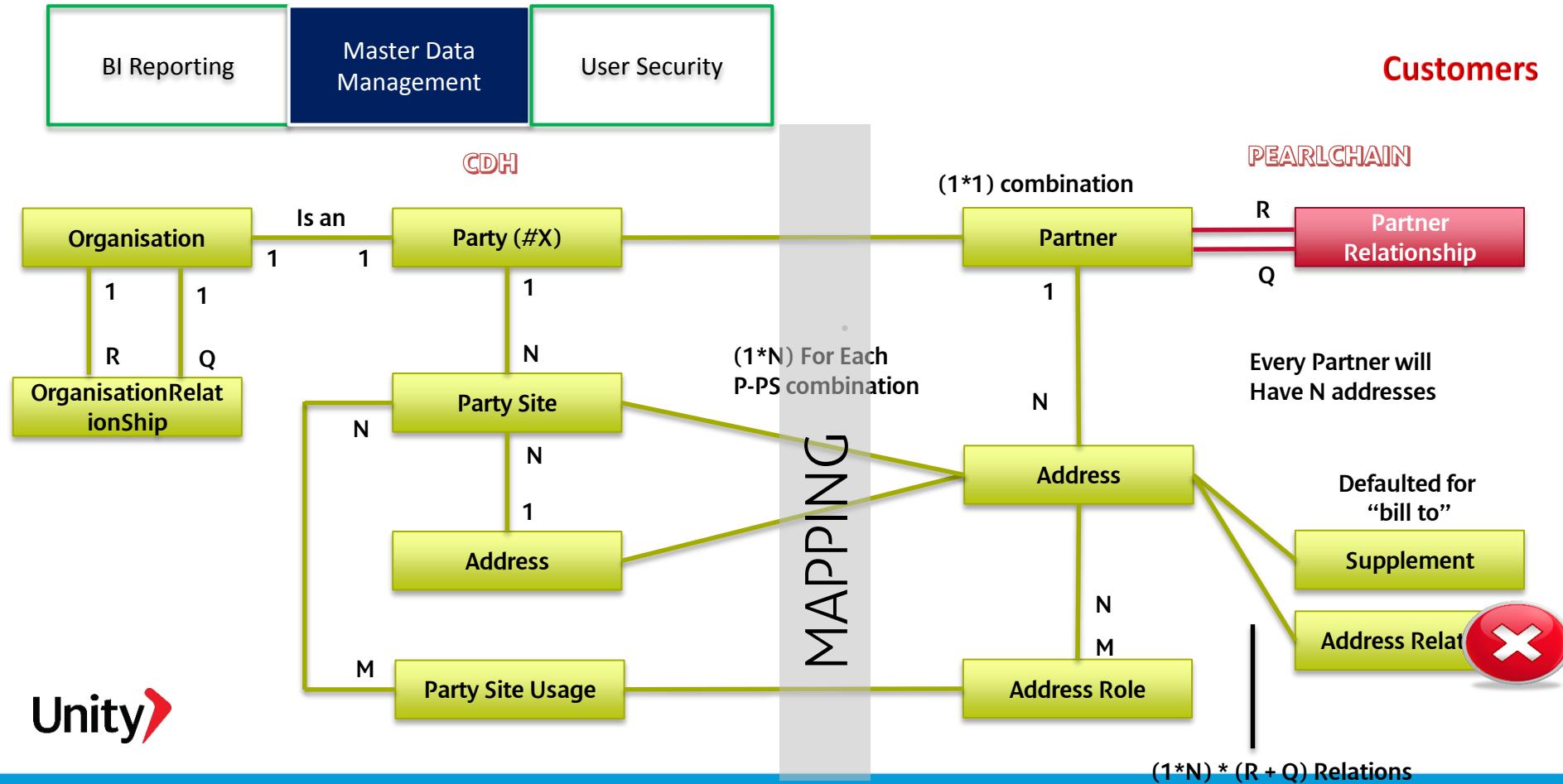
Master Data Management

User Security

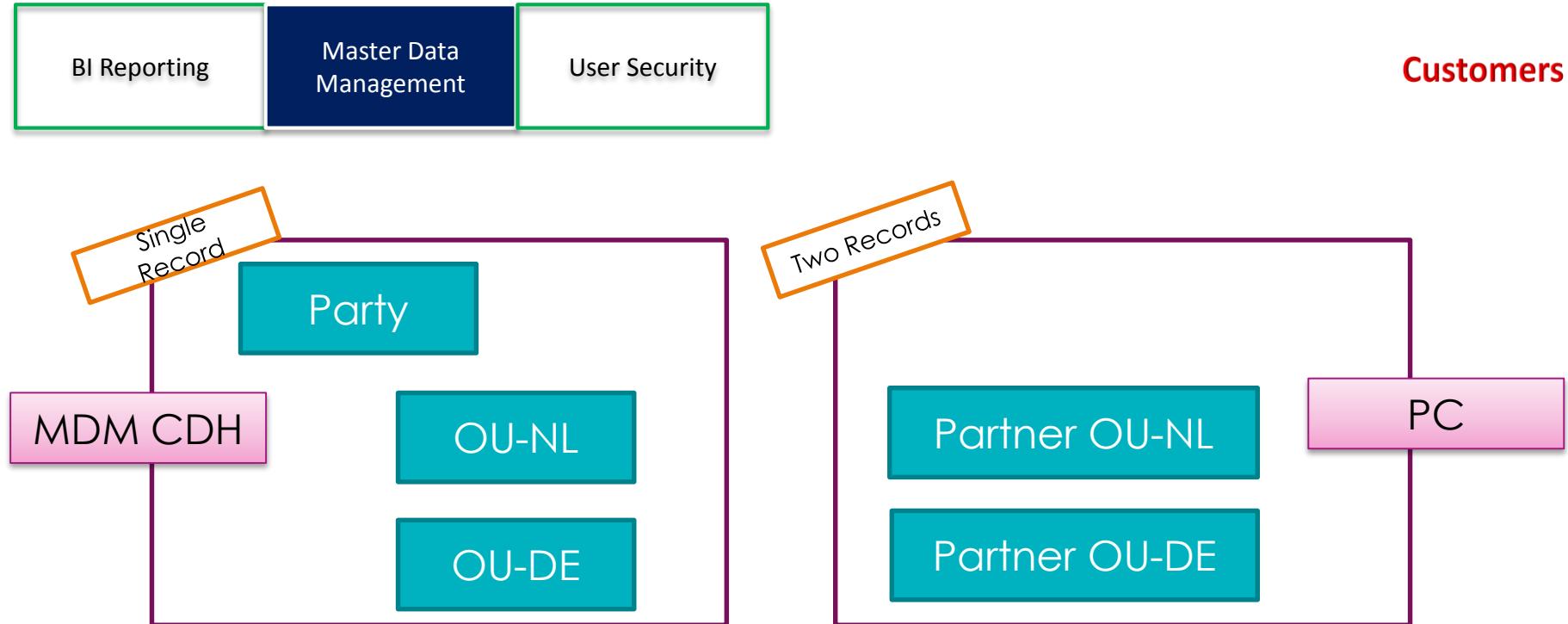
Pearlchain Mass Update\*

The screenshot shows the PearlChain software interface with a green border around the central workspace. The left sidebar contains a tree view of various system modules like Contracts, Installed base, Invoicing, CRM, Operational Control, and Masterdata. The central workspace displays a UML-like class diagram for 'TimingTerms' and its associations with 'Contract object', 'Configuration contract object', and 'Contract Line'. A list of fields for 'TimingTerms' is shown, including Number, StartDate, EndDate, FieldUsageCode, and Expiration date. The 'Contract object' class has fields like Meter name, Fixed, Variable, Status, and Object Contract status. The 'Configuration contract object' class has fields like Number, Status, and Model number. The 'Contract Line' class has fields like Number, Status, Line contract status, and Contract Type. To the right of the diagram, there is a search interface with filters for 'Contract No' (like 12354) and 'TimingTerms StartDate' (equal to a dropdown). The bottom status bar indicates the user is an administrator on the Canon Suisse server.

# Offers & Contracts ⇔ Campaign to Cash (Direct)



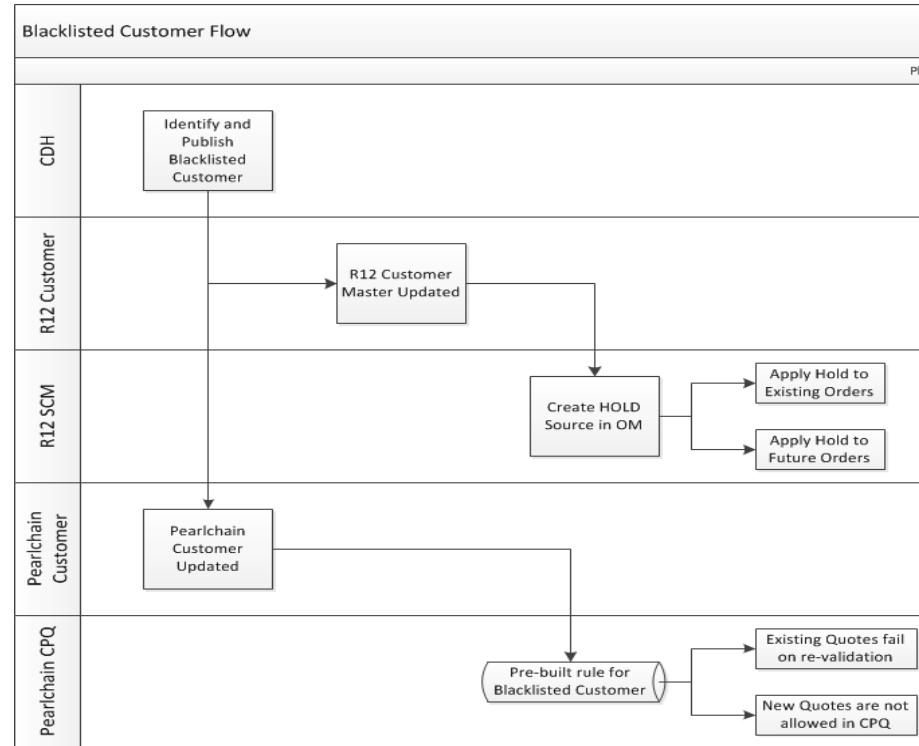
# Offers & Contracts ⇔ Campaign to Cash (Direct)



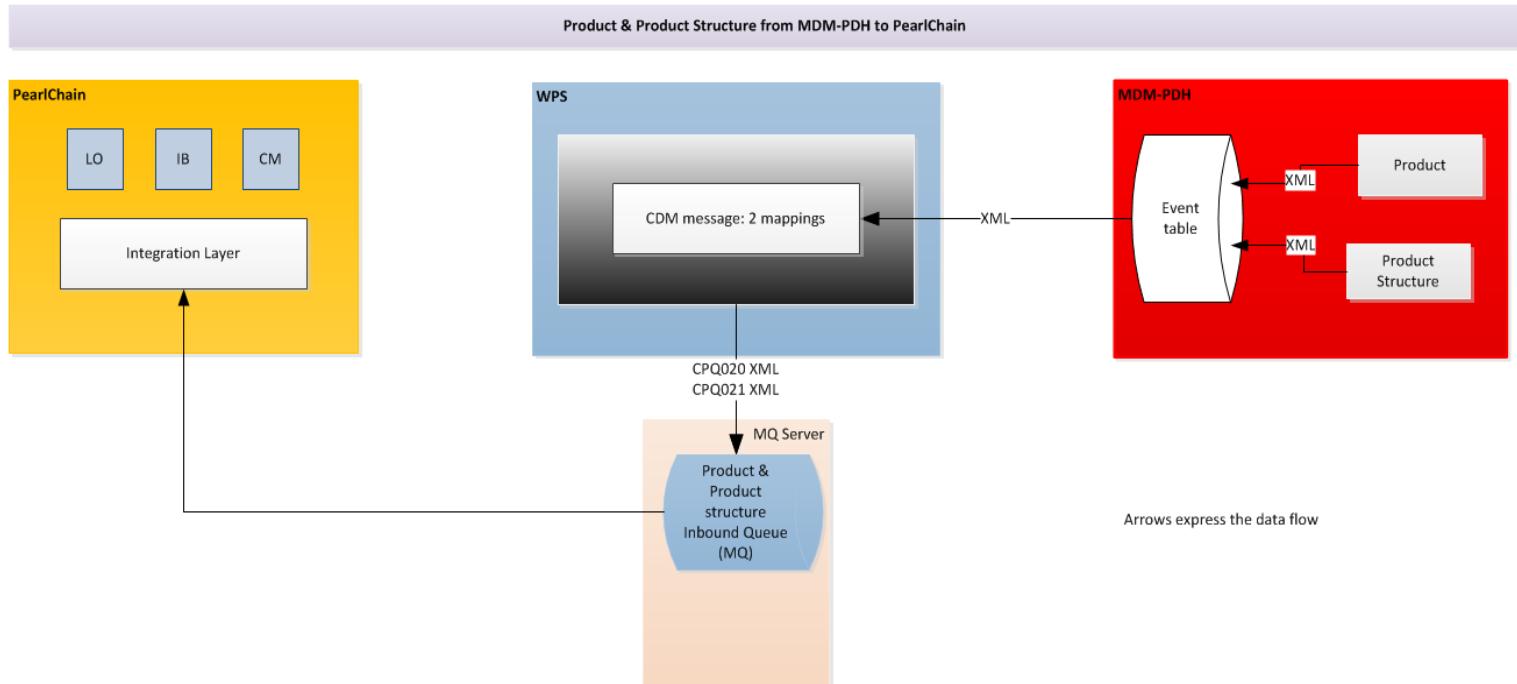
# Offers & Contracts ⇔ Campaign to Cash (Direct)



**Customers – Trade Legal Compliancy**



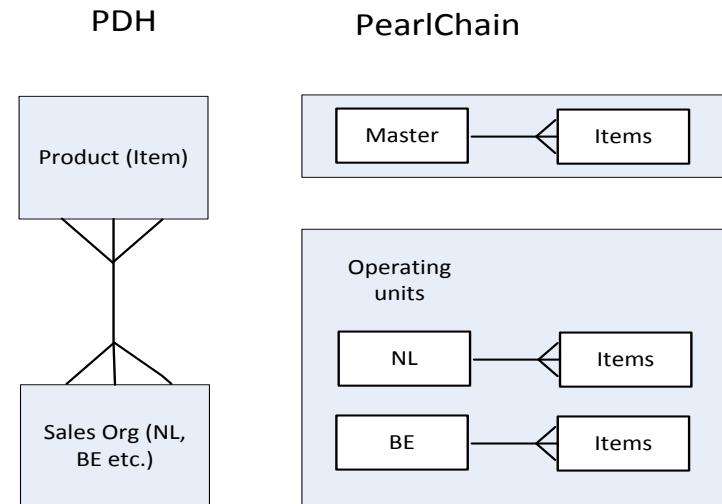
# Offers & Contracts ⇔ Campaign to Cash (Direct)



# Offers & Contracts ⇔ Campaign to Cash (Direct)



Products



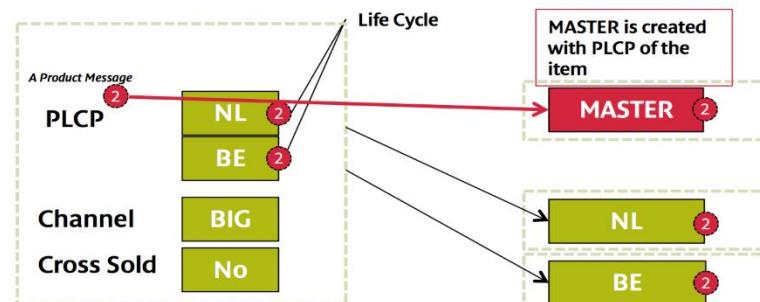
# Offers & Contracts ⇔ Campaign to Cash (Direct)



**Products – PLM\***

## Product Life Cycle Phase (PLCP)

- Middle Ware Message



- PearlChain Instance



Wijman : “Assignment attribute can be empty” meaning that the item is not assigned to any operating unit. The middle ware will filter out these items. Meaning :

- No activities can be executed in pearlchain
- R12 must also filter out these items

27 mei 2014

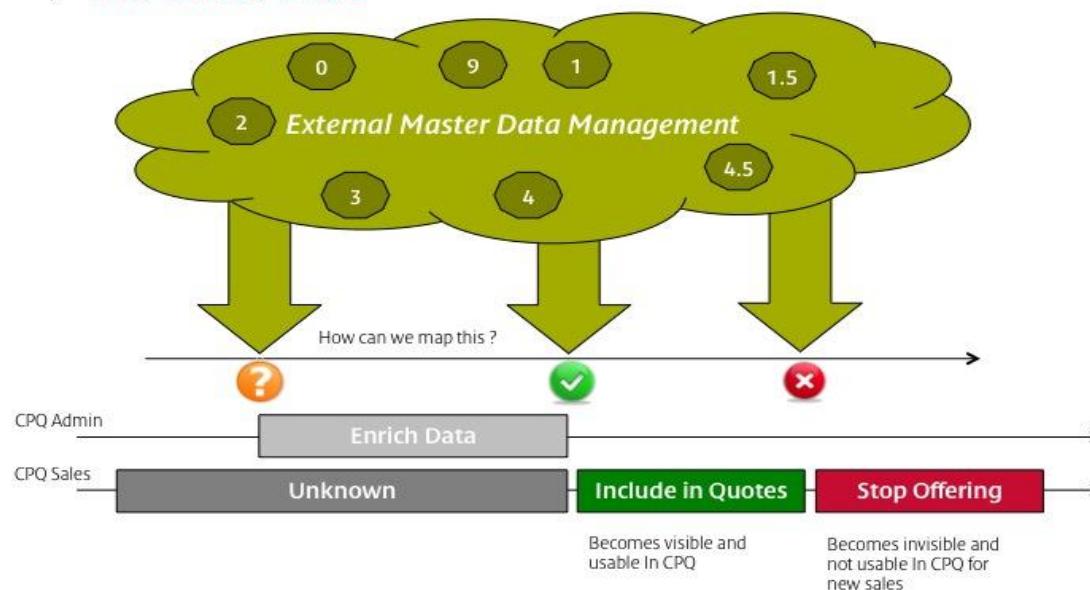
Canon

# Offers & Contracts ⇔ Campaign to Cash (Direct)

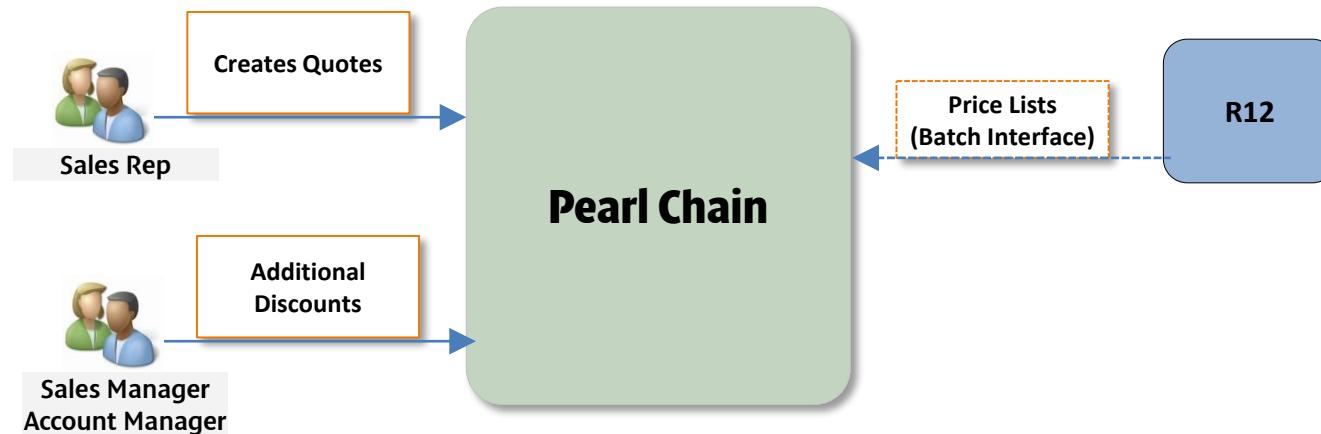


Products – PLM\*

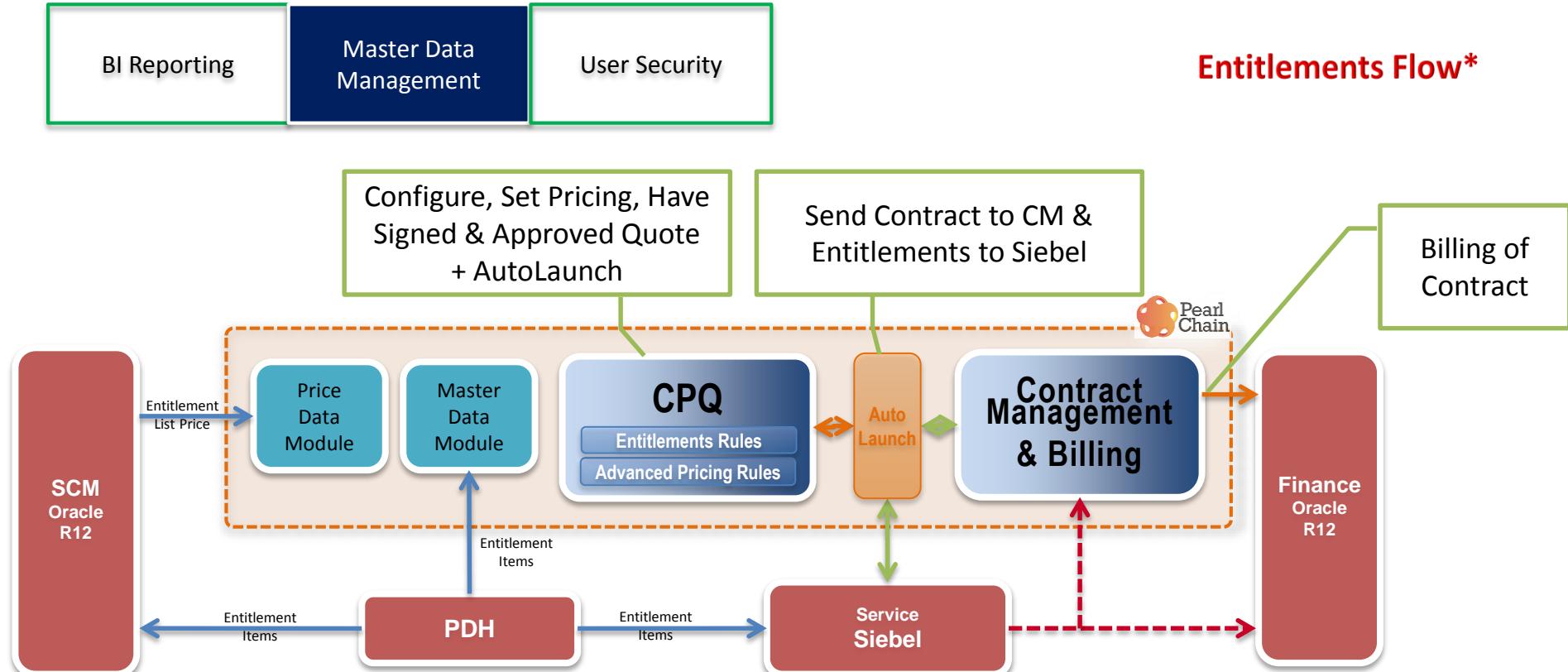
## The Sales View



# Offers & Contracts ⇔ Campaign to Cash (Direct)



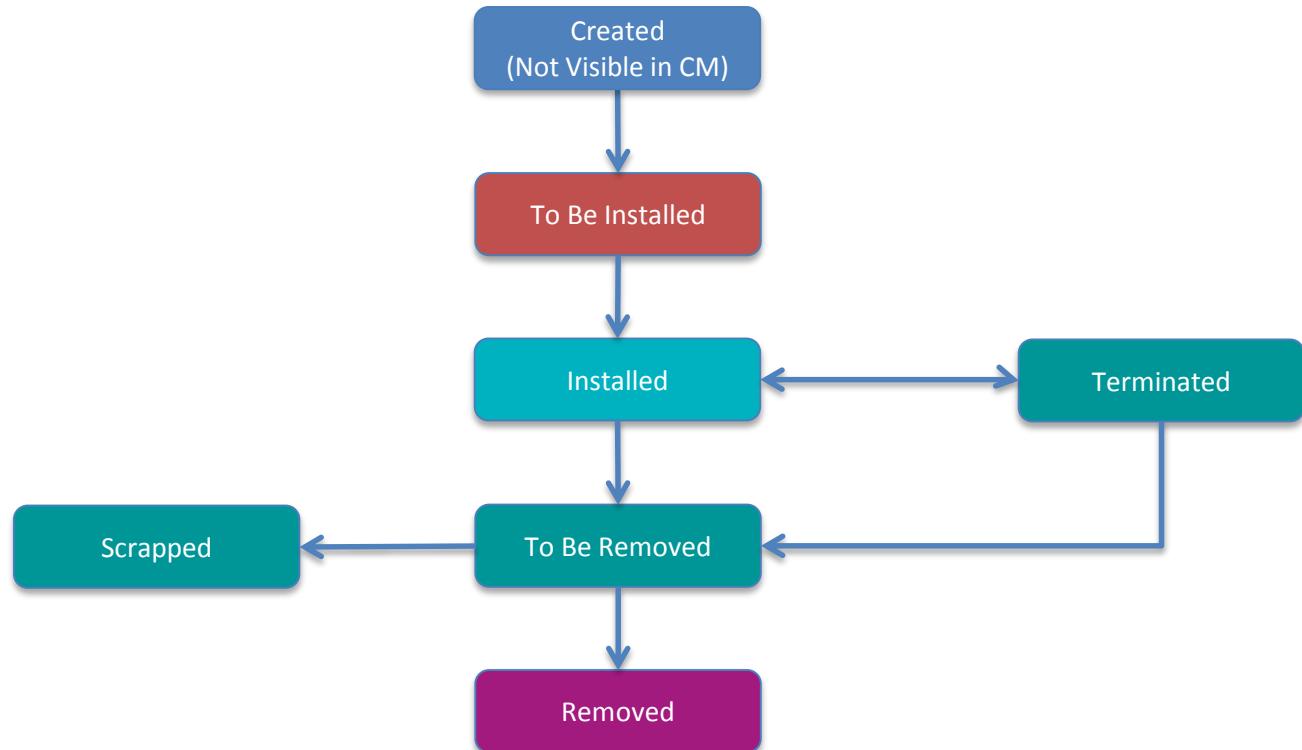
# Offers & Contracts ⇔ Campaign to Cash (Direct)



# Offers & Contracts ⇔ Campaign to Cash (Direct)



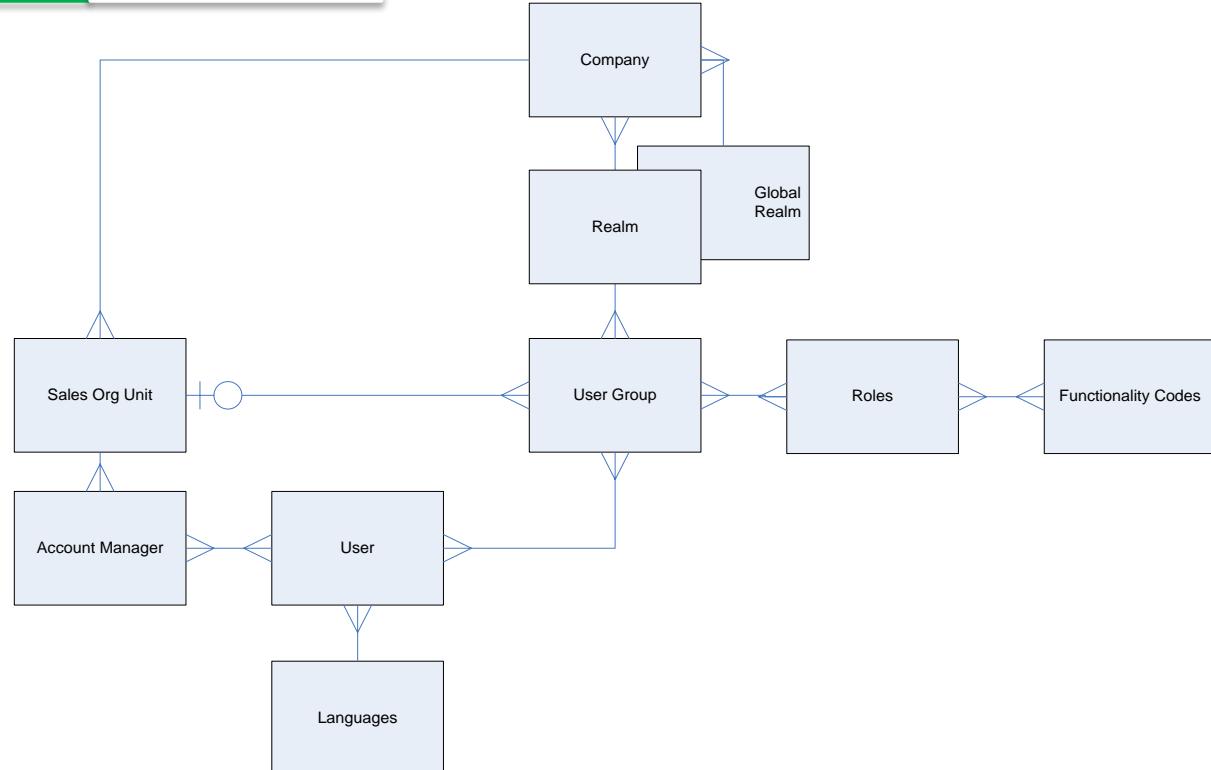
## Install Base – Life Cycle



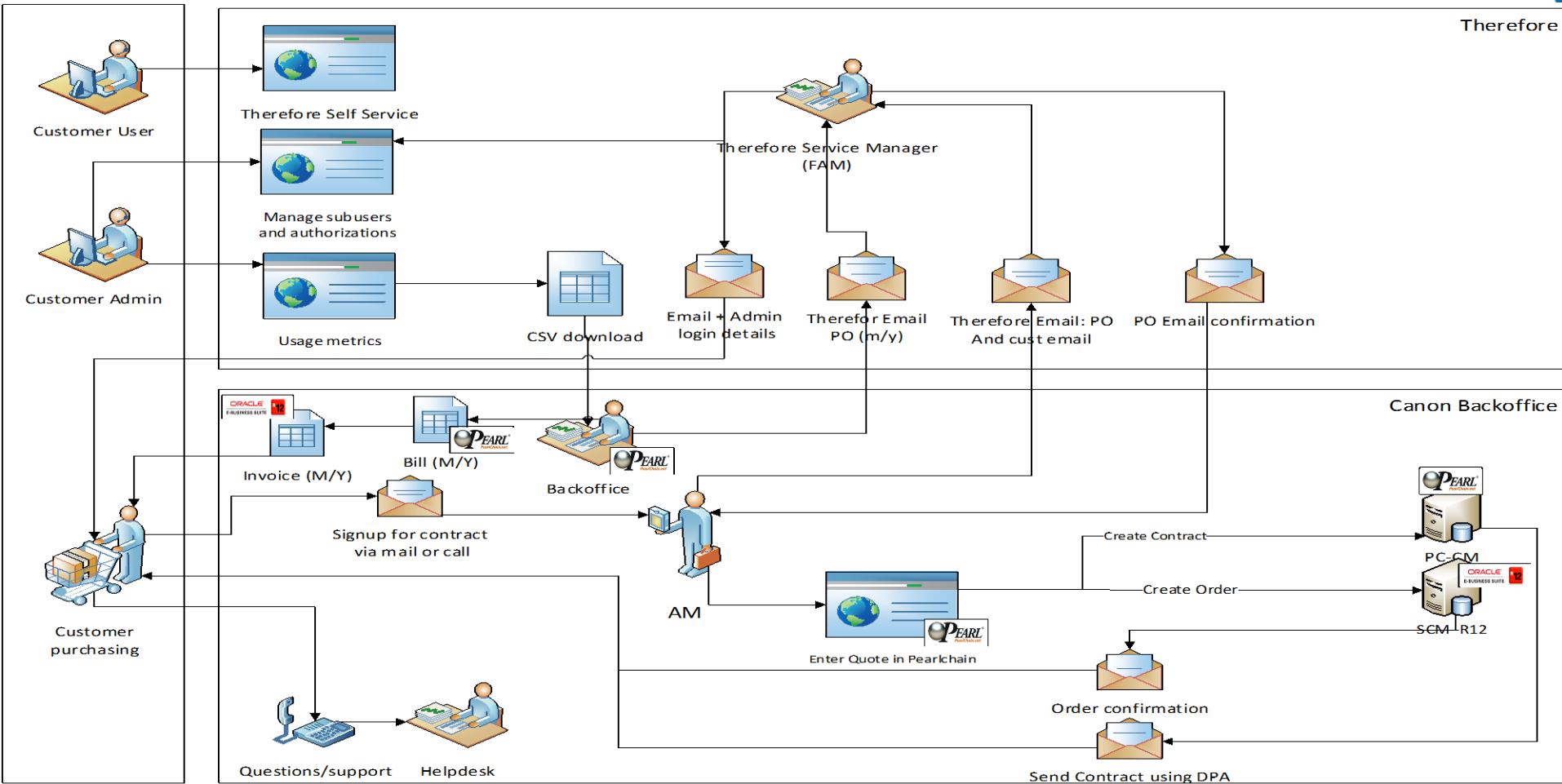
# Offers & Contracts ⇔ Campaign to Cash (Direct)



**Users Access Rights & Multi-Org\***



# Offers & Contracts ⇄ SaaS Flow\*

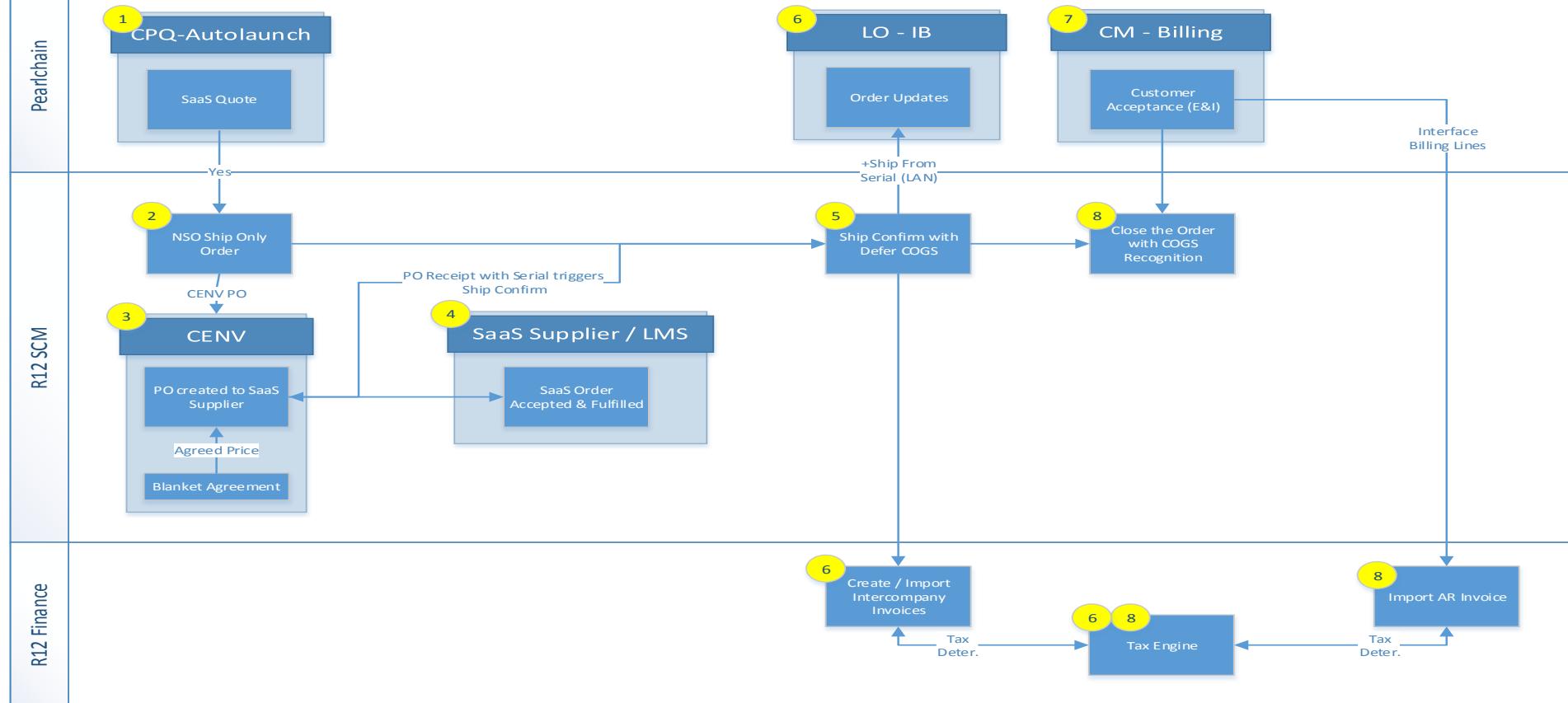


# Offers & Contracts ⇔ SaaS Flow\*

## SaaS Fulfillment - Billing Flow



SaaS\_E2E

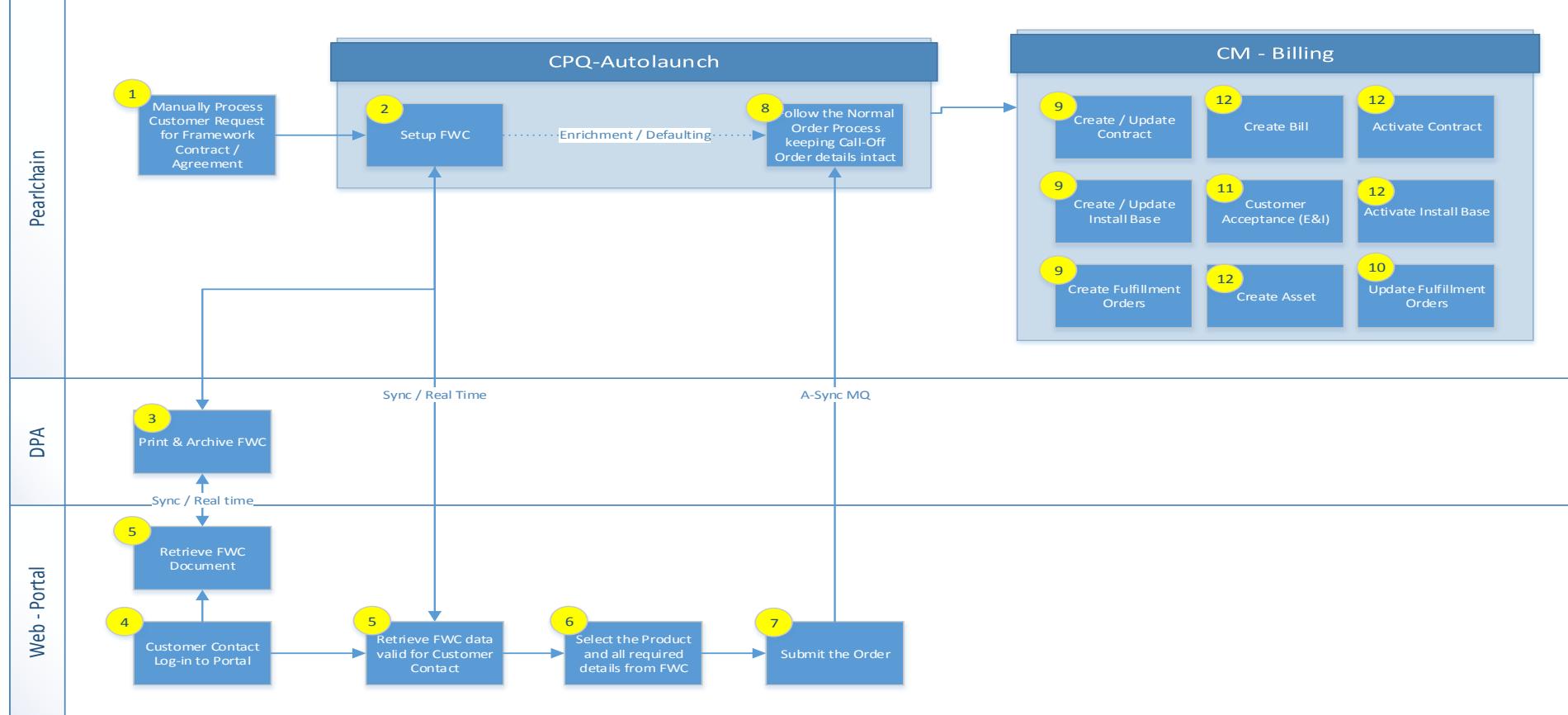


# Offers & Contracts ⇔ Portal – FWC / Agreement and Call-Off Ordering\*



## Portal – Integration – FWC – Call-Off

Portal Call Off



# Offers & Contracts ⇔ Document Change Log

V0.2 = Architecture Guidelines added, Change log added, P2R overlapping solution added, Meter read changes added, Format changes added, Financial Flows updated, SaaS Flow Added, Integration Landscape Added

V0.3 = Portal - O&C Architecture Added & Updated (Scoping discussions are pending), Added Shape-IT slides, Latest Scheduling Arch., Inserted the full Visio objects to have better visibility

V0.4 = Changed the Pearlchain Capability picture