

TIPS & TRIKS – HÖJDPUNKTER FRÅN SPECIALISTHÖRNET

Teams Meeting 24 Oktober 2022

Lena Lundell - InfoTeam

Björn Torold, Joakim Mattsson - Infor

Dagens ämnen

Inledning

Senaste nytt från fältet angående M3 Cloud

Höjdpunkter från Specialisthörnet

Vad händer mer i höst?



October 2022

Infor M3 (AWS)

Infor CloudSuite



Infor M3 (AWS) Customers

Customers provisioned with Infor M3 (AWS)

376 (124)



Usability Features Delivered

Developments for Technology and User Experience

156



Total Countries Supported



Capability Features Delivered Developments for Integrations and Geo Support

Countries Supported with Infor M3 (AWS)



Total Integrations supported



Strategic Integrations with Best-of-Breed and 3rd Party

Industry Features Delivered

New features within the technology layer





Highlight

M3 API's

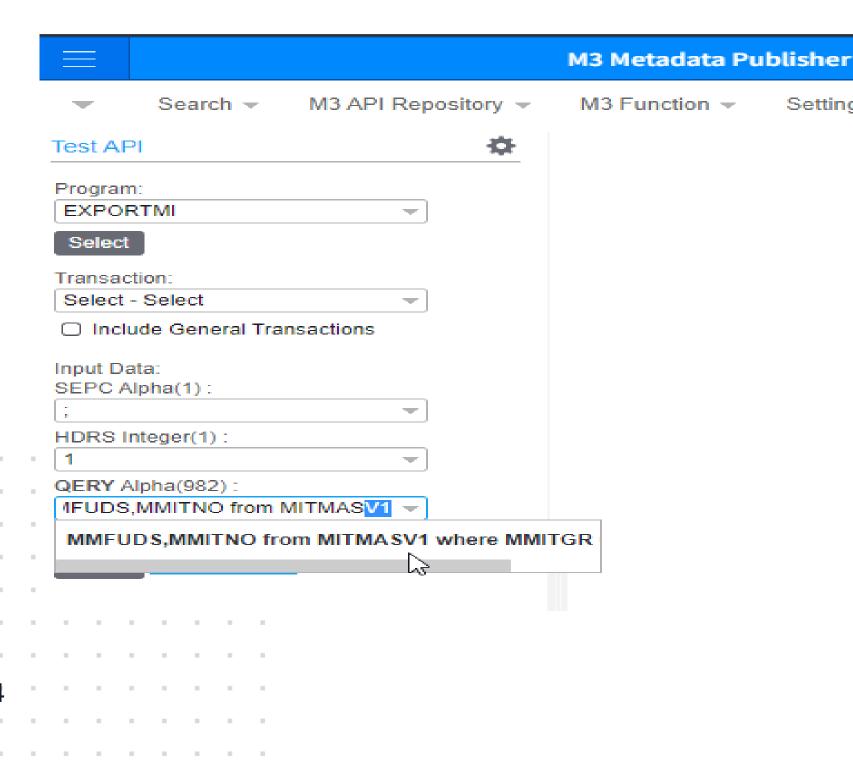
M3 toolbox API's

EXPORTMI

- Specify index and related filters (requires filters according to selected index)
- Supports user defined index (U, V, X sorting options)
- Possible to use more than 10000 records when index is selected

Relative performance

 EXPORTMI with specified index **MDBREADMI** EXPORTMI without specified index CMS100MI without related tables CMS100MI addition per extra related table= 5



infor

Settings -



Highlight

Massupdate/import data

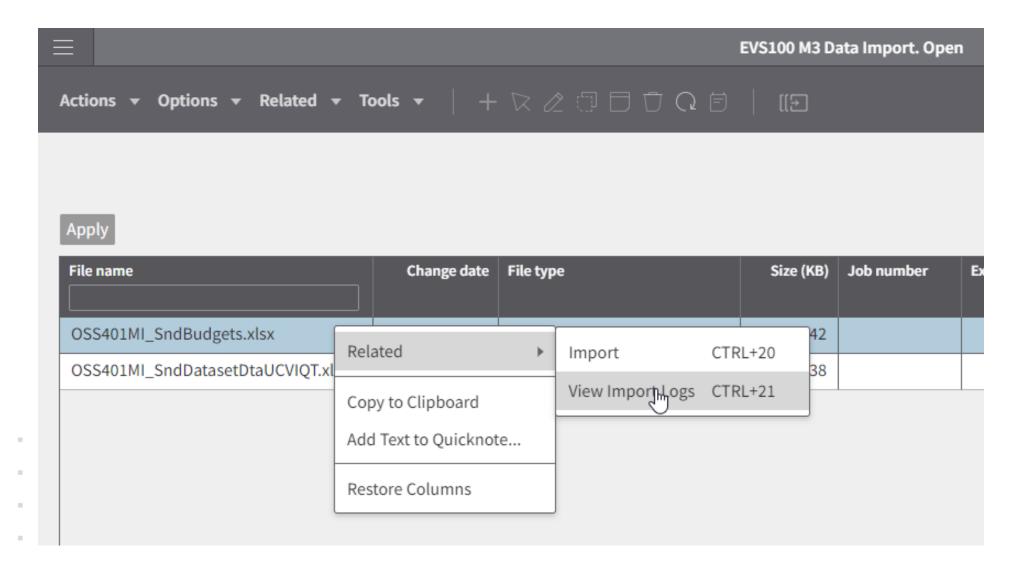
EVS100

EVS100

- Structured import of data into M3
- Accepts CSV and Excel
- Import done via standard M3 API's
- Excel manages sequence of import

Enhancements:

- Simplified access to log (related option 21)
- Changed format of log to single line (October 2022)
- Added support of import via direct Fnc calls.
 Expands number of possible data to import but not as simple as API imports (Use MDP M3 Function Fnc Developer Client)





Highlight

M3 Archiving Solution overview

Archiving Solution

- New analysis function added
 - Lists tables with row count/size
 - Help deciding where archiving is mostly needed
- Better table classification in MDP to help understand work files that should be empty
- Move archived data to Data Lake
- More to come



Function	Description		Po1	Po2	Po3	Log	Arch lib	Sts	User S
AHS900	Ad Hoc Report Run. De				3	MVXARCH	00		
ATS640	Attributes. File	Related		Don't surrous		to a bid in a interest of the CTDL of		7	
CAS970	Internal Account Entry	Related	,		Reset current archiving job CTRL+7				
CAS975	Average Cost History.	Select C	TRL+1	Pau	se/Restai	8			
CAS980	Order Costing. File	Change C	TRL+2	Run	Run archiving function CTRL+9				
COS090	Maint CO. File	Delete C	TRL+4	Disp	Display archiving log CTRL+11				
GLS800	General Ledger. File	Display C	CTRL+5		Display archiving viewer CTRL+12				
MMS185	Req/Distr Order. File	Cany to Clinhoord			lay archi	ving tab	le CTRL+2	1	
MMS195	Stock Transaction. File					3	MVXARCH	00	
MMS280	Item Statistics. File	Add Text to Quick	note			3	MVXARCH	00	
MNS906	Output Data. Delete	Restore Columns				3	MVXARCH	00	
MOS190	Work Order. File					3	MVXARCH	00	

Available in the M3 Cloud

Highlight

M3 Archive and Data Lake

Archive in M3

- Same process and today
- Archived data stored in Archive library
- Works in same way as earlier with Adhoc reports etc
- Note! Archive of data has not reduced size of stored data

1

- M3 Business Engine
 Archive data as today
- Call archive service to send to Data Lake

~395 tables

ARCHIVE MVXARCH

DATA

MVXJDTA

M3 (Service) to build files from data moved to archive schema. Executed on request by M3 Business Engine

Data Fabric/Core
Data Catalog
Store file with archiveindicator

M3
BE

M3 Foundation

Infor OS
Data Fabric

Data Fabric/Compass
Present archived data through
SQL to Reporting capabilities

User Experience | Reporting Present archived data through SQL to Reporting capabilities

NOTE: This is under development

Move to Data Lake:

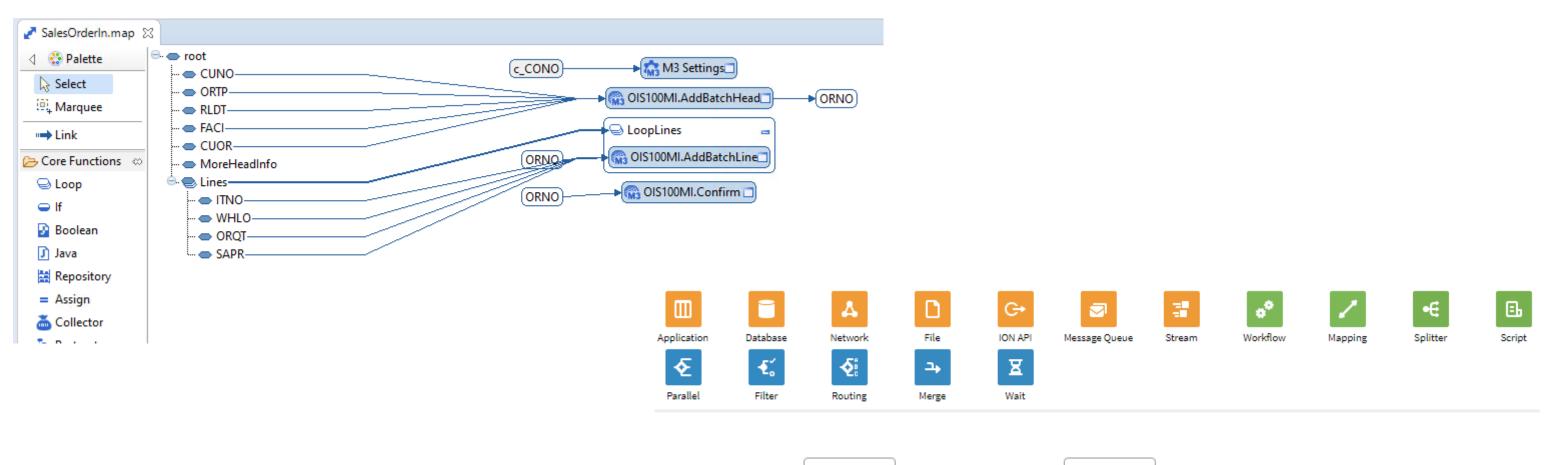
- New process activated from M3 archive functions
- Moves data to the S3 bucket in Data lake and flagged as archived.
- Data in archived library is removed
- Note! Ad-hoc report etc in M3 cannot access this data. Queries and reports in Data Lake is used to view data

- Builds 15-50MB files from records in the archive schema.
- Sends to bulk ingestion service on request from Business Engine
- Removes MVXARCH temporary stored data whilst archiving



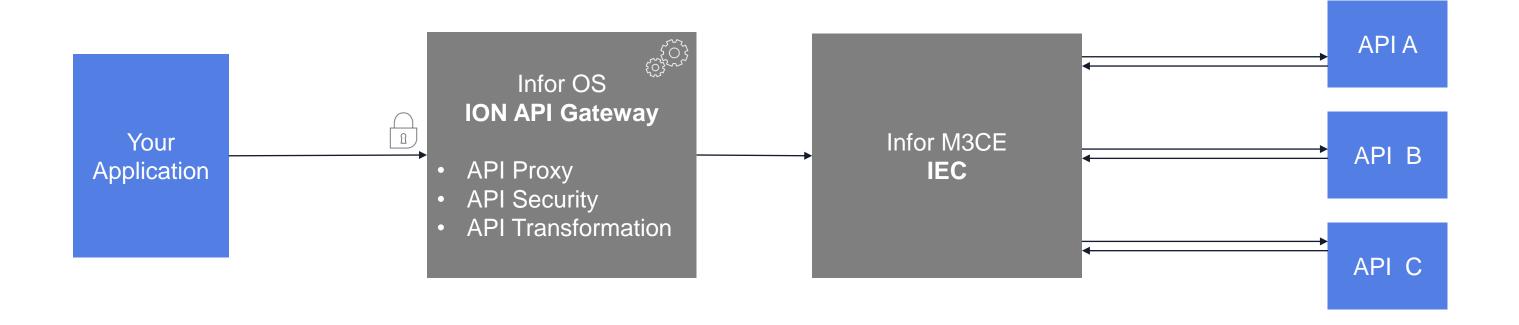


Asynchronous integration – Sales Order Entry in IEC

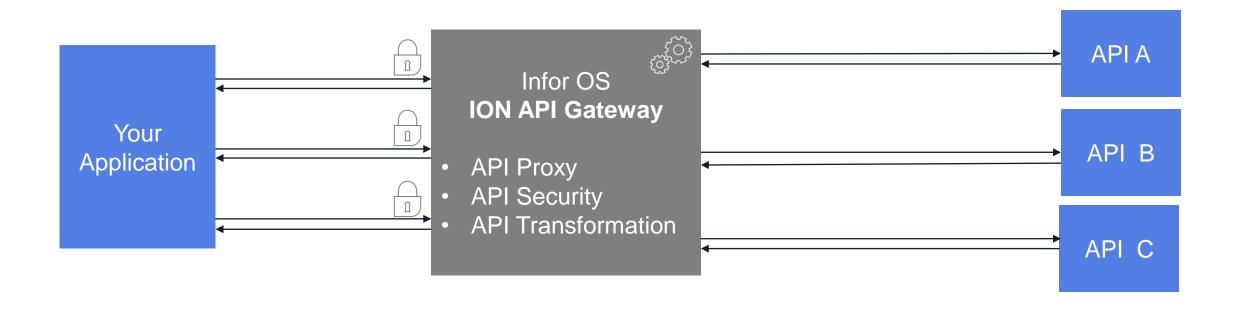




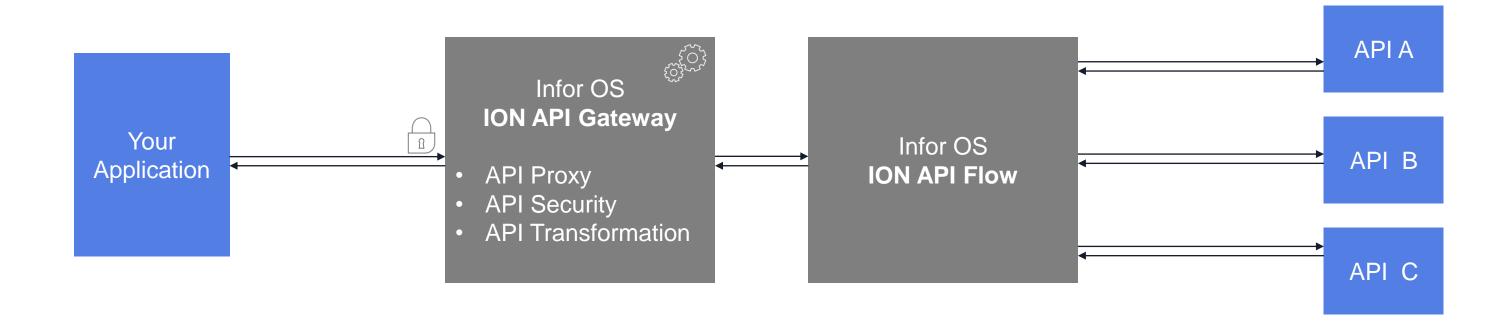
Asynchronous integration – API Orchestration in IEC



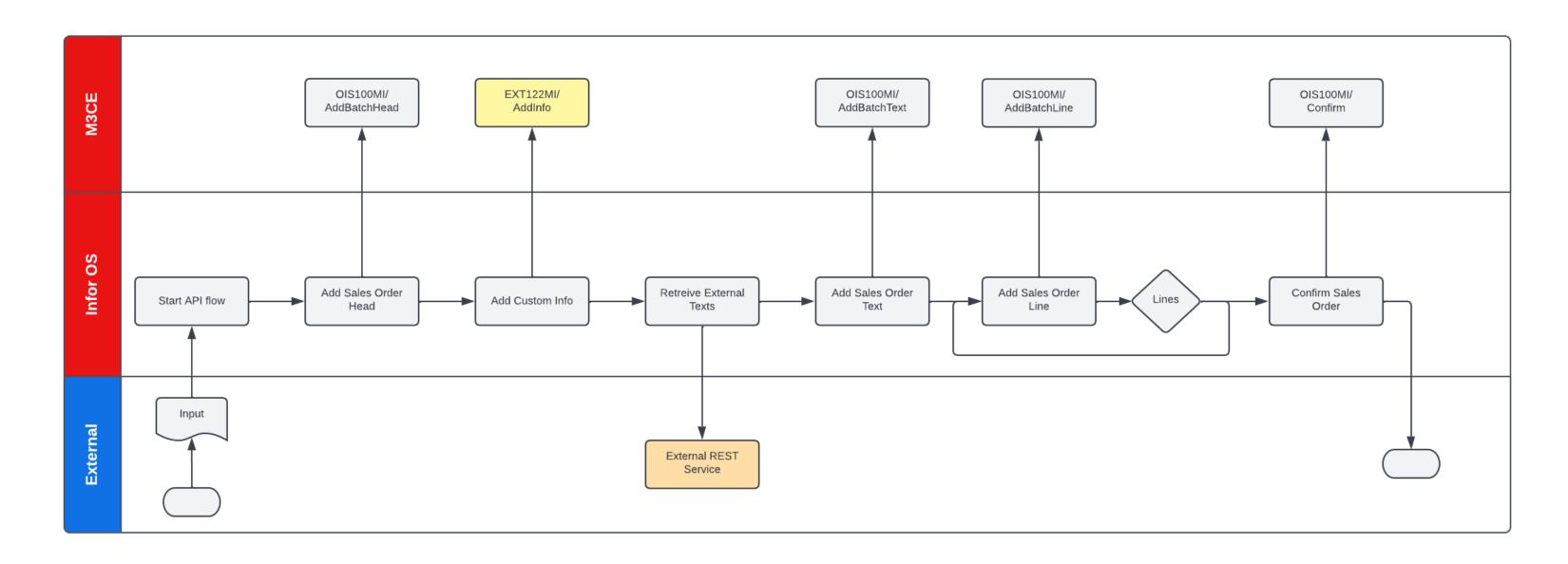
Synchronous integration – API Orchestration in client



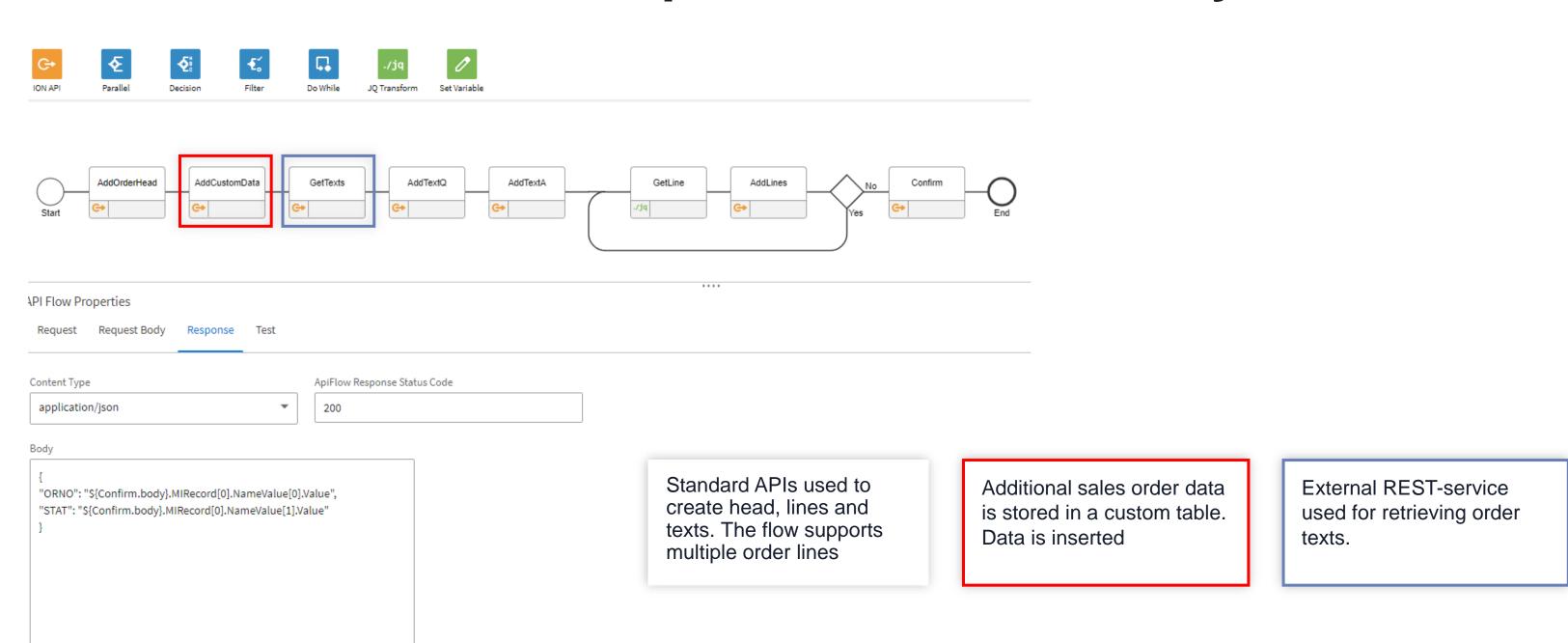
Synchronous integration – API Orchestration in ION



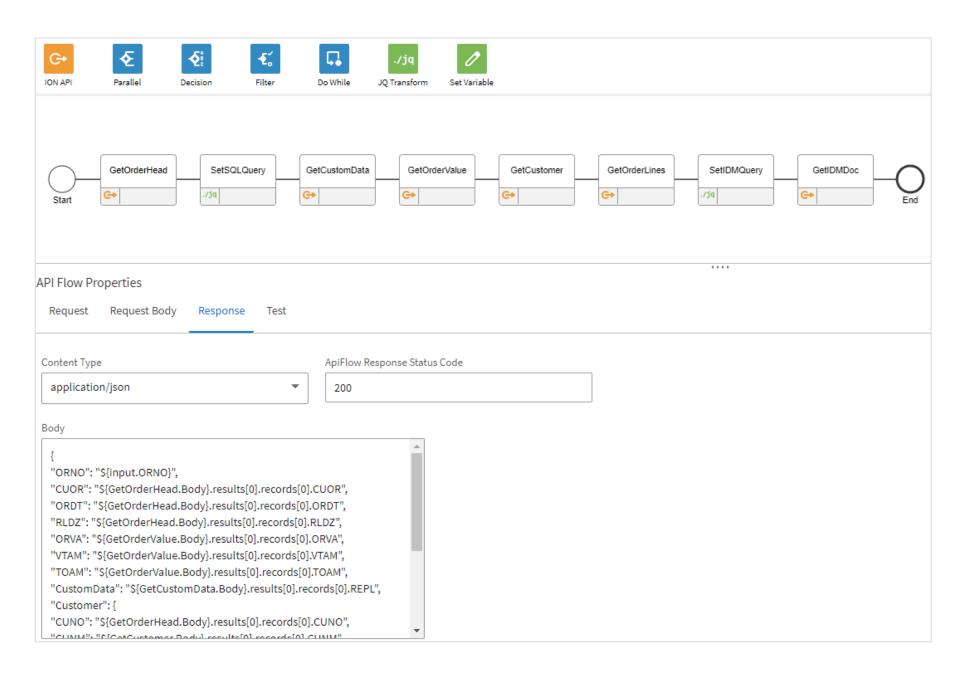
API Orchestration – Sample flowchart: Sales Order entry



API Orchestration – Example of Sales Order entry

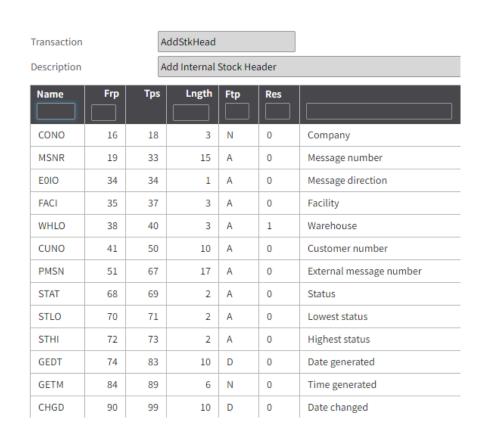


API Orchestration – Example of Sales Order retrieval



```
"ORNO": "4003113251",
"CUOR": "JM109",
"VTAM": "5.34",
"ORDT": "20221021",
"RLDZ": "20221021",
"ORVA": "70.00",
"TOAM": "75.34",
"CustomData": "Björns bästa",
"Customer": {
    "CUNO": "JMSE01",
    "CUNM": "JM01 inc"
},
"Lines": [
        "ITNO": "75-JM001",
        "ITDS": "7.5 Amp 1/2 in. Hole Hawg HD",
        "ORQT": "1",
        "SAPR": "5.00",
        "PONR": "1"
   },
        "ITNO": "75-JM002",
        "ITDS": "Santa",
        "ORQT": "2",
        "SAPR": "10.00",
        "PONR": "2"
        "ITNO": "75-JM003",
        "ITDS": "Powerpoint clicker",
        "ORQT": "3",
        "SAPR": "15.00",
        "PONR": "3"
],
    "FileName": "3093949286163384360IS606PF 0 0.pdf",
    "IDMURL": "https://idm.inforcloudsuite.com/ca/api/resources/CS Orders-621-1-LATEST
```

Adjust Stock Balances – API transactions



Transaction		A	AddStkId			
Description		A	dd Internal	Stock Id	entity	
Name	Frp	Tps	Lngth	Ftp	Res	
CONO	16	18	3	N	0	Company
MSNR	19	33	15	А	1	Message number
MSLN	34	38	5	N	0	Message line number
PMSN	39	55	17	Α	0	External message number
PMSL	56	60	5	N	0	External message line number
GEDT	61	70	10	D	0	Date generated
GETM	71	76	6	N	0	Time generated
CHGD	77	86	10	D	0	Date changed
WHLO	87	89	3	Α	1	Warehouse
ITNO	90	104	15	Α	0	Item number
WHSL	105	114	10	Α	1	Location
BANO	115	134	20	Α	0	Lot number
CAMU	135	154	20	Α	0	Container

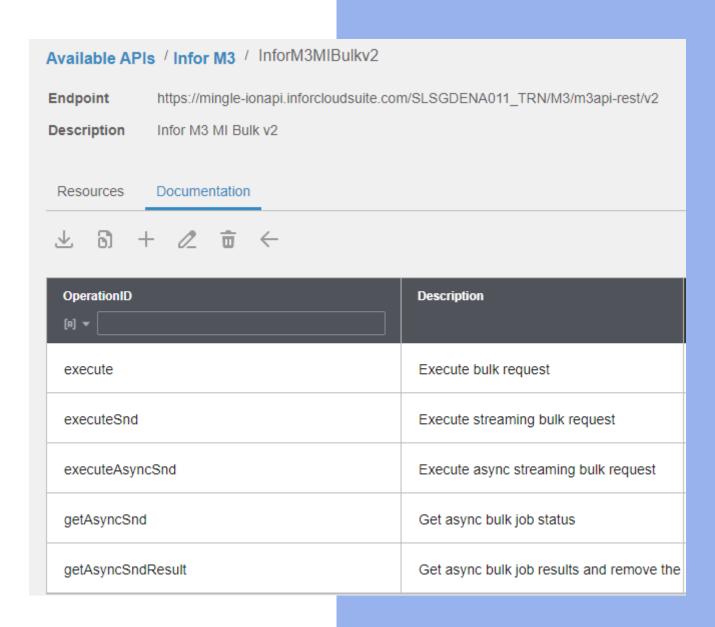
Description	1	A	dd Internal	Stock In	struction		
Name	Frp	Tps	Lngth	Ftp	Res		
CONO	16	18	3	N	0	Company	
MSNR	19	33	15	Α	1	Message number	
MSLN	34	38	5	N	1	Message line number	
MSGS	39	41	3	N	0	Sequence number	
QLFR	42	45	4	Α	1	Qualifier	
QLFS	46	48	3	N	0	Sequence number	
QLFT	49	49	1	N	0	Qualifier type	
STAT	50	51	2	Α	0	Status	
GEDT	52	61	10	D	0	Date generated	
GETM	62	67	6	N	0	Time generated	
PLFD	68	77	10	D	0	Planned finish date	
PLFT	78	83	6	N	0	Time generated	
FIDT	84	93	10	D	0	Finish date	

AddStkIns

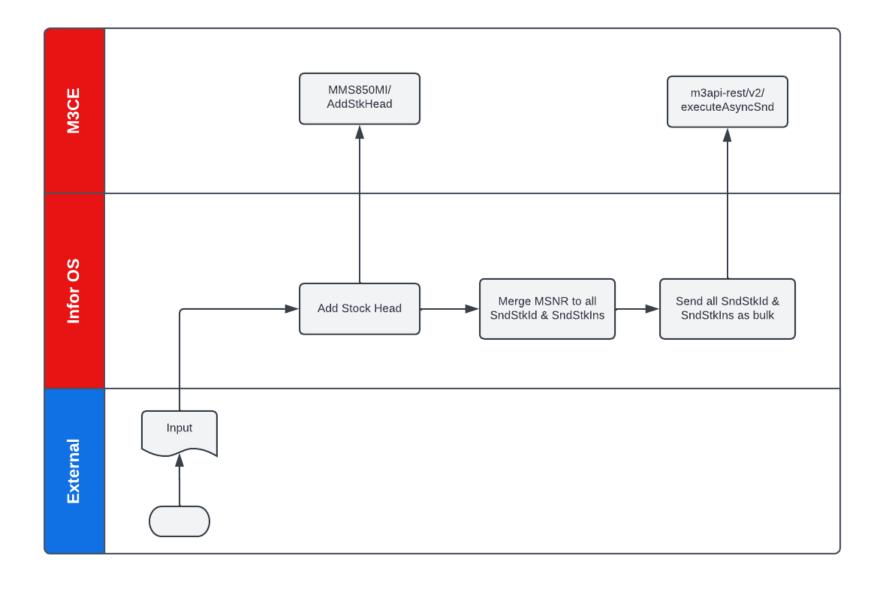
Transaction

M3 Bulk APIs

- Bulk APIs executes multiple APIs calls
- Supports different transactions within one API
- Does not support orchestration of calls and data
- Response includes response from each API call
- Significant performance gain possible
 - ... especially when executing smaller batches in parallel.



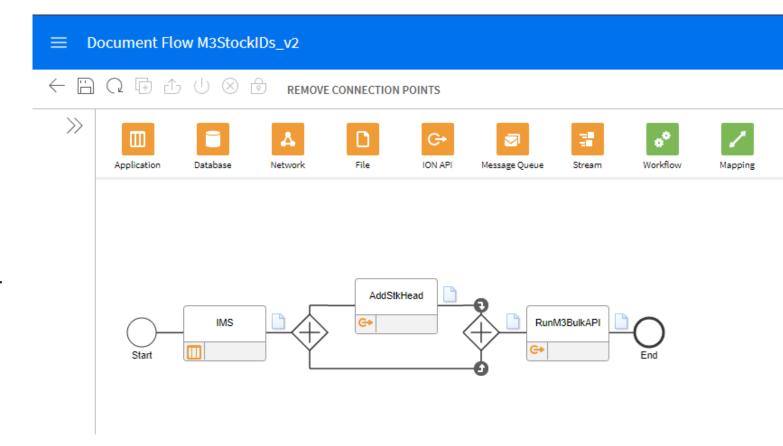
Stock Balances – Basic flow



```
"WHLO": "001",
"E065": "ALL",
"EOPA": "JM",
"EOPB": "JM",
"E0IO": "I",
"PMSN": "000001",
"Lines": {
    "program": "MMS850MI",
    "transactions": [
            "record": {
                "MSNR": "",
                "WHLO": "001",
                "WHSL": "YB0101",
                "MSLN": "00001",
                "PMSN": "00001",
                "ITNO": "75-JM001"
            "transaction": "SndStkId"
        },
            "record": {
                "MSNR": "",
                "WHLO": "001",
                "WHSL": "YB0101",
                "MSLN": "00001",
                "PMSN": "00001",
                "ITNO": "75-JM001",
                "QLFR": "0145",
                "QLQT": "950"
            "transaction": "SndStkIns"
       },
            "record": {
            "transaction": "SndStkId"
            "record": {
            "transaction": "SndStkId"
        },
            "record": {
            "transaction": "SndStkIns"
            "record": {
            "transaction": "PrcStkTran"
```

Document flow with Merge – Update stock balances

- ION receives JSON-file over IMS.
- File contains information
 - Header: AddStkHead
 - Lines: SndStkId & SndStkIns
 - Footer: PrcStkTran (*AUT)
- Header added to M3 via ION API with MSNR in response
 - The replied number (MSNR) is being merged into the lines and footer of the JSON message using the merge functionality in the Doc Flow.
- Finally, the M3 bulk ION API is called to enter the lines into M3.



Infor OS Services

one of the most mature and complete EAP platforms constellation

Portal: Modern flexible desktop/mobile user experience



Data: Store all your enterprise data from everything

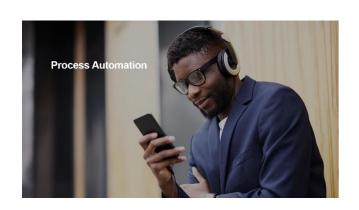
Insights: Analyze and Visualize Data everywhere

Automation: Automate workflows with data anytime









Documentation:
Embedded contextual
Document Management

Document Management



Machine learning: model training and deployment



Extensibility: Build data drive apps for anything

Secure: Comprehensive user authentication and role-based security



Overview Extensibility Architecture



Self Service

The capabilities in the CloudSuite for self-service of the technical environment



Data Retrieval

The available capabilities for data retrieval and user personalizations



Create & Edit Data

Possible solutions for creating and editing data from the technical platform



ION Datalake Access

The different tools and method to access the Datalake



H5 SDK

Description of the development tool H5 SDK



Mongoose XtendM3

(PaaS)

Add Applications in Cloud Infrastructure

	File name	Description			
li E	Infor M3 Cloud Edition Extensibility white paper	For M3 CE, the attached document provides an answer to the question of wha the possibilities and restrictions for M3 CE Core will be in a multi-tenant cloud deployment context.			
		The Attachment for M3 on-premise/single tenants is included for completenes – although this does NOT apply to M3 CloudEdition			
	Extensibility options available within M3 Multi- Tenant CloudSuite on AWS	Presentation originally given at Infor TechEd 2019 in Stockholm covering the extensibility options within M3 CloudEdition available at this time. Since this presentation; XtndM3 has been launched, Coleman DA and Colema At are ontocarded to the M3 Suites.			

https://support.infor.com/espublic/EN/AnswerLinkDotNet/SoHo/Solutions/SoHoViewSolution.aspx?SolutionID=1858460&kb_is_archived=0&kb_accessed_from=KBSearchResult

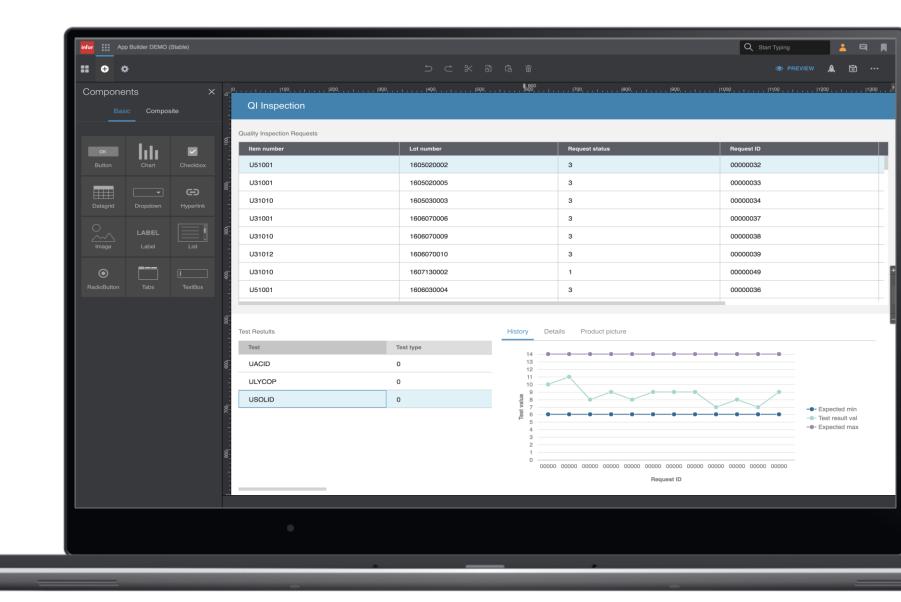
Extensibility Area Skill Name		Description	Link to KE Article
	Coleman Digital Assistant	Coleman Digital Assistant template skills for M3 CE Core	KB 211509
Infor OS Adoption	Coleman Al Platform	This KB contains both information and demo solutions of the components needed for a worked example of how to use Coleman Al; Use Coleman Al to support Customer Order Discount suggestions and utilize them in M3 Price Guidance.	KB 21320
	Infor M3 CE Generic Solution for Credit Card Service White Paper	This White Paper is intended for the system administrator or consultant who will design, develop, and configure an integration between Infor M3 CE and a card payment provider.	KB 21173
	M3 CE Integration and Infor OS content - Knowledge Base Articles	A knowledge base article with links to resources related to Infor OS Content and M3 OE integrations, such as implementation guide for EDI, Credit Card Service etc.	KB 20179
Integration templates	Infor M3 Cloud - Salesforce Integration	This guide describes the integration of Infor M3 Cloud and Salesforce and explains the integration process requirements, configuration tasks, and troubleshooting information.	KB 21775
	Infor M3 Cloud - MSCRM (Microsoft Dynamics CRM 385) Integration	This guide describes the integration of Infor M3 Cloud and Microsoft dynamics 365 CRM and explains the integration process requirements, configuration tasks, and troubleshooting information.	KB 21775

Innovate With New Apps And Features



EXTENSIBILITY

- Rapid application development tools / WYSIWYG design
- No code Low Code Full Code
- Simple mashups to full stack web development
- Deployed as HTML 5 / Device responsive
- Integrated with other services
 - IFS/SSO
 - Employee Portal
 - ION IPaaS (ION / API)
 - ION Workflow
 - AI/ML



Low code - Wizards



New data maintenance

Allows developers to quickly and easily build base tables/IDOS and forms with zero coding



Master form

Master forms allow developers to build the base of their application and not have to copy/paste over and over. Also allows for easy uplift/maintenance.



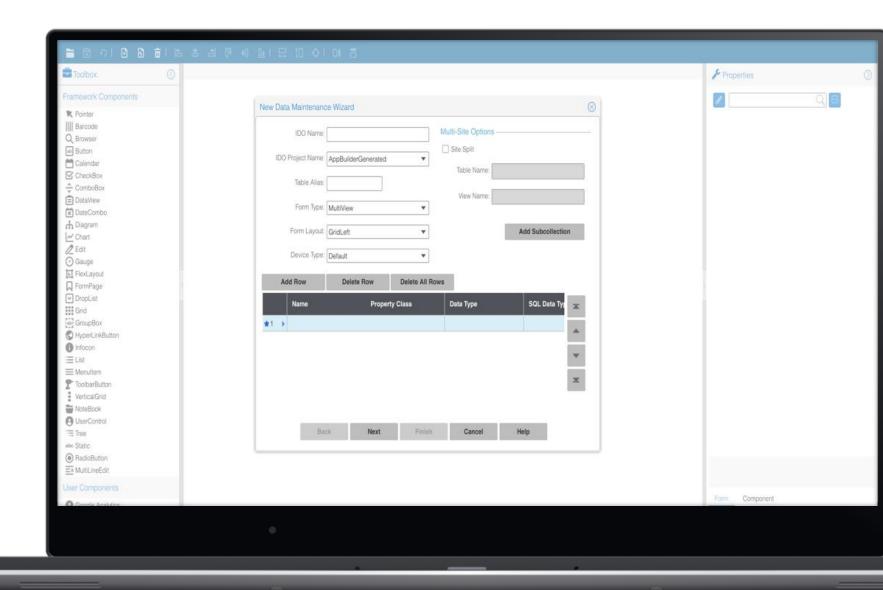
XML to IDO

This tool allows you to absorb BODs and create and IDO without any issue



DataViews

Being able to quickly and easily build views for either screen or basic reporting.



Full code – Designer



Custom assemblies

Allows to developer to access items like REST or SOAP calls and have them in a reusable state..



IDOs

Intelligent Data Objects control all the interaction of data with user in either form, report or back end processing



AES

This workflow engine allows developers to interject forks and controls with outside individuals to allow proper business processing to take place

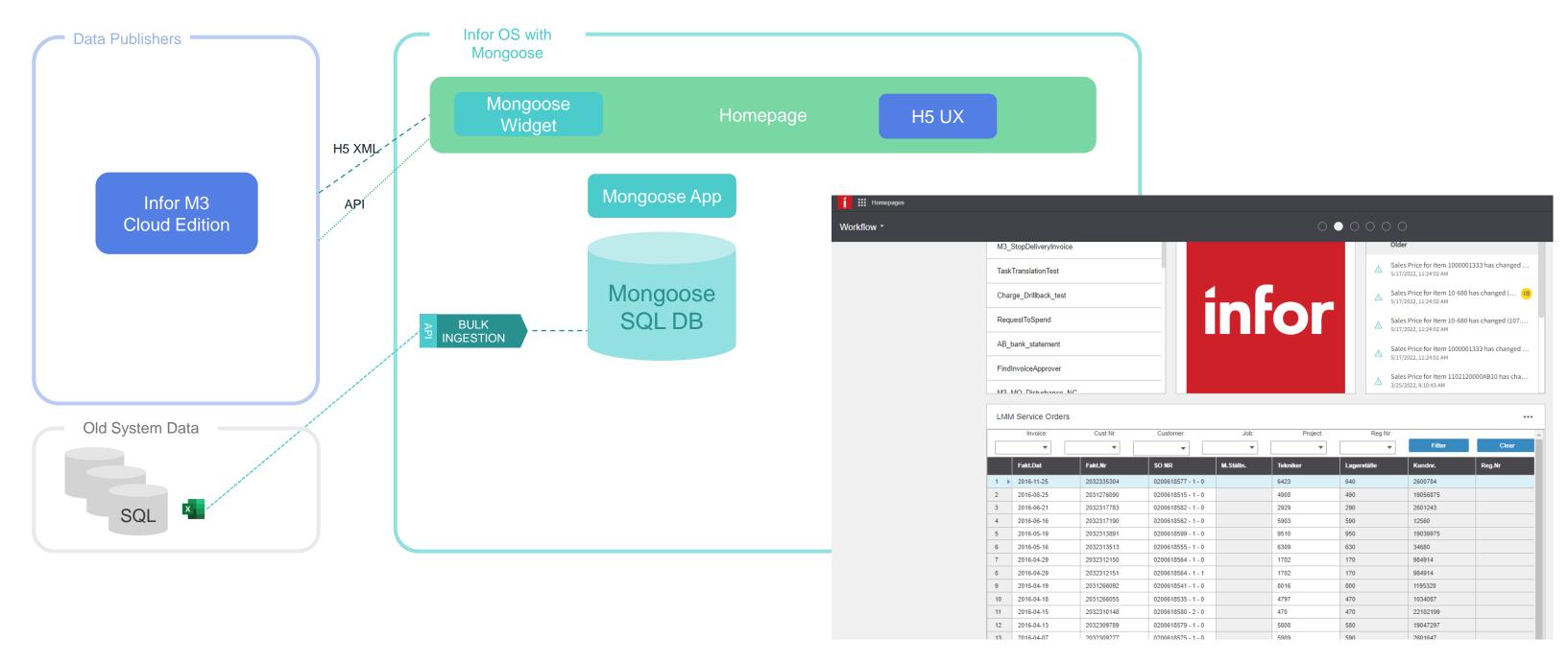


Form scripting

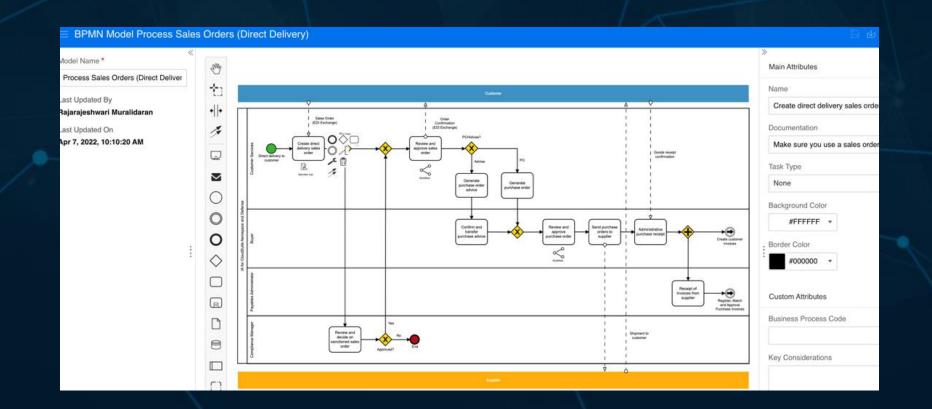
Similar to Custom Assemblies, Form Scripting allows developers to take control where the base framework does not suffice.

```
Application.SnowMessage(ThisForm.Components|"UKPavioad"|.Value)
 // get the response from the completed web request
string soapResult:
 using(WebResponse webResponse = webRequest.EndGetResponse(asyncResult)) {
  using(StreamReader rd = new StreamReader(webResponse.GetResponseStream())) {
   soapResult = rd.ReadToEnd():
   //Application.ShowMessage(soapResult);
if (ThisForm.Variables("webRequestMethod").Value == "get")
  parseXML(soapResult); //parses the xml and prints the values
 if (ThisForm.Variables("webRequestMethod").Value == "put")
  Application.ShowMessage("Update to EAM Successful");
public HttpWebRequest CreateWebRequest(string url) {
HttpWebRequest webRequest = (HttpWebRequest) WebRequest.Create(url);
 webRequest.Headers.Add("SOAPAction", url);
 webRequest.ContentType = "text/xml;charset=\"utf-8\"";
 webRequest.Accept = "text/xml";
 webRequest.Method = "POST";
public void InsertSoapEnvelopeIntoWebRequest(XmlDocument soapEnvelopeXml, HttpWebRequest webRequest)
using(Stream stream = webRequest.GetRequestStream()) {
  soapEnvelopeXml.Save(stream);
//template xml is grabbed and plugged in with values
public XmlDocument CreateSoapEnvelope() {
string xmlBody = string.Empty;
XmlDocument soapEnvelopeDocument = new XmlDocument();
```

Architecture - Mongoose App in M3CE Solution



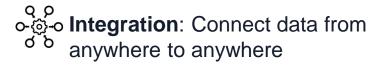
Infor Process Intelligence



Infor OS Services

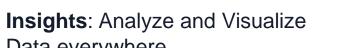
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Portal: Modern flexible desktop/mobile user experience



Data: Store all your enterprise data from everything

Data everywhere

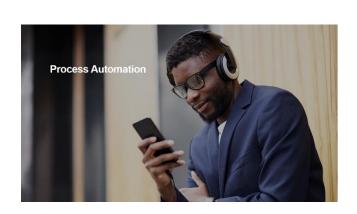


Automation: Automate workflows with data anytime









Documentation: Embedded contextual **Document Management**

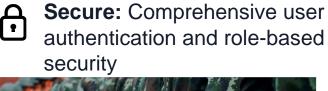
Document Management



Machine learning: model training and deployment



Extensibility: Build data drive apps for anything



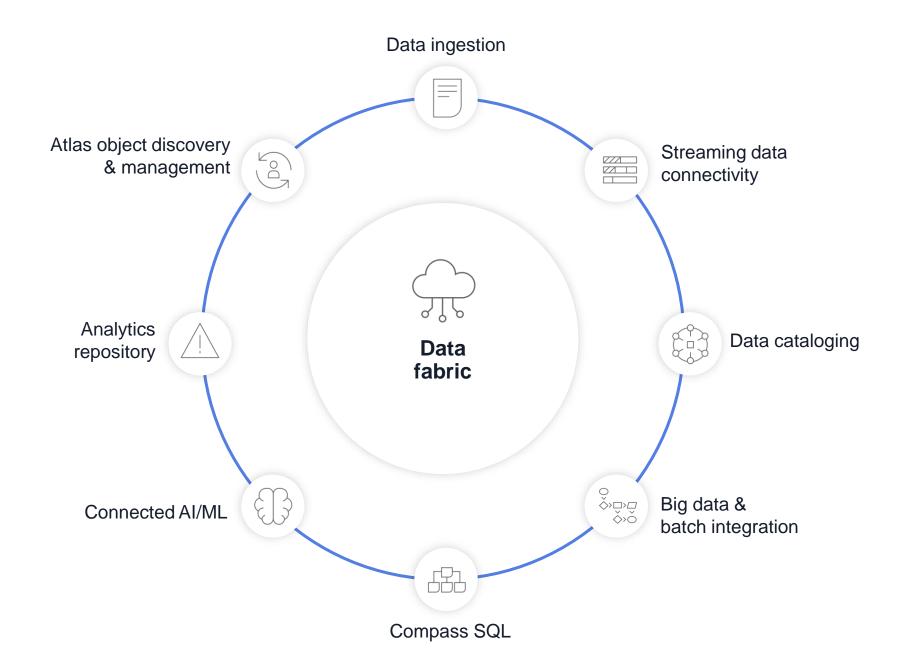




Data fabric

With an ever-increasing array of enterprise applications, APIs, devices, and users, having a big data platform to centralize the entirety of your data portfolio helps organizations start their journey from analytics to predictive AI application.

The Infor Data Fabric is able to receive and capture every instance of data generated in an immutable, long-term storage platform while allowing content developers and self-service users to quickly ask questions, find trends, and extract content managed by the Data Fabric with Data Lake's Compass SQL platform.



Infor OS Enablement | Data Fabric Streaming Data Ingestion

Streaming data & its benefits

Streaming data is data that is generated continuously by data sources processing each transaction record by record to Data Fabric Streaming Ingestion services to get it stored in Data Lake and simultaneously be processed in real-time with Stream Pipelines for delivery to a database

Publishers

- Publishers can send data events when they happen
- Publishers do not worry about micro-batching and optimal object size
- Publishers provide the 1st half of operational insight capabilities

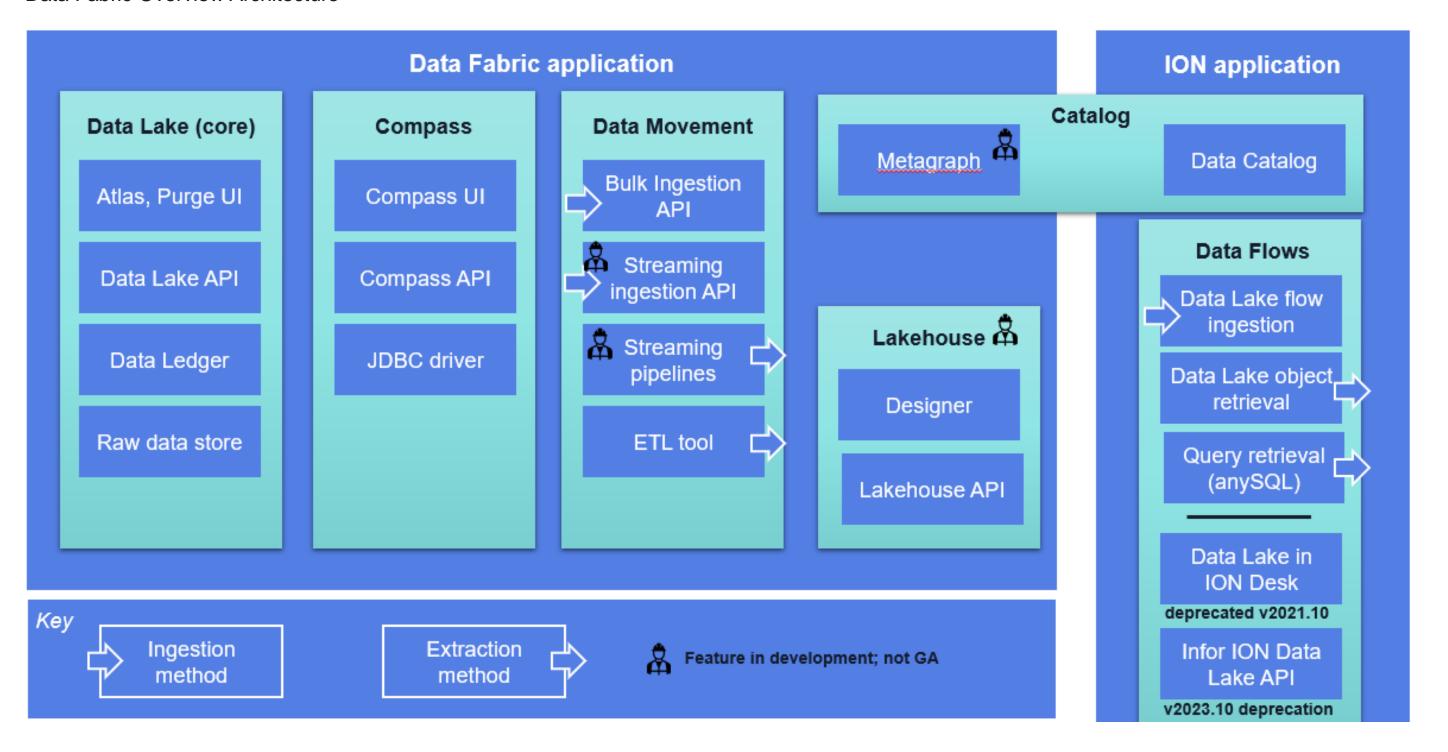
Data Lake

- Data Fabric becomes author of the data objects
- Data Fabric ensures optimal object sizes are reached before storing
- Existing Data Lake concepts and services continue to work as today with data published in a novel way

Stream Pipelines

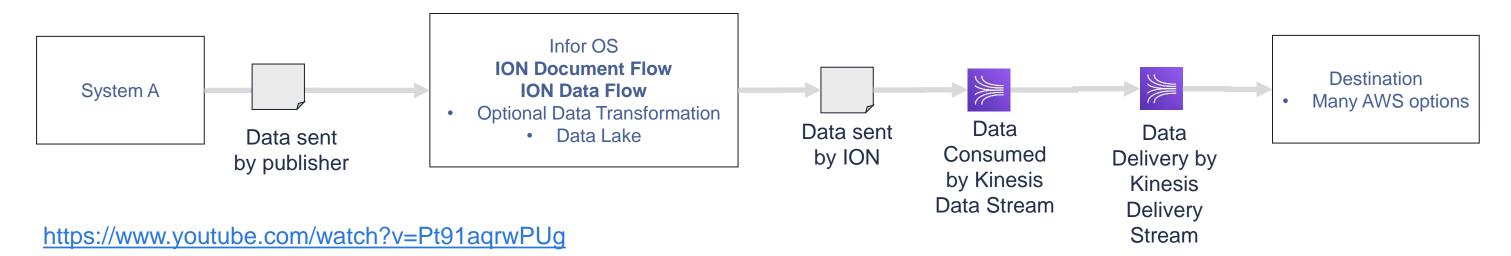
- Stream Pipelines allows customers to subscribe to streamed data to continuously push it downstream for a real-time delivery to a cloud data destination
- Stream Pipelines is the 2nd half that enables the operational reporting capabilities

Data Fabric Overview Architecture

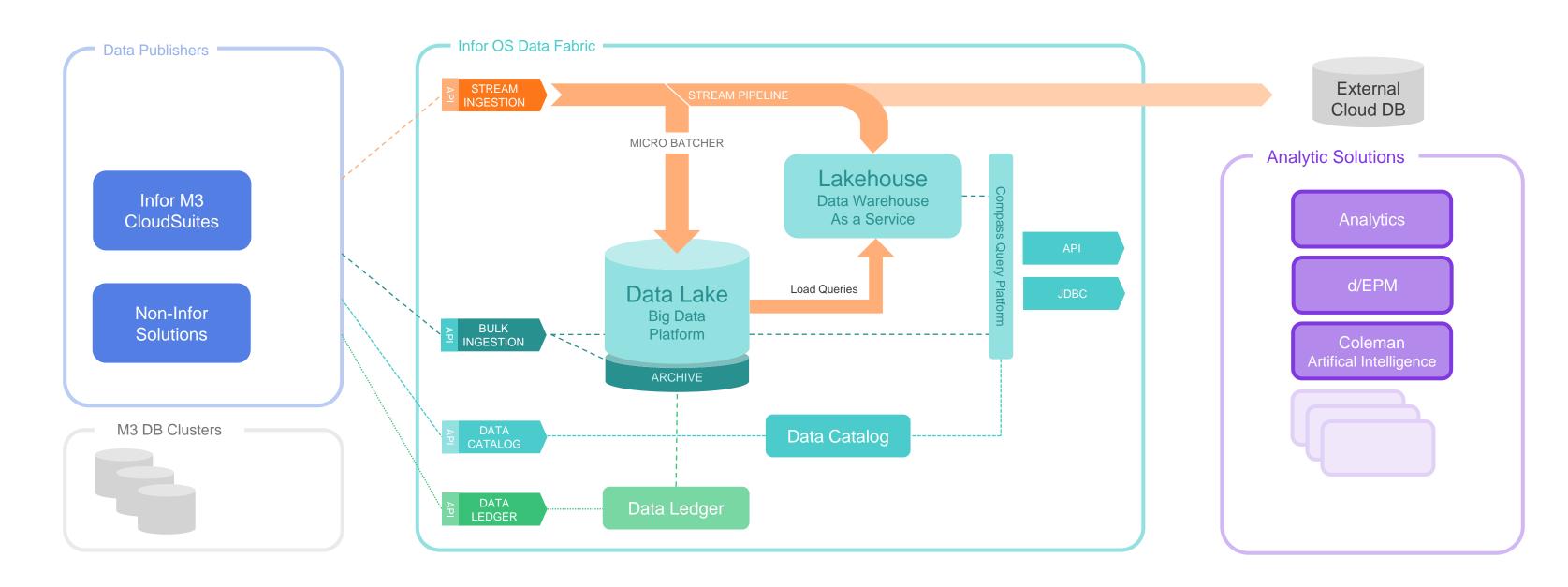


Stream data from Infor ION

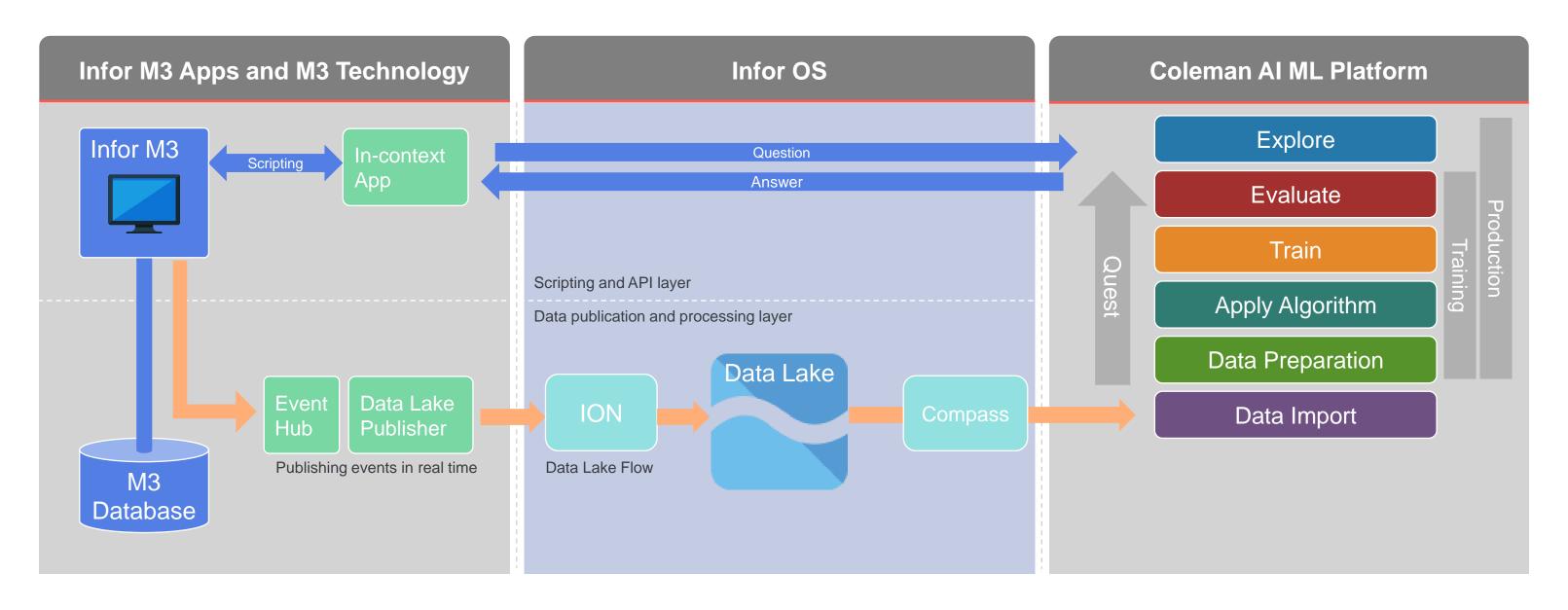
- Infor Intelligent Open Network (ION) is an Enterprise Application Integration platform
- Data can be interfaced to and from the ION platform
- Amazon AWS Kinesis is a data streaming tool
- You can connect to a Kinesis Data Stream from ION

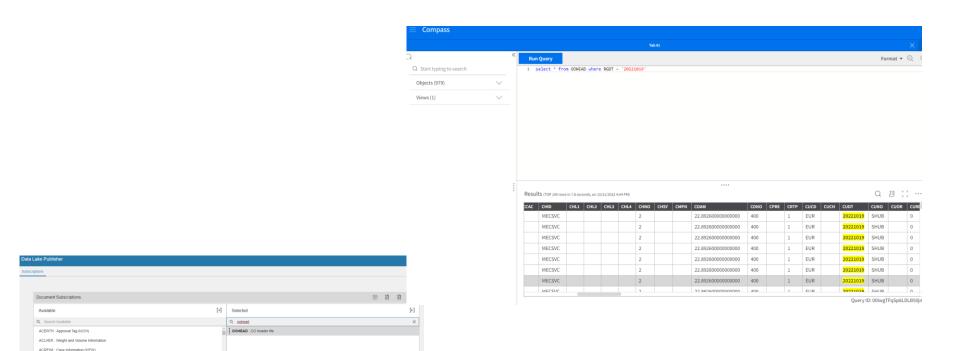


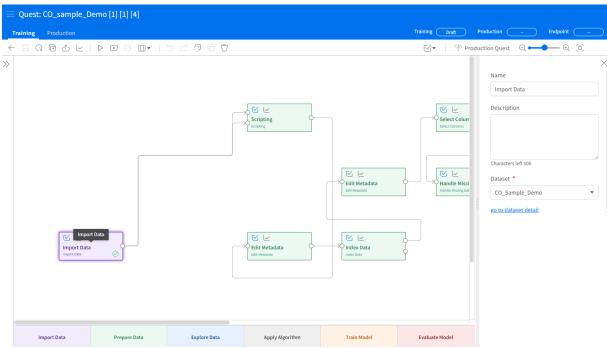
M3 and Data Fabric



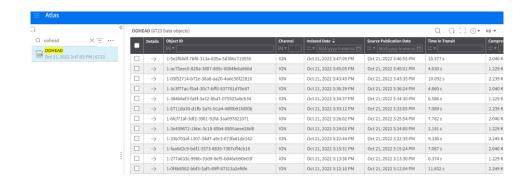
High Level Architecture

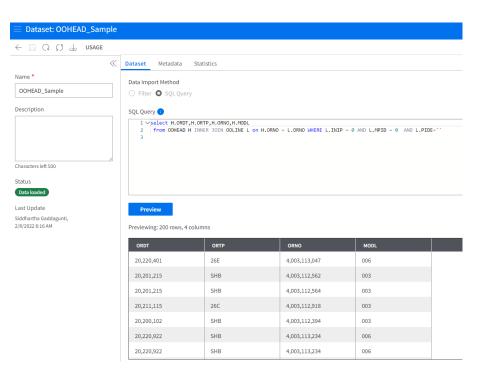






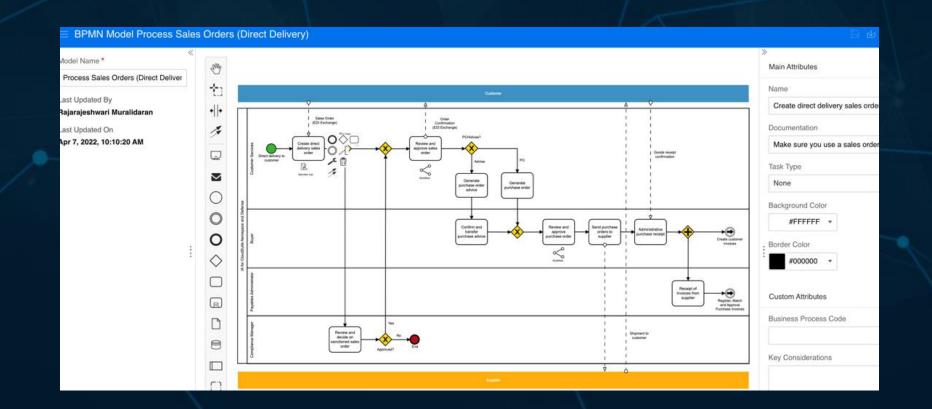
M3BE Data Lake Publisher Atlas Compass SQL Datasets Quests Endpoints



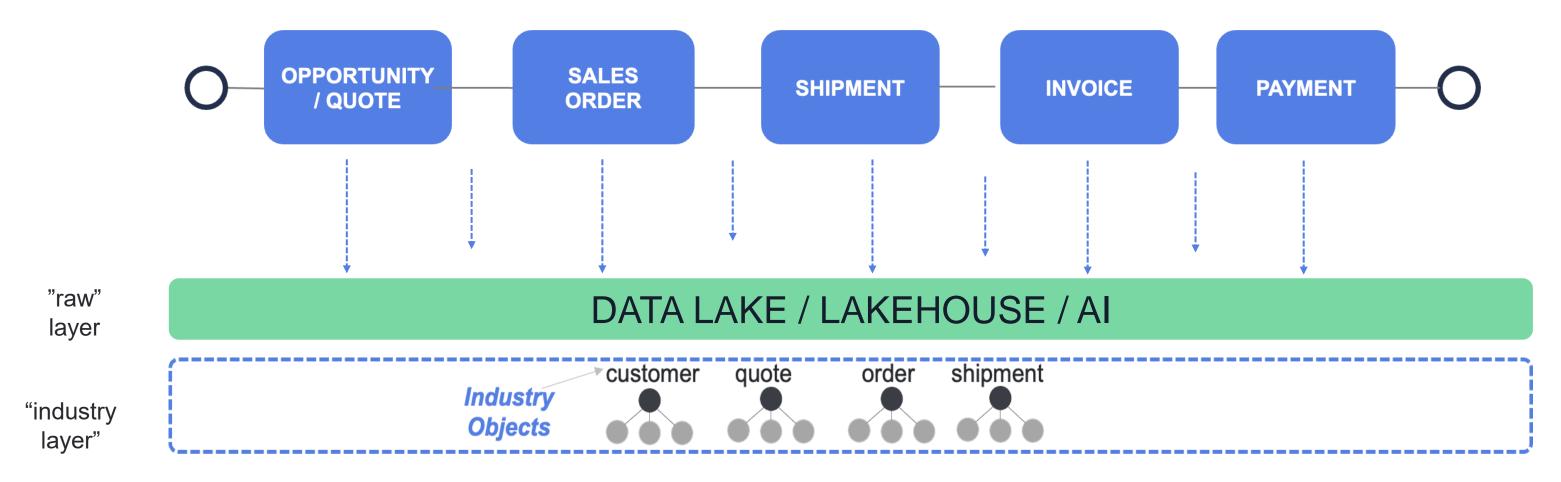




Infor Process Intelligence

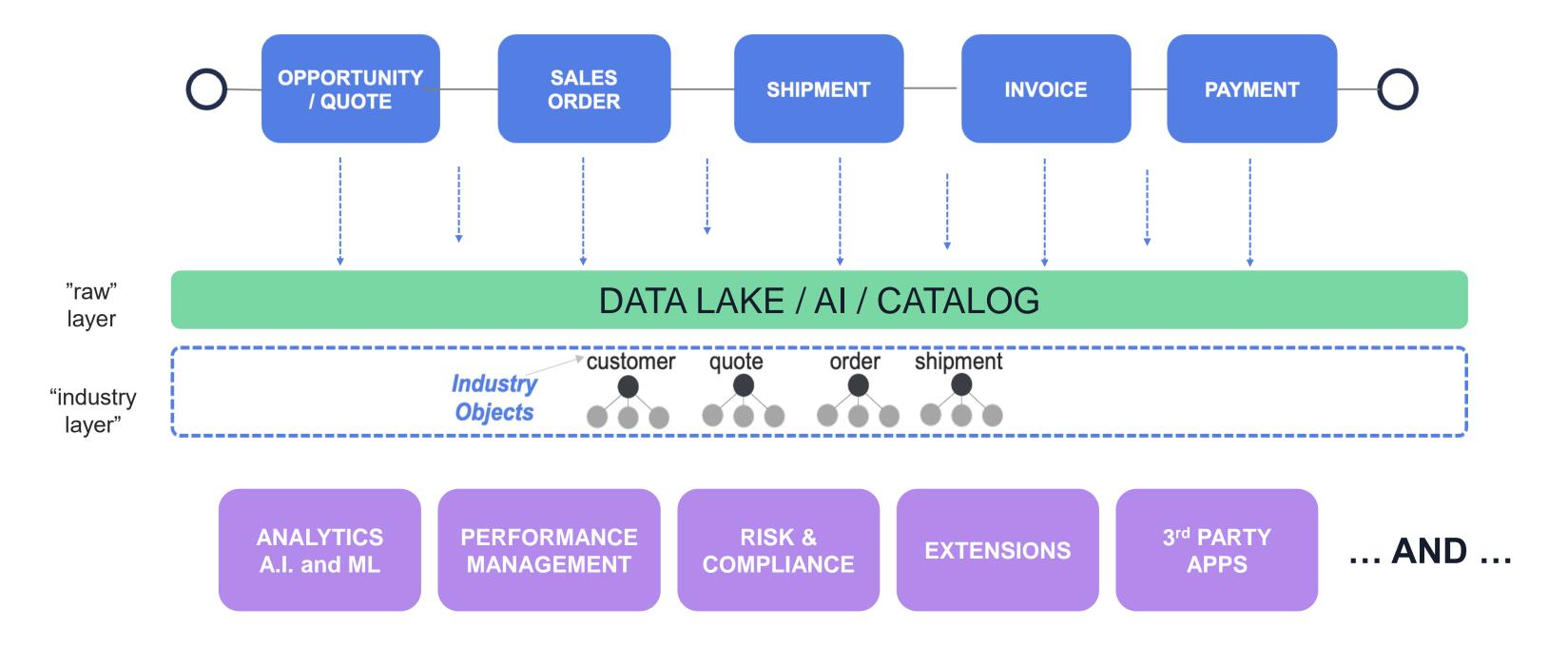


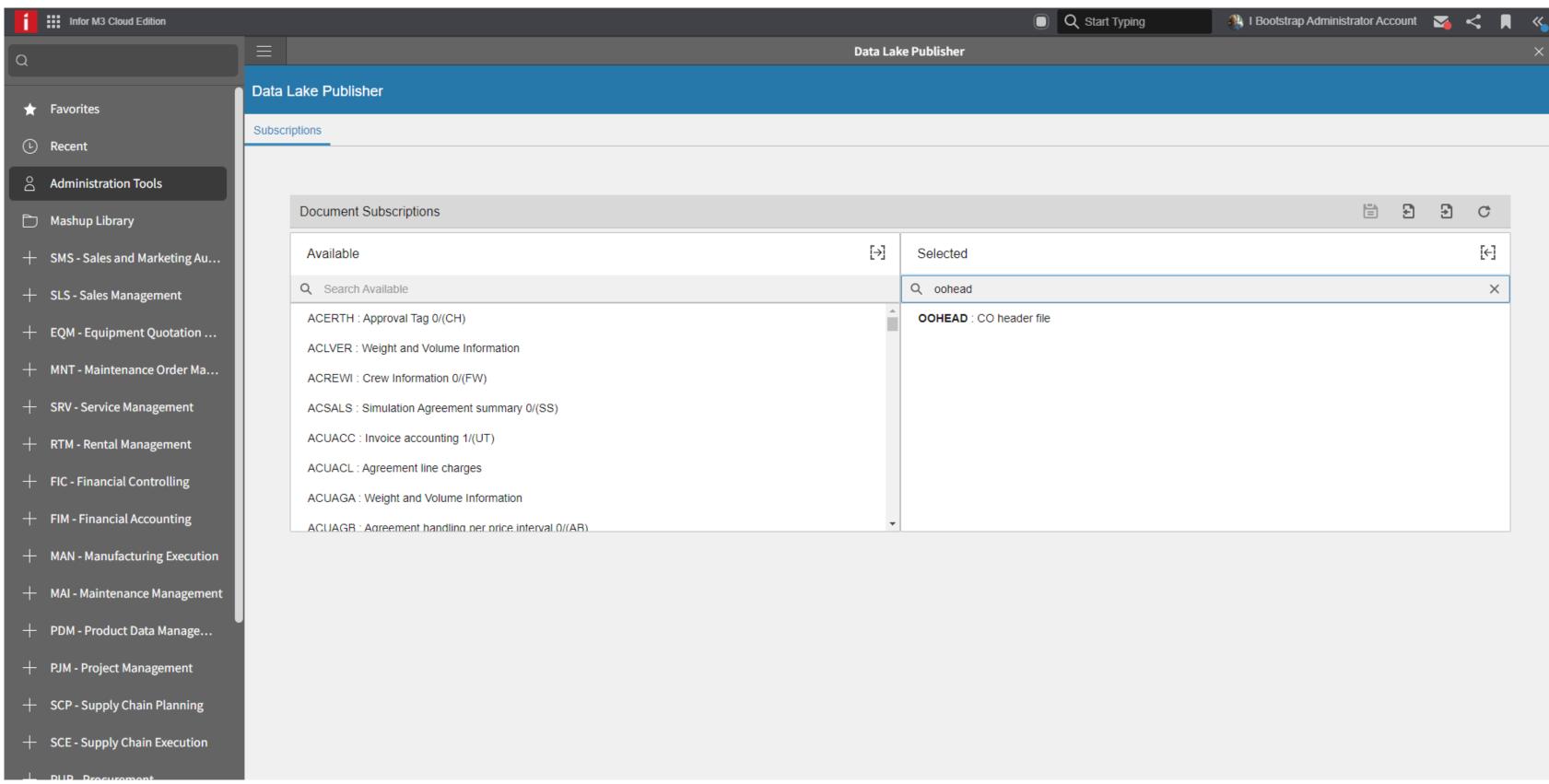
1. Model a business process & collect data

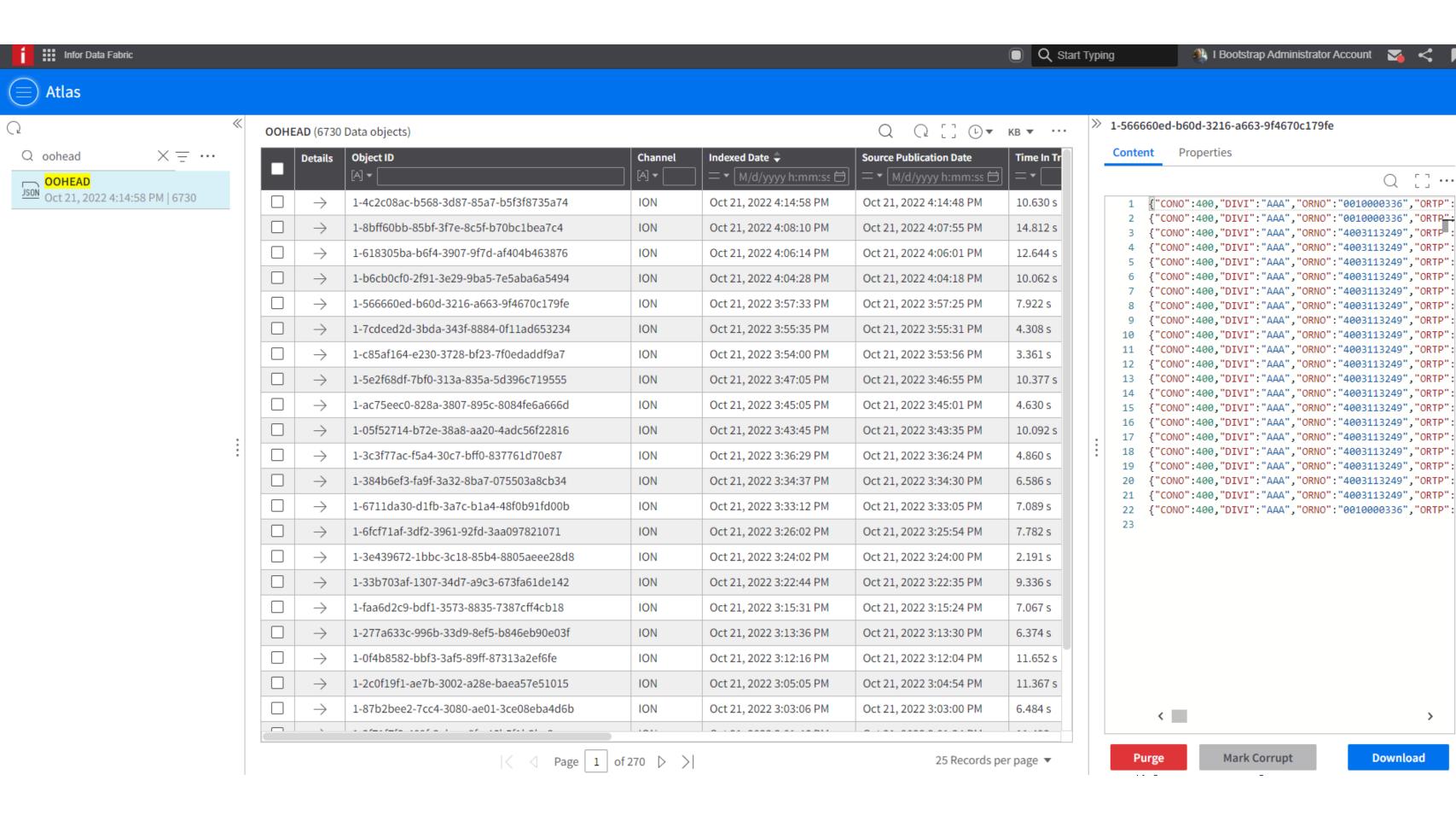


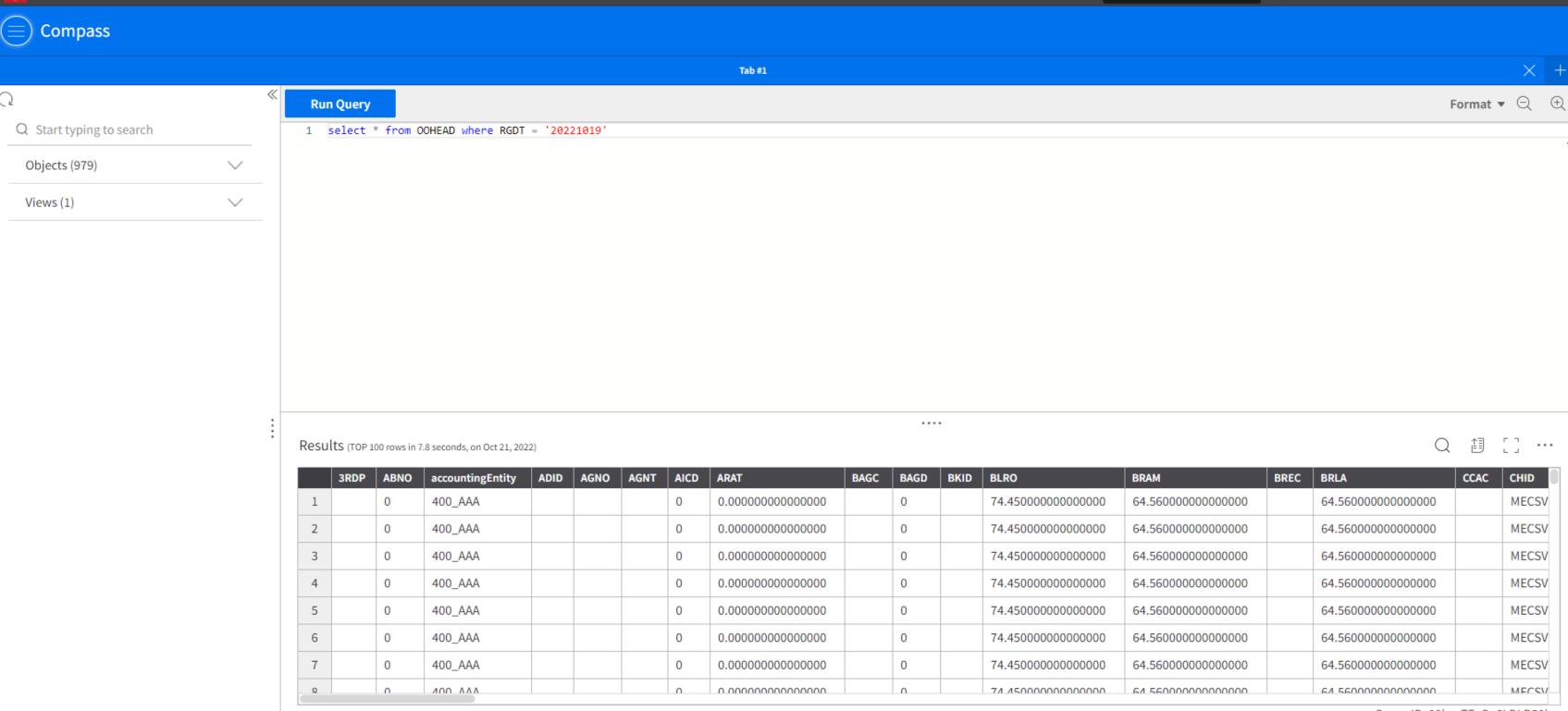
40

2. Enable re-usable downstream innovation







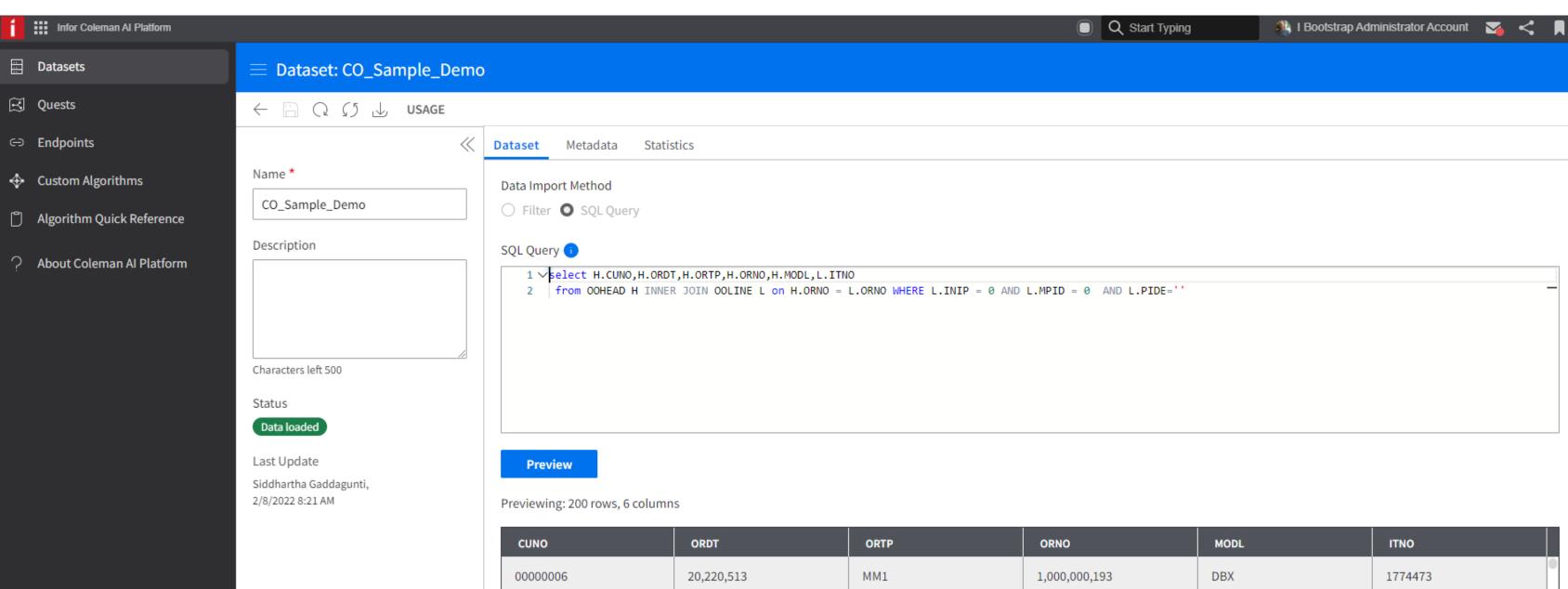


Query ID: 00lwgTFqSp6LDLB50jnx

Infor Data Fabric

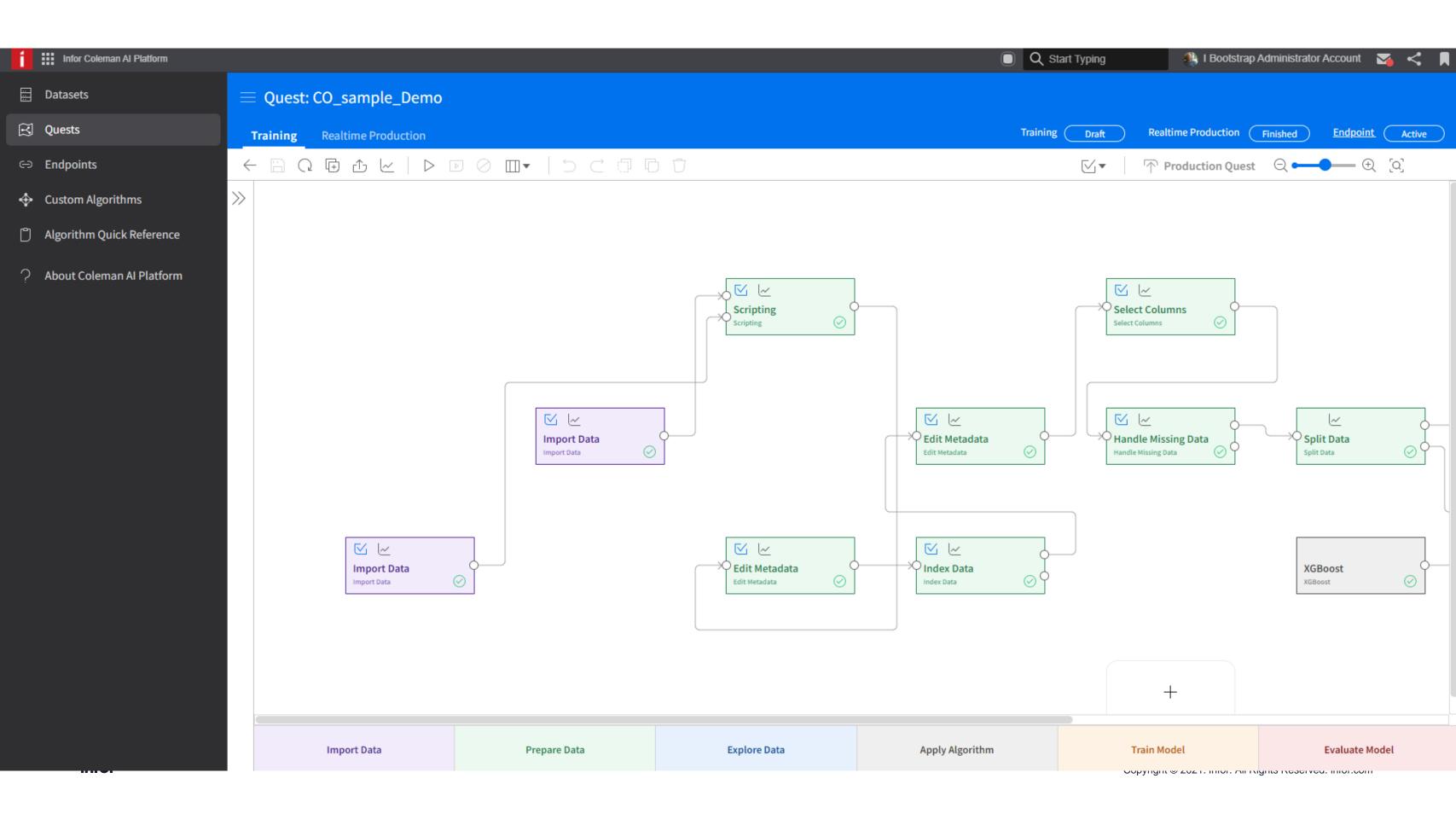
I Bootstrap Administrator Account

Q Start Typing



CUNO	ORDT	ORTP	ORNO	MODL	ITNO
00000006	20,220,513	MM1	1,000,000,193	DBX	1774473
001	20,220,906	SHB	4,003,113,194	006	99-000039
JMSE01	20,220,919	SHB	4,003,113,221	006	PJ002
JMSE01	20,220,919	SHB	4,003,113,221	006	PJ003
JMSE01	20,220,919	SHB	4,003,113,221	006	PJ004
FRCUSTTRIA	20,210,714	26C	4,003,112,753	003	100000650
FRCUSTTRIA	20,210,802	26Z	4,003,112,777	003	100000501

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Product Recommendations

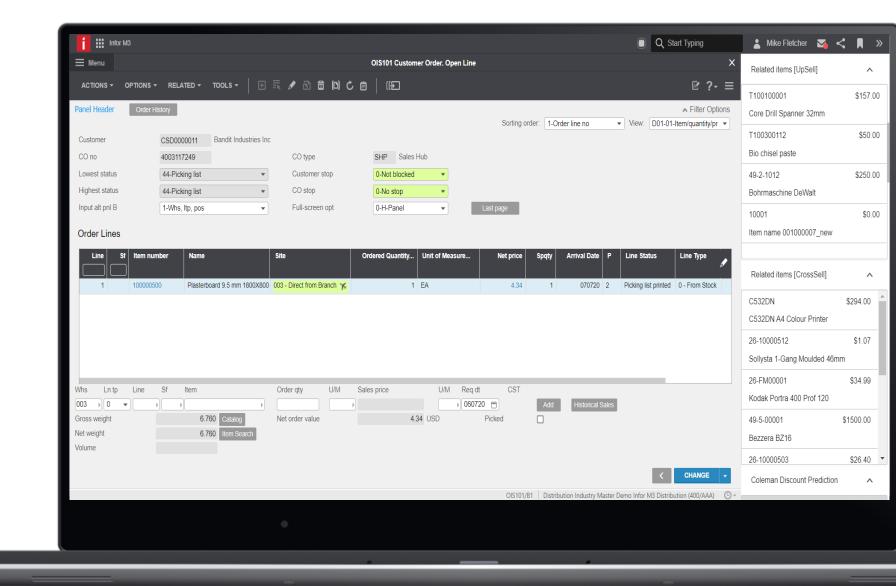
KB reference 2132011

Description

 Two Coleman Quests & In-context Apps to support Product Recommendations. The In-context widget is configurable to support a number of scenarios

Benefit/Value to Customer

- Solution One
 - Use this quest and In-context widget to support "Product Up-Sell". For this process; the item number already selected is reviewed and suitable up-sell products are displayed
- Solution Two
 - Use this quest and In-context widget to support "Product Cross-Sell". For this process; the item number already selected, and the Customer ID are reviewed, and suitable cross-sell products are displayed; based on similar customer's prior purchases



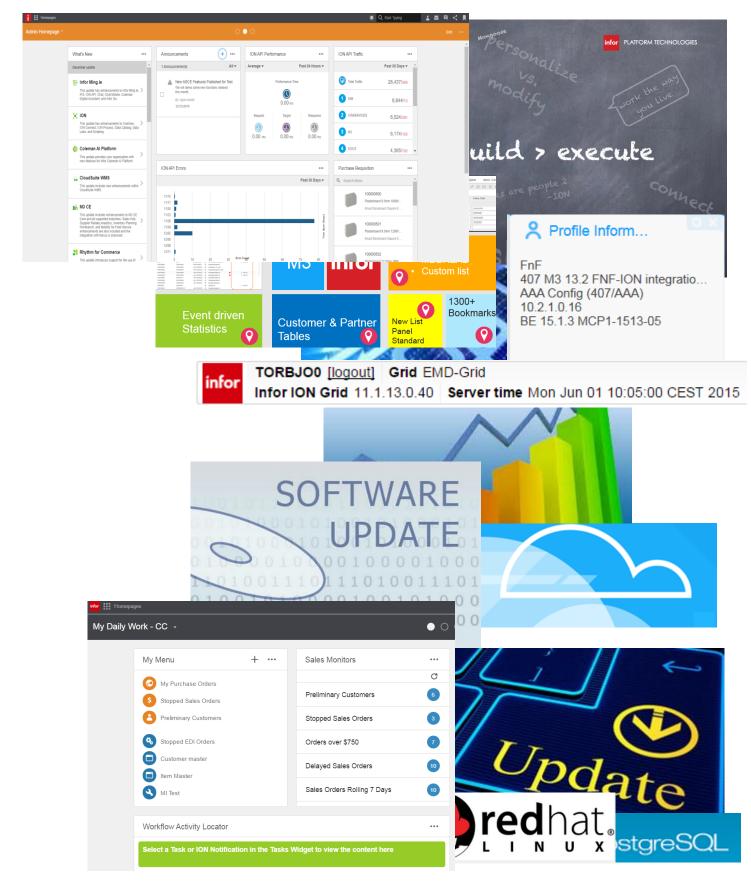
Dagens ämnen

Inledning

Senaste nytt från fältet angående M3 Cloud

Höjdpunkter från Specialisthörnet

Vad händer mer i höst?



Thank you

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