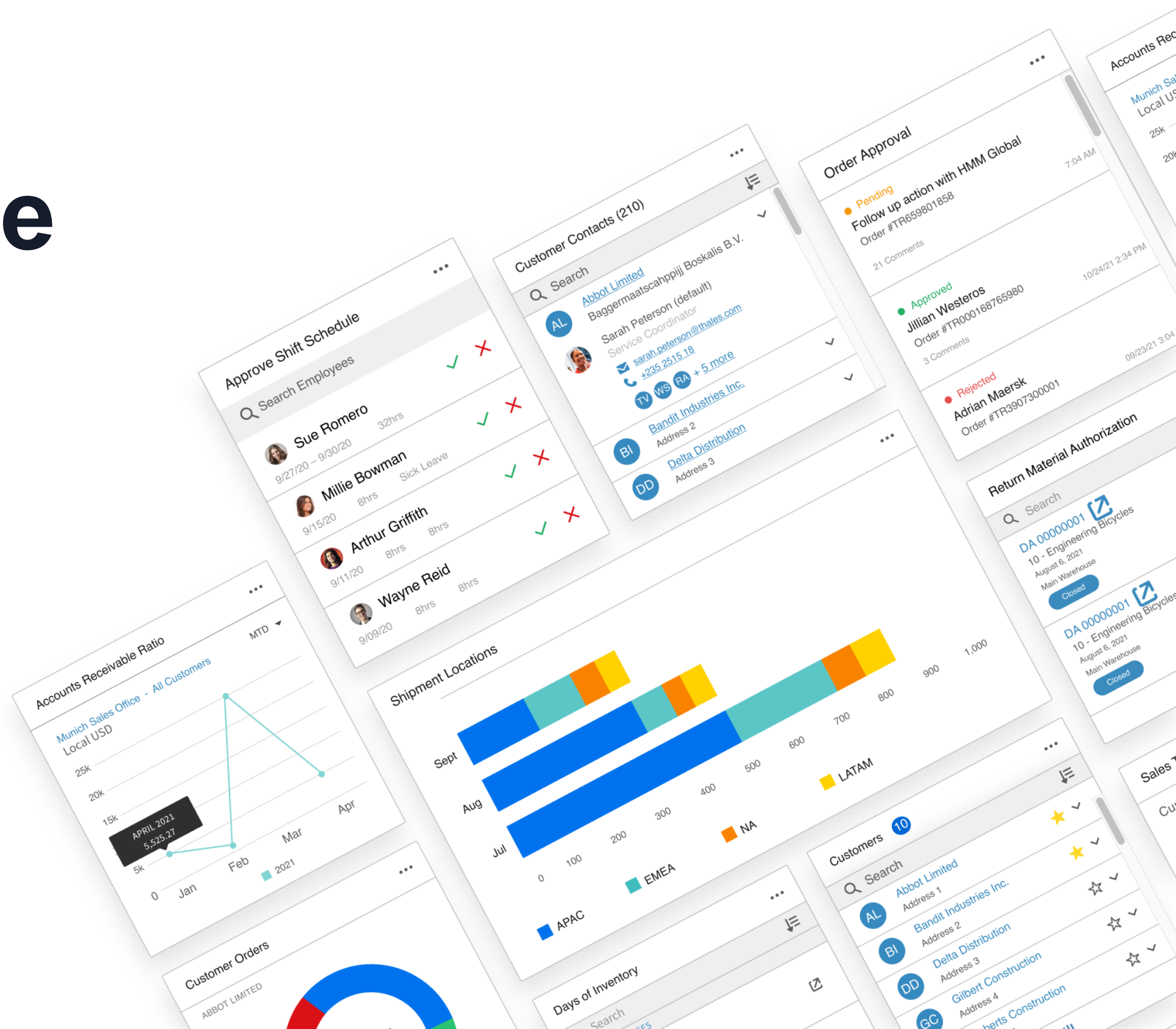


Den store digitale teknikkdagen

INTEGRATION

Joakim Mattsson, Infor

April 2023



infor

ERP Simplified:
Smart. Preconfigured. Modern.

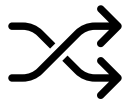
Integration Topics of the Year



API Gateway



Infor Messaging Service (IMS)



M3 Bulk APIs



API Flows



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Integration Topics of the Year



API Gateway



Infor Messaging Service (IMS)

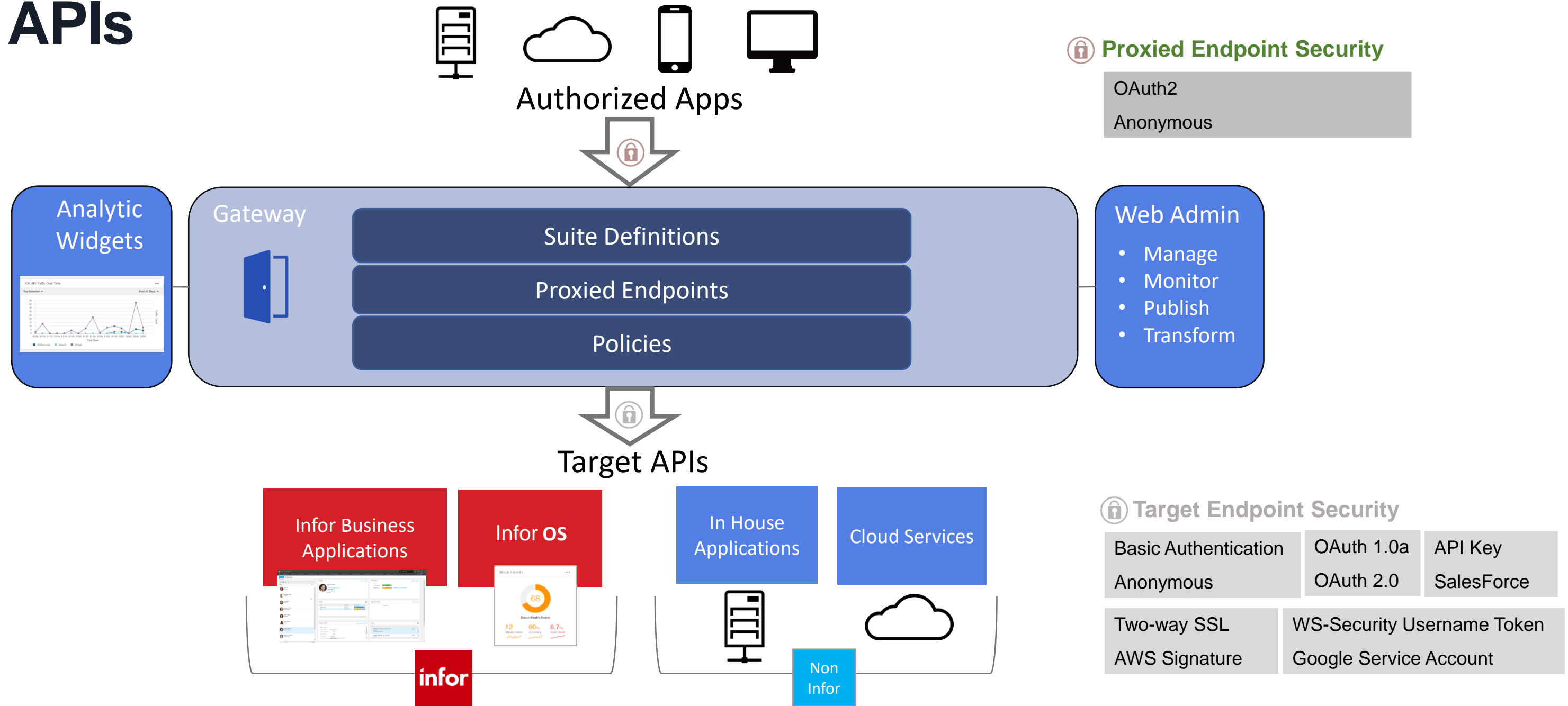


M3 Bulk APIs



API Flows

ION APIs



API management – API Gateway



- View details of APIs
- Access to all applicable Infor CloudSuite APIs
- Library of some common APIs provided
 - Swagger Documentation already loaded
 - Will continue to add more over time
 - Customers can add their own by uploading OpenAPI standard Swagger documentation
- Active / deactivate as required
- View Swagger documentation
 - See details of endpoints
 - Download documentation
 - See parameters and response types
 - Try it out

API Name	Status	Source	Last Updated
Auditing and Monitoring	Active	Infor Provisioned	2020 Jun 23
Data Compliance	Active	Infor Provisioned	2022 Feb 25
IFS Service	Active	Infor Provisioned	2020 Jun 23
Infor API Flows	Active	Infor Provisioned	2022 Nov 13
Infor Coleman Digital Assi	Active	Infor Provisioned	-
AirPLv2	Active	Non-Infor	2021 Feb 15
CAV	Active	Non-Infor	2021 Mar 23
ECB	Active	Non-Infor	2021 Apr 7
ExchangeRates	Active	Non-Infor	2021 Apr 7
Infor Document	Active	Infor Provisioned	-
Food Safety Alerts	Active	Non-Infor	2022 Jun 3
GCS	Active	Non-Infor	2020 Dec 21
GCV	Active	Non-Infor	2020 Dec 21
GMA	Active	Non-Infor	2022 Sep 21
Infor M3	Active	Infor Provisioned	-
InforM3Wrapper	Active	Non-Infor	2022 Jul 22
INSEE	Active	Non-Infor	2021 Dec 6
IONAttachmentWrapper	Active	Non-Infor	2022 May 2
MailJet	Active	Non-Infor	2020 Sep 2
UAP	Active	Non-Infor	2021 Sep 13
zJMAWSS3	Active	Non-Infor	2022 Nov 17
zJMAzureSB	Active	Non-Infor	2022 Nov 17
zJMHOME	Active	Non-Infor	2022 Nov 17

Endpoints Within M3 API Suite – Swagger Documentation

The screenshot displays the Swagger API Gateway interface for the Infor M3 API Suite. The main focus is on the endpoint **OIS100MI - Customer order interface** (ID: 6403). The interface is divided into several sections:

- Available APIs:** A sidebar on the left lists various API endpoints, with 'OIS100MI' selected.
- Endpoint Details:** The main area shows the endpoint's URL, description, and a list of available operations (all GET methods).
- Parameters:** A table on the right lists query parameters such as CUNO, CONO, LNCD, ORTP, RLDT, FACI, CUOR, AGNT, SMCD, and MODL, each with its data type and description.
- Try it out:** A red circle highlights the 'Try it out' button in the top right corner of the parameter section.

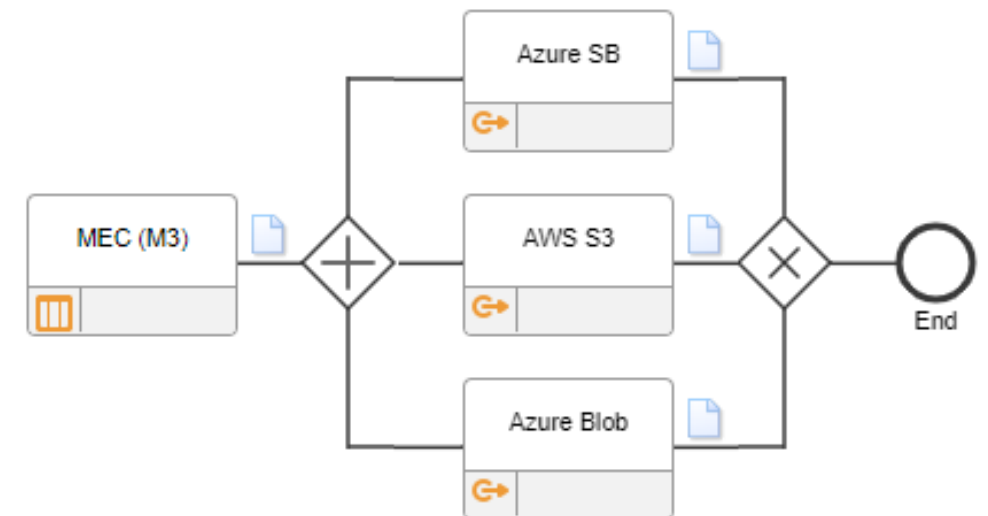
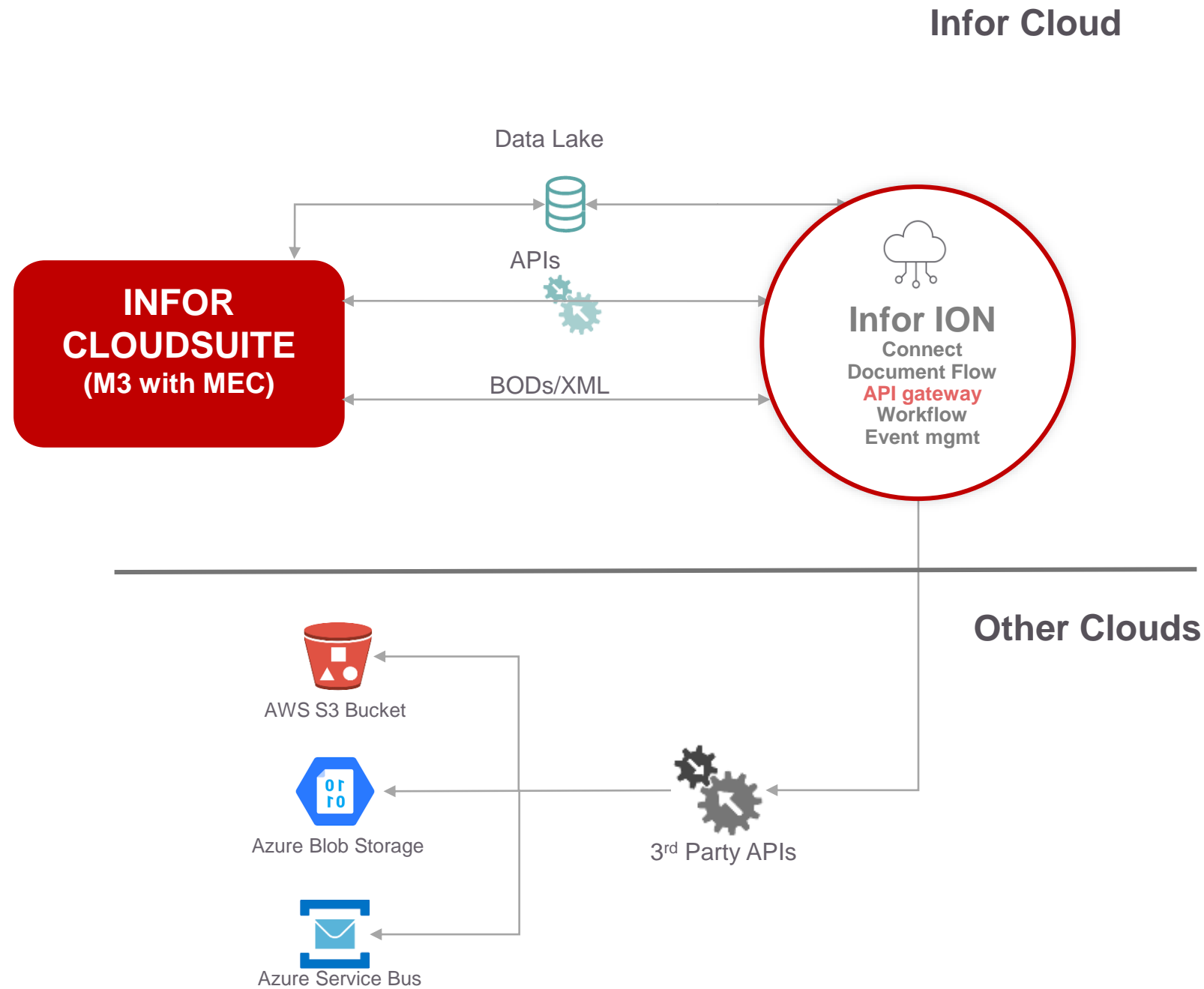
OperationID	Description
OIS100MI	Customer order
OIS105MI	API: Advance in
OIS111MI	Display Valid Cu
OIS120MI	Customer order
OIS125MI	Payment reques
OIS155MI	Api: Delivery inte
OIS165MI	Order Entry Mes
OIS175MI	Customer order

Name	Description
CUNO * required string (query)	Customer number(10) CUNO - Customer number(10)
CONO number (query)	Company(3) CONO - Company(3)
LNCD string (query)	Language(2) LNCD - Language(2)
ORTP string (query)	Order type(3) ORTP - Order type(3)
RLDT string (query)	Requested delivery date(10) RLDT - Requested delivery date(10)
FACI string (query)	Facility(3) FACI - Facility(3)
CUOR string (query)	Customers order number(20) CUOR - Customers order number(20)
AGNT string (query)	Agent(10) AGNT - Agent(10)
SMCD string (query)	Salesman(10) SMCD - Salesman(10)
MODL string (query)	Method of delivery(3) MODL - Method of delivery(3)

Define IONAPI for Cloud Services

The screenshot displays the API Gateway console. On the left, a grid of API cards is visible, including TSWID, TWA - DEV, Twitter, UAP, zJMAWSSQS, zJMAzureBlob, zJMHOME, and zJMHOME_EC. The main area shows a detailed view of an API endpoint for AWS S3, configured with a PUT method. The endpoint path is `/{filename}`. The parameters section lists `filename` (string, path) and `body` (object, body), both marked as required. An example XML body is provided: `<?xml version="1.0" encoding="UTF-8"?><body><documentName>Sync.SalesOrder</documentName></body>`. The response content type is set to `application/json; charset=utf-8`.

Infor CE connectivity to common Cloud Services



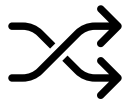
Integration Topics of the Year



API Gateway



Infor Messaging Service (IMS)

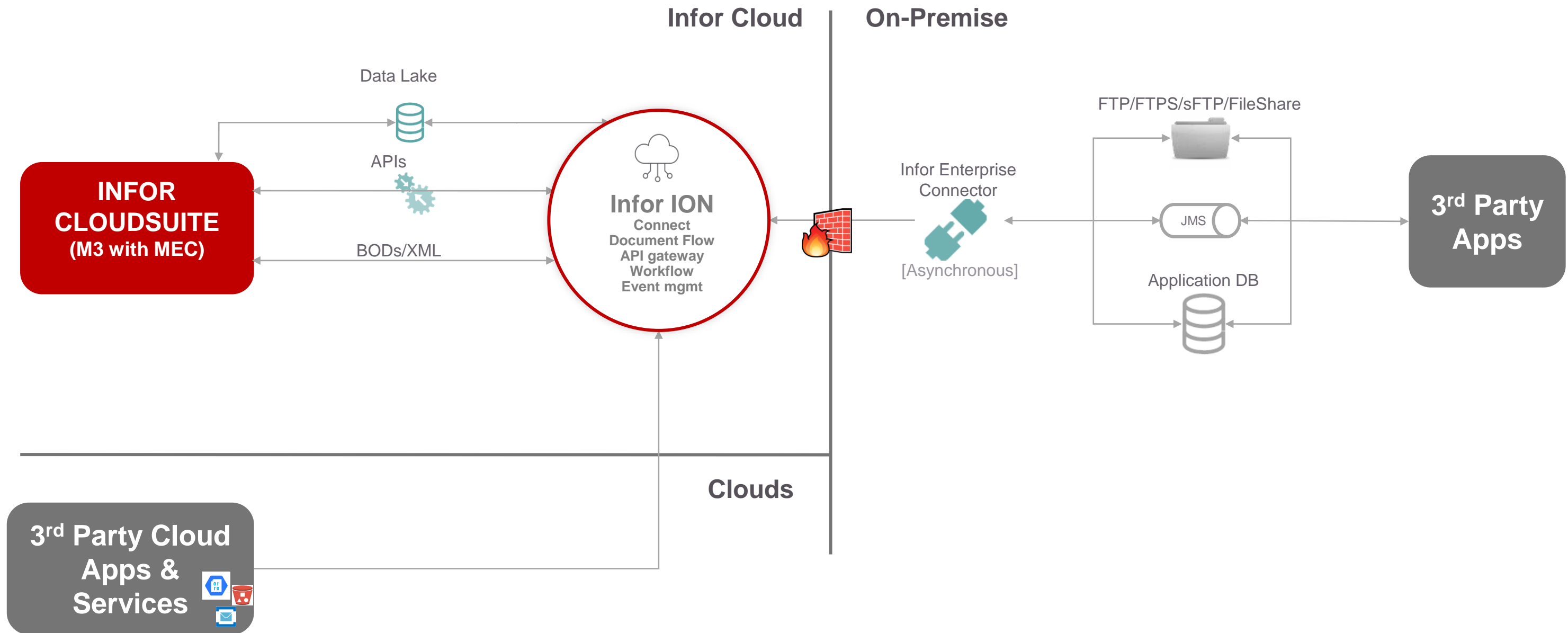


M3 Bulk APIs

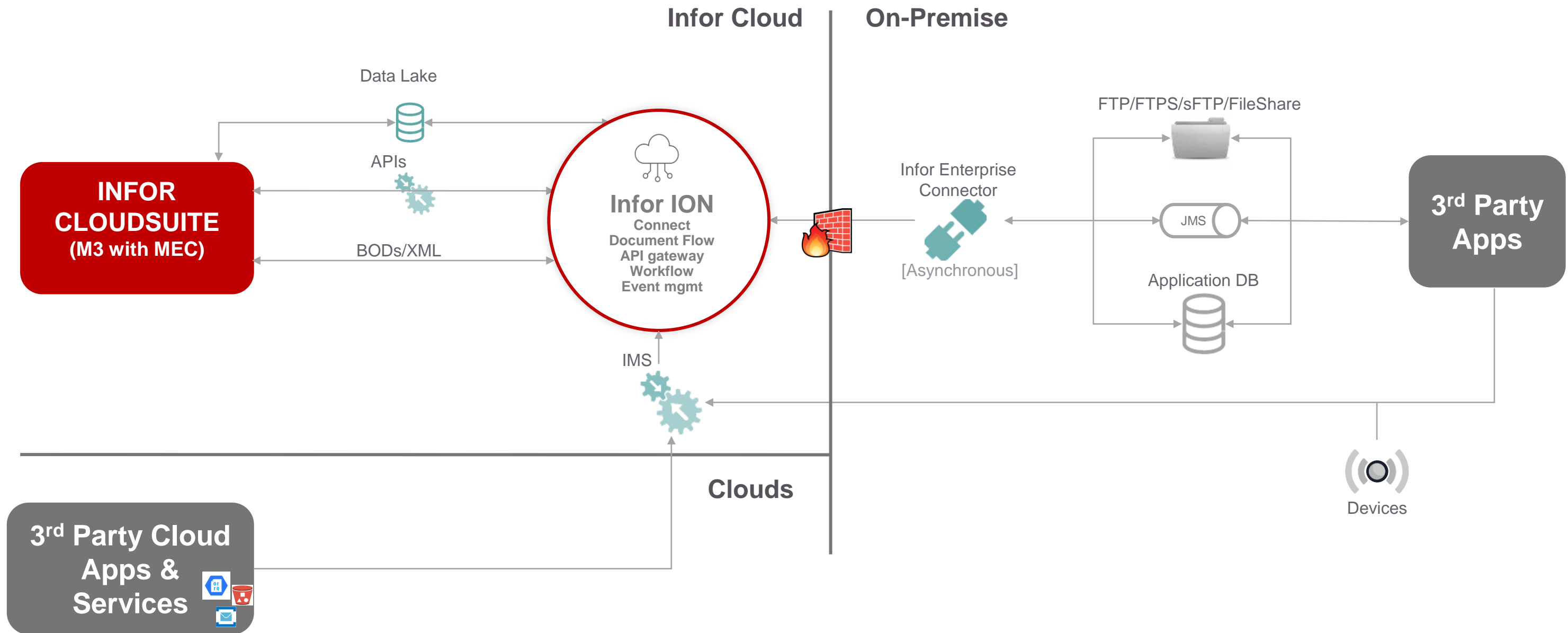


API Flows

Connectivity with IMS



Connectivity with IMS



Infor Messaging Service (IMS) – Inbound

The screenshot displays the Infor ION API management console. On the left is a dark sidebar with navigation options: Available APIs, Authorized Apps, Configuration, API Metadata, Monitoring, and Authorizations. The main content area has a blue header with the Infor ION API logo and a breadcrumb trail 'Available APIs / Infor ION'. Below this, there is a description of Infor ION and a section titled 'Endpoints' containing a table of API endpoints. A blue arrow points to the last row of the table, which is the 'api/ion/messaging/service' endpoint.

<input type="checkbox"/>	Endpoint	Description	Indexing Status	Documentation	Details
<input type="checkbox"/>	https://mingle-ionapi.inforcloudsuite.com/SLSGDENA011_TRN/IONSERVICES/oneviewapi	ION OneView API	<input checked="" type="checkbox"/>		→
<input type="checkbox"/>	https://mingle-ionapi.inforcloudsuite.com/SLSGDENA011_TRN/IONSERVICES/alarmservice	Using the ION Alarm Service API you ca...	<input checked="" type="checkbox"/>		→
<input type="checkbox"/>	https://mingle-ionapi.inforcloudsuite.com/SLSGDENA011_TRN/IONSERVICES/process/application	Using the ION Process Application API y...	<input checked="" type="checkbox"/>		→
<input type="checkbox"/>	https://mingle-ionapi.inforcloudsuite.com/SLSGDENA011_TRN/IONSERVICES/process/user	Using the ION Process User API you can...	<input checked="" type="checkbox"/>		→
<input checked="" type="checkbox"/>	https://mingle-ionapi.inforcloudsuite.com/SLSGDENA011_TRN/IONSERVICES/api/ion/messaging/service	The ION Messaging Service can be use...	<input checked="" type="checkbox"/>		→

Infor Messaging Service (IMS) – Inbound

IMS 3.0.202009
[Base URL: /SLSGDENA011_TRN/IONSERVICES/api/ion/messaging/service]
Try it out

IMS Messaging Service

GET
/ping
PING :: Ping Service interface, checks whether the server is available or not.

GET
/protocol
PROTOCOL :: Gets IMS API supported version and protocol parameters

IMS Messaging Service v2

POST
/v2/multipartMessage
MULTIPARTMESSAGE :: Publish message to ION via IMS

POST
/v2/message
MESSAGE_V2 :: Publish message to ION via IMS

POST
/v2/test
TEST :: Test tenant and logicalIds registered or not.

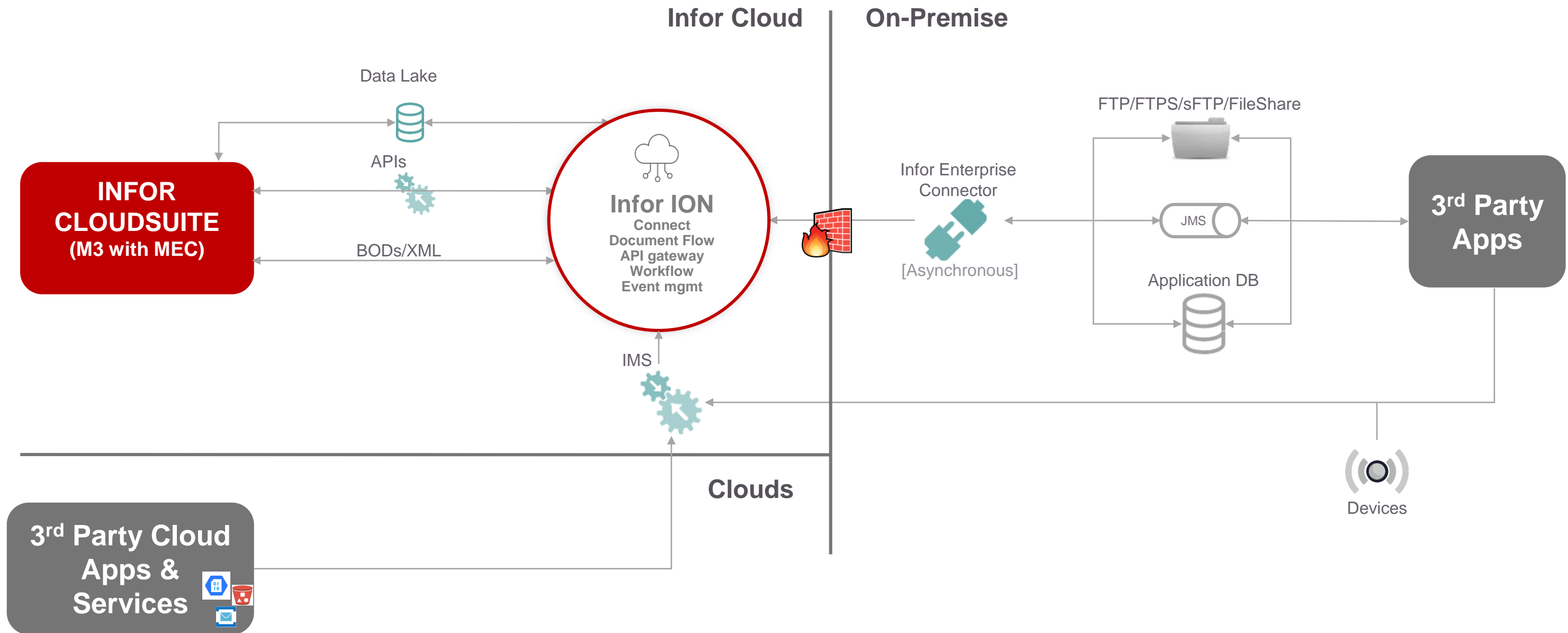
IMS Messaging Service v3

POST
/v3/multipartMessage
MULTIPARTMESSAGE_V3 :: Publish message to ION via IMS

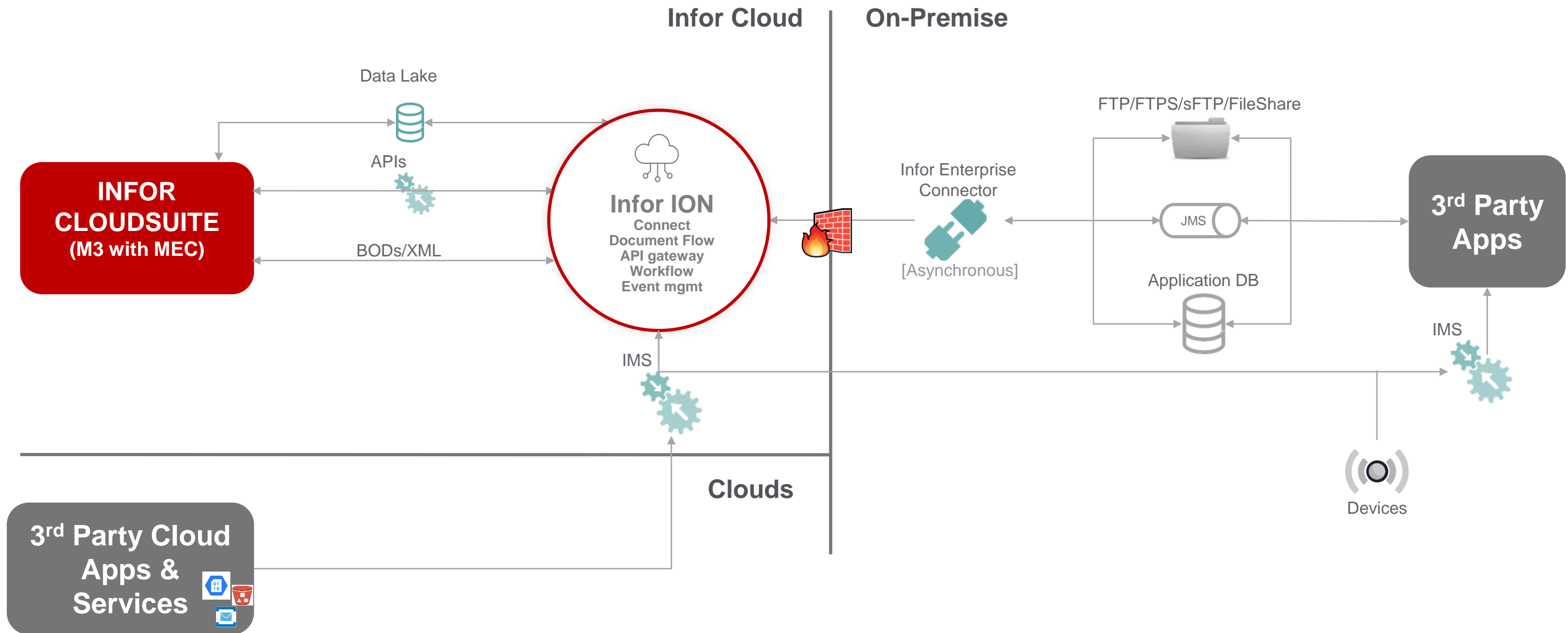
GET
/v3/{logicalId}/acceptedDocuments
ACCEPTEDDOCUMENTS :: List out all accepted documents

Name	Description
logicalId string <i>(query)</i>	The From LogicalId as query parameter to specify from which application multipart message is being published <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;">logicalId - The From LogicalId as query parameter t</div>
documentName string <i>(query)</i>	The document name as query parameter of multipart message that is being published <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;">documentName - The document name as query pa</div>
ParameterRequest * required file(\$application/json) <i>(formData)</i>	Parameter Request File. The content type must be set to application/json. When selecting a file in this swagger, make sure that file has a '.json' extension Example: <pre>{ "documentName": "Sync.SalesOrder", "messageId": "message1", "fromLogicalId": "lid://infor.ims.imsap", "toLogicalId": "lid://default", "encoding": "NONE", "characterSet": "UTF-8", "accountingEntity": "ae1", "location": "loc123", "documentId": "sdafas", "variationId": 1, "revisionId": "123", "batchId": "infor.SSJE:1", "batchSequence": 2, "batchSize": 1, "batchRevision": 1, "batchAbortIndicator": true, "instances": "1", "source": "DB Connector", "custom_property1": "value1", "custom_property2": "value2" }</pre> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px; display: flex; justify-content: space-between; align-items: center;"> Choose File No file chosen </div>
MessagePayload * required file(\$application/octet-stream) <i>(formData)</i>	Message Payload File. The content type must be set to application/octet-stream. When selecting a file in this swagger, make sure that file has no extension, a '.bin' extension or any other extension which resolves to this content type. <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px; display: flex; justify-content: space-between; align-items: center;"> Choose File No file chosen </div>

Connectivity with IMS



Connectivity with IMS



Infor Messaging Service – Outbound

```

RestletResource.java X
81
82 @POST
83 @Produces("application/json")
84 @Path("/v3/multipartMessage")
85 @Consumes("multipart/form-data")
86 public Response multipartMessage(Representation input) {
87     RestletFileUpload fileUpload = new RestletFileUpload(new DiskFileItemFactory());
88
89     boolean paramFileOK = false;
90     boolean payloadOK = false;
91     List<FileItem> fileItems = null;
92     JSONClasses.ParameterFile pf = null;
93
94     try {
95         fileItems = fileUpload.parseRepresentation(input);
96     } catch (FileUploadException e) {
97         e.printStackTrace();
98         return Response.status(Response.Status.BAD_REQUEST).entity(e.getMessage()).build();
99     }
100
101     for (FileItem fileItem : fileItems) {
102         if (fileItem.getFieldName().equals("ParameterRequest")) {
103             try {
104                 pf = getMultipartMessageParams(fileItem);
105                 paramFileOK = pf != null && pf.getDocumentName() != null && pf.getDocumentName().length() > 0;
106             } catch (IOException e) {
107                 e.printStackTrace();
108                 return Response.status(Response.Status.BAD_REQUEST).entity(e.getMessage()).build();
109             }
110         }
111     }
112
113     if (!paramFileOK)
114         return Response.status(Response.Status.BAD_REQUEST).entity("No file for: ParameterRequest").build();
115
116     for (FileItem fileItem : fileItems) {
117         String fieldName = fileItem.getFieldName();
118         if (fieldName.equals("MessagePayload")) {
119             try {
120                 saveMultipartMessage(fileItem, pf);
121                 payloadOK = true;
122             } catch (IOException e) {
123                 e.printStackTrace();
124                 return Response.status(Response.Status.BAD_REQUEST).entity(e.getMessage()).build();
125             }
126         }
127     }
128
129     if (!payloadOK) {
130         return Response.status(Response.Status.BAD_REQUEST).entity("No file for: MessagePayload").build();
131     }

```

Infor Messaging Service – Outbound

The image displays two overlapping screenshots from the Infor ION API interface. The left screenshot shows the configuration page for an endpoint, and the right screenshot shows the documentation for the IMS Messaging Service.

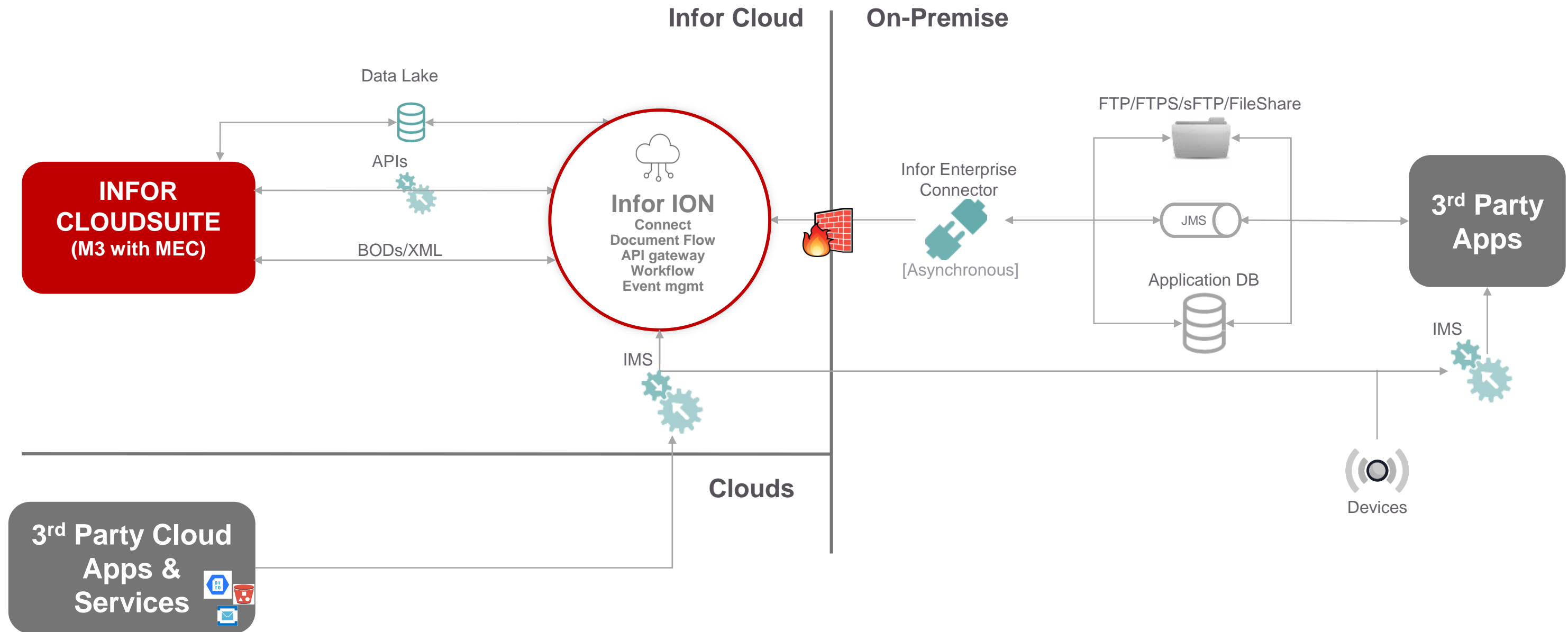
Left Screenshot: Infor ION API Configuration

- Target Endpoint URL ***: `https://82.221.108.102:1234/api`
- Ignore Certificate Errors**: (Warning: Enabling this flag is not recommended as your users will not be able to confirm that the connection is secure.)
- Enable Enterprise Connector**:
- Enterprise Connector Location**: `James`
- Target Endpoint Description**: (Empty field)
- Proxy Context ***: `ep`
- Public Facing Proxy Endpoint**: `https://mingle-ionapi.inforcloudsuite.com/SLSGDENA011_TRN/CustomerApi/test/ep`
- Proxy Security**: `OAuth 2.0`
- Target Endpoint Security** (Modal):
 - Use Mutual SSL**:
 - Authentication Type**: `Basic`
 - User ID ***: `MyUser`
 - Password ***: `.....`

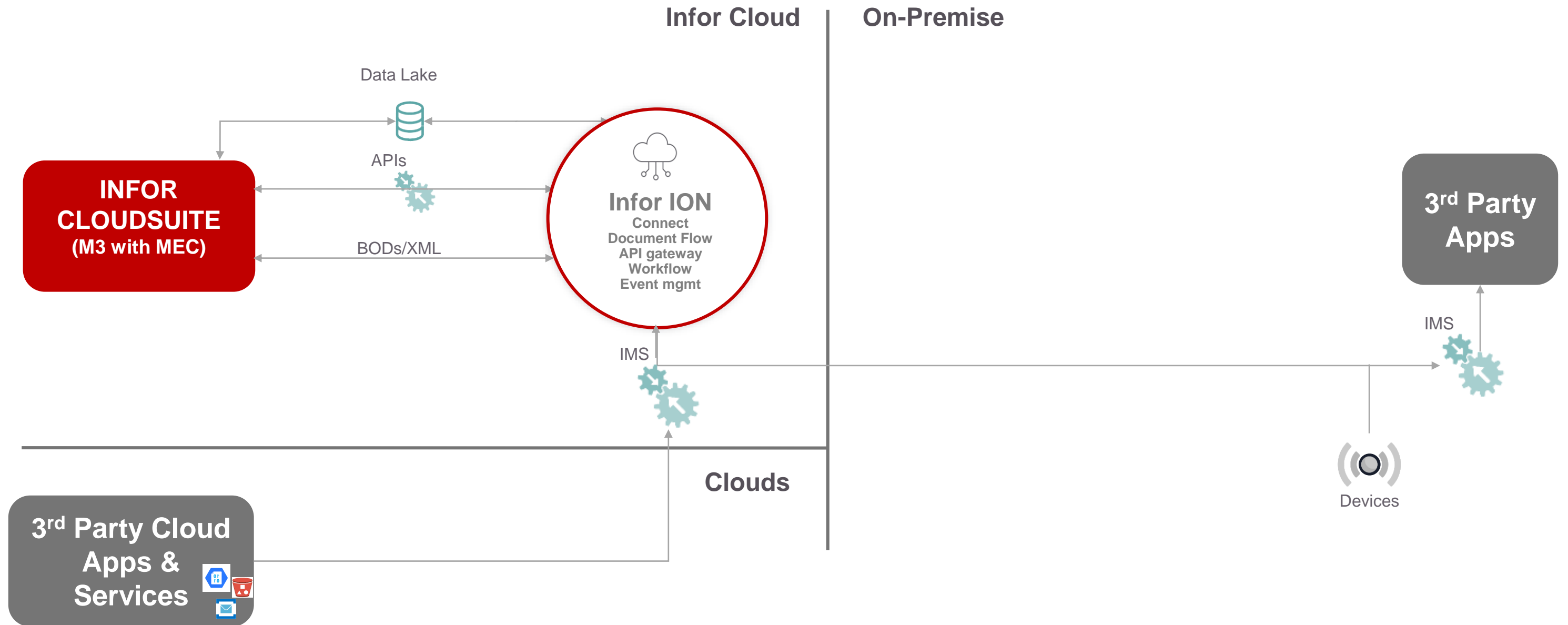
Right Screenshot: IMS Messaging Service Documentation

- Resources**: Documentation, Endpoint Policies
- IMS 3.0.202009**: [Base URL: /SLSGDENA011_TRN/CustomerApi/test/ep]
- IMS Messaging Service**
 - GET** `/ping` PING :: Ping Service interface, checks whether the server is available or not.
 - GET** `/protocol` PROTOCOL :: Gets IMS API supported version and protocol parameters
- IMS Messaging Service v2**
 - POST** `/v2/multipartMessage` MULTIPARTMESSAGE :: Publish message to ION via IMS
 - POST** `/v2/message` MESSAGE_V2 :: Publish message to ION via IMS
 - POST** `/v2/test` TEST :: Test tenant and logicalIds registered or not.
- IMS Messaging Service v3**
 - POST** `/v3/discovery` TEST :: Test tenant and logicalIds registered or not.
 - GET** `/v3/{logicalId}/acceptedDocuments` ACCEPTEDDOCUMENTS :: List out all accepted documents for a given tenant and logical id
 - POST** `/v3/multipartMessage` MULTIPARTMESSAGE_V3 :: Publish message to ION via IMS

Connectivity with IMS



Connectivity with IMS



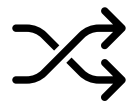
Integration Topics of the Year



API Gateway



Infor Messaging Service (IMS)



M3 Bulk APIs



API Flows

M3 Bulk APIs

- M3 API transaction rather fine grained
 - ... could potentially lead to high number of executions
- M3 Bulk API receives data for multiple M3 API transactions and executes them in batch
- Supports multiple different transactions from one M3 API
- Does not support orchestration of transactions and data
- Final response includes response from each API transaction
- Significant performance gain possible
 - ... especially when executing smaller batches in parallel.

```
"program": "FCS350MI",
"cono": 400,
"dateFormat": "YMD8",
"excludeEmptyValues": true,
"rightTrim": true,
"maxReturnedRecords": 0,
"transactions": [
  {
    "transaction": "UpdForQty",
    "record": {
      "WHLO": "001",
      "ITNO": "43S100100",
      "FDAT": "20241101",
      "TDAT": "20241128",
      "MDVR": "A",
      "FOQT": 1.0
    }
  },
  {
    "transaction": "UpdForQty",
    "record": {
      "WHLO": "001",
      "ITNO": "Y10001",
      "FDAT": "20241101",
      "TDAT": "20241128",
      "MDVR": "A",
      "FOQT": 1.0
    }
  },
  {
    "transaction": "UpdForQty",
    "record": {
      "WHLO": "901",
      "ITNO": "Y10010",
      "FDAT": "20241101",
      "TDAT": "20241128",
      "MDVR": "A",
      "FOQT": 1.0
    }
  }
],
```

INTEGRATION

API Performance – Real world challenge

- Forecast to M3 (FCS350MI/UpdForQty)
- Updating forecasts could potentially contains a lot of data, depends heavily on:
 - Number of warehouses
 - Number of items
 - Length of forecast
- Real world scenario could contain hundred thousands of records
- Common one-big-file scenario:
 - Could take hours and hours... (not allowed in M3 MT IEC)
 - Errors will not be easy to handle



Forecast update – Potential solution

- Instead of one-big-file scenario
 - Split into multiple much smaller pieces
 - Execute smaller pieces in parallel
- Async or sync integration?
 - Depends on what to do with the result
 - Depends on overall knowledge
 - Sync approach – avoid execute a huge amount of APIs
 - Bulk APIs should be considered
- Test – Synchronous approach using REST APIs.



Forecast update – Sync approach

- Created one big file with around 50.000 records
- Using only one thread took almost two hours to complete
- Split big files into around 500 smaller files

OperationID	Description	Category	Documentation	Indexing Status
execute	Execute bulk request			
executeSnd	Execute streaming bulk request			
executeAsyncSnd				
getAsyncSnd				
getAsyncSndResult				

POST Send

https://mingle-ionapi.inforcloudsuite.com/SLSGDENA011_TRN/M3/m3api-rest/v2/execute

Params ● Auth ● Headers (14) **Body** ● Pre-req. Tests Settings Cookies

binary

GDE_FCS350MIBulk.json

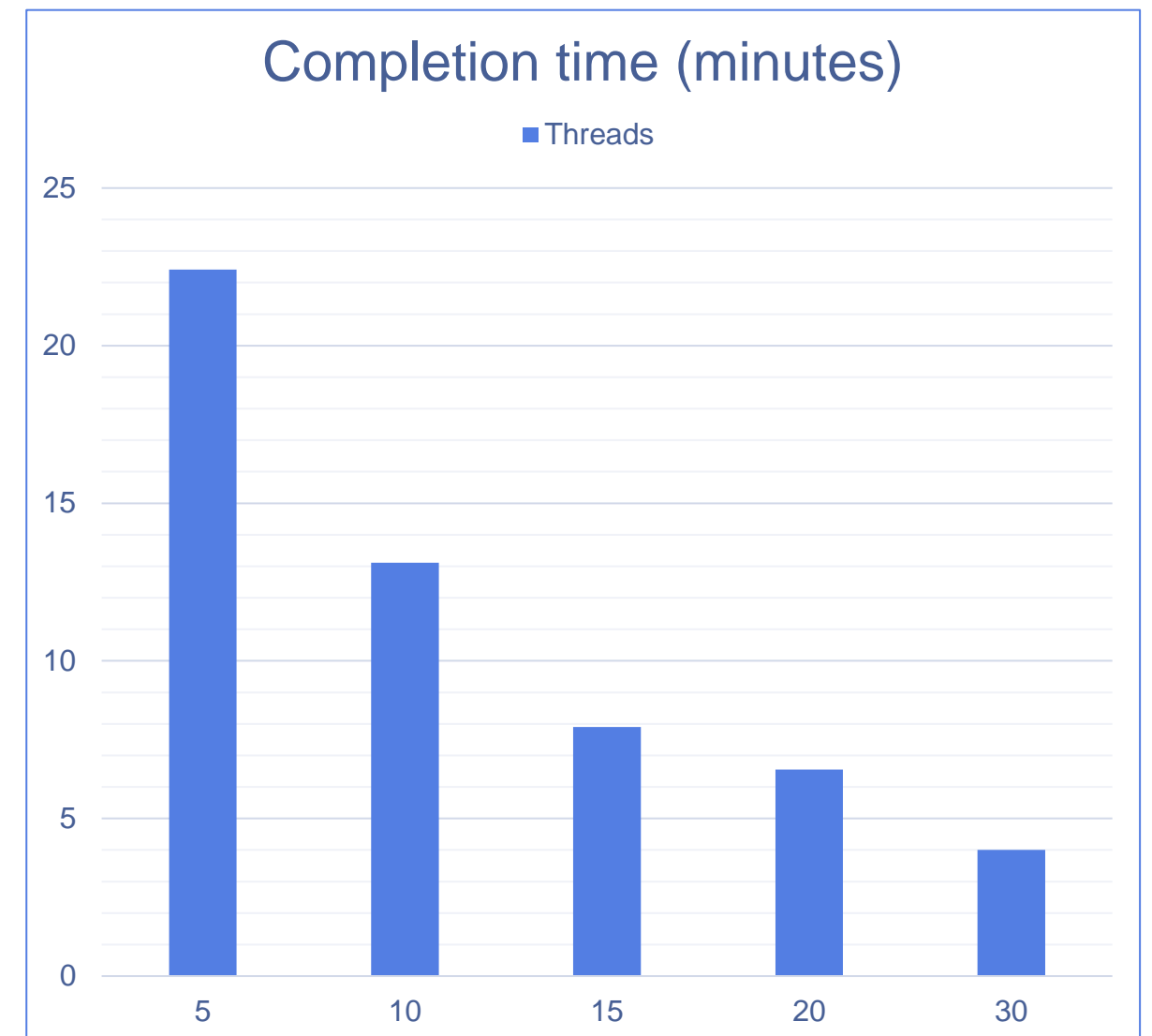
```

"program": "FCS350MI",
"cono": 400,
"dateFormat": "YMD8",
"excludeEmptyValues": true,
"rightTrim": true,
"maxReturnedRecords": 0,
"transactions": [
  {
    "transaction": "UpdForQty",
    "record": {
      "WHLO": "001",
      "ITNO": "43S100100",
      "FDAT": "20241101",
      "TDAT": "20241128",
      "MDVR": "A",
      "FOQT": 1.0
    }
  },
  {
    "transaction": "UpdForQty",
    "record": {
      "WHLO": "001",
      "ITNO": "Y10001",
      "FDAT": "20241101",
      "TDAT": "20241128",
      "MDVR": "A",
      "FOQT": 1.0
    }
  },
  {
    "transaction": "UpdForQty",
    "record": {
      "WHLO": "901",
      "ITNO": "Y10010",
      "FDAT": "20241101",
      "TDAT": "20241128",
      "MDVR": "A",
      "FOQT": 1.0
    }
  }
],

```

Forecast update – Synchronous approach

- Created one big file with around 50.000 records
- Using only one thread took almost two hours to complete
- Split big files into around 500 smaller files
- Scales very nicely!
 - Using 30 threads took us from 120 minutes to around four minutes.
- Comparing bulk execution vs. executing each update REST MI-transaction:
 - 2-3 times faster using bulk. No stress on Cloud Service Limits using bulk. 500 calls vs 50.000 calls!



Integration Topics of the Year



API Gateway



Infor Messaging Service (IMS)

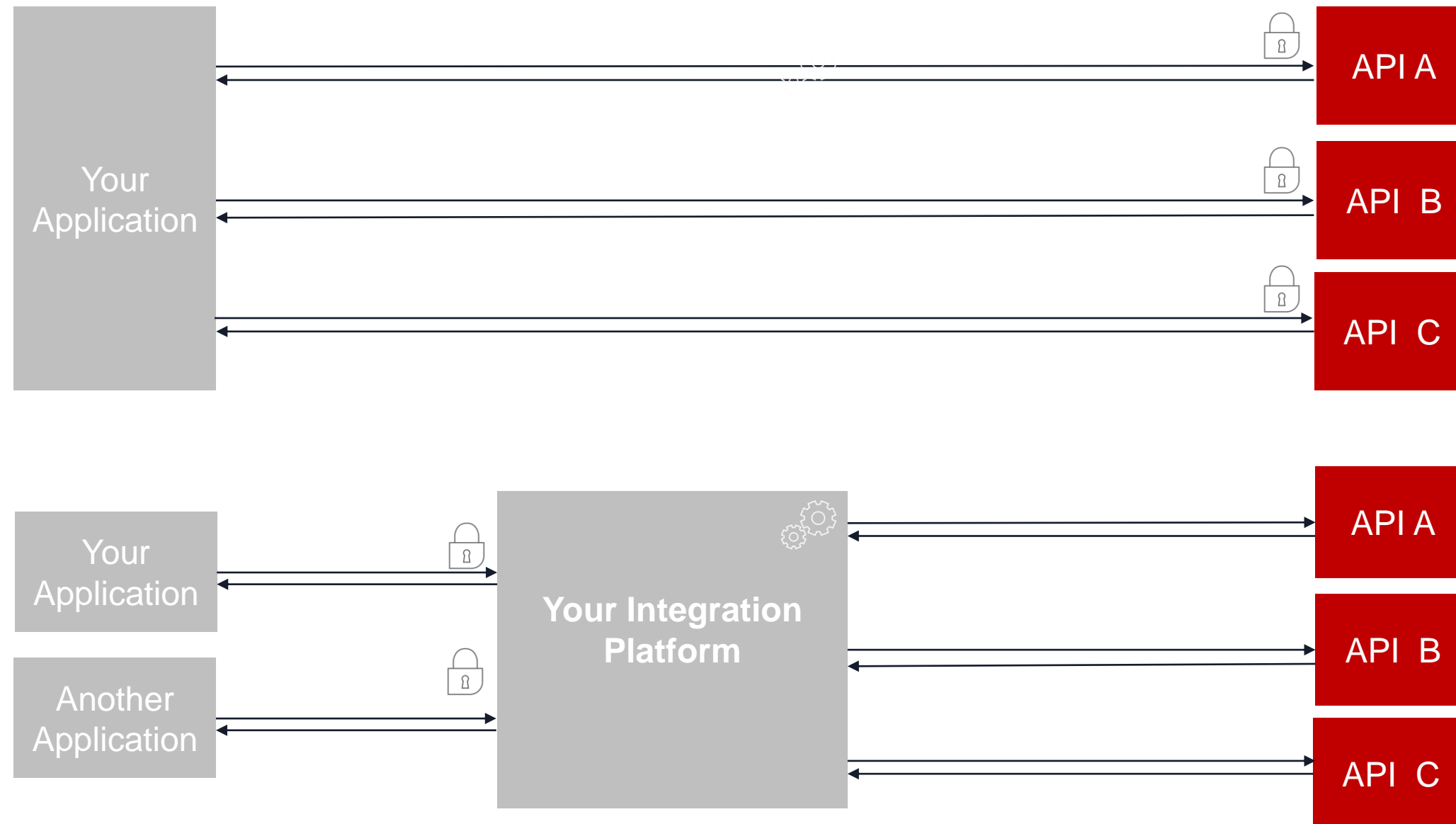


M3 Bulk APIs

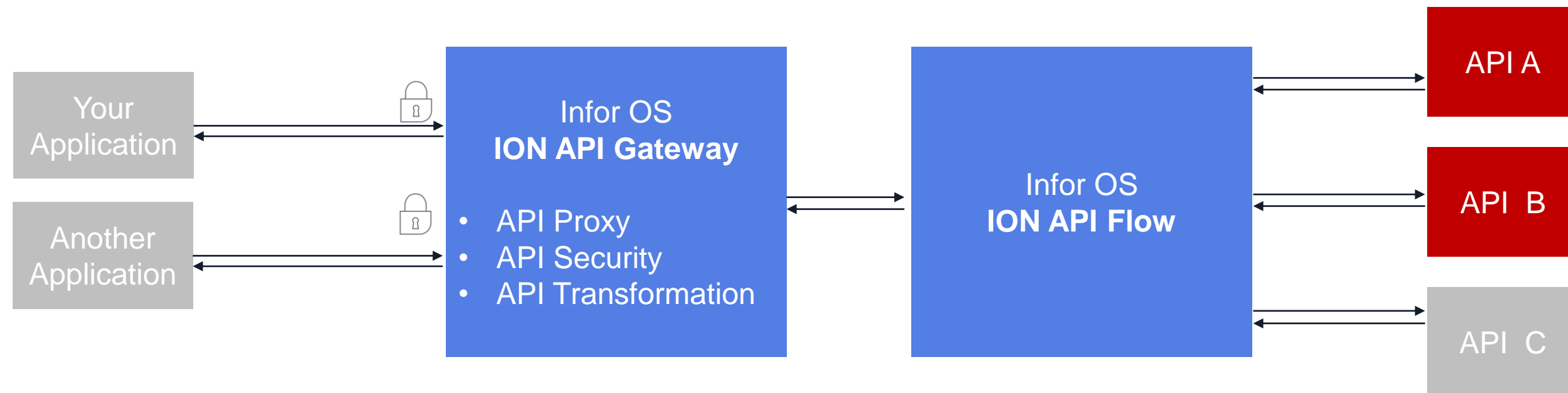


API Flows

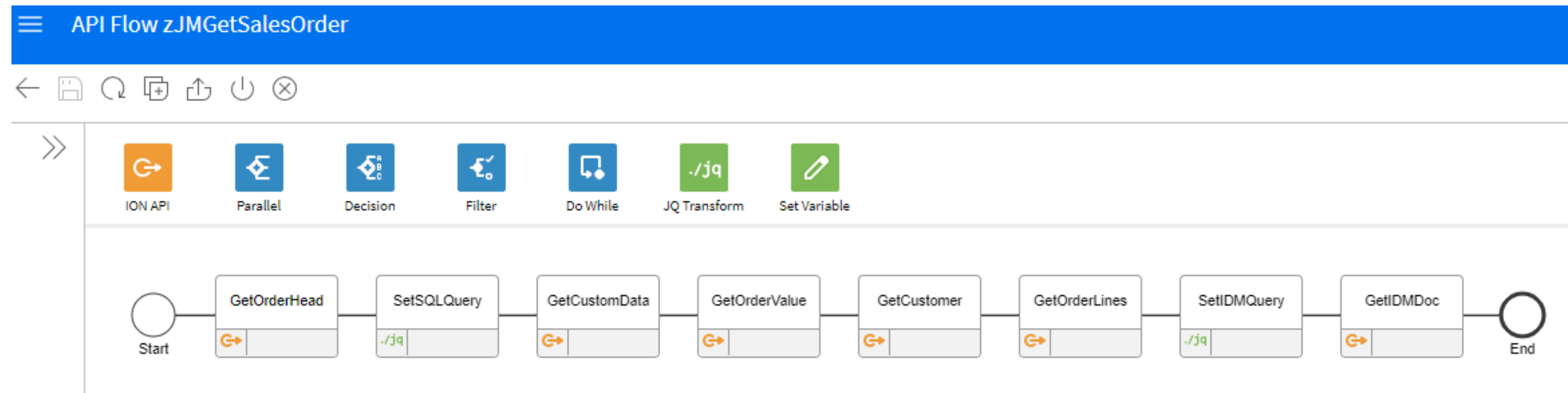
Synchronous Integration – API Orchestration in Client



Synchronous Integration – API Orchestration in ION



API Orchestration – Sales Order Retrieval



API Orchestration – Sales Order Retrieval

The screenshot shows the Infor API Studio interface for an API flow named 'zJMGetSalesOrder'. The interface includes a header with 'Available APIs', a toolbar with icons for download, copy, add, edit, delete, and back. The main area displays the API name and its base URL: 'mingle-ionapi.eu1.inforcloudsuite.com/SLSGDENA040_TST/APIFLOWS/GetSalesOrder'. Below this, there are tabs for 'default', 'GET /GetSalesOrder', and 'Parameters'. The 'Parameters' section contains two query parameters: 'ORNO' (required, string, value: 0010003591) and 'ionapiRespStyle' (string, value: sync). An 'Execute' button is visible at the bottom of the configuration area. The 'Responses' section is currently empty. A 'Curl' section shows the command: 'curl -X GET "https://mingle-ionapi.eu1.inforcloudsuite.com/SLSGDENA040_TST/APIFLOWS/GetSalesOrder/GetSalesOrder?ORNO=0010003591&ionapiRespStyle=sync" -H "accept: eyJraWQ0IjRzZphY2Z2hYTQ1OC050GE3LTRkNjYtYjM4YS04MzY5NDk4NzRhZjMlCjhbGciOiJSUzI1NiJ9.eyJZGVudG10eTIiOiJiZjFmODZlNy1mM2FhLTQxNzktODY0OC0wNTk1ZDMxOGRkZmIiLCJFbWZvczB1BpdXYxTldZa3gzUVVY2b1ZlTDk2VmQyZzASTXhIdXRRC01jaGpDZmFVU9PSURDIiwiaXVkaWVkaHR0cHM6Ly9taW5nbGutaW9uYXBPcmV1MS5pbmZvcnNsbnVkb3VpdGUuY29tIiwiaGVhZGVuYXV5IjoiaU0xTR0RFTkMG15OWIwMmYtYTFmMS00NzVkb1l1YjItYjM0NDU5ZjF1M2I1Iiwic2NvcGU0IjvcGVuYWQlCjRlR1NBdXR0ZS0aWmhdG1vbk1vZGU0IjPT1BSRU1JU0VFSURFT1R0VE1FUYsImdyYW50X21kIjoiaWQ0OTYzYjEzZGhhBWY2npe90sLZk10t_oTQ10ycV7ARmHE_WevgLT7qCiv_IdTD7mCze69GtBEsNG3YWIeu-Rn-Fhx-1-Qq0YegPwxrv0PUIPyZc6GQ7qkGz-1hwV0PKQMCiACbAH-Cc0FeC2bHkH56wkzEGr2gV5cw5NIVdI'. The 'Request URL' section shows: 'https://mingle-ionapi.eu1.inforcloudsuite.com/SLSGDENA040_TST/APIFLOWS/GetSalesOrder/GetSalesOrder?ORNO=0010003591&ionapiRespStyle=sync'. The 'Server response' and 'Code' sections are currently empty.

The screenshot shows the Infor API Studio interface displaying the response body for the 'zJMGetSalesOrder' API flow. The response is shown in 'Pretty' format as JSON. The response body contains a list of sales order lines with various fields such as 'TOAM', 'ORNO', 'VTAM', 'IDM', 'Customer', 'ORDT', 'RLDZ', 'CustomData', 'CUOR', 'ORVA', and 'Lines'. The 'Lines' array contains three items, each with fields like 'ITNO', 'ITDS', 'ORQT', 'SAPR', and 'PONR'. The response is shown in a table format with columns for 'KEY' and 'VALUE'.

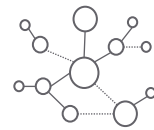
KEY	VALUE
ORNO	0010003591
ionapiRespStyle	sync
Key	Value

```

1  |
2  |   "TOAM": "30.00",
3  |   "ORNO": "0010003591",
4  |   "VTAM": "",
5  |   "IDM": {
6  |     "FileName": "4448699304678799690IS606PF_0_0.pdf",
7  |     "IDMURL": "https://idm.eu1.inforcloudsuite.com/ca/api/resources/CS_Orders-2113-1-LATEST?Token=Aenkq0t0UkSuuNRpM0cG6HDHPX",
8  |   },
9  |   "Customer": {
10 |     "CUNO": "75-JMDE001",
11 |     "CUNM": "JM Inc DE"
12 |   },
13 |   "ORDT": "20221210",
14 |   "RLDZ": "20221114",
15 |   "CustomData": "Testing!!!",
16 |   "CUOR": "JM110_34",
17 |   "ORVA": "30.00",
18 |   "Lines": [
19 |     {
20 |       "ITNO": "75-JM002",
21 |       "ITDS": "JM Item 2",
22 |       "ORQT": "1",
23 |       "SAPR": "5.00",
24 |       "PONR": "1"
25 |     },
26 |     {
27 |       "ITNO": "75-JM003",
28 |       "ITDS": "JM Item 3",
29 |       "ORQT": "2",
30 |       "SAPR": "5.00",
31 |       "PONR": "2"
32 |     },
33 |     {
34 |       "ITNO": "75-JM004",
35 |       "ITDS": "JM Item 4",
36 |       "ORQT": "3",
37 |       "SAPR": "5.00",
38 |       "PONR": "3"
39 |     }
40 |   ]
41 |

```

Asynchronous & Synchronous Integrations



ION – BOD/MSG

Asynchronous

Publish – Subscribe

Event Driven



ION API Gateway

Synchronous

Point to Point

Client initiated



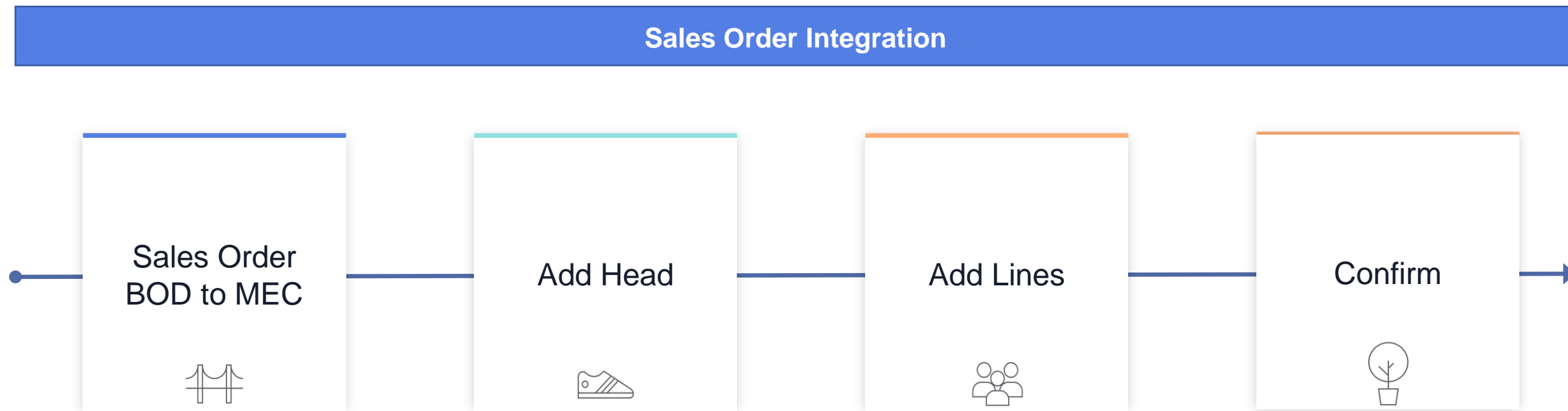
iPasS Experience

iPaaS = ION + ION APIs

Blend of Sync & Async patterns

Highly scalable

Sales Order Integration



Process.SalesOrder

```

<?xml version="1.0" encoding="UTF-8" ?>
<ProcessSalesOrder xmlns="http://schema.infor.com/InforOAGIS/2"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://schema.infor.com/InforOAGIS/2 http://schema.info
  releaseID="9.2"
  versionID="2.13.5"
  systemEnvironmentCode="Product
  languageCode="GB">
  <ApplicationArea>
    <Sender>
      <LogicalID schemeVersionID="16.0.0.06"
      <ComponentID schemeVersionID="16.0.0.
      <ConfirmationCode>OnError</Confirmati
    </Sender>
    <CreationDateTime>2022-12-06T06:16:44.639
    <BODID>1ebb9c95-4ad6-4f65-89c2-92ca29ade5
  </ApplicationArea>
  <DataArea>
    <Process>
      <AccountingEntityID>400_AAA</Accounti
      <LocationID>003</LocationID>
      <ActionCriteria>
        <ActionExpression actionCode="Add
      </ActionCriteria>
    </Process>
    <SalesOrder>
      <SalesOrderHeader>
        <DocumentID>
          <ID accountingEntity="400_AAA
            location="401"
            variationID="310313"
            lid="lid://infor.m3.m3">J
        </DocumentID>
        <AlternateDocumentID>
          <ID schemeName="customer">JM1
        </AlternateDocumentID>
        <DisplayID>JM1206_18</DisplayID>
        <LastModificationDateTime>2022-12
        <LastModificationPerson>
          <IDs>
            <ID accountingEntity="400
          </IDs>
          <Name>Joakim Mattsson</Name>
        </LastModificationPerson>
        <Status>
          <Code>Approved</Code>
          <EffectiveDateTime>2022-12-06
          <ArchiveIndicator>>false</Arch
        </Status>
        <CustomerParty>
          <PartyIDs>
            <ID accountingEntity="400_AAA"
              schemeName="NoWF">75-JMUS004</ID>
            <TaxID>SE556224134801</TaxID>
          </PartyIDs>
        </CustomerParty>
      </SalesOrderHeader>
  
```

IMS 3.0.202009

[Base URL: /SLSGDENA011_TRN/IONSERVICES/api/ion/mes

IMS Messaging Service

- GET** /ping PING :: Ping Service interface, ch
- GET** /protocol PROTOCOL :: Gets IMS AP

IMS Messaging Service v2

- POST** /v2/multipartMessage MULTIPARTM
- POST** /v2/message MESSAGE_V2 :: Publish
- POST** /v2/test TEST :: Test tenant and logic

IMS Messaging Service v3

- POST** /v3/multipartMessage MULTIPARTM
- GET** /v3/{logicalId}/acceptedDocuments

GDE / MAF Dec 2022 / IOS - v3/multipartMessage - Process.SalesOrder

POST https://mingle-ionapi.inforcloudsuite.com/SLSGDENA011_TRN/IONSERVICES/api/ion/messaging/service/v3/multipartMessage?logicalId=lid://infor.ims.z

Params ● Authorization ● Headers (13) **Body ●** Pre-request Script Tests Settings

● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL

KEY	VALUE
<input checked="" type="checkbox"/> ParameterRequest	ParameterProcessSalesOrder.json ×
<input checked="" type="checkbox"/> MessagePayload	BodyProcessSalesOrder ×
Key	Value

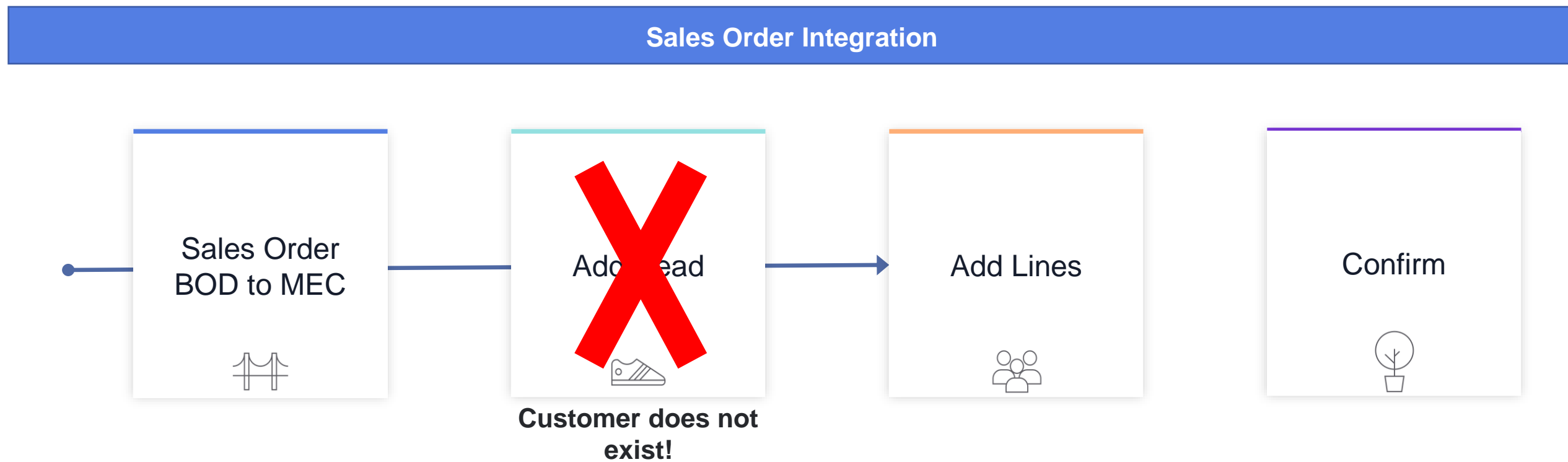
Body Cookies (2) Headers (17) Test Results

Pretty Raw Preview Visualize JSON ▾

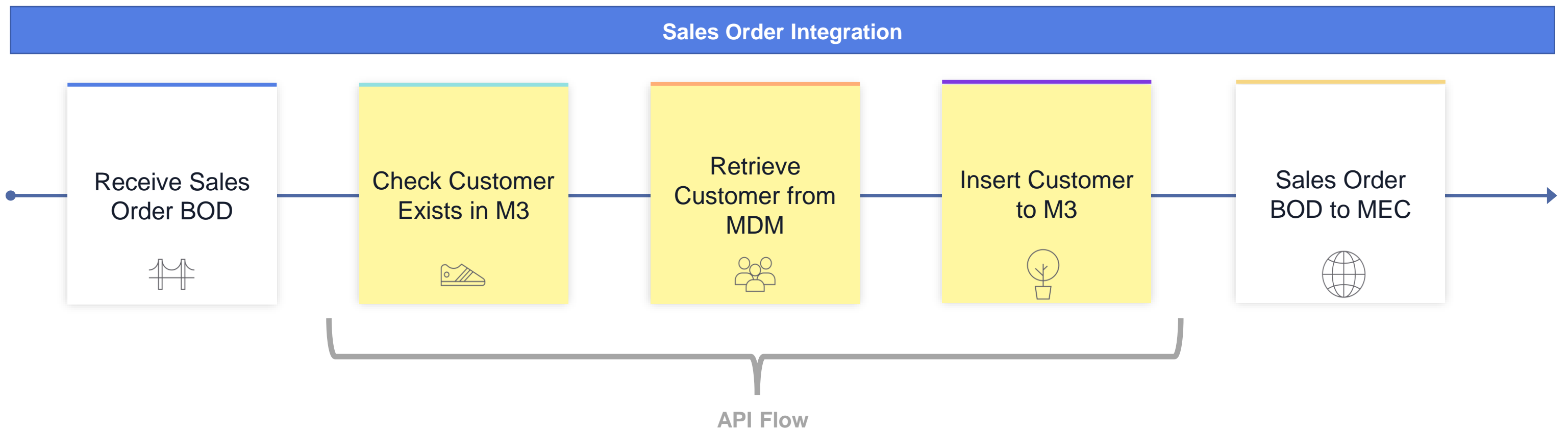
```

1  {
2    "status": "OK",
3    "code": 202,
4    "message": "The request was processed successfully"
5  }
  
```

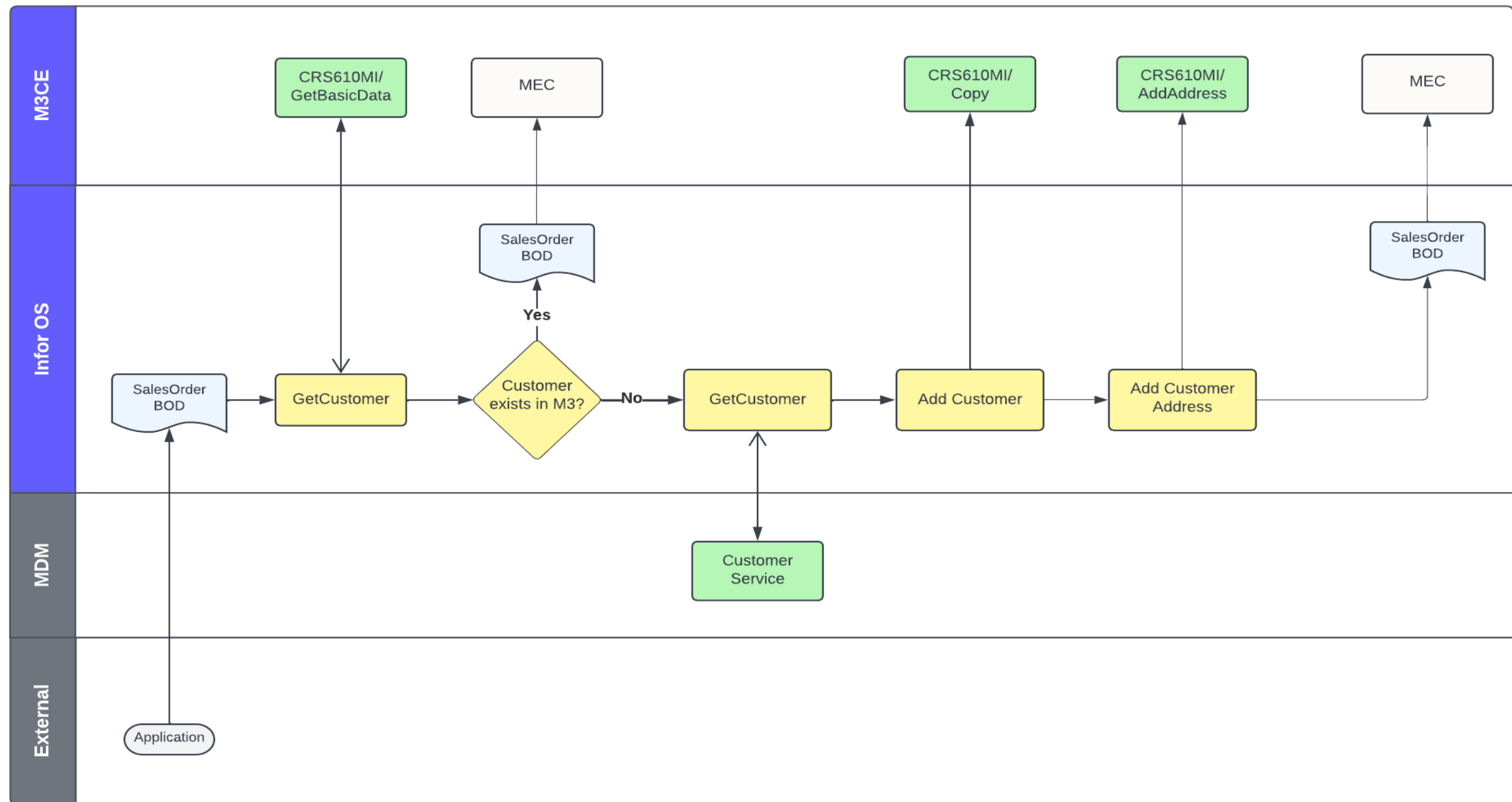
Sales Order Integration



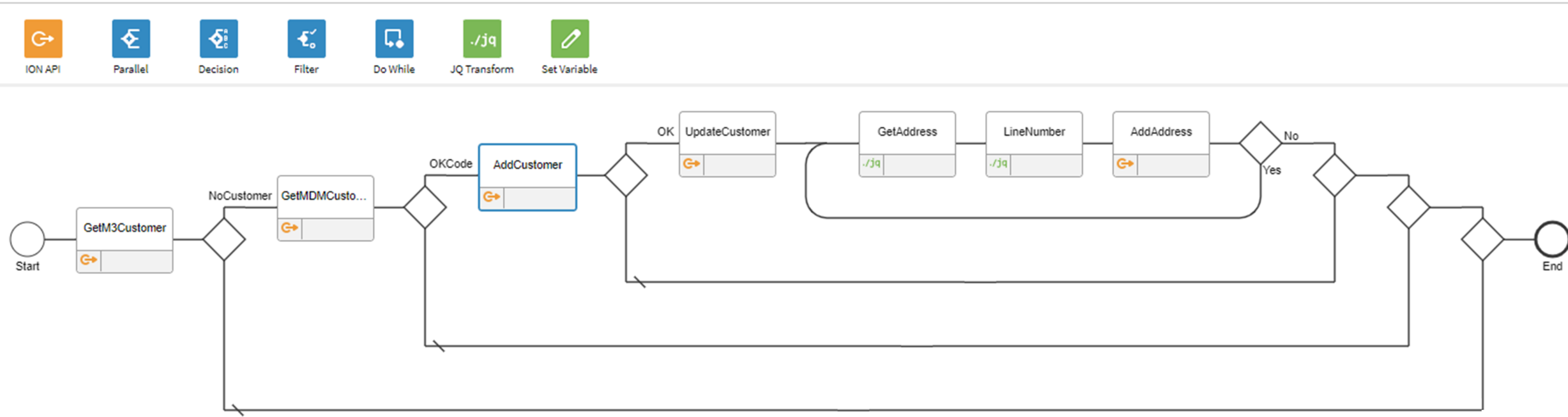
Sales Order Integration



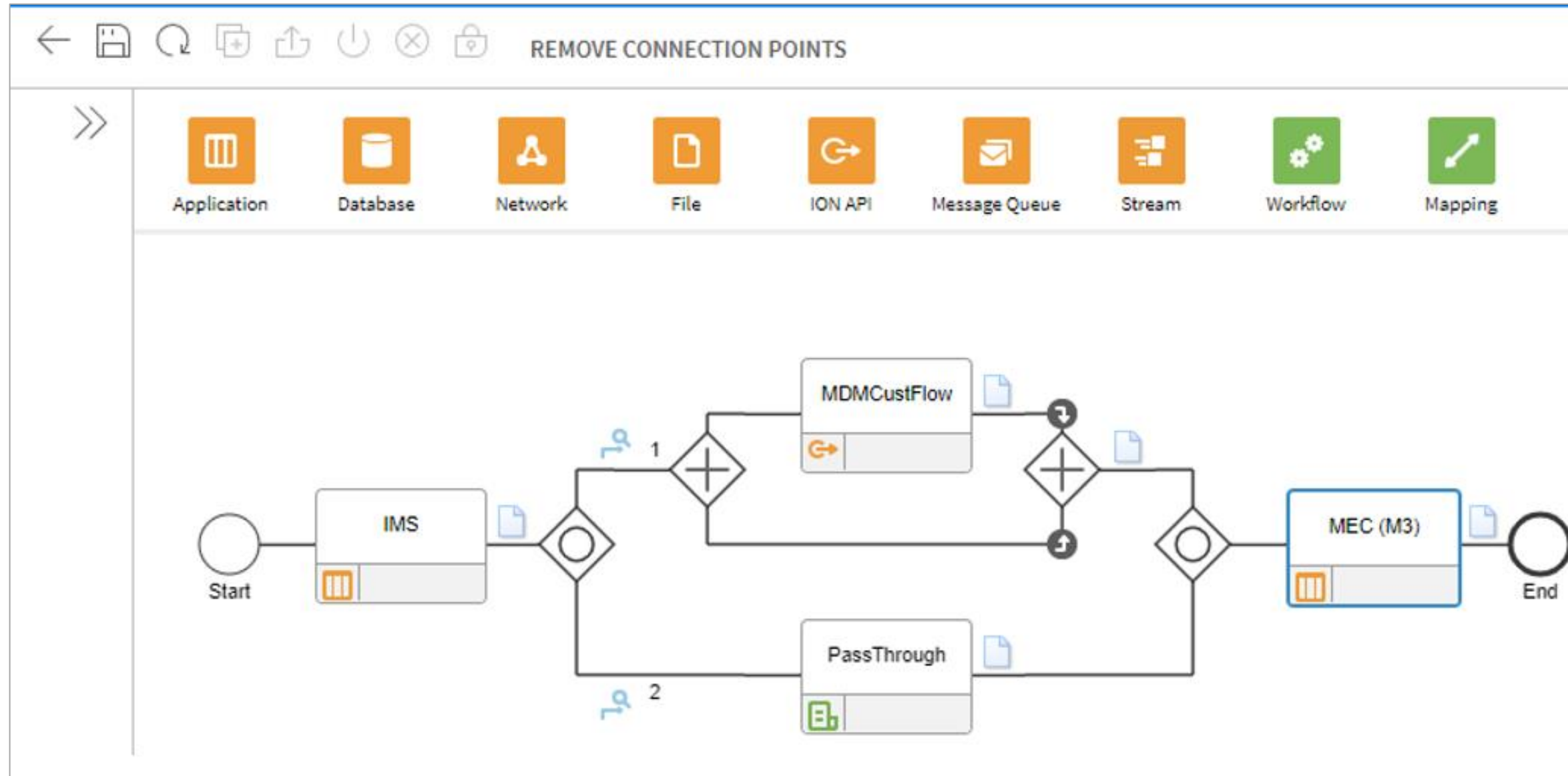
Sales Order Integration – Process Flow



Add Customer API Flow



Data Flow



Using Merge Routine

Merge Properties

Properties | Input Parameters | Output | Test

Name *
CallAPIFlow_AddCustomer

Description

Select Merge type

Basic enrichment of the original document

Advanced merge using script

Script *
NoMerge

NEW DETAILS

ION API Activity Properties

Name *
MDMCustFlow

Description

Select ION API Connector *
zJAddCustomer

NEW DETAILS

Send Documents based upon incoming Documents

ION API Call Name *
AddCustomer

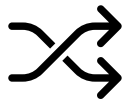
Integration Topics of the Year



API Gateway



Infor Messaging Service (IMS)



M3 Bulk APIs



API Flows



Backend as a Service

BaaS is a customer managed extension tool, where customers will be building tenant specific API extensions.



FaaS exposed as BaaS – i.e., Event driven Functions as APIs



Cloud Native – Serverless, scalable Architecture



Developer's tool/ Provides APIs and SDKs for your solution



Cloud Agnostic – Build your API once; Run in AWS/ Azure/ ...



What you get?



Managed Storage



Managed Compute capacity



Managed Security

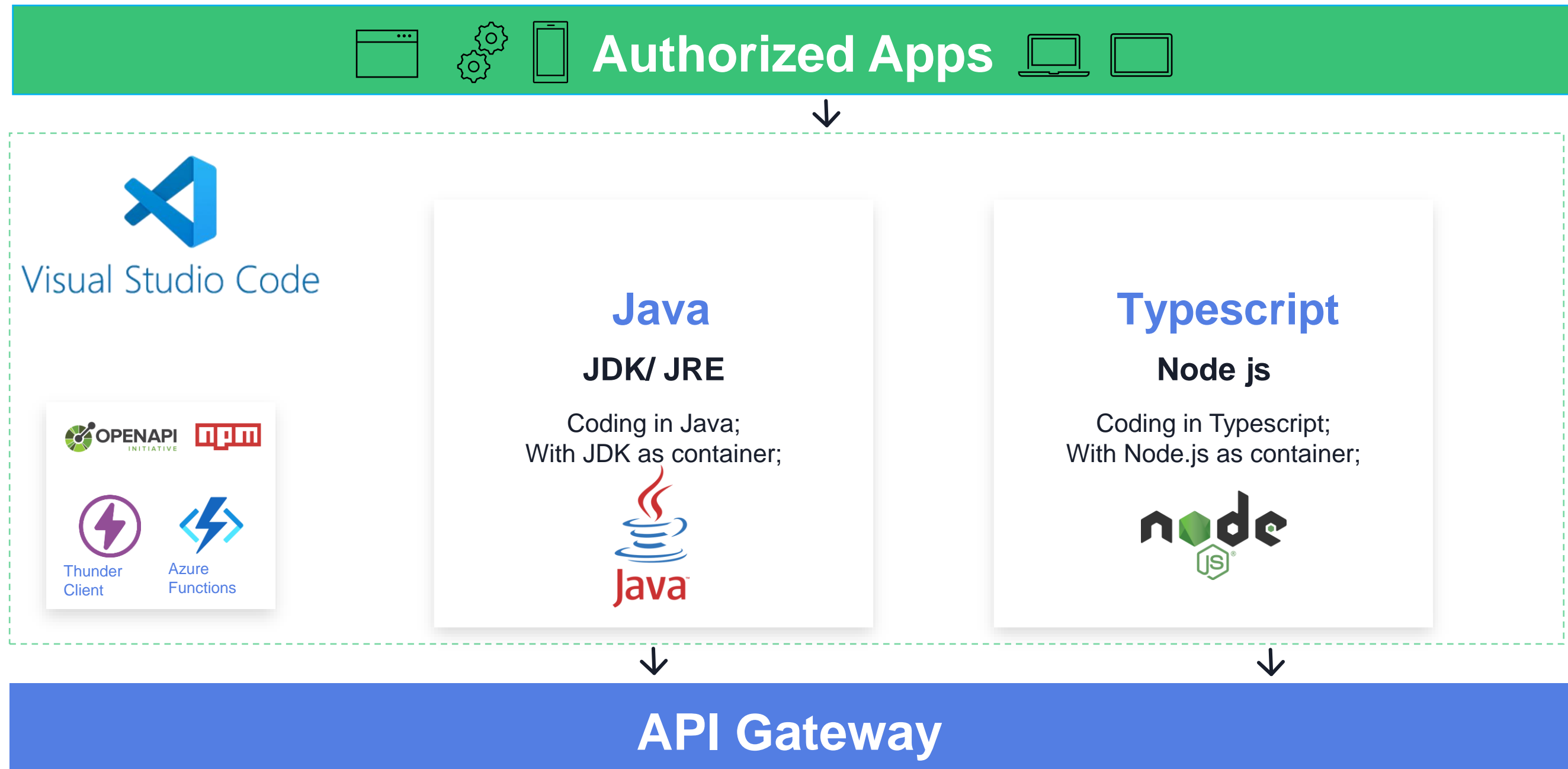


Managed Execution (Event driven/ Schedule Driven)

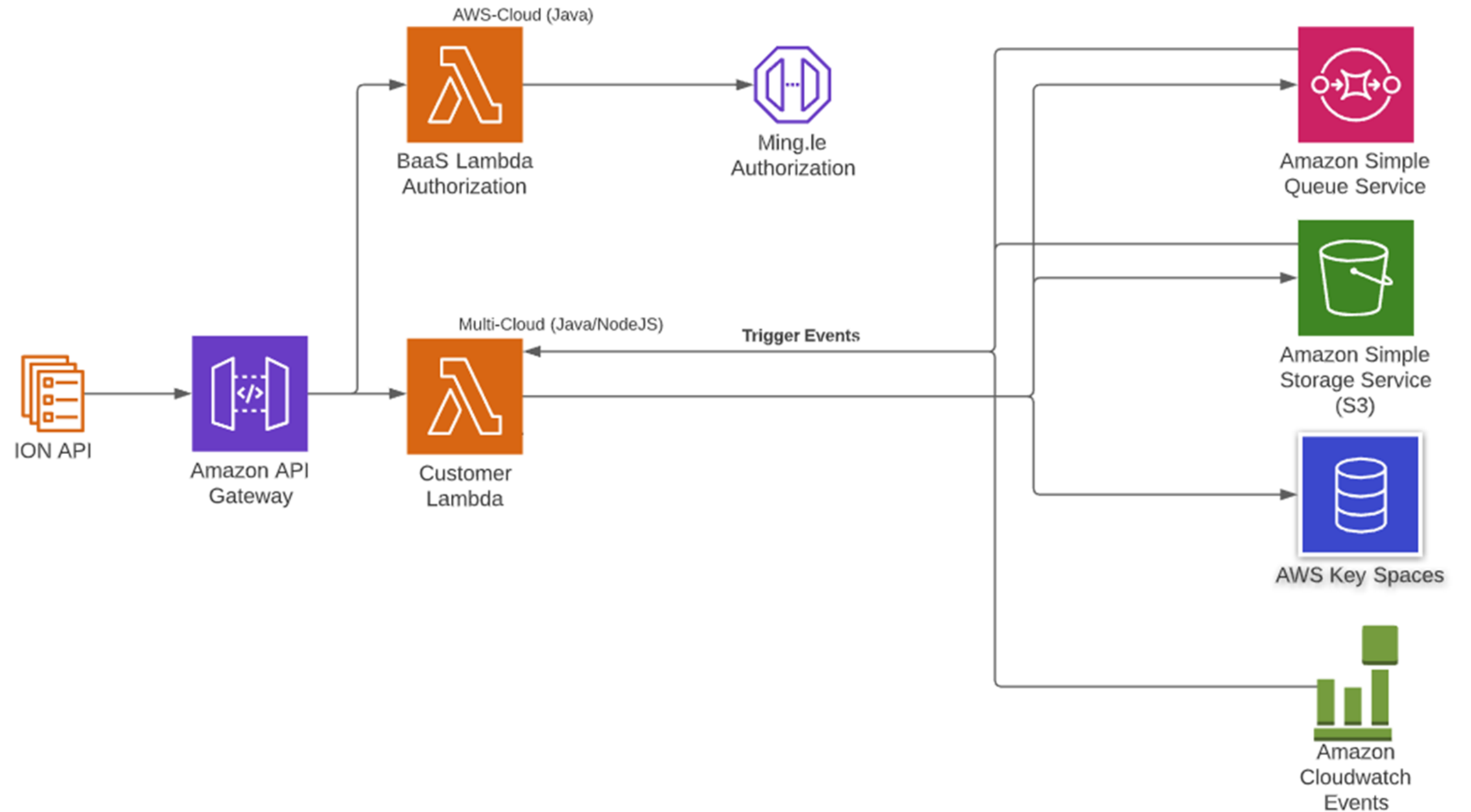
Customers to manage development, deployment. Support and maintenance of deployed services stays with customer.



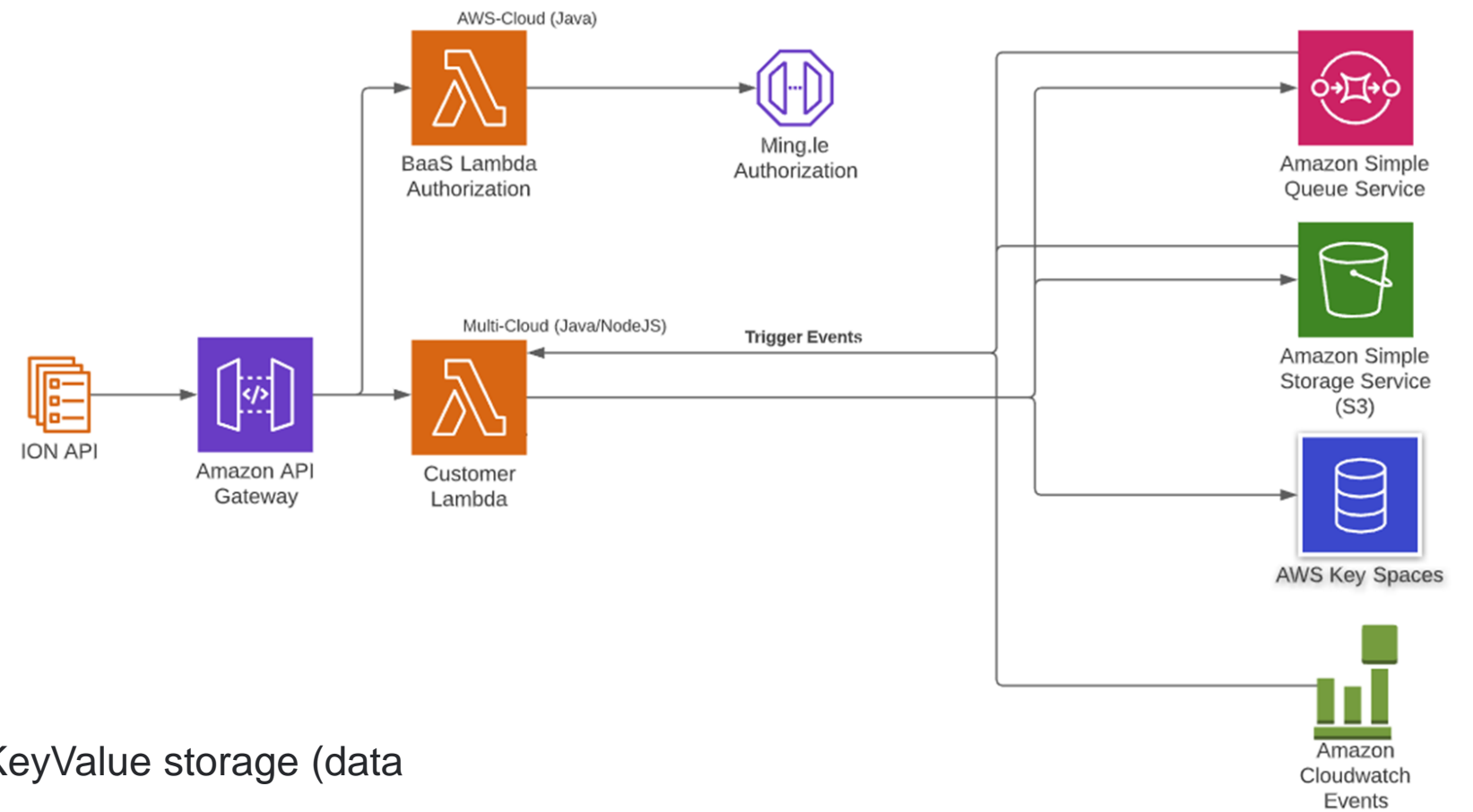
Development Architecture



Deployment Architecture



Deployment Architecture



Compute Only API – API Lifecycle for compute only API

API (Compute + KeyValue storage) – API Lifecycle for APIs with KeyValue storage (data model management)

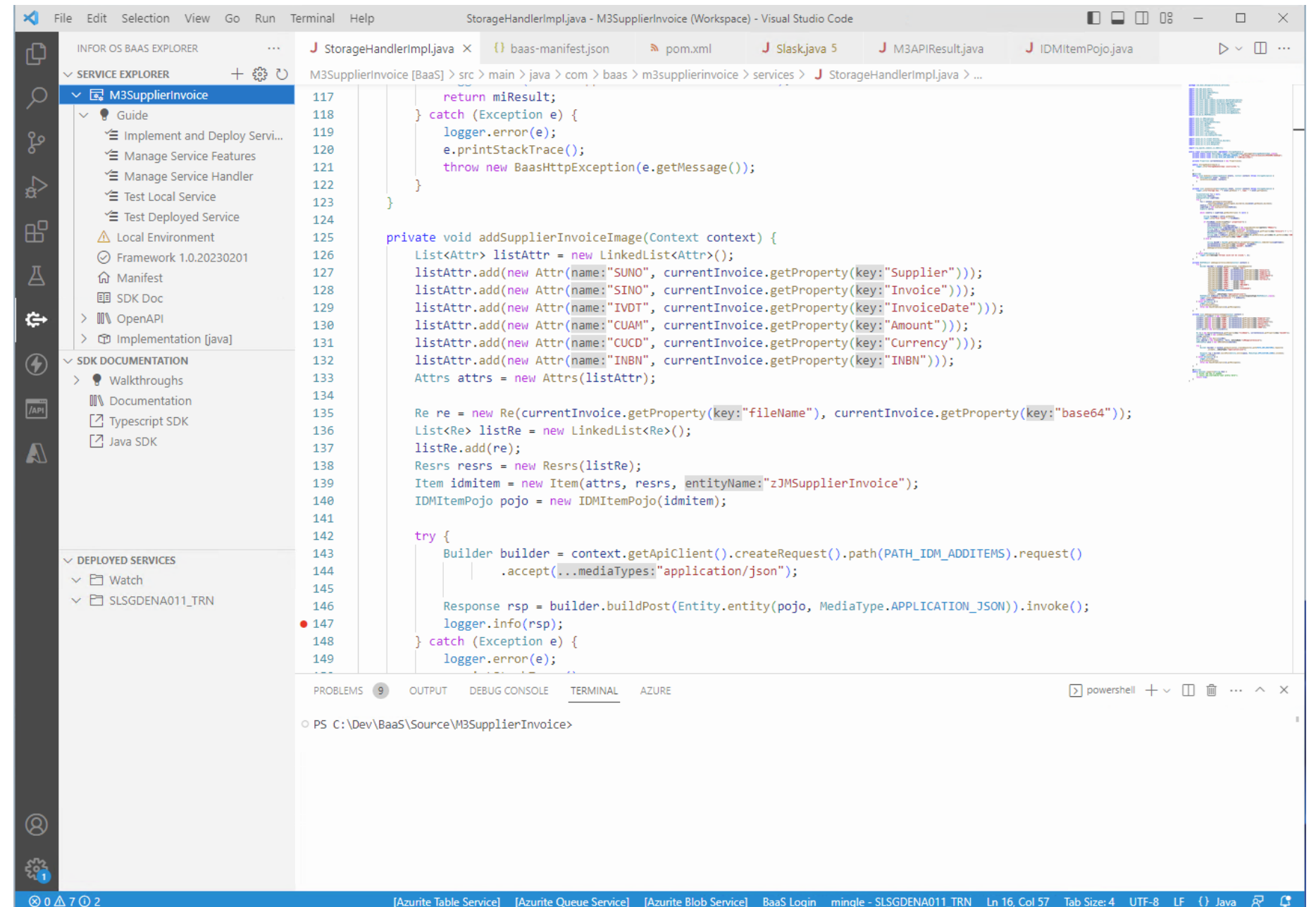
API (Compute + S3 storage) – API Lifecycle for APIs with S3 storage

API (Compute + IONAPI) – API Lifecycle for APIs using IONAPI to communicate with other services.

API – Combination of all of the above.

Skill Set required

- General Programming Knowledge
- Java/ Typescript (NodeJS)
- API Domain knowledge
 - HTTP
 - REST
 - Open API (Swagger)
 - API Clients (Thunder, Postman)
 - SSL
- Source control/ CI – CD knowledge



Thank you

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