



TM

XtendM3 / XtM3

A Secure Way To Tailor The Cloud

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05

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01

INTRODUCTION

```
<div class="container">
  <div class="row">
    <div class="col-lg-3 col-md-6 text-center">
      <div class="service-box">
        <i class="fa fa-4x fa-growth text-primary">
          <h3>Ready to Ship
          <p class="text-muted">You can use this theme as %1, or you can make changes to it.
        </div>
      </div>
    </div>
    <div class="col-lg-3 col-md-6 text-center">
      <div class="service-box">
        <i class="fa fa-4x fa-newspaper-o text-primary">
          <h3>Up to Date
          <p class="text-muted">We update dependencies to keep things fresh.
        </div>
      </div>
    </div>
    <div class="col-lg-3 col-md-6 text-center">
      <div class="service-box">
        <i class="fa fa-4x fa-heart text-primary">
          <h3>Made with Love
          <p class="text-muted">You have to add your own touches with love and passion.
        </div>
      </div>
    </div>
  </div>
</div>
```



Cloud Customization



SECURE



STABLE



MAINTAINABLE

XtendM3 – M3 BE Extensions



LOOSELY COUPLED

- ✔ Separate from standard M3
- ✔ Built with a standard framework
- ✔ Hooked on M3 programs



EXECUTED BY TRIGGERS

- ✔ Standard exit points
- ✔ Batch/Function/MI exit points
- ✔ Utility extensions



CONTEXT AWARE

- ✔ Access to program resources
- ✔ Integrated with M3 APIs
- ✔ Integrated with ION APIs

Highly Capable Tool



CUSTOM LOGIC

Write your custom logic on Interactive/Batch/MI programs with having access to the current context



M3/ION API

Call M3 and ION APIs directly from Extensions more efficiently



DYNAMIC DATABASE

Extend data model with true database tables and fields extensions



DATABASE ACCESS

Access database directly to perform read, write, update, delete operations



MI EXTENSIONS

Build your own M3 APIs using Extensions



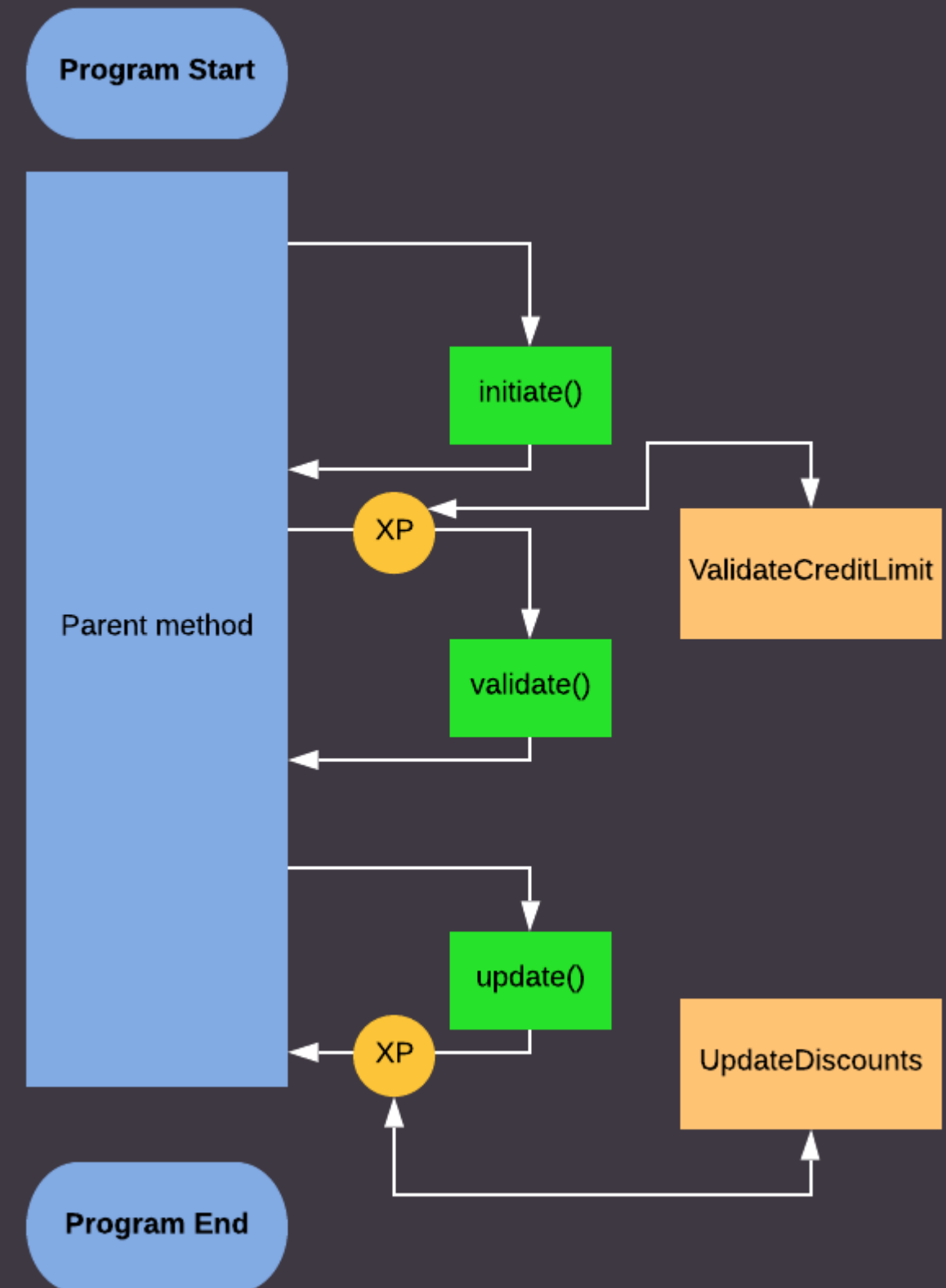
SESSION PERSISTENCE

Store information in session to share between multiple extensions

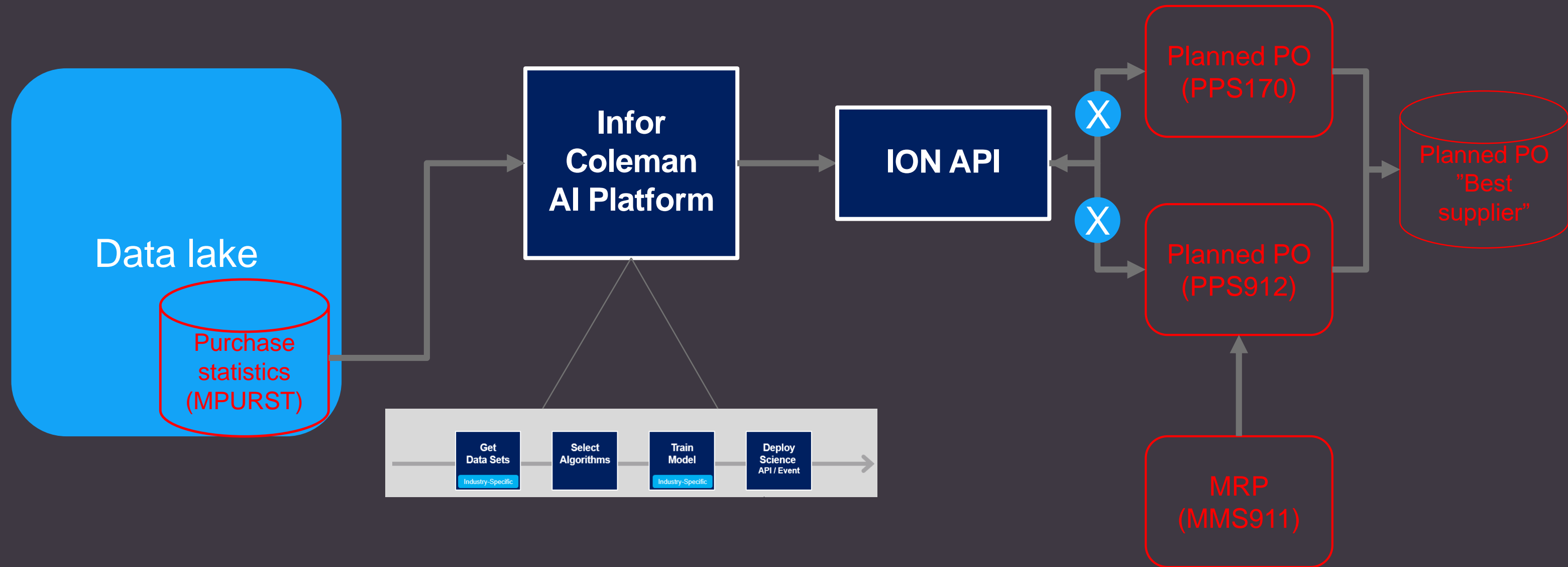
Extension Point / Trigger

What is it?

- A place and a time in code execution where M3 will execute an Extension
 - **Place:** A method in M3 code
 - **Time:** Before / After the method is executed



M3 and ML POC – Enhance MRP decision



Context Specific Functions

INTERACTIVE

Available On All Programs

- ✔ Custom validation
- ✔ Read/Write display parameter
- ✔ Custom prompts and dialogs

BATCH & FUNCTIONS

Available On Selected Programs;
Added On Demand

- ✔ Read method input/output parameters
- ✔ Override return value of M3 method

MI

Available On 97% of M3 APIs

- ✔ Custom validation
- ✔ Read/Write input parameters
- ✔ Read output parameters

Read access to system/user/runtime information and tables read in program

Ready To Use

TENANT SPECIFIC EXTENSIONS

Modify/Extend M3 BE Interactive/Batch/MI

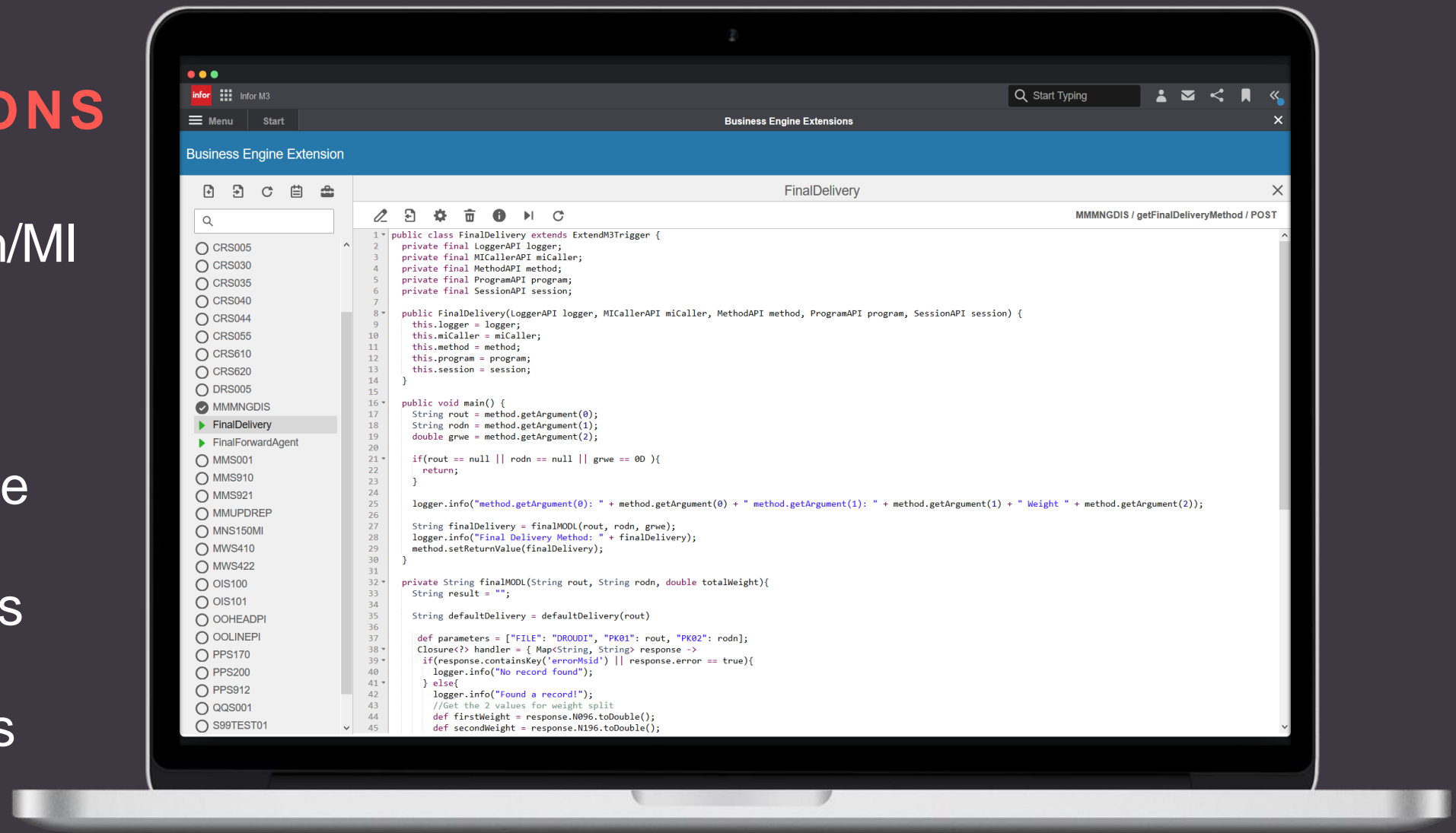
Separate from M3 Standard Code

Based on Groovy, Java based language

Portable between tenants/environments

Executed by exit points in M3 programs

Introduced as service, developed locally and on Ming.le



Many Features; Minimal Code

CONTEXT SPECIFIC LOGIC

- Runtime information
- System/User information
- Job information
- Call stack information
- Read table records by program
- Display information
- Access to method information
- Override M3 standard method return value
- ...

```
def callback = {
  Map<String, String> result ->
  if (result.error != null) {
    contract = result.A030
  } else {
    logger.info("Failed to retrieve contract for delivery method ${deliveryMethod} due to ${result.errorMessage}")
  }
}
def params = [ "FILE": "CONTRACT", "PK01": deliveryMethod ]
miCaller.call("CUSEXTMI", "GetFieldValue", params, callback)
```

```
import groovy.json.JsonSlurper

Map<String, String> headers = ["Accept": "application/json"]
Map<String, String> parameters = [ "Body" : 'Order has been stopped' ]
IonResponse response = ion.post("/M3CECHEESECAKE_AX2/Twilio/2010-04-01/Accounts/ACSDKFDSJLJFGDFDFD/Messages.json",
                                headers, parameters)

if (response.getError()) {
  logger.warn("Failed to send message on stopped orders" + response.getErrorMessage())
}
```

```
// Override M3 standard order quantity
def overrideQuantity(int finalQuantity) {
  method.setReturnValue(finalDelivery)
}
```

02

TARGETTED USE-CASES



Targetted Customization

IS FIT FOR

- Server side modifications/extensions
- Interactive program validations
- M3/ION API call injections
- Modifying application logic/behavior
- Storing own data
- Input data calculation automation

IS NOT FIT FOR

- UI Changes (use H5 SDK, App Builder, etc)
- Creating new modules (use Mongoose)
- Mass data correction (use Mongoose)

Sample Use-Cases

DUPLICATE CUSTOMER CHECK

Check duplicate customer when registering new customer

- Interactive/MI program Extension
- MI Call for duplicate check
- Message prompt for error/warning

RECORD AUTHORITY CHECK

Filter warehouses to user's country in a list program

- Function/MI program Extension
- MI Call for retrieve user information
- Override M3 internal method return value to authorize/deauthorize

OPPORTUNITY PURCHASING

Change order quantity to to do a purchase for best available price

- Batch program Extension
- Database reads for reading the agreement line prices
- Override M3 internal method return value to change order quantity

03

ROADMAP



Timeline

▶ **PHASE 4**

Deep Integration

- Batch Job
- ION API
- M3 Database

▶ **PHASE 6**

Dynamic DB

- Custom Tables
- Monitoring
- Governance

▶ **PHASE 5**

Build & Test

- Develop Locally
- Unit Test Locally
- MI Extensions
- MI Program Integration
- Utility Extensions

▶ **PHASE 7**

Optimize

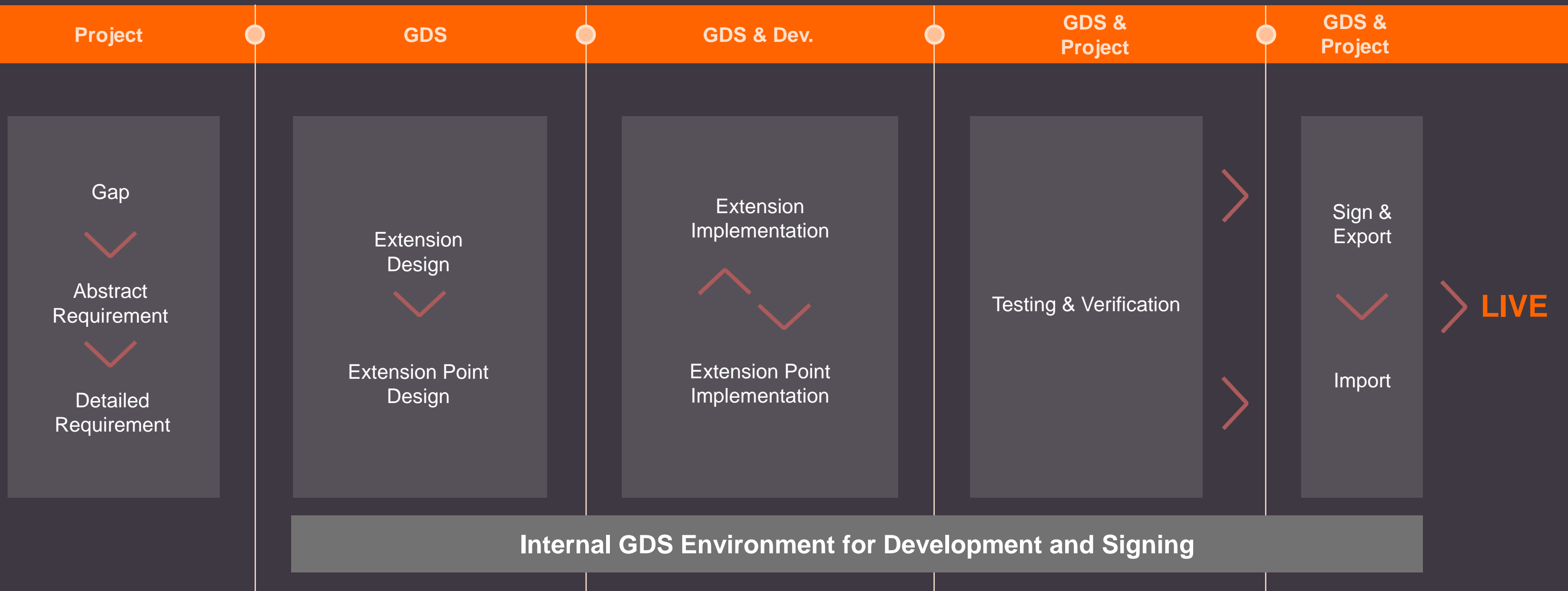
- Interactive Extensions
- UI Triggers
- Country Version Extensions
- Multiple Extensions on same Trigger

04

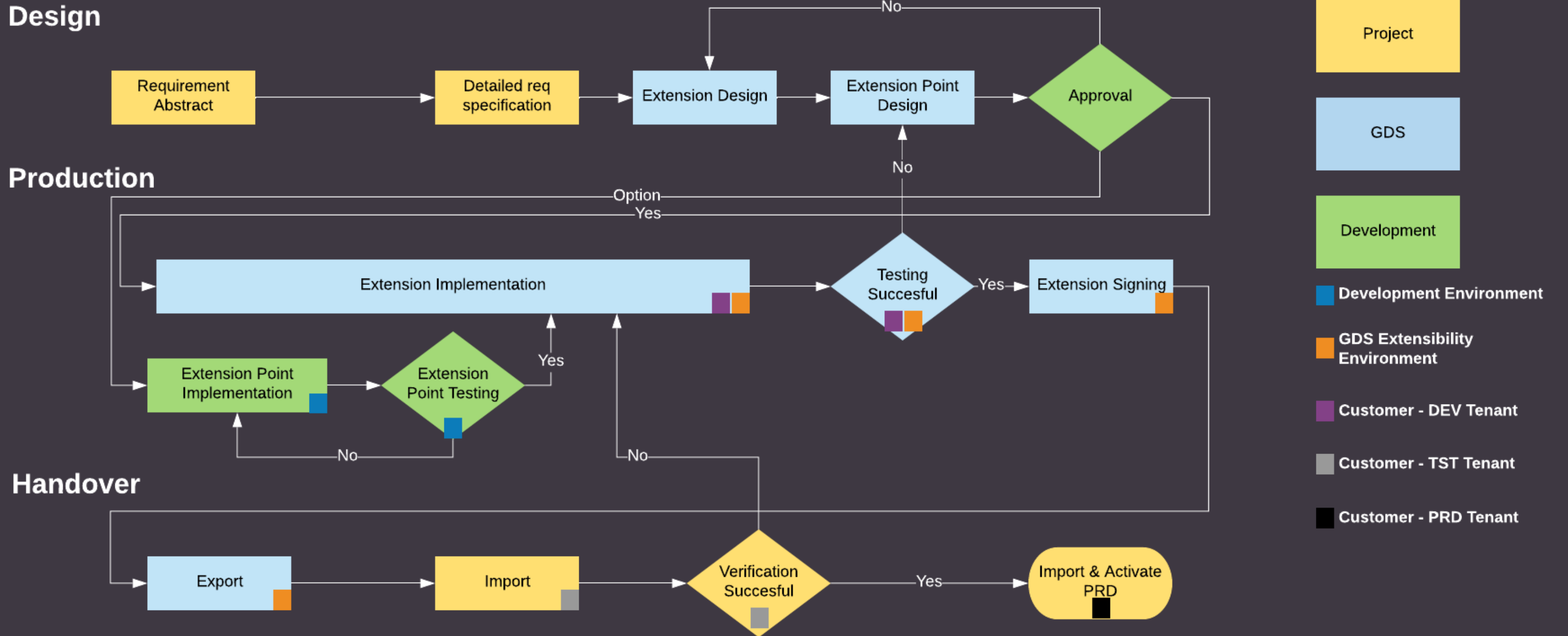
SERVICE PROCESS



PROCESS



Process



05

DEMO



06

SUMMERY



Quick Facts

ACTIVATION

- ✓ CA from October 16th
- ✓ Executive approval for enrollment
- ✓ Provided as Service
- ✓ Activated by Ops

EXTENSIONS

- ✓ Separate from standard
- ✓ Defined process for usage
- ✓ Recommended to have IMS or Service Desk
- ✓ Only signed Extensions are deployable to prod

TOOL

- ✓ Tool support itself is handled by Global Support
- ✓ Customers/Projects may activate/deactivate extensions by themselves
- ✓ Customers/Projects may import/export Extensions by themselves
- ✓ Free of Charge



A person wearing orange sneakers is walking on a blue metal staircase. The image is dominated by the blue color of the staircase and the railing, with the orange shoes providing a strong contrast. The person's legs and feet are visible as they ascend the stairs.

Thank you

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Designed for progress™