



Specialized by industry.
Engineered for speed.

M3 Event Management



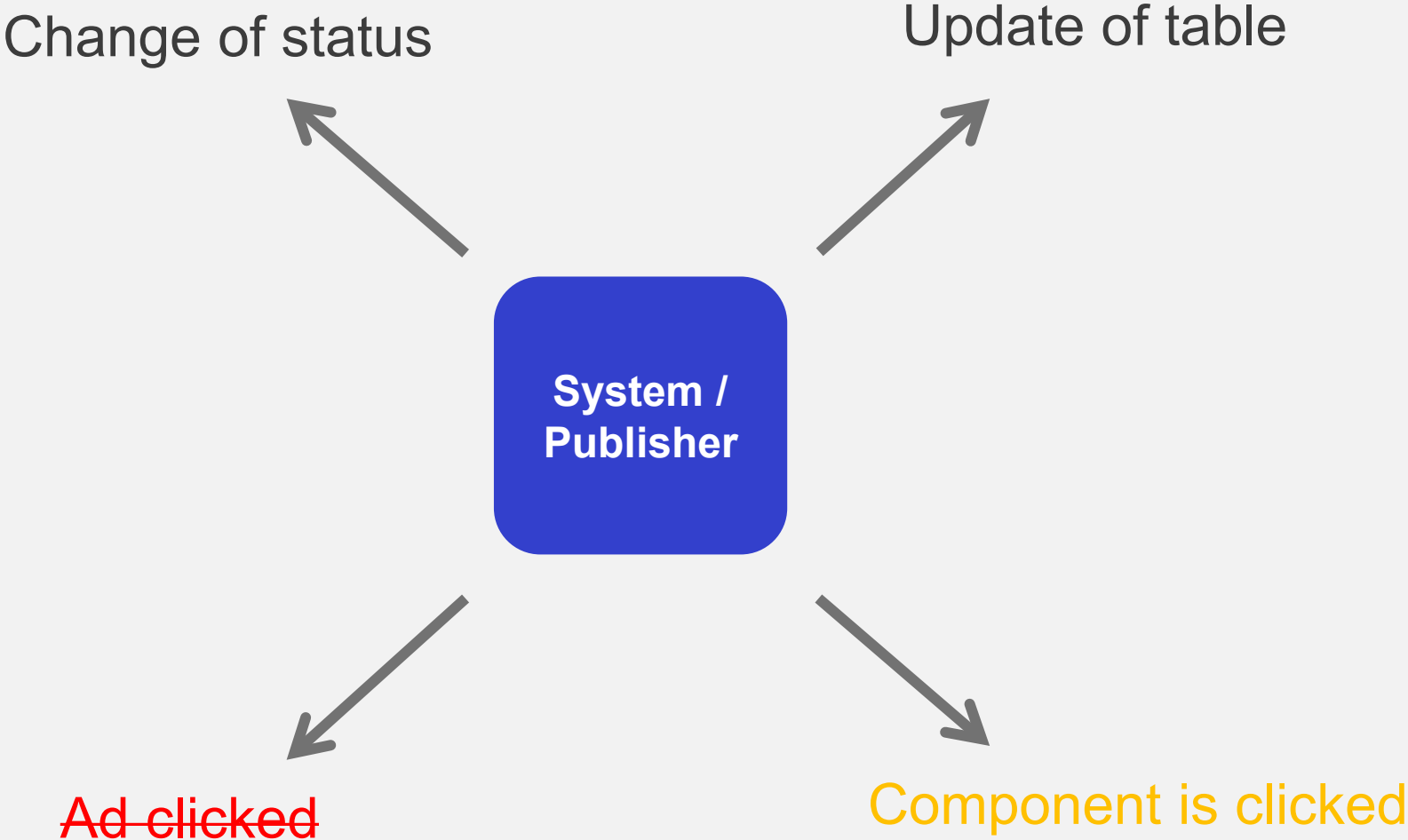
What is an event?

Event data records things that happen(ed) rather than things that are





Events and Infor M3





M3 events

- What is an M3 event?
 - Any database change in Infor M3 Business Engine can be sent to Event Hub in the form of an event.
 - Events can also be sent when a user start or exits an interactive program or tab, when a batch program starts or exits, or when an interactive or batch program fails.

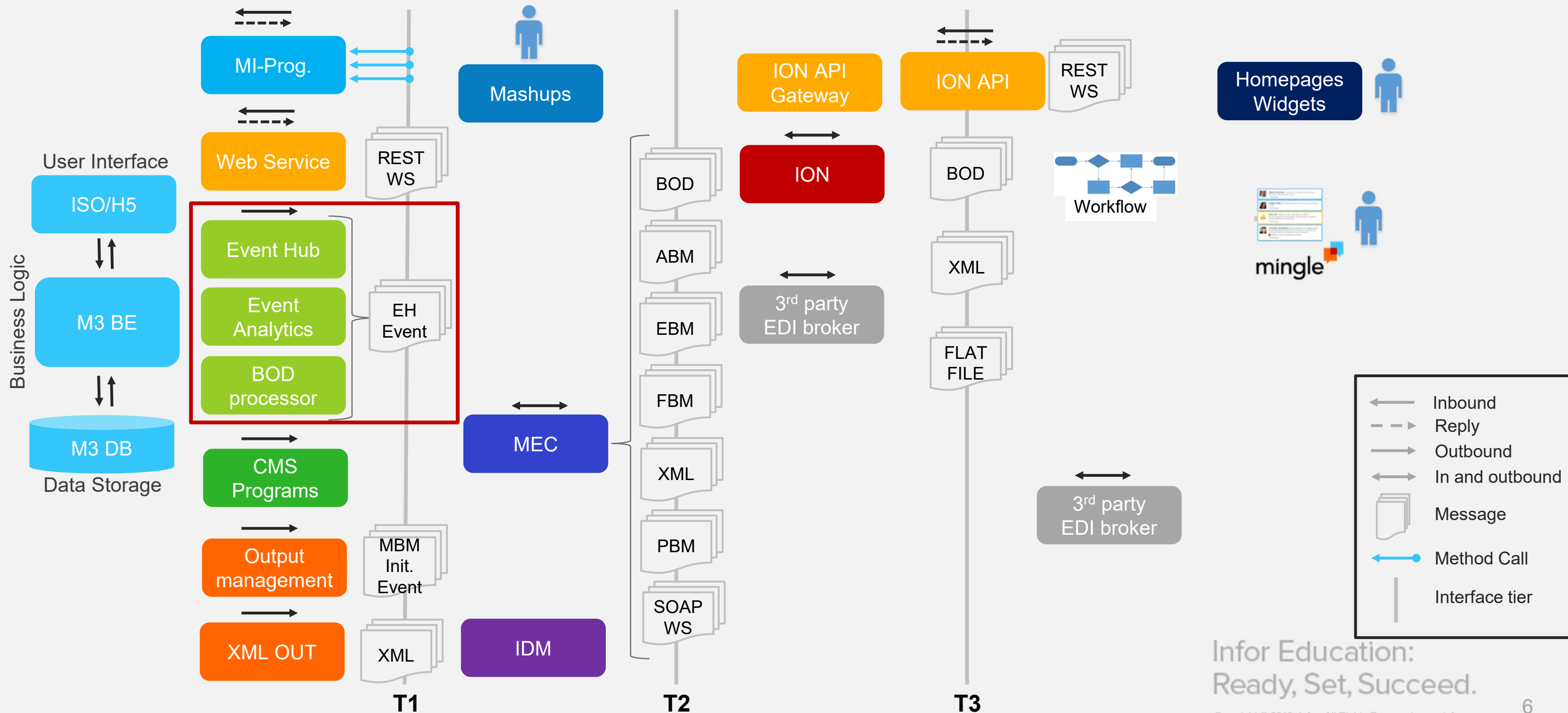


Event usage

- Events are used for:
 - Financial trading applications
 - Fraud detection
 - Analysis
 - Reporting and aggregation
 - System integration
 - Etc.

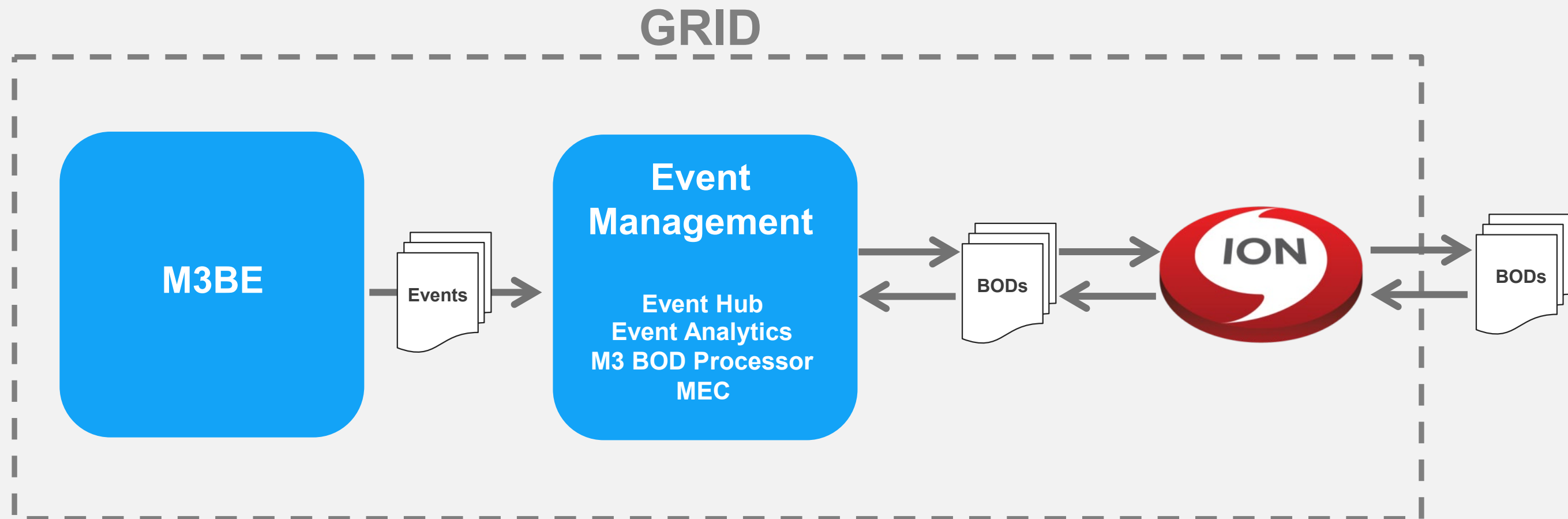


Overview of M3 integration components





M3 Event Management

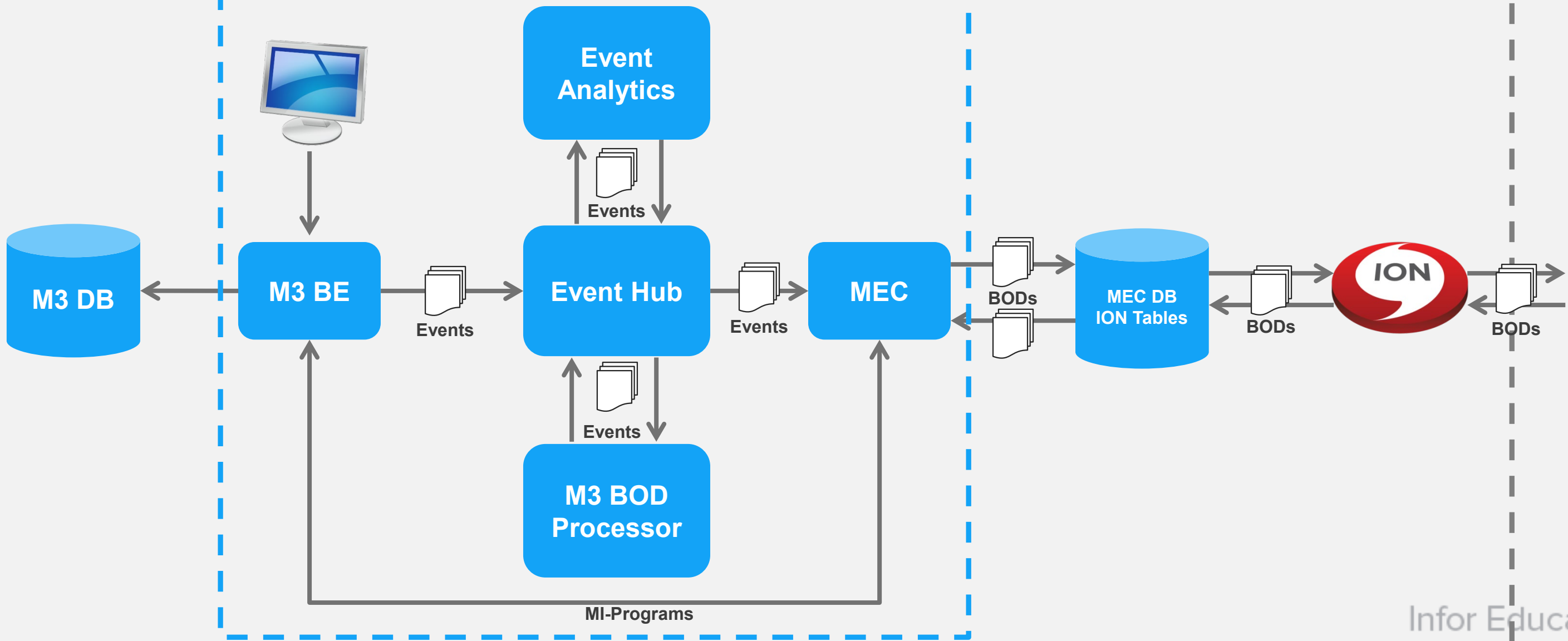


M3 Event Management

infor

GRID

M3 Event Management



Infor Education:
Ready, Set, Succeed.



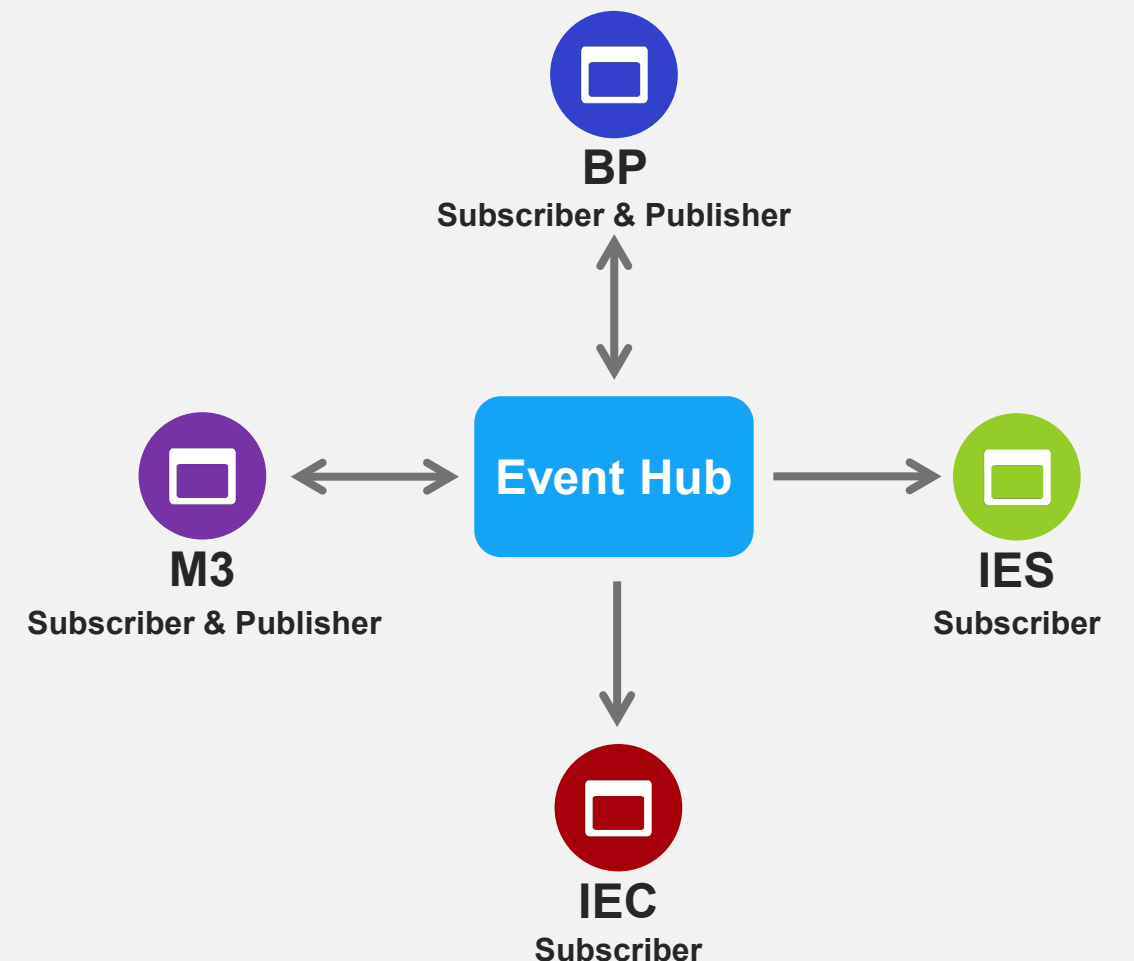
Event Hub





Event, Publisher and Subscriber

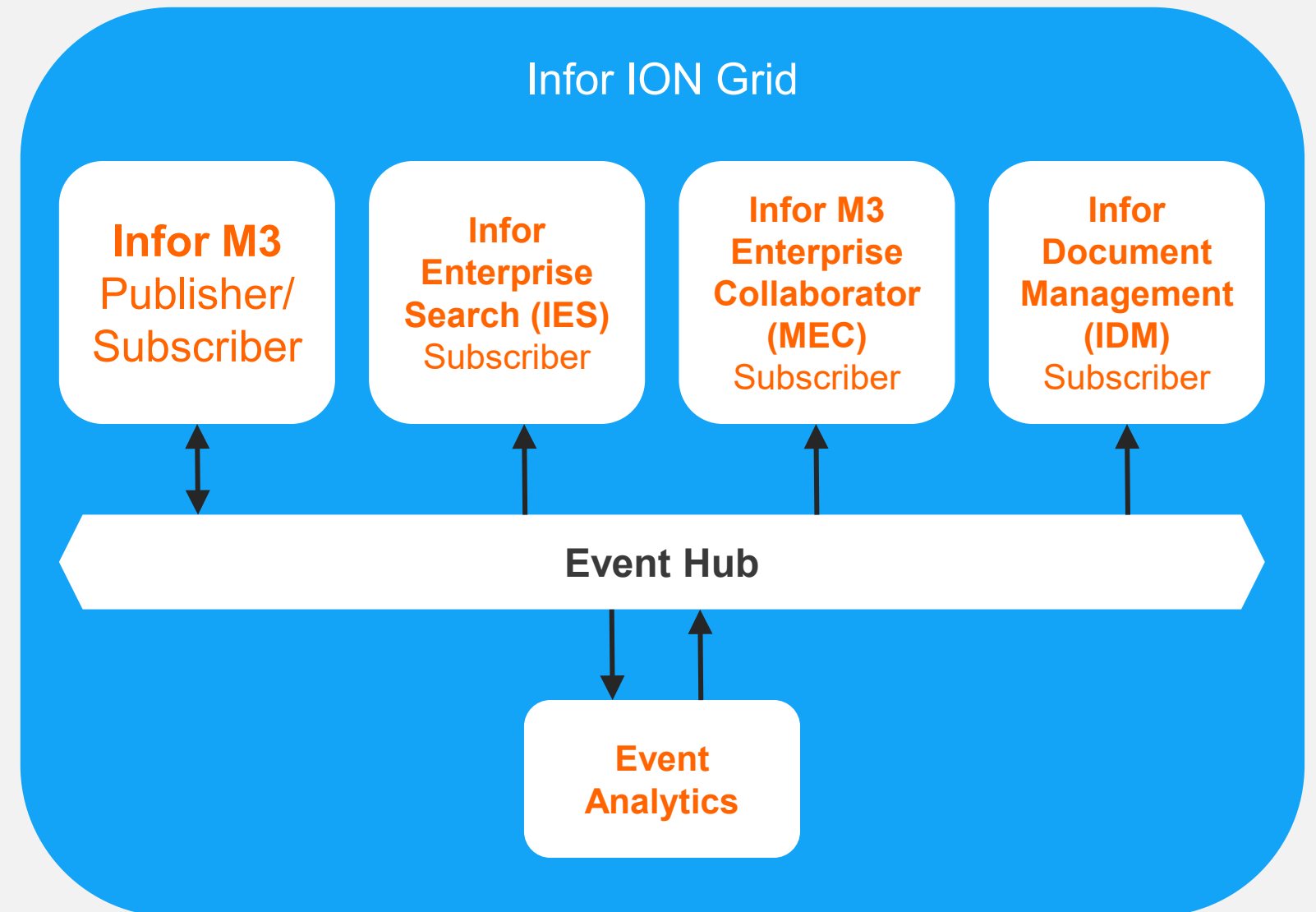
- **Event** - A discrete unit of historical data that an application exposes that may be relevant to other applications.
- **Event Hub** - Central component responsible for receiving and distributing events
- **Publisher** - An application that can publish events.
- **Subscriber** - An application that can receive events from another application.





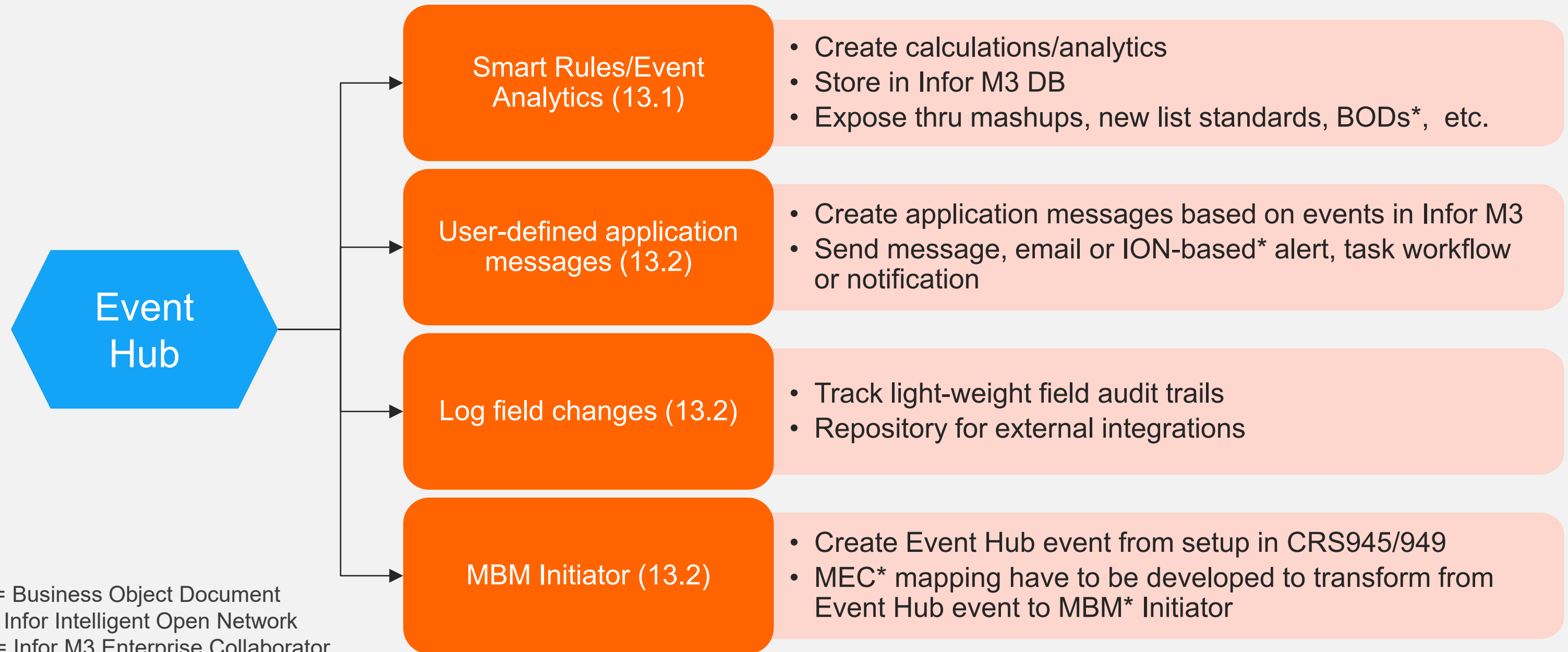
Overview

- Different events
 - DB changes, start/stop batch, program start/stop/exit, etc.
 - Only events with subscription are published
- Event Analytics to filter and calculate





Infor M3 capabilities based on Event Hub



* BOD = Business Object Document
ION = Infor Intelligent Open Network
MEC = Infor M3 Enterprise Collaborator
MBM = M3 Business Message

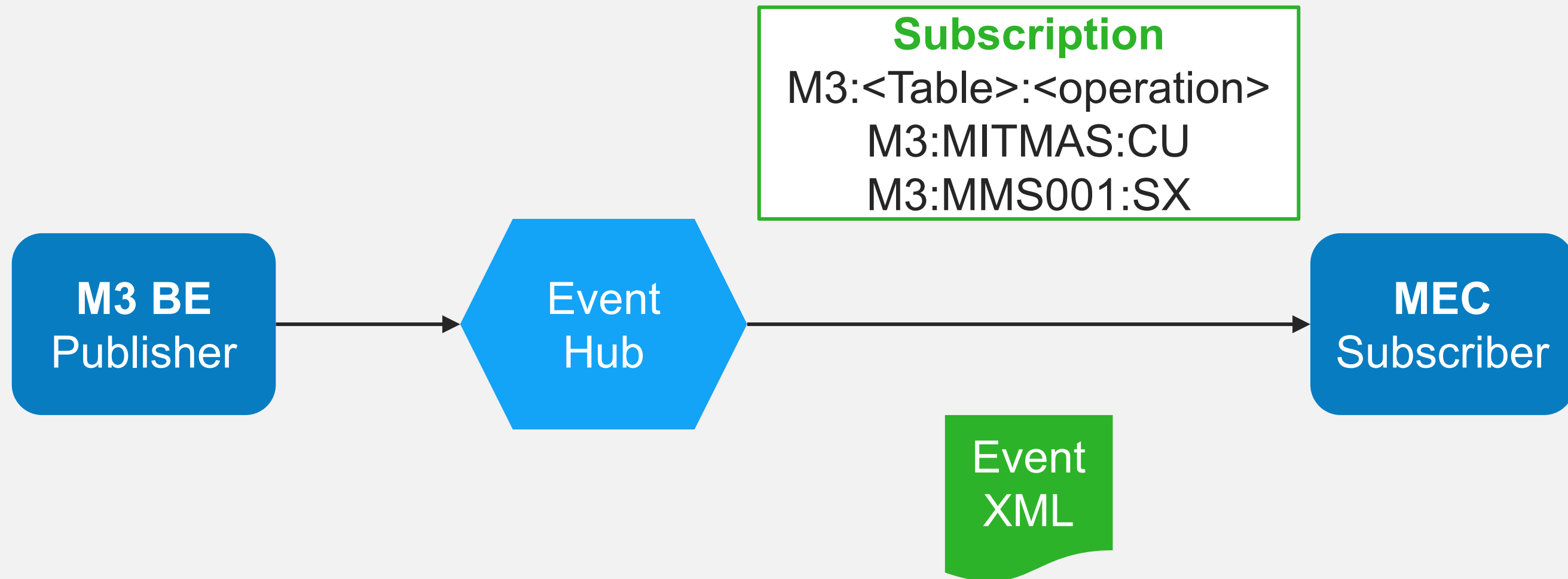


Subscriptions

- Contains information about:
 - Publisher name e.g. M3
 - Document name e.g. MITMAS
 - None, one or several event operations e.g. Create, Update, Delete (none gives all)
- Normally defined by single string, for example:
 - M3:MITMAS:CU – create and update item master records in Infor M3
 - M3:MMS001: SX – start and exit Infor M3 program MMS001
- At least one subscription has to be defined to receive any events
- Cannot do joins
 - In M3 CE there is a new program CMS042 for creating composite events, i.e. joins!



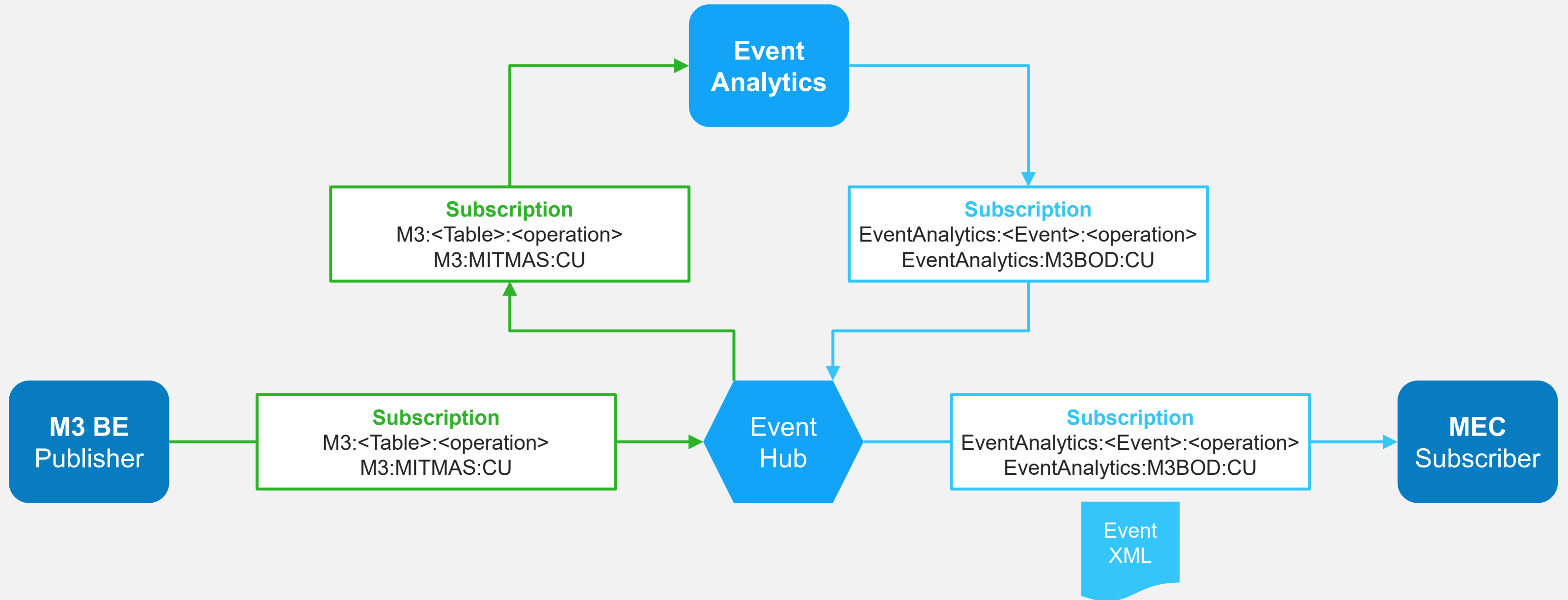
Event Hub: Event flow



* XML = Extensible Markup Language
Infor Education:
Ready, Set, Succeed.



Event Analytics: Event flow





Event XML data

- An event contains the following data:
 - Publisher name (mandatory), for example “M3”
 - Document (mandatory)
 - Document name, for example “MITMAS” (M3’s item master table)
 - A list of document elements, each having:
 - Element name, for example “ITNO” (item number field in M3)
 - Element value
 - Old element value, if applicable
 - Operation on the document
 - **C**reate, **U**ppdate, **D**elete, **S**tart, **eX**it, **F**ail, **reQ**uest or **R**esponse
 - Tracking ID
 - Enables future monitoring of event flows
 - Timestamp



Event Hub event - Example

```
<EventData>
  <Publisher>M3</Publisher>
  <DocumentName>OCUSMA</DocumentName>
  <Operation>UPDATE</Operation>
  <TrackingId>02fd1785-674d-4ea8-94d0-05e2a623d93e</TrackingId>
  <SentTimestamp>2014-01-09T10:51:59.750+01:00</SentTimestamp>
  <Document>
    <ElementData>
      <Name>startProgram</Name>
      <Value>CRS610</Value>
    </ElementData>
    <ElementData>
      <Name>currentProgram</Name>
      <Value>CRS610</Value>
    </ElementData>
    <ElementData>
      <Name>startTimeMillis</Name>
      <Value>1385989850096</Value>
    </ElementData>
    <ElementData>
      <Name>owner</Name>
      <Value>ESMADM1</Value>
    </ElementData>
    <ElementData>
      <Name>startTime</Name>
      <Value>2013-12-02 08:10:50</Value>
    </ElementData>
  </Document>
</EventData>
```

```
<ElementData>
  <Name>CUNO</Name>
  <Value>12110 </Value>
  <OldValue>12110 </OldValue>
</ElementData>
<ElementData>
  <Name>TAXC</Name>
  <Value>TAX</Value>
  <OldValue>TAX</OldValue>
</ElementData>
<ElementData>
  <Name>CUNM</Name>
  <Value>12110 Equipment Customer </Value>
  <OldValue>12110 Equipment Customer_ </OldValue>
</ElementData>
<ElementData>
  <Name>AGN2</Name>
  <Value> </Value>
  <OldValue> </OldValue>
</ElementData>
<ElementData>
  <Name>USR2</Name>
  <Value>ESMADM5 </Value>
  <OldValue>ESMADM5 </OldValue>
</ElementData>
<ElementData>
  <Name>AGN3</Name>
  <Value> </Value>
  <OldValue> </OldValue>
</ElementData>
```

Event Analytics rule sample

```
package com.lawson.eventhub.analytics.drools;

import com.lawson.eventhub.analytics.drools.model.Event;
import com.lawson.eventhub.analytics.drools.model.HubEvent;
import com.lawson.eventhub.analytics.drools.model.Session;
import com.lawson.eventhub.analytics.drools.model.Start;
import com.lawson.eventhub.analytics.drools.model.Stop;
import com.lawson.eventhub.analytics.drools.model.Time;
import com.lawson.eventhub.analytics.drools.model.Util;
import com.lawson.eventhub.EventOperation;
import com.lawson.eventhub.EventPriority;

declare HubEvent
    @typesafe(false)
end

rule "Subscriptions_Demo"
    @subscription1(M3:OCUSMA:U)
    then
end

rule "OCUSMA_Demo"
    no-loop
    when
        event: HubEvent(publisher == "M3", documentName == "OCUSMA", operation == EventOperation.UPDATE, elementValues["STAT"] == "20")
    then
        event.postEvent("OCUSMA_Demo");
end
```




Thank you!