

SAP GTT – Meet the Expert Session

Define GTT Models

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June, 2019

Agenda

Demo scenario

- Process flow
- Architecture

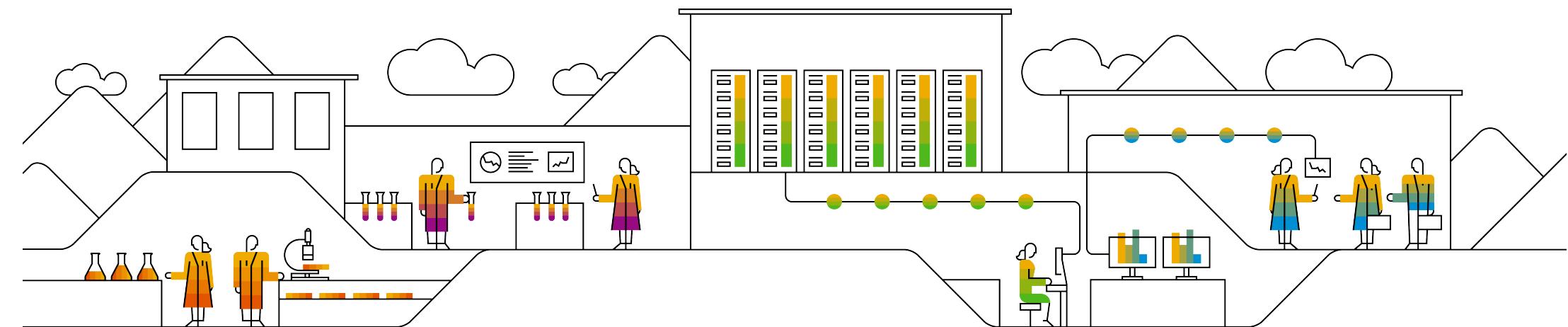
Model modifications

- Adding a parameter
- Adding an event
- Layout changes

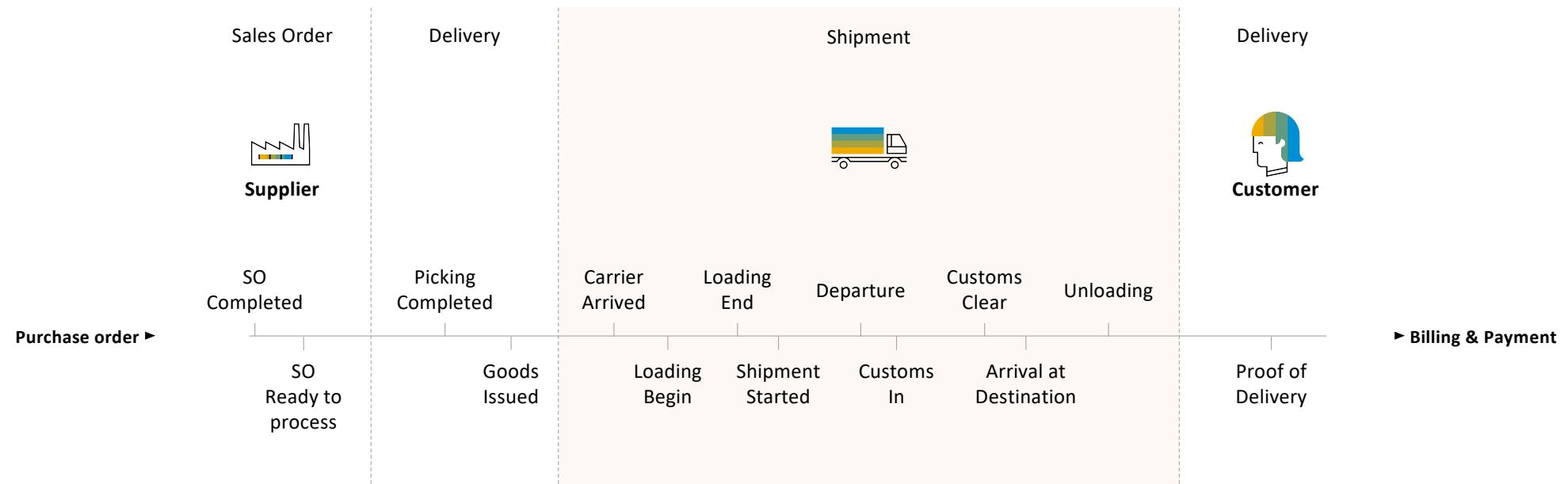
Event 2 Action

- Process updates
- CPI Forwarding
- Email alert

Demo scenario



Demo scenario



Demo scenario



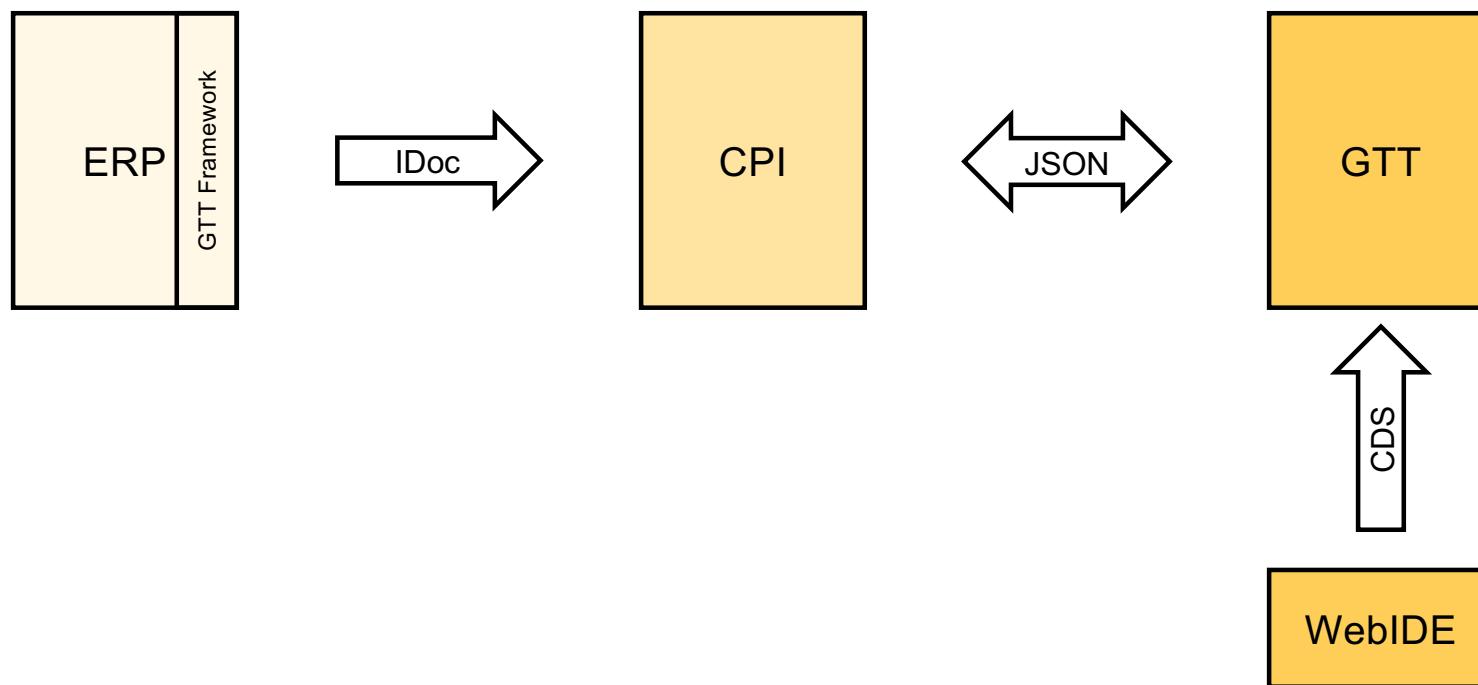
Starting point

- GTT shipment template model
 - Events
 - Parameters
 - Status
- Standard based ECC extraction functions

Enhancements

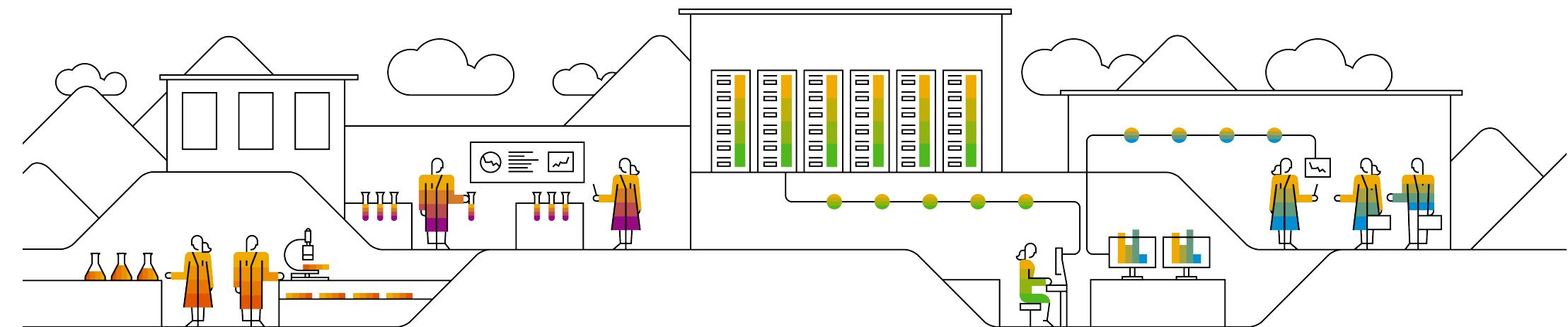
- Adding parameter
- Adding event
- Adding status
- Adding rules

Architecture



Model modification

Adding a parameter

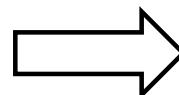


Adding a parameter

Before

Detailed Information

Container ID: CT990	Shipment Volume: 100 CDM
Shipping Type: Truck	Shipment Weight: 102 KG
Forwarding Agent: Global Delivery AG	Total Shipment Weight: 102 KG
Route: 000001	Shipment Type: Collct.Shipmt Road
Transportation Planning Point: 0001	



After

Detailed Information

Container ID: CT990	Shipment Volume: 100 CDM
Shipping Type: Truck	Shipment Weight: 102 KG
Forwarding Agent: Global Delivery AG	Total Shipment Weight: 102 KG
Route: 000001	Shipment Type: Collct.Shipmt Road
Transportation Planning Point: 0001	Carrier Shipment Number: 1234

Adding a parameter

1. ECC steps

- a. Include parameter in extraction function

2. WebIDE steps

- a. Include parameter und ECC mapping in ShipmentModel.cds
- b. Include parameter in ShipmentUI.cds
- c. Add description/translation

Adding a parameter

ECC steps

1. Include parameter in extraction function

The screenshot shows the 'Collect.Shipmt - Road 1072 Change: Overview' screen. In the bottom right corner, there is a field labeled 'External ID 1' containing the value '1234'. This field is highlighted with a red box.

The screenshot shows the 'Structure' tab of a predefined type named 'VITKVB'. The short description is 'Shipment Header for Logging'. The 'Components' tab is selected, showing a list of components. One component, 'EXTI1', is highlighted with a red box. The table below shows the details for this component:

Component	Typing Method	Component Type	Data Type	Length	Deci...	Short Description
EXTI1	Types	EXTI1	CHAR	20	0	External identification 1

Application Object Type → Parameter Setup → Control Data Function → Function Module:

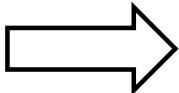
```
* External ID1
ls_cpdata-paramname = 'EXTERNAL_ID1'.
ls_cpdata-value      = is_xvttk-exti1.
APPEND ls_cpdata TO ct_cpdata.
```

Adding a parameter

WebIDE steps

1. Include parameter and ECC mapping in ShipmentModel.cds

GTT Shipment Enhancement
 i18n
 model
 ShipmentModel.cds
 service
 webapp
 neo-app.json



```
// Tracked Process "Shipment"
// "Create" on that entity would mean to create a new Shipment w/o event
// -----
entity BaseShipmentProcess {
    // Shipment specific data
    shipmentId : DocumentNumber @title:'{@i18n>Shipment_ID}';
    deliveries : Composition of many Delivery on deliveries.shipment = $self @title: '{@i18n>Deliveries}';
    containerId : String(20) @title:'{@i18n>Container_ID}';
    forwardingAgent : Association to one BusinessPartner.BusinessPartner @title:'{@i18n>Forwarding_Agent}';
    transportationPlanningPoint : String(4) @title:'{@i18n>Transportation_Planning_Point}';
    route : String(6) @title:'{@i18n>Route}';
    carrierShipmentId : String(20) @title:'{@i18n>Carrier_Shipment_Number}';
```

Component	Typing Method	Component Type	Data Type	Length	Deci...	Short Description
EXTI1	Types	EXTI1	CHAR	20	0	External identification 1

ECC dictionary

```
@CoreModel.UsageType: #inboundMessage
@sap_EM.applicationObjectType: 'ZWS_SHP'
@sap_EM.primaryTrackingIdType: 'ZWS_SHP_NO'
entity ShipmentProcessRoad as projection on ShipmentProcess {
    @sap_EM.fieldName : 'SHP_NO'
    shipmentId,
    @sap_EM.fieldName : 'CONTAINER_ID'
    containerId,
    @sap_EM.fieldName : 'FORWARDING_AGENT'
    @CoreModel.ObjectIdentifierType: #customer
    forwardingAgent,
    @sap_EM.fieldName : 'TRANSPORTATION_PLANNING_POINT'
    transportationPlanningPoint,
    @sap_EM.fieldName : 'ROUTE'
    route,
    @sap_EM.fieldName : 'EXTERNAL_ID1'
    carrierShipmentId,
```

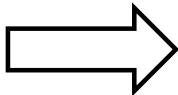
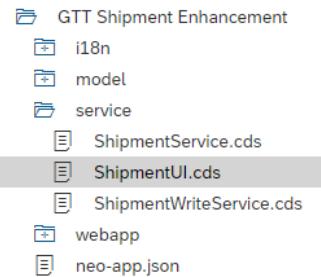
```
* External ID1
ls_cpdata-paramname = 'EXTERNAL_ID1'.
ls_cpdata-value = is_xvttk-exti1.
APPEND ls_cpdata TO ct_cpdata.
```

ECC Function

Adding a parameter

WebIDE steps

2. Include parameter in ShipmentUI.cds



```
UI.FieldGroup#DetailInfo2: {
    Label: '{@i18n>Detailed_Information_2}',
    Data: [
        {Value: shipmentVolume},
        {Value: shipmentWeight},
        {Value: totalShipmentWeight},
        {Value: shipmentType},
        {Value: carrierShipmentId},
    ],
},
```

The screenshot shows the "GTT UI" interface with a "Detailed Information" section. The UI displays various shipment details. A red box highlights the "Carrier Shipment Number" field, which contains the value "1234".

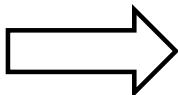
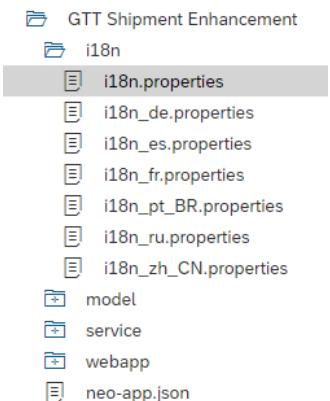
Detailed Information	
Container ID:	CT990
Shipping Type:	Truck
Forwarding Agent:	Global Delivery AG
Route:	000001
Transportation Planning Point:	0001
Shipment Volume:	100 CDM
Shipment Weight:	102 KG
Total Shipment Weight:	102 KG
Shipment Type:	Collect.Shipmt Road
Carrier Shipment Number:	1234

GTT UI

Adding a parameter

WebIDE steps

3. Add description/translation



```
Forwarding_Agent=Forwarding Agent
Transportation_Planning_Point=Transportation Planning Point
Route=Route
Carrier_Shipment_Number=Carrier Shipment Number

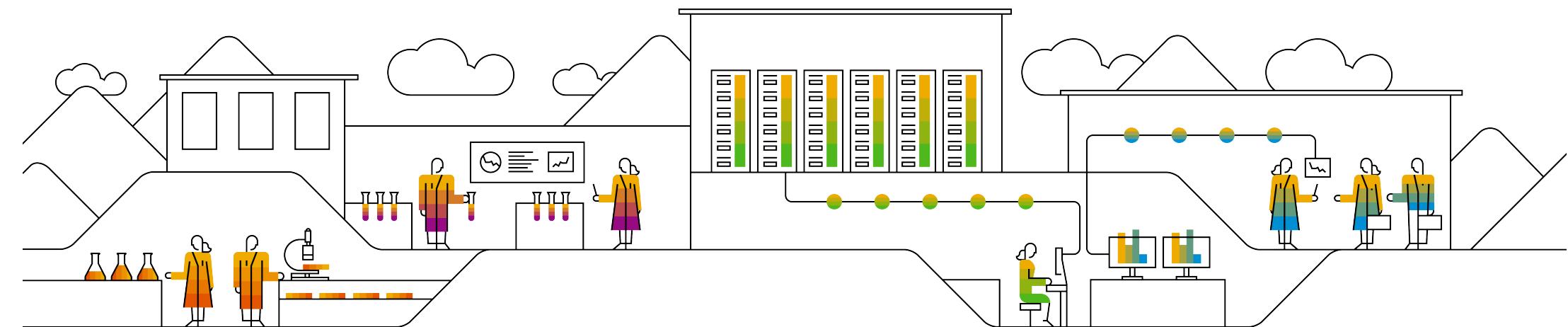
// Tracked Process "Shipment"
// "Create" on that entity would mean to create a new Shipment w/o event
// -----
entity BaseShipmentProcess {
    // Shipment specific data
    shipmentId : DocumentNumber @title:'{@i18n>Shipment_ID}';
    deliveries : Composition of many Delivery on deliveries.shipment = $self @title: '{@i18n>Deliveries}';
    containerId : String(20) @title:'{@i18n>Container_ID}';
    forwardingAgent : Association to one BusinessPartner.BusinessPartner @title:'{@i18n>Forwarding_Agent}';
    transportationPlanningPoint : String(4) @title:'{@i18n>Transportation_Planning_Point}';
    route : String(6) @title:'{@i18n>Route}';
    carrierShipmentId : String(20) @title:'{@i18n>Carrier_Shipment_Number}';

ShipmentModel.cds
```

System Demo

Model modification

Adding an event

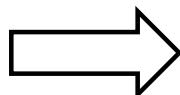


Adding a event

Before

Event Messages

Event	Event Status	Event Reason	Location	Planned Business Time
<input type="radio"/> Carrier Arrival	◊ Planned		Amsterdam	June 13, 2019 11:45:00 AM CEST
<input type="radio"/> Loading Begin	◊ Planned		Amsterdam	June 13, 2019 12:30:00 PM CEST
<input type="radio"/> Loading End	◊ Planned		Amsterdam	June 13, 2019 2:00:00 PM CEST
<input type="radio"/> Departure	◊ Planned		Amsterdam	June 13, 2019 4:30:00 PM CEST
<input type="radio"/> Customs In	◊ Planned		Nijmegen	June 14, 2019 4:30:00 PM CEST
<input type="radio"/> Clear Customs	◊ Planned		Nijmegen	June 14, 2019 9:30:00 PM CEST
<input type="radio"/> Arrival at Destination	◊ Planned		Walldorf	June 17, 2019 8:00:00 AM CEST
<input type="radio"/> Unloading	◊ Planned		Walldorf	June 18, 2019 8:00:00 AM CEST



After

Event Messages

Event	Event Status	Event Reason	Location	Planned Business Time
<input type="radio"/> Carrier Arrival	◊ Planned		Amsterdam	June 13, 2019 11:45:00 AM CEST
<input type="radio"/> Loading Begin	◊ Planned		Amsterdam	June 13, 2019 12:30:00 PM CEST
<input type="radio"/> Loading End	◊ Planned		Amsterdam	June 13, 2019 2:00:00 PM CEST
<input type="radio"/> Departure	◊ Planned		Amsterdam	June 13, 2019 4:30:00 PM CEST
<input type="radio"/> Customs In	◊ Planned		Nijmegen	June 14, 2019 4:30:00 PM CEST
<input type="radio"/> Clear Customs	◊ Planned		Nijmegen	June 14, 2019 9:30:00 PM CEST
<input type="radio"/> Arrival at Destination	◊ Planned		Walldorf	June 17, 2019 8:00:00 AM CEST
<input type="radio"/> Unloading	◊ Planned		Walldorf	June 18, 2019 8:00:00 AM CEST
<input type="radio"/> Temperature Info	◊ Planned			

Adding an event

1. ECC steps

- a. Include event in extraction function

2. WebIDE steps

- a. Include event in ShipmentModel.cds
- b. Include event in ShipmentService.cds and ShipmentWriteService.cds
- c. Add description/translation

Adding an event

ECC steps

1. Include event in extraction function

Application Object Type → Parameter Setup → Planned Event Function → Function Module:

```
* < Temperature Info >
ls_expeventdata-milestone      = 'ZWS_TEMP_INFO'.
cv_milestonecnt                = cv_milestonecnt + 1.
ls_expeventdata-milestonenum   = cv_milestonecnt.
ls_expeventdata-evt_exp_tzone   = lv_timezone.
ls_expeventdata-evt_exp_datetime = ''.
APPEND ls_expeventdata TO ct_expevtdata[].
```

Adding an event

WebIDE steps

1. Include eventType and message mapping in ShipmentModel.cds

GTT Shipment Enhancement
i18n
model
ShipmentModel.cds
service
webapp
neo-app.json



```
@CoreModel.PlannedEvents: [
    {eventType: CarrierArrivalEvent, matchLocation: false, technicalToleranceValue: 'PT2H'},
    {eventType: LoadingBeginEvent, matchLocation: true, technicalToleranceValue: 'PT2H'},
    {eventType: LoadingEndEvent, matchLocation: true, technicalToleranceValue: 'PT2H'},
    {eventType: DepartureEvent, matchLocation: true, technicalToleranceValue: 'PT2H'},
    periodicOverdueDetection: 'PT24H', maxOverdueDetection: 3},
    {eventType: CustomsInEvent, matchLocation: true, technicalToleranceValue: 'PT2H'},
    periodicOverdueDetection: 'PT24H', maxOverdueDetection: 3},
    {eventType: ClearCustomsEvent, matchLocation: true, technicalToleranceValue: 'PT2H'},
    periodicOverdueDetection: 'PT24H', maxOverdueDetection: 3},
    {eventType: ArrivalAtDestinationEvent, matchLocation: true, technicalToleranceValue: 'PT2H'},
    periodicOverdueDetection: 'PT24H', maxOverdueDetection: 3},
    {eventType: UnloadingEvent, matchLocation: true, technicalToleranceValue: 'PT2H'},
    periodicOverdueDetection: 'PT24H', maxOverdueDetection: 3},
    {eventType: ReturnEmptyContainerEvent, matchLocation: true, technicalToleranceValue: 'PT2H'},
    periodicOverdueDetection: 'PT24H', maxOverdueDetection: 3},
    // Added_Planned_Event
    {eventType: TemperatureInfoEvent, matchLocation: false},
]
```

```
entity BaseTemperatureInfoEvent {
    newTemperature : String(6) @title: '{@i18n>Temperature}';
    temperatureUnit : CoreModel.UnitOfMeasure @title:'{@i18n>Temperature_Unit}';
};

@UI.HeaderInfo.Title.Label: '{@i18n>Temperature_Info}'
@sap_em.eventCode: {Code: 'ZWS_TEMP_INFO', Text: '{@i18n>Temperature_Info}', Type: 'PLANNED'}
@CoreModel.Indexable: false
entity TemperatureInfoEvent : CoreModel.Event, BaseTemperatureInfoEvent{};
entity TemperatureInfoEventForWrite : CoreModel.EventForWrite, BaseTemperatureInfoEvent{};
annotate TemperatureInfoEvent with {
    location @CoreModel.ObjectIdentifierType: #customerLocation;
};

@CoreModel.UsageType: #inboundMessage
entity TemperatureInfoEventInbound as projection on TemperatureInfoEvent {
    @sap_em.fieldName : 'TEMPERATURE'
    newTemperature,
    @sap_em.fieldName : 'TEMPERATURE_UNIT'
    temperatureUnit
};
```

```
* < Temperature Info >
ls_expeventdata-milestone = 'ZWS TEMP INFO'.
cv_milestonecnt = cv_milestonecnt + 1.
ls_expeventdata-milestonecnt = cv_milestonecnt.
ls_expeventdata-evt_exp_tzone = lv_timezone.
ls_expeventdata-evt_exp_datetime = ''.
APPEND ls_expeventdata TO ct_expevdata[].
```

ECC Function

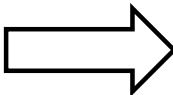
Adding an event

WebIDE steps

2. Include event in ShipmentService.cds and ShipmentWriteService.cds

GTT Shipment Enhancement

- + i18n
- + model
- service
 - ShipmentService.cds
 - ShipmentUI.cds
 - ShipmentWriteService.cds
- + webapp
- neo-app.json

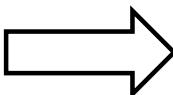


```
entity ArrivalAtDestinationEvent as projection on ShipmentModel.ArrivalAtDestinationEvent;
entity UnloadingEvent as projection on ShipmentModel.UnloadingEvent;
entity ReturnEmptyContainerEvent as projection on ShipmentModel.ReturnEmptyContainerEvent;
entity DelayedEvent as projection on ShipmentModel.DelayedEvent;

entity TemperatureInfoEvent as projection on ShipmentModel.TemperatureInfoEvent;
```

GTT Shipment Enhancement

- + i18n
- model
 - ShipmentModel.cds
- service
 - ShipmentService.cds
 - ShipmentUI.cds
 - ShipmentWriteService.cds
- + webapp
- neo-app.json

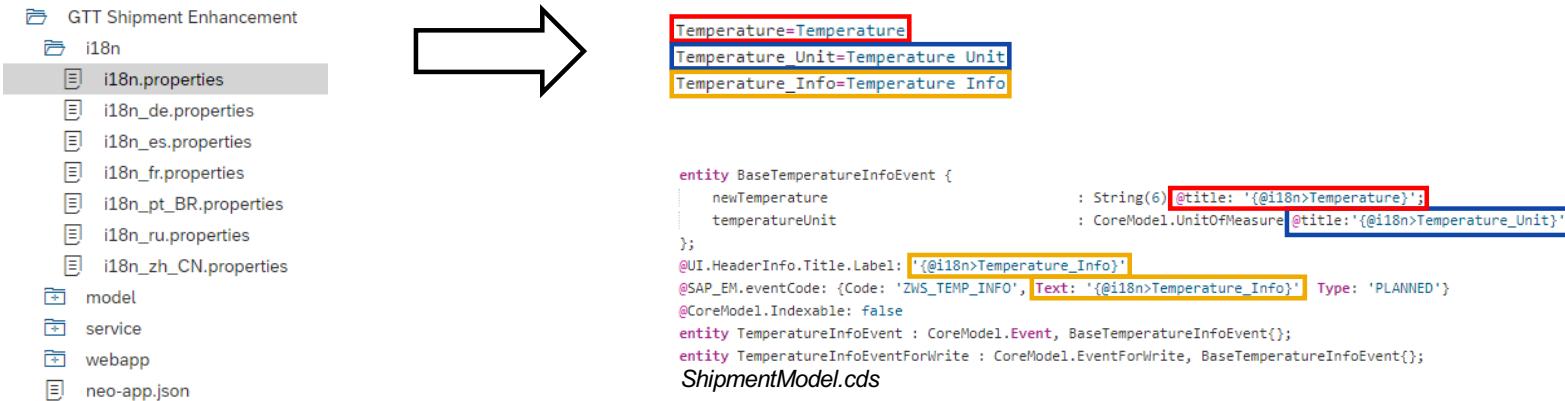


```
entity TemperatureInfoEvent as projection on ShipmentModel.TemperatureInfoEventForWrite
actions {
    @Swagger.POST
    action temperatureInfoEvent(@Swagger.parameter: 'requestBody' temperatureInfoEvent: TemperatureInfoEvent) returns String;
};
```

Adding an event

WebIDE steps

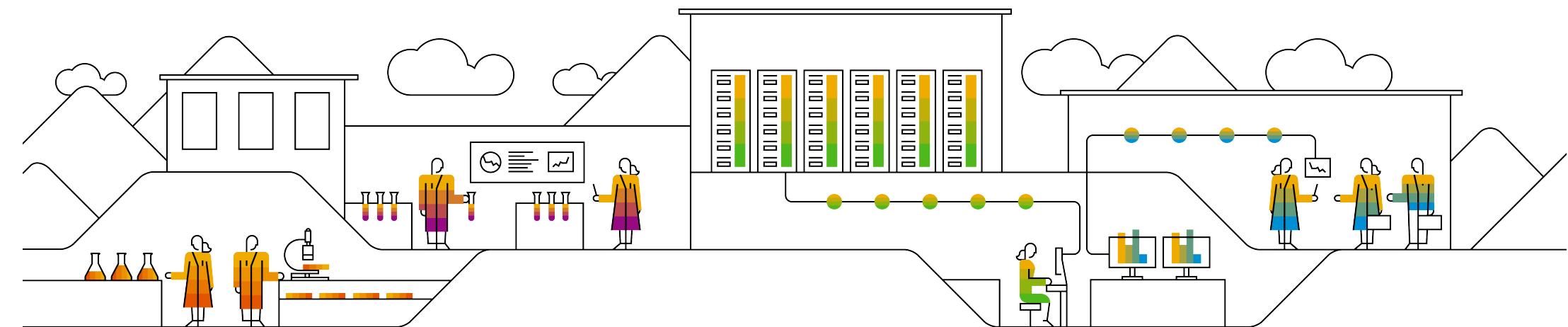
3. Add description/translation



System Demo

Model modification

Layout changes



Layout changes

Before

0000001101

Transporter Status	Carrier Status	Delivery Status
<input checked="" type="radio"/> Not Started	<input checked="" type="radio"/> Open	On Time

Information and Events Map

Detailed Information

Container ID: Shipment Volume: 100 CDM
Shipping Type: Shipment Weight: 102 KG
Forwarding Agent: Total Shipment Weight: Global Delivery AG
Route: 102 KG
Transportation Planning Point: Utrecht Type: Cost Shipment Road
Carrier Shipment Number: 0001

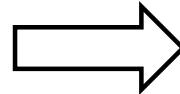
Deliveries

Delivery 0000001101

Event Messages

Event	Event Status	Event Reason	Location	Planned Business Time	Actual Business Time	Created By	Created At
Carrier Arrival	Planned		Amsterdam				
Loading Begin	Planned		Amsterdam				
Loading End	Planned		Amsterdam				
Departs	Planned		Amsterdam				
Customs In	Planned		Nijmegen	January 2, 2000 12:00:00 AM CET			
Unloading	Planned		Waldorf	January 2, 2000 12:00:00 AM CET			
Clear Customs	Planned		Nijmegen	January 2, 2000 5:00:00 AM CET			
Arrival at Destination	Planned		Waldorf				

Map



After

0000001102

Transporter Status	Carrier Status	Delivery Status	Temperature Status	Temperature
<input checked="" type="radio"/> Not Started	<input checked="" type="radio"/> Open	On Time	Normal	4.24 °C

Information and Events Map

Map

Information and Events

Event Messages

Event	Event Status	Event Reason	Location	Planned Business Time	Actual Business Time	Created By	Created At
Carrier Arrival	Planned		Amsterdam				
Loading Begin	Planned		Amsterdam				
Loading End	Planned		Amsterdam				
Departs	Planned		Amsterdam				
Customs In	Delayed		Nijmegen	January 2, 2000 12:00:00 AM CET			
Unloading	Delayed		Waldorf	January 2, 2000 12:00:00 AM CET			
Temperature Info	Reported					SAP SE	June 12, 2019, 9:25:37 AM CET
Clear Customs	Delayed		Nijmegen	January 2, 2000 5:00:00 AM CET			
Arrival at Destination	Planned		Waldorf				

Deliveries

Delivery 0000001102

Detailed Information

Container ID: Shipment Volume: 100 CDM
Shipping Type: Shipment Weight: 102 KG
Forwarding Agent: Total Shipment Weight: Global Delivery AG
Route: 102 KG
Transportation Planning Point: Utrecht Type: Cost Shipment Road
Carrier Shipment Number: 0001

Layout changes

1. WebIDE steps

- a. Reorganize facets in ShipmentUI.cds
- b. Add temperature value and status in ShipmentModel.cds
- c. Add temperature value and status in ShipmentUI.cds

Layout changes

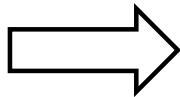
WebIDE steps

1. Reorganize facets in ShipmentUI.cds

```

GTT Shipment Enhancement
  + i18n
  + model
  + service
    + ShipmentService.cds
    + ShipmentUI.cds
    + ShipmentWriteService.cds
  + webapp
  + neo-app.json

```



```

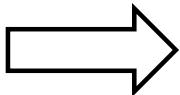
UI.Facets: [
  {
    $Type: 'UI.ReferenceFacet',
    ID: 'ProcessGeoMap',
    Label: '{@i18n>Map}',
  },
  {
    $Type: 'UI.CollectionFacet',
    ID: 'InformationAndEvents',
    Label: '{@i18n>Information_and_Events}',
    Facets: [
      {
        $Type: 'UI.CollectionFacet',
        ID: 'Events',
        Label: '{@i18n>Event_Messages}',
        Facets: [
          {$Type: 'UI.ReferenceFacet', Target: 'processEvents/@UI.LineItem#GenericEvents'}
        ]
      },
      {
        $Type: 'UI.CollectionFacet',
        ID: 'Deliveries',
        Label: '{@i18n>Deliveries}',
        Facets: [
          {$Type: 'UI.ReferenceFacet', Target: 'deliveries/@UI.LineItem'}
        ]
      },
      {
        $Type: 'UI.CollectionFacet',
        ID: 'DetailInfo',
        Label: '{@i18n>Detailed_Information}',
        Facets: [
          {$Type: 'UI.ReferenceFacet', Target: '@UI.FieldGroup#DetailInfo1'},
          {$Type: 'UI.ReferenceFacet', Target: '@UI.FieldGroup#DetailInfo2'}
        ]
      }
    ]
  }
]

```

Layout changes

WebIDE steps

2. Add temperature value and status in ShipmentModel.cds



```
project tree: GTT Shipment Enhancement
  - i18n
  - model
  - service
    - ShipmentService.cds (selected)
    - ShipmentUI.cds
    - ShipmentWriteService.cds
  - webapp
  - neo-app.json

CDS code editor content:
temperatureStatus : String(2) @title:'{@i18n>Temperature_Status}' enum {
  onTime = '01' @title: '{@i18n>Normal}' @Criticality: 3;
  delayed = '02' @title: '{@i18n>Overheated}' @Criticality: 1;
} default '01';

@Measures.Unit: temperatureUnit
presentTemperature : String(6) @title:'{@i18n>Temperature}';

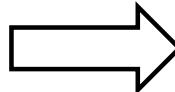
@Semantics.UnitOfMeasure: true
temperatureUnit : CoreModel.UnitOfMeasure @title:'{@i18n>Temperature_Unit}';
```

Layout changes

WebIDE steps

3. Add temperature value and status in ShipmentUI.cds

```
GTT Shipment Enhancement
  + i18n
  + model
  + service
    + ShipmentService.cds
    + ShipmentUI.cds
    + ShipmentWriteService.cds
  + webapp
  neo-app.json
```



```
annotate ShipmentService.ShipmentProcess with @(
  UI.HeaderFacets: [
    {$Type: 'UI.DataField', Value: shipmentId},
    {$Type: 'UI.ReferenceFacet', Target: '@UI.DataPoint#transportationStatus'},
    {$Type: 'UI.ReferenceFacet', Target: '@UI.DataPoint#customStatus'},
    {$Type: 'UI.ReferenceFacet', Target: '@UI.DataPoint#deliveryStatus'},
    {$Type: 'UI.ReferenceFacet', Target: '@UI.DataPoint#temperatureStatus'},
    {$Type: 'UI.ReferenceFacet', Target: '@UI.DataPoint#temperature'}
  ],
  UI.DataPoint#temperatureStatus: {
    Value: temperatureStatus,
    Title: '{@i18n>Temperature_Status}',
    Criticality: to_temperatureStatus.Criticality
  },
  UI.DataPoint#temperature: {
    Value: presentTemperature,
    Title: '{@i18n>Temperature}'
  }
)

temperatureStatus : String(2) @title:'{@i18n>Temperature_Status}' enum {
  onTime = '01' @title: '{@i18n>Normal}' @Criticality: 3;
  delayed = '02' @title: '{@i18n>Overheated}' @Criticality: 1;
} default '01';

@Measures.Unit: temperatureUnit
presentTemperature : String(6) @title:'{@i18n>Temperature}';

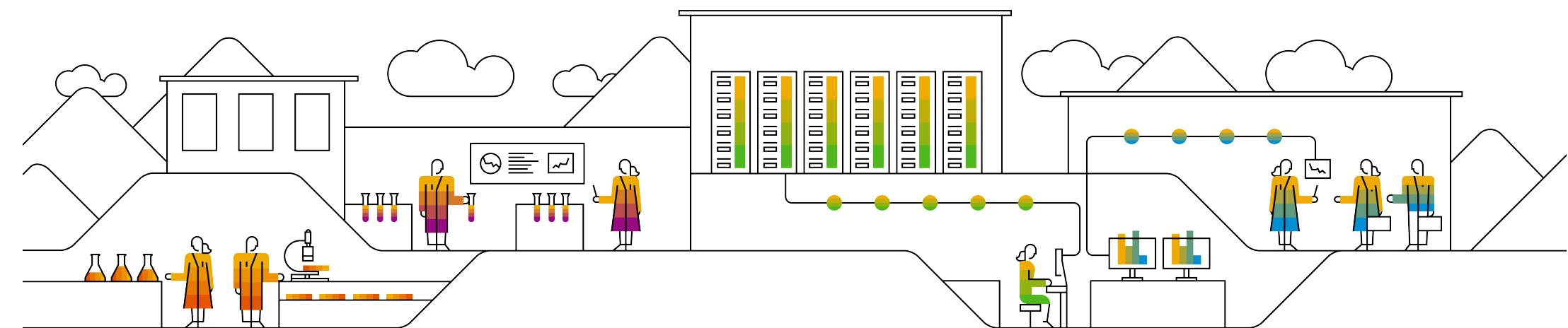
@Semantics.UnitOfMeasure: true
temperatureUnit : CoreModel.UnitOfMeasure @title:'{@i18n>Temperature_Unit}';
```

ShipmentModel.cds

System Demo

Event 2 action

Process updates



Process updates

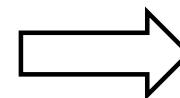
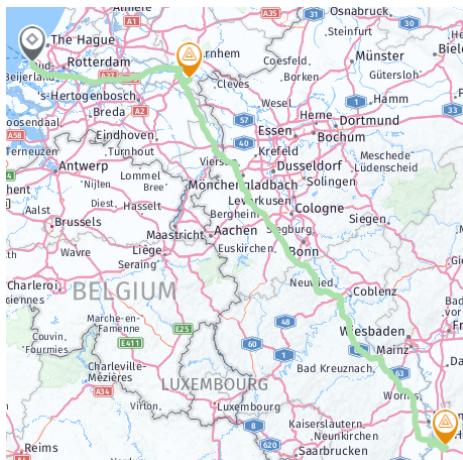
Before

Transportation Status:	Custom_Status:	Delivery Status:	Temperature Status:	Temperature:
Not Started	Open	On Time	Normal	

Information and Events

Event Messages

Temperature Info Reported



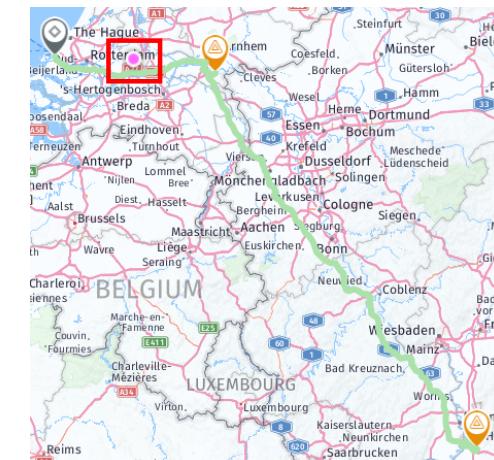
After

Transportation Status:	Custom_Status:	Delivery Status:	Temperature Status:	Temperature:
Not Started	Open	On Time	Normal	4.24 °C

Information and Events

Event Messages

Temperature Info Reported



Process updates

1. GTT Rule Service steps

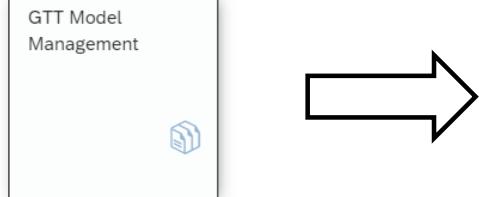
- a.** Define ActionUpdateTrackProcess rule

2. Example Message

Process updates

GTT Rule Service steps

1. Define ActionUpdateTrackProcess rules



Condition	
<code>IF eventType of the TemperatureInfoEvent of a ShipmentProcess CONTAINS 'TemperatureInfoEvent'</code>	
Action	
Attribute-1	Value-1
<code>'presentTemperature'</code>	<code>newTemperature of the TemperatureInfoEvent of a ShipmentProcess</code>
Attribute-2	Value-2
<code>'temperatureUnit'</code>	<code>temperatureUnit of the TemperatureInfoEvent of a ShipmentProcess</code>

```
entity BaseTemperatureInfoEvent {
    newTemperature : String(6) @title: '{@i18n>Temperature}';
    temperatureUnit : CoreModel.UnitOfMeasure @title:'{@i18n>Temperature_Unit}';
};

@UI.HeaderInfo.Title.Label: '{@i18n>Temperature_Info}'
@sap_EM.eventCode: {Code: 'ZWS_TEMP_INFO', Text: '{@i18n>Temperature_Info}', Type: 'PLANNED'}
@CoreModel.Indexable: false
entity TemperatureInfoEvent : CoreModel.Event, BaseTemperatureInfoEvent{};
entity TemperatureInfoEventForWrite : CoreModel.EventForWrite, BaseTemperatureInfoEvent{};
```

ShipmentModel.cds

```
@Measures.Unit: temperatureUnit
presentTemperature

@Semantics.UnitOfMeasure: true
temperatureUnit
```

ShipmentModel.cds

Process updates

GTT Rule Service steps

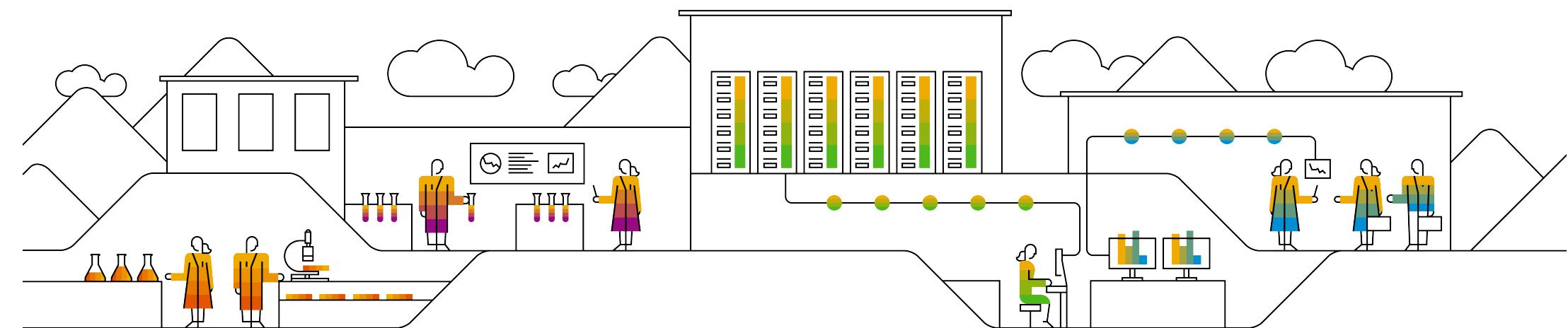
1. Example message

```
"eventMessages": {  
    "eventCode": "TEMP_INFO",  
    "trackingIdType": "SHP_NO",  
    "trackingId": "0000001102",  
    "actualBusinessTime": "12:10:07",  
    "actualBusinessDate": "2019-06-13",  
    "actualBusinessTimeZone": "CET",  
    "longitude": "4.975616",  
    "latitude": "51.846740",  
    "parameters": [  
        {  
            "parameterName": "TEMPERATURE",  
            "parameterValue": "5.4"  
        },  
        {  
            "parameterName": "TEMPERATURE_UNIT",  
            "parameterValue": "°C"  
        }  
    ]  
}
```

System Demo

Event 2 action

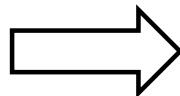
CPI Forwarding



CPI Forwarding

Before

Temperature Status:	Temperature:
Normal	11.0 °C



After

Temperature Status:	Temperature:
Overheated	11.0 °C
Information and Events	
Event Messages	
<input type="radio"/>	Overheated
<input checked="" type="radio"/>	Unplanned

CPI Forwarding

1. Cloud Platform Integration steps

- a. Create Integration Flow

2. GTT Rule Service steps

- a. Define ActionCPIForwarding rule

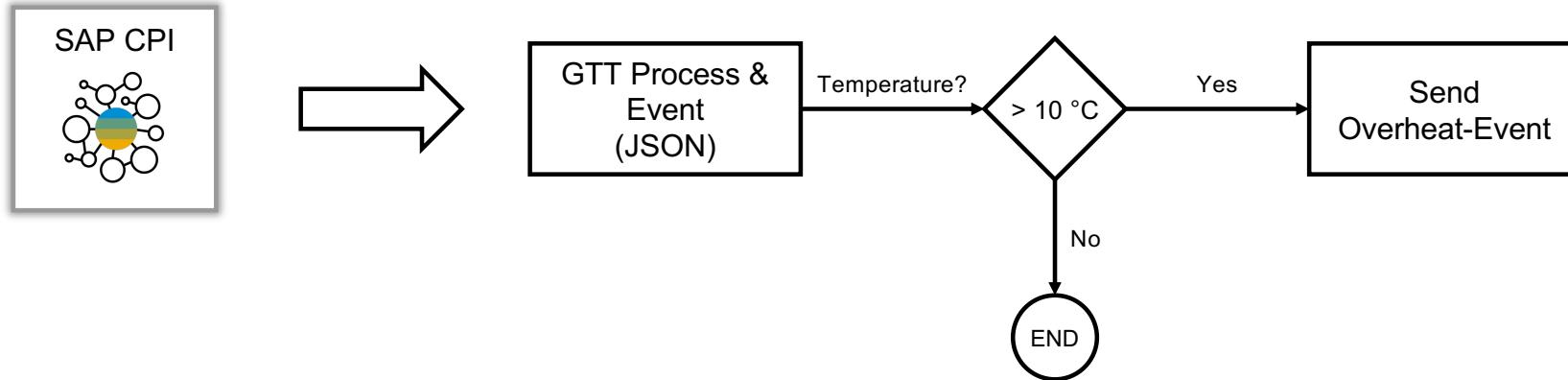
3. WebIDE steps

- a. Update temperature status

CPI Forwarding

CPI Steps

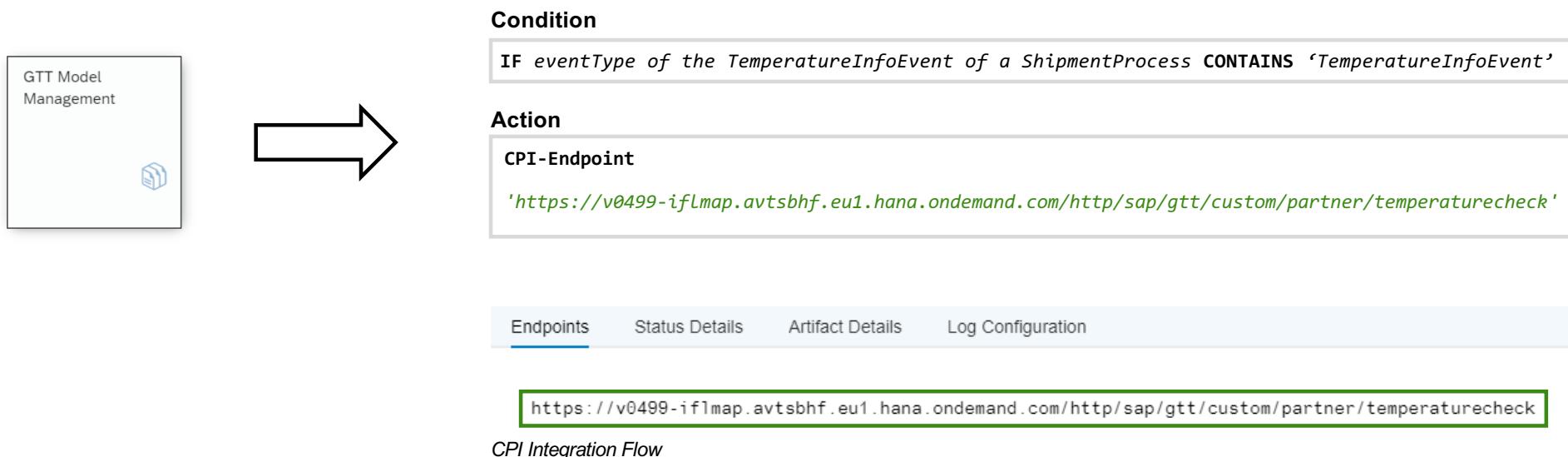
1. Create Integration Flow



CPI Forwarding

GTT Rule Service steps

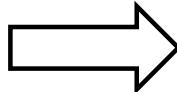
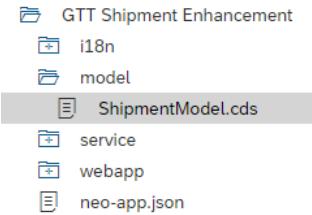
1. Define ActionCPIForwarding rules



CPI Forwarding

WebIDE steps

1. Update temperature status



```
entity BaseOverheatedEvent {
    newTemperature : String(6) @title: '{@i18n>Temperature}';
    temperatureUnit : CoreModel.UnitOfMeasure @title:'{@i18n>Temperature_Unit}';
};

@UI.HeaderInfo.Title.Label: '{@i18n>Overheated}'
@sap_EM.eventCode: {Code: 'ZWS_OVERHEATED', Text: '{@i18n>Overheated}', Type: 'UNPLANNED'}
@CoreModel.UpdateStatus: [
    {pathToStatus: 'ShipmentProcess.temperatureStatus', newValue: '02'}
]
@CoreModel.Indexable: false
entity OverheatedEvent : CoreModel.Event, BaseOverheatedEvent{};
entity OverheatedEventForWrite : CoreModel.EventForWrite, BaseOverheatedEvent{};
```

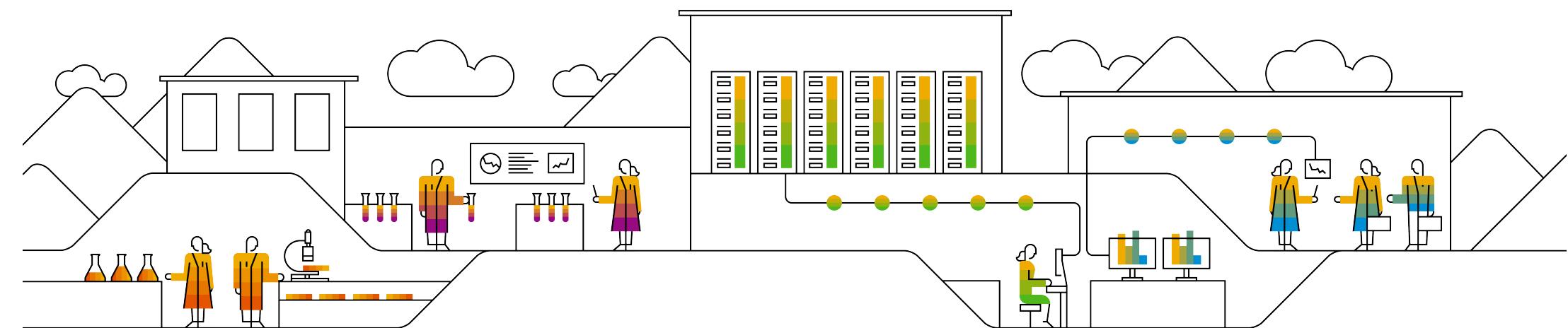
```
temperatureStatus : String(2) @title:'{@i18n>Temperature_Status}' enum {
    normal = '01' @title: '{@i18n>Normal}' @Criticality: 3;
    overheated = '02' @title: '{@i18n>Overheated}' @Criticality: 1;
} default '01';
```

ShipmentService.cds

System Demo

Event 2 action

Email alert



Email alert

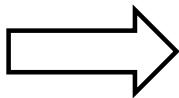
Before

Temperature Status: Temperature:
Overheated 11.0 °C

Information and Events

Event Messages

Overheated  Unplanned



After

Temperature Status: Temperature:
Overheated 11.0 °C

Information and Events

Event Messages

Overheated  Unplanned

File Message Help PDF-XChange Tell me what you want to do

Temperature Alert for Shipment: 000001102

SAP PoC Team <gtt-poc-sender@gtt.sap.com> Mutz, Jonas 10:57

Temperature Alert for Shipment: 000001102

The temperature of shipment 000001102 is 11.7 °C and exceeded the threshold of 10.0 °C.

You can access the overview page for the related tracked process via the following link: [https://gtt-poc.app-tt-sap.cfapps.eu10.hana.ondemand.com/sites#TrackedProcess-display?model=com.sap.gtt.app.shipmentsample.partner.enhancement&/ShipmentProcess\('d155db36-8666-5d50-b0e8-18d56a578ce9'\)](https://gtt-poc.app-tt-sap.cfapps.eu10.hana.ondemand.com/sites#TrackedProcess-display?model=com.sap.gtt.app.shipmentsample.partner.enhancement&/ShipmentProcess('d155db36-8666-5d50-b0e8-18d56a578ce9'))

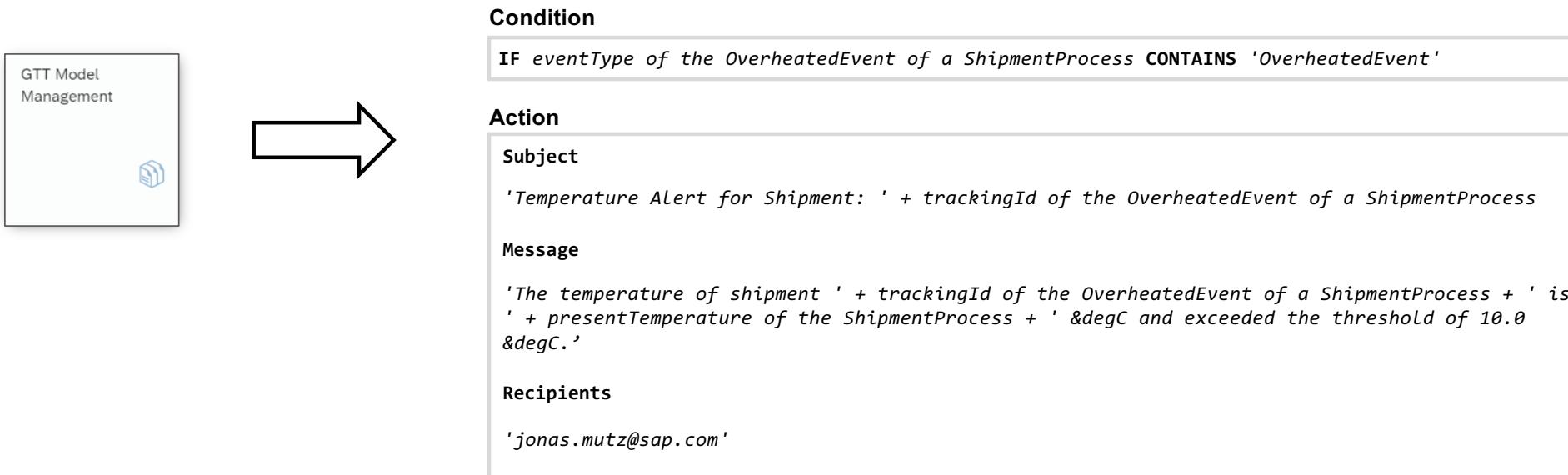
Email alert

- 1. GTT Rule Service steps**
 - a. Define ActionEmailNotification rule

Email alert

GTT Rule Service steps

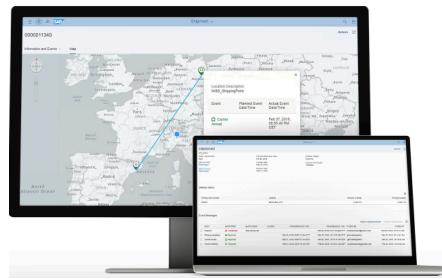
1. Define ActionCPIForwarding rules



System Demo

Where to Find More Information

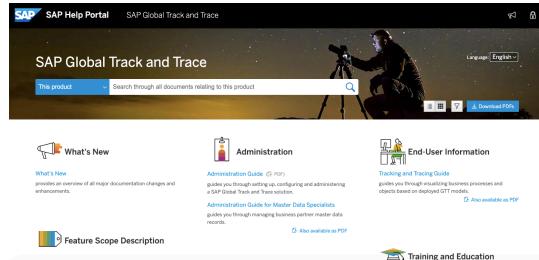
Business Overview



1

SAP Global Track and Trace
Product Overview
on SAP Web Page

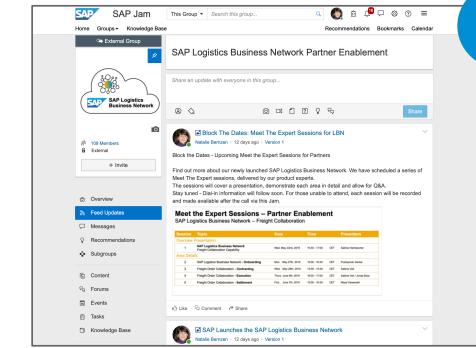
Technical Information



2

SAP Global Track and Trace
Product Documentation
on SAP Help Portal

Enablement Materials



3

SAP Global Track and Trace
Sales & Training Materials
on SAP Jam for SAP Global Track and Trace
and SAP Logistics Business Network

1

<https://www.sap.com/products/track-trace.html>

2

https://help.sap.com/viewer/product/SAP_GLOBAL_TRACK_AND_TRACE/Cloud/en-US

3

<https://jam4.sapjam.com/groups/wall/O41YvpJwnJidVDJ8Rboh82>

Thank you.

Contact information:

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Business Process Consultant Track & Trace

SAP Deutschland SE & Co. KG

jonas.mutz@sap.com