

Trigger Alert for Available Inventory and on Order Inventory is Zero



Applies to:

This article refers to Supply Network Collaboration (SNC) 7.0. For more information, visit the [ABAP homepage](#).

Summary

A new validation check is required to trigger a Critical Alert in case the Key Customer reports Available Inventory and On Order inventory as Zero. The validation check will be performed during inbound processing of the ProductActivityNotification XML message. The VMI Planner has to ensure to monitor this Critical Alert and makes the Inventory Available at this Key Customer Location.

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Author Bio

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Business Requirement

In Supply Network Planning (Customer Collaboration): Exceptions Management using Alert Monitor helps the VMI Planner, in monitoring and then acting on alerts with High Priority.

A critical planning situation can occur, when a key customer reports Stock Outs and No Order is expected to be delivered within the replenishment lead time (means On Order quantity is reported as zero). The VMI Planner has to be alerted about this exception, as investigation is required to determine the root cause of the problem and to make a decision whether to create a Rush Order, in the backend ERP.

Within SAP SNC Standard; a Validation Check is available, which will alert the VMI Planner; in case the Inventory is Zero and the On Order quantity is Zero. However this validation check does not capture all exceptional situations.

There can be cases where for the Key Customer's business, the stock outs do occur even if the inventory is Not Zero. For example the Key Customer has reserved the inventory for one of his key end customer. Some processing like extra labeling etc is done on this reserved inventory and it cannot be hence used for any other end customer. This can result in a Stock Out even if the Available Inventory is Not Zero. The Key Customer will hence report Available Inventory and On Order inventory as Zero, in the incoming EDI message for Product Activity. The VMI Planner has to ensure that he monitors this Critical Alert and makes the Inventory Available at this Key Customer Location.

A new validation check is required to capture this situation and display a corresponding alert. The validation check will be performed during inbound processing of the ProductActivityNotification XML message.

Refer below the Standard Validation Check available in Standard SAP SNC:

The screenshot shows the SAP SAP SNC Standard Validation Check Overview table. The table lists various validation checks with their components, alert types, message classes, message numbers, and sequences. The first row is highlighted in blue.

Validation Check	Val. Component	Alert Type	Message Class	Msg.no.	Sequence
ON_HAND_ON_ORDER_QUANTITY_ZERO	Item	1123	/SCF/PROACT	79	0
OPEN_QTY_INVALID	Item	0	/SCA/DM_RET	46	23
ORI_PO_REF_MATCH_PO	Item	7033	/SCMB/DM_DLV	169	0
PARTY_BUYER_ID_INVALID	Header	7034	/SCMB/DM_REL	3	15
PARTY_BUYER_MISSING	Header	7034	/SCMB/DM_REL	3	14
PARTY_CARRIER_ID_INVALID	Header	7033	/SCMB/DM_DLV	134	0
PARTY_CUSTOMER_CHANGE	Header	7033	/SCMB/DM_DLV	174	0
PARTY_GR_MISSING	Item	7034	/SCMB/DM_REL	21	22
PARTY_SELLER_ID_INVALID	Header	7034	/SCMB/DM_REL	4	13
PARTY_SELLER_MISSING	Header	7034	/SCMB/DM_REL	4	12
PARTY_SHIPPER_EXISTING	Header	7033	/SCMB/DM_DLV	104	0
PARTY_SHIPPER_ID_INVALID	Header	7033	/SCMB/DM_DLV	105	0
PARTY_SHIPPER_MISSING	Header	7033	/SCMB/DM_DLV	106	0
PARTY_SUPPLIER_CHANGE	Header	7033	/SCMB/DM_DLV	173	0
PENDING_DLV_CANCELLED	Header	7033	/SCMB/DM_DLV	185	0

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Solution Overview

Step By Step Configuration

Step 1:

Develop a Z-message class.

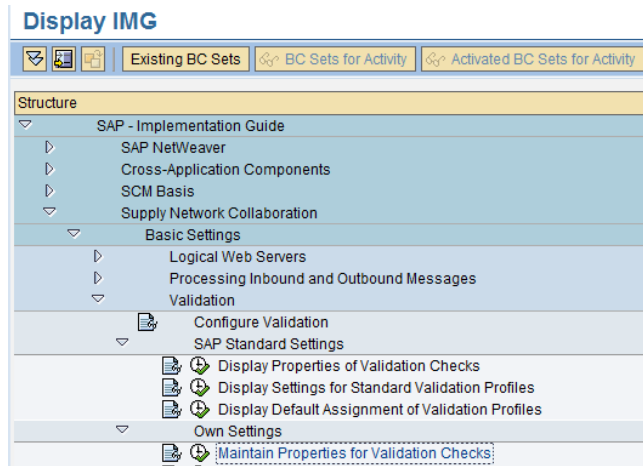
Validation check ON_HAND_ON_ORDER_QUANTITY_ZERO can be used as the basis.

Name of the new validation check:

ZSNC_OOS_ON_ORDER_ZERO

Step 2:

Setup the new validation check name in customizing:



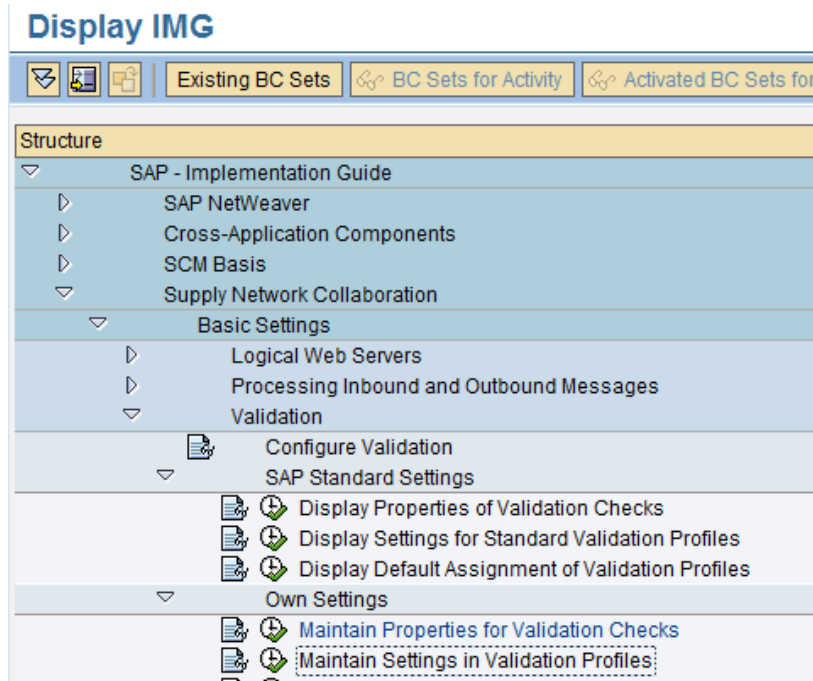
Change View "Relationship - Validation Check and Validation Component"

The screenshot shows the SAP Change View interface for 'Relationship - Validation Check and Validation Component'. The table below contains the data:

Validation Check	Val. Component	Alert Type	Message Class	Msg.no.	Sequence
ZSNC_OOS_ON_ORDER_ZERO	em				

Step 3:

Link the new check to the runtime:



Change View "Maintenance View for Validation Checks": Overview

Val. Prf.	Validation Check	Check Status	Msg.typ	Save Mode	Continuation Mode	CrAlSav	AlwaysCrAl	Priority
VMI1	ZSNC_OOS_ON_ORDER_ZERO	Active	E	Save Message as Valid	Continue Checks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Error

Step 4:

Implement a Badi and check the condition and raise an alert if required

Badi name: /SCMB/BOL_VALFRMWRK

Method: VALIDATE

Coding as given below:

```

DATA lr_proact          TYPE REF TO /sca/cl_sv_proact.
DATA ls_proact          TYPE /scmb/dm_proact_str.
DATA ls_proact_reporter TYPE /scmb/dm_party_str.
DATA ls_party          TYPE /scmb/dm_party_str.
DATA ls_proact_item    TYPE /scmb/dm_proact_itm_str.
DATA ls_time_os        TYPE /scmb/dm_timeseries_str.
DATA ls_time_o         TYPE /scmb/dm_timeseries_str.
DATA ls_timeos_item    TYPE /scmb/dm_tims_itm_str.
DATA ls_timeo_item     TYPE /scmb/dm_tims_itm_str.
DATA ls_dm_val_alert_str TYPE /scmb/dm_val_alert_str.
DATA ls_alinfo_str     TYPE /scmb/alinfo_str.
DATA ls_alprmval_str   TYPE /scmb/alprmval_str.
DATA ls_scope          TYPE /scmb/alscope_data_str.
IF ip_val_chk-val_check = 'ZSNC_OOS_ON_ORDER_ZERO'.

```

```

lr_proact ?= ip_object.
ls_proact_item = lr_proact->proact_item->*.
ls_proact = lr_proact->proact->*.
ls_proact_reporter = lr_proact->proact_reporter->*.
IF ls_proact_item-product-prod_status = '1'.
  READ TABLE ls_proact_item-timeseries INTO ls_time_os WITH KEY timeseries_type =
'00010'."OUT-OF-STOCK.
  IF sy-subrc = 0.
    READ TABLE ls_time_os-item INTO ls_timeos_item INDEX 1.
    IF ls_timeos_item-quantity IS NOT INITIAL.
      READ TABLE ls_proact_item-timeseries INTO ls_time_o WITH KEY
timeseries_type = '00009'."ON-ORDER.
      IF sy-subrc = 0.
        READ TABLE ls_time_o-item INTO ls_timeo_item INDEX 1.
        IF ls_timeo_item-quantity IS INITIAL.
          LOOP AT ls_proact-party INTO ls_party.
            ls_scope-prtid = ls_party-guid.
            APPEND ls_scope TO et_alertscope.
          ENDLOOP.
          ls_alprmval_str-aprm = 'PARTNER_GUID'.
          IF ls_proact_reporter-guid IS INITIAL.
            CLEAR ls_alprmval_str-aprmval.
          ELSE.
            ls_alprmval_str-aprmval = ls_proact_reporter-guid.
          ENDIF.
          APPEND ls_alprmval_str TO ls_dm_val_alert_str-alertparam.
          ls_alprmval_str-aprm = 'LOCID'.
          IF ls_proact_item-shipto_location-guid IS INITIAL.
            CLEAR ls_alprmval_str-aprmval.
          ELSE.
            ls_alprmval_str-aprmval = ls_proact_item-shipto_location-guid.
          ENDIF.
          APPEND ls_alprmval_str TO ls_dm_val_alert_str-alertparam.
          ls_alprmval_str-aprm = 'MATNR'.
          IF ls_proact_item-product-id IS INITIAL.
            CLEAR ls_alprmval_str-aprmval.
          ELSE.
            ls_alprmval_str-aprmval = ls_proact_item-product-id.
          ENDIF.
          APPEND ls_alprmval_str TO ls_dm_val_alert_str-alertparam.
          ls_alinfo_str- Alvldfr = ls_proact-message_creation_datetime.
          ls_alinfo_str-almmsgid = ip_chkcmp-msg_id.
          ls_alinfo_str-almstyp = ip_val_chk-msg_type.
          ls_alinfo_str-almstgno = ip_chkcmp-msg_no.
          ls_alinfo_str-almstgv1 = text-001.
          ls_alinfo_str-almstgv2 = text-002.
          ls_dm_val_alert_str-alinfo = ls_alinfo_str.
          APPEND ls_dm_val_alert_str TO et_alertparam_info.
        ENDIF.
      ENDIF.
    ENDIF.
  ENDIF.
ENDIF.
ENDIF.
ENDIF.
ENDIF.
ENDIF.

```

Result

Check the Alert Monitor in SNC Web UI.

SNC Web UI → Exceptions → Alert Monitor

Selection

Show [Reset](#) [Go](#) [Close Selection](#) [Set Notification](#)

Planner: To

Customer: To

Supplier: To

Location: To

Product: To

APN: To

APN Type:

Product Group Type:

Product Group Value: To

Alert Category: To

Statistical View

[Reset to Default](#)

Grouping Criteria 1: Grouping Criteria 2: Grouping Criteria 3:

[Print Version](#) [Export](#)

Alert Type (Long)	High	Medium
Forecast Alert for Location Planner	0	1
Quantity Exception	3	1

Statistical View

[Reset to Default](#)

Grouping Criteria 1: Grouping Criteria 2: Grouping Criteria 3: Display Alerts By:

[Print Version](#) [Export](#)

Alert Type (Long)	High	Medium
Forecast Alert for Location Planner	0	1
Quantity Exception	3	1

DIC Alerts

[Form](#) [See details](#) [Acknowledge](#) [Delete alert](#) [Show Notification History](#) [Notes](#)

View: [Print Version](#) [Export](#)

Alert number	Alert Priority	Sender	Location Number	Product Number	Valid from	Ack.	Val. Message	Alert Type
249	Medium	603800581	603805060	2720033150	05/19/2010 10:14:33	N	Stock data and open PO quantities from XML are zero	Quantity Excep

Related Content

For more information, visit the [ABAP homepage](#).

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