

## **SAP Intelligent Notification 365, email API & service**

On-boarding process for SAP Hybris Marketing Cloud / SAP Hybris Marketing customers

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## INTRODUCTION

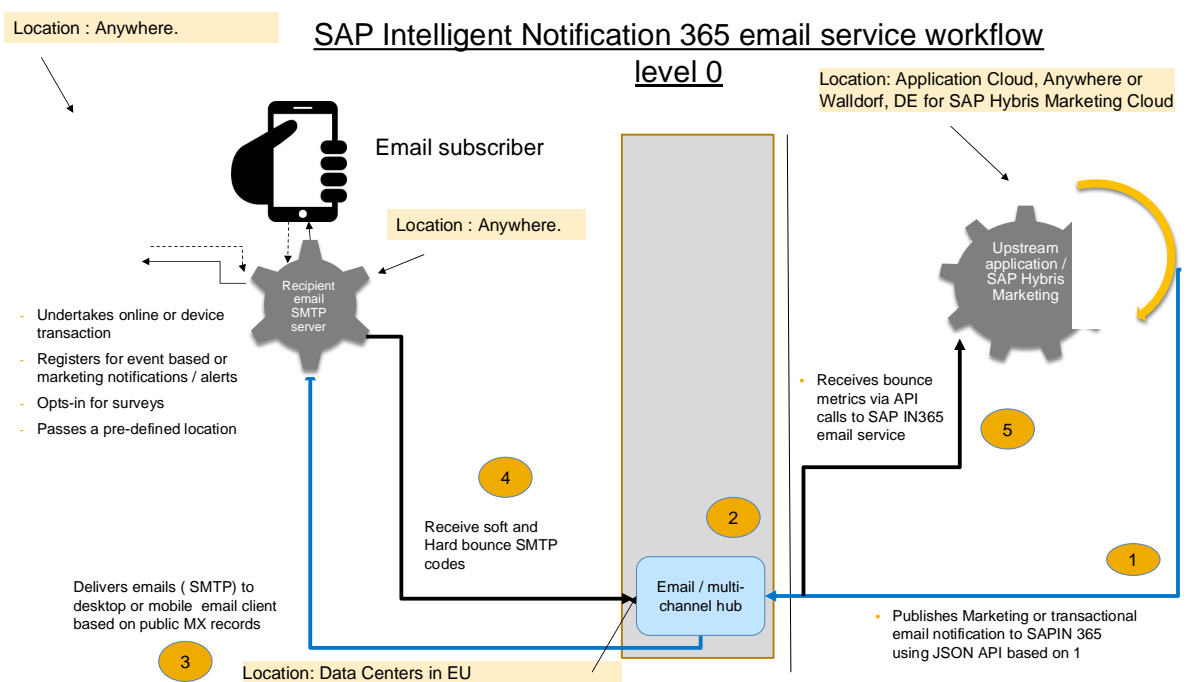
Through SAP Mobile Services, it is now possible for SAP Hybris Marketing Cloud and SAP Hybris Marketing customers to have an integrated email channel.

1. SAP Hybris Marketing comes pre-integrated with SAP Intelligent Notification 365, email service (an SAP Mobile Service offering) as a communication channel.
2. The email service is delivered using a new JSON email API interface
3. Both transactional and marketing emails are supported using the same email service.
4. SAP Intelligent Notification 365, email service also delivers ability to secure email notification campaigns using custom domains and DKIM and SPF based deliverability/ reputation management
5. Available for SAP Hybris Marketing Cloud 1603 or younger and SAP Hybris Marketing 1602 or younger.

This on-boarding document describes the high-level architecture and functionalities and provides a step-by-step overview throughout the on-boarding process.

## HIGH LEVEL ARCHITECTURE & WORKFLOW DESCRIPTION

The figure below explains how the general flow works:



1. A customer creates campaigns in SAP Hybris Marketing Cloud that results in the SAP Intelligent Notification 365 email hub receiving a JSON request via HTTPS API. This request is delivered using the email plug-in built into Hybris Marketing. The request has the following key parameters:
  - **Sender address** – for example, info@marketing.customer.com.
  - **Sender name** (if needed) - so it will look like name info@marketing.customer.com
  - **Reply\_to address** - the address where email replies will be delivered.
  - **Message body** – you can use either plain text or HTML.
  - **Recipient email address** (one or more) - Typically, Hybris only sends one email address per notification.
  - **Encoding** - none or UTF-8.

These requests are sent to a SAP Mobile Service provided end point (URL/ credentials) that are also set up in Hybris marketing tenant for the customer along with valid sender and valid Reply\_To addresses. The recipient email addresses (“subscriber list”) is managed by Hybris marketing and SAP MS only receives it as part of the notification request.

- No encryption is currently undertaken at this stage.
- SAP MS email hub will receive the email notification and create a Notification ID; that is a unique reference ID for every email request.
- Every notification ID is mapped to an ESP job ID for tracking purposes.
- The email address or email content shared in the notification is not stored or handled during processing.

SAP Intelligent Notification 365 maps a customer credential to one or more ESP account credentials depending on sender domains/ sub-domains.

Every Hybris Marketing request is mapped to a notification ID that are used to store email metadata information in an SAP IQ event store with associated email events. These are again mapped to ESP Job ID’s when the workflow closes.

During the processing SAP tracks the following event types. These events are necessary from troubleshooting perspective.

- SAP Mobile Services received (from Hybris) timestamp
  - SAP Mobile Services sent ( to ESP) timestamp
  - ESP received timestamp and
  - ESP sent timestamp.
2. SAP Mobile Services converts the Hybris request to an SOAP/ XML request and sends out the notification to an SAP end-point provided by ESP infrastructure. SAP IN 365 tracks the processing using notification ID/ Job ID mapping.
  3. The ESP infrastructure processes each notification job and sends then out as SMTP posts using their mail transfer agent (MTA).
  4. Upon receipt, the recipient mail servers shall provide soft or hard bounce information informing the sending MTA’s on the status of the Job.
  5. Back-end ESP infrastructure captures these bounce statuses and delivers the bounce report as a CSV dump. SAP Intelligent Notification 365 captures this info as bounce event in IQ event store as well as maintain a bounce statistic service that maintains bounce info with notification ID for 7 days. Hybris Marketing pulls this bounce statistic using scheduled callback services. Bounce data is delivered as Job ID, notification ID, SMTP error status
    - Any email address associated with a notification ID is purged 7 days from receipt.
    - Bounce reports comes after the email is sent out. At that point, no email message is maintained. Only email metadata is available from that point onwards.
    - SAP Mobile Services only keeps (in cache and not in a store) email between the statuses CAAS RECEIVED and ESP RECEIVED. This is only for a very small duration during which we re-try. The only reason failure can occur at this step is because ESP is down or the network is down.
    - Once SAP Mobile Services has a status as ESP received, the email notification is out of SAP Mobile Services systems and the only thing maintained is an SAP Intelligent Notification 365 Notification ID / ESP Job ID mapping.

## CHECK-LIST FOR ON-BOARDING

### Reference Documents

Before getting started, here is a checklist of critical reference documents:

- ***SAP Intelligent Notification 365 email service – Provisioning form***
- ***SAP Intelligent Notification 365 Multi-Channel API specification (with support for email as a channel)***
- ***SAP Intelligent Notification 365 email service – Deliverability Best Practices Field Guide***
- ***SAP Intelligent Notification 365 email service – FAQ document.***

These shall be delivered as part of on-boarding communication by the account team. You can also access these documents from the SAP Intelligent Notification 365 product page on the SAP Mobile Services community: <https://community.sapmobileservices.com/t5/SAP-Intelligent-Notification-365/bd-p/SAPIntelligentNotification365>

### Information requested in provisioning form

#### ***Sender IP Addresses***

Only whitelisted IP addresses can send email notification traffic for SAP Mobile Service to process. Please work with your IT teams to obtain dedicated public IP address for the application through which email notifications shall be delivered.

#### ***Sub-Domain***

It is highly recommended to create a sub-domain in order to manage outgoing email campaign traffic instead of using top-level domain

- For example, if notifications are driven from a newsletter a sub-domain such as `newsletter.customer.com` would be worth consideration.
- Please talk to your IT representative to provision this.

#### ***“sender” and “reply to” addresses***

Default “sender” and “reply-to” addresses are used when this information is not passed as part of the notification request. This is important for marketing emails.

- The sender address has to be associated with the sub-domain (for e.g. `info@newsletter.customer.com`).
- A “reply to” address is not mandatory – we provide you that flexibility. Many senders can have a common “reply to” address or each sender can have a unique “reply to” address. The reply to address can be any valid address that you may want to recipient to respond to.

For transactional emails, the “sender” and “reply to” may be passed as part of the notification request itself.

## Information provided as part of provisioning

### **Credentials**

- Credentials (notification URL, username, and pwd); typically as below:
  - VPN Customer URL:  
[https://multichannel-pi.sapmobileservices.com/email/ caas\\_email12345/ notifications](https://multichannel-pi.sapmobileservices.com/email/caas_email12345/notifications)
  - Non-VPN Customer URL:  
[https://multichannel-pp.sapmobileservices.com/email/ caas\\_email12345/notifications](https://multichannel-pp.sapmobileservices.com/email/caas_email12345/notifications)
  - UserID: caas\_email12345
  - Password: x5XXGyyL
  - Sender: [name@subdom.customer.com](mailto:name@subdom.customer.com) ( default sender name)
  - Reply To: [contact@customer.com](mailto:contact@customer.com)
  
- DKIM, SPF and MX records (if needed for “reply” tracking) that need to be inserted into the TXT records of the customer sub-domain.

### *Important note on DKIM and SPF usage*

DKIM and SPF need to be inserted into the TXT records of your sub-domain for deliverability management. Please set the expectation around this with your DNS administration teams.

For a detailed understanding on DKIM and SPF based deliverability, please refer to the following document: [SAP Intelligent Notification 365 email service – Deliverability Best Practices Field Guide](#).

**ON-BOARDING PROCESS WORKFLOW FOR HYBRIS CUSTOMERS**

Broadly, the on-boarding steps can be categorized into three processes as follows:

1. Manage Hybris tenant set-up
2. Manage email service set-up
3. Manage campaign administration and set-up.

The high-level exit criteria for the on-boarding processes is as listed below:

Process	Exit Criteria
Manage Hybris tenant set up	Static Public IP addresses Marketing Sub-domains
Manage email notification service set up	Custom domain mapping(s) DKIM & SPF mapping confirmation Email end point and credentials Reply to tracking White-listed IP ranges
Manage campaign and user set up	Customer / brand landing pages Campaign user set ups Campaign attributes Campaign KPI's

Each of the above processes have detailed sub-processes & tasks that need to be completed. There are additional nuances based on environment and infrastructure. These are as detailed in the table below:

Process	Task	Customer	Hybris Marketing	SAP Mobile Services
Manage Hybris Tenant set up	Provision Hybris Marketing tenant for customer	Yes	Yes	N/A
	<b>Define sub-domains for email notifications</b> For example, if notifications are driven from a newsletter, a sub-domain such as newsletter.customer.com would be worth consideration. The notifications can then be sent via a sender address <a href="mailto:info@newsletter.customer.com">info@newsletter.customer.com</a> (details of sender of reply to set up in a different step)	Yes	N/A	N/A

Process	Task	Customer	Hybris Marketing	SAP Mobile Services
	<p><b>Associate a static public IP address with the Hybris cloud tenant</b></p> <p>This public IP address is needed for SAP/yMKT to whitelist the email notification source. Only whitelisted IP addresses can send email notification traffic for yMKT/SAP to process.</p>	Yes	N/A	N/A
	<p><b>Set up custom sub-domains for email processing</b></p> <p>Also, <b>set up sender (from) and reply to addresses associated with the sub-domain</b>. This is based on the input received from customer.</p>	N/A	N/A	Yes
	<p><b>Provide deliverability and reputation management TXT records (DKIM/SPF) in DNS.</b></p>	N/A	N/A	Yes
	<p><b>Provide MX record</b> (in case customer would like the <i>reply to</i> to be tracked)</p>	N/A	N/A	Yes
Manage email notification service set up	<p><b>Set up deliverability and reputation management TXT records (DKIM / SPF) &amp; MX record in DNS.</b></p>	Yes	N/A	N/A
	<p><b>Validate custom domain set up</b> and confirm to customer along with email notification end-point and credentials.</p>	N/A	N/A	Yes
	<p><b>Set up email notification end-point and credentials in yMKT tenant</b></p>	Yes	N/A	N/A
	<p><b>Whitelist yMKT tenant static/public IP address</b></p>	N/A	N/A	Yes
	<p><b>Test connectivity / traffic</b></p>	Yes	Yes	Yes



Process	Task	Customer	Hybris Marketing	SAP Mobile Services
Manage campaign & user set ups	Create email marketing campaign	Yes	N/A	N/A
	Associate <i>from</i> and <i>reply to</i> user address to campaign	Yes	N/A	N/A
	Validate sub-domain and / or registered addresses ( <i>from</i> and <i>reply to</i> ). yMKT uses domain check API from SAP MS behind the scene	N/A	Yes	N/A
	Check campaign metrics	Yes	N/A	N/A
	Check deliverability metrics (soft/hard bounces) on Hybris Marketing	Yes	N/A	N/A

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