eBay Connect 2021
Notifications

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Agenda

Notification Highlights

Key Concepts

Notification API Deep Dive

SDK Support
Notification Highlights

- API-First approach
- Full API support
- AsyncAPI Specification 2.0 based contracts
- Enhanced security for messages
- Advanced monitoring, alerting and retry capabilities
- SDK support
Key Concepts

Message Schema
Message Integrity
Endpoint Verification
Notification Schema

Consistent schema across all use cases

AsyncAPI Specification 2.0 based contracts

Header: X-EBAY-SIGNATURE

```
{
  "metadata": {
    "topic": "string",
    "schemaVersion": "string",
    "deprecated": "false"
  },
  "notification": {
    "notificationId": "string",
    "eventDate": "string",
    "publishDate": "string",
    "publishAttemptCount": "integer",
    "data": {
      ...
    }
  }
}
```
Message Integrity

Elliptic Curve Cryptography for message integrity checks

Backward compatibility in case of key rotation

SDK Support!

X-EBAY_SIGNATURE-HEADER decoded

```
{
    "alg":"ecdsa",
    "kid":"key_id",
    "signature":"MEYCIQCfxfIWuxmWcIBQJ9c5/X7iGDJqs2RC...",
    "digest":"SHA256"
}
```

Payload integrity validation algorithm

Step 1

Fetch the public key using the key_id from the header.
GET commerce/notification/v1/public_key/{key_id}

Step 2

Initialize your crypto library and verify payload.
fn(algo, digest,PublicKey,signature,payload)
Endpoint Verification

Guarantees authenticity of the endpoint for receiving notifications

Checks can happen on a periodic basis

SDK Support!

```java
// SDK Support!

{ endpoint, verificationToken }

GET
https://<endpoint>?challenge_code=
{challenge_code}

200 OK
{ "challengeResponse": "string" }

Where challengeResponse = SHA256(challengeCode, verificationToken, endpoint) -> toHex()
Browse available topics, learn about authorizations required to subscribe, supported formats, and schema versions

Supported methods

GET /commerce/notification/v1/topic/
GET /commerce/notification/v1/topic/{topic_id}

Supported topics

MARKETPLACE_ACCOUNT_DELETION
AUTHORIZATION_REVOCATION
Topic: Resource

{
  "topicId": "SAMPLE_TOPIC",
  "description": "Sample topic",
  "status": "ENABLED",
  "context": "DEVELOPER",
  "scope": "APPLICATION",
  "authorizationScopes": [
    "https://api.ebay.com/oauth/api_scope"
  ],
  "supportedPayloads": [
    {
      "format": ["JSON"],
      "schemaVersion": "1.0",
      "deliveryProtocol": "HTTPS",
      "deprecated": false
    }
  ]
}
Config

Update your application configurations

Supported methods

PUT /commerce/notification/v1/config
GET /commerce/notification/v1/config

Config resource

```json
{
   "alertEmail": "alert@email.com"
}
```
Destination

Create and manage your destinations

Note: Your endpoint should be up and ready to respond to the verification challenge

Supported methods

POST /commerce/ notification/v1/destination
PUT /commerce/ notification/v1/destination/{destination_id}
DELETE /commerce/ notification/v1/destination/{destination_id}
GET /commerce/ notification/v1/destination/{destination_id}
GET /commerce/ notification/v1/destination/
{ "destinationId": "TEST_DESTINATION_ID", "name": "test destination", "status": "ENABLED", "deliveryConfig": { "endpoint": "https://<webhook>/", "verificationToken": "71745723-d031-455c-bfa5-f90" } }
Subscription

Create and manage your subscriptions

Supported methods

POST /commerce/notification/v1/subscription
PUT /commerce/notification/v1/subscription/{subscription_id}
DELETE /commerce/notification/v1/subscription/{subscription_id}
GET /commerce/notification/v1/subscription/{subscription_id}
GET /commerce/notification/v1/subscription

POST /commerce/notification/v1/subscription/{subscription_id}/enable
POST /commerce/notification/v1/subscription/{subscription_id}/disable
POST /commerce/notification/v1/subscription/{subscription_id}/test
{  "subscriptionId": "36c3b9be-31da-499f-912c-38dcf4e70ad",  "topicId": "SAMPLE_TOPIC",  "status": "ENABLED",  "creationDate": "2021-06-04T15:10:12.807182",  "payload": {    "format": "JSON",    "schemaVersion": "1.0",    "deliveryProtocol": "HTTPS"  },  "destinationId": "52e4c4e7-d89f-4594-a5b3-8e4516b7275b" }
Our SDKs are currently in Node.js and Java

Deployable SDKs that incorporate

- Endpoint verification algorithm
- Message integrity check validation
  - Integration with Notification API
  - Credentials externalized
  - LRU cache enabled
- Generic for any topic
  - OpenAPI-powered code generation
  - Topic specific message processors

Git:
https://github.com/eBay/event-notification-java-sdk
https://github.com/eBay/event-notification-nodejs-sdk