

Integration Framework for SAP Business One

SAP Business One Event Sender Setup

PUBLIC



Global Roll-out

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THE BEST RUN



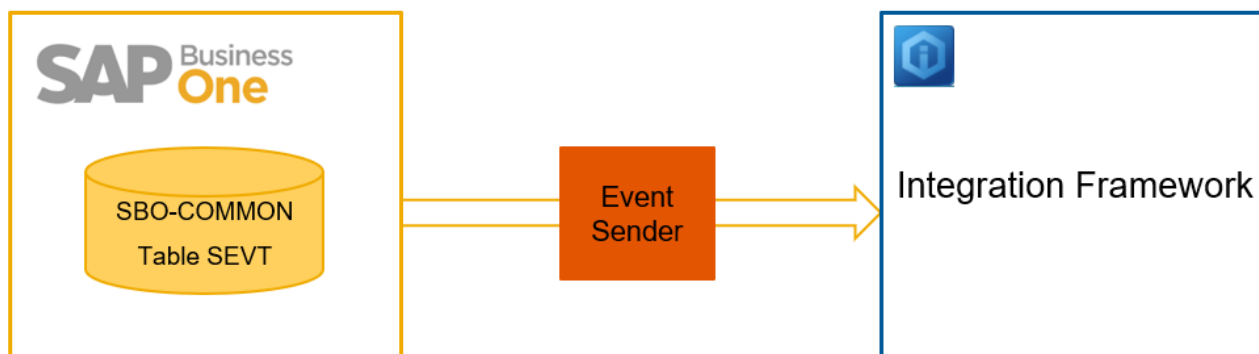


TABLE OF CONTENTS

1 WHAT THE EVENT SENDER DOES AND WHY INTEGRATION USES IT	3
2 USE THE EVENT SENDER SETUP	3
2.1 Step 1: Connect to SAP Business One	3
2.2 Step 2: Configure Event Sender Parameters	4
2.3 Step 3: Configure Integration Framework Parameters	4
2.4 Step 4: Choose Company Databases	5
2.5 Step 5: Summary Information	7
2.6 Stop and Start the Service and the SAP Business One Client.	7
3 WHERE EVENT FILTERING HAPPENS	8
3.1 Event Filtering in the SEVT Table	8
3.2 Event Filtering in Event Sender	8
3.3 Event Filtering in the Integration Framework	8
4 FURTHER FUNCTIONS AROUND SAP BUSINESS ONE EVENTS	9
4.1 SAP Business One Event Generator	9
4.2 SAP Business One Event Subscriber.....	10
4.3 SAP Business One Event Monitor	10

The SAP Business One event sender setup is an application that allows for the configuration of the SAP Business One event sender. The event sender picks up events from the SBO-COMMON SEVT table, forwards them to the integration framework, and then deletes the events from the SEVT table.

1 WHAT THE EVENT SENDER DOES AND WHY INTEGRATION USES IT



The installation of the integration framework for SAP Business One also installs the SAP Business One event sender. The installation of both components is the prerequisite for event creation in SAP Business One.

When data is added, changed, or deleted in SAP Business One company databases, SAP Business One creates events in the SEVT table of the SBO-COMMON database. The events contain the company identifier, the object ID and information whether data is new, changed, or deleted. The event sender regularly picks up events, forwards them to the integration framework and deletes them from the SEVT table.

Events are notifications that the integration framework is interested in. Active scenario steps with the SAP Business One inbound channel subscribe to events, for example, to 2 for business partners, to 4 for items, or to 13 for invoices, and so on. If such events reach the integration framework for a company that is a sender in the integration scenario, the active scenario step starts message processing. SAP Business One inbound retrieves the data matching the event from the company database. For data retrieval, the framework uses the interface that is defined in the inbound channel, either the DI API, the service layer or JDBC. Then, the framework processes the message based on definitions in the scenario step.

The event sender setup is an application that allows configuring the event sender. Many parameters are predefined, and you do not need to do anything. Browse through the wizard and check the connections. Most importantly, use the event sender setup to reduce the number of events created in SAP Business One by filter definitions.

2 USE THE EVENT SENDER SETUP

As of SAP Business One 9.3 PL06, we recommend using the event sender setup that is part of the integration framework. To open the event sender setup, logon to the integration framework and choose *Tools* → *Event Sender*.

If the event sender and the integration framework are installed on separate machines, use the event sender setup that you can call from the start menu choosing *Integration Framework for SAP Business One* → *SAP Business One Event Sender Setup*.

2.1 Step 1: Connect to SAP Business One

All settings are preconfigured. Please check the following:

- (1) The *DB Server Name* value must be identical with the *b1Server* value in SLD for the company databases and *SBO-COMMON*.
- (2) Click *Test Connection* to ensure that the connection is available.
- (3) Save your settings and click *Next*.

SAP Business One Event Sender Setup Wizard
[10.18.26.197:8080]

1 Connect to SAP Business One 2 Configure Event Sender Parameters 3 Configure Integration Framework Parameters 4 Summary Information 5 Deploy

Event Sender Setup - Step 1

SAP Business One DB Type: HANA (NewDB)

Choose Database Type: HANA (NewDB)

DB Connection Settings

DB Server Name: [redacted] Port: 30015

Setup DB Account: SYSTEM Password: [redacted]

Running DB Account: SYSTEM Password: [redacted]

Test Connection (2)

Information

Connect to [redacted] successfully (1)

SBO-COMMON

General Information

Type: SBO-COMMON

Description: SAP Business One 9.0 and Minor Releases

Name: SBO-COMMON

ID: 0011000005

Common Fields

b1Server: [redacted]

company: SBOCOMMON

2.2 Step 2: Configure Event Sender Parameters

All settings are preconfigured. Please note:

- (1) Every 3 seconds, the event sender retrieves and delete events from the SEVT table. The idle time is set to 3 seconds by default. If the event sender does not find entries for company databases or there is a connection issue, the event sender waits for the idle time value and then starts the retrieval process again.
- (2) Each time, the event sender retrieves and deletes 10 events from the SEVT table. Depending on your active scenarios, you can adjust the value to speed up event processing. If you choose a value that is too high, incoming events fill up the queues.
- (3) Save your settings and click *Next*.

SAP Business One Event Sender Setup Wizard
[10.18.26.197:8080]

1 Connect to SAP Business One 2 Configure Event Sender Parameters 3 Configure Integration Framework Parameters 4 Summary Information 5 Deploy

Event Sender Setup - Step 2

Event Table Location

Database for Event Table: SBOCOMMON

Monitor Settings

Idle Time (millisecond): 3000 (1)

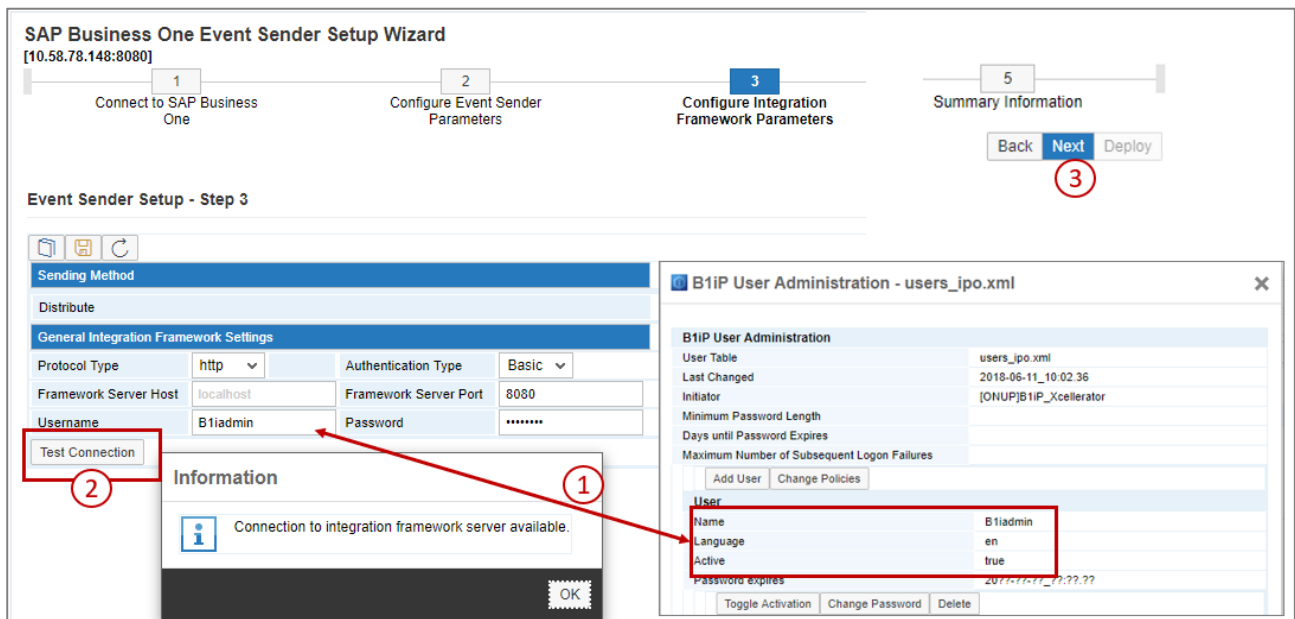
Batch Count: 10 (2)

Next (3)

2.3 Step 3: Configure Integration Framework Parameters

All settings are preconfigured. Please note:

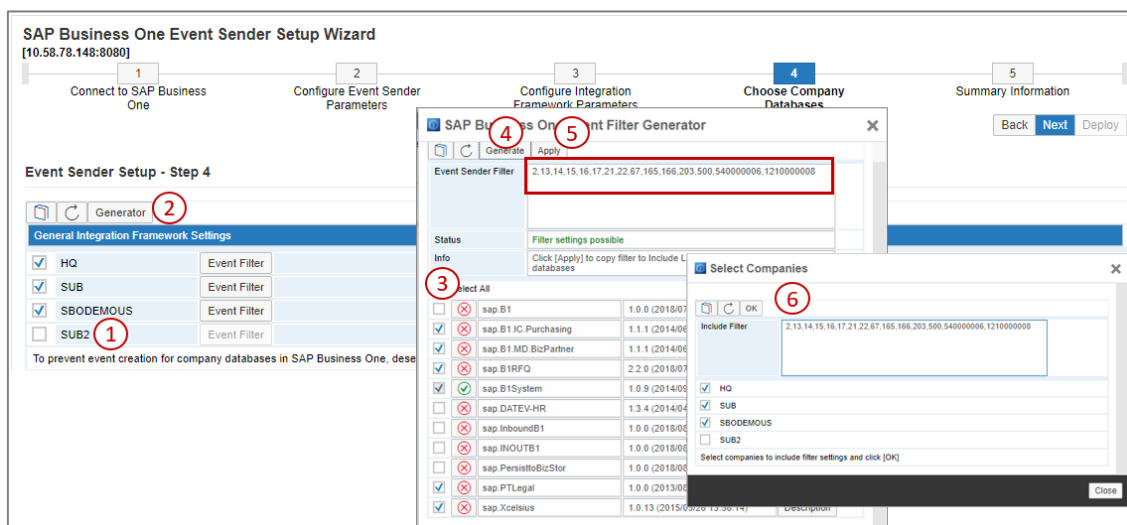
- (1) The *Username* and *Password* entries must be identical with the runtime user entries defined in *Maintenance* → *User Admin* → *[Runtime Users]*. The runtime user must be active.
- (2) Click *[Test Connection]* to test the connection to the integration framework.
- (3) Save your settings and click *Next*.



2.4 Step 4: Choose Company Databases

After the installation of the integration framework and the event sender, SAP Business One company databases create events by default. To reduce the number of created events, do the following:

- (1) Deselect company databases that do not participate in data exchange through the integration framework. Data changes in the companies no longer create events in the SEVT table.
- (2) To reduce the event generation further for databases that exchange data through the integration framework, click *[Generator]*.
- (3) The generator displays scenario packages available in the integration framework. Active scenario packages are selected assuming that they need the incoming events. Select further packages that you want to use or deselect scenario packages that you do not use.
- (4) Click *[Generate]* and the generator displays events required for the selected packages.
- (5) Click *[Apply]* and the generator displays the SAP Business One company databases.
- (6) Select databases that are going to get the event list in the include filter list. Here, you can even select company database that you excluded from event creation. Company databases that already contain settings in the exclude filter list are disabled.



- (7) Click [OK] and the generator writes the event numbers to the *Include List of B1 Objects* field.

SAP Business One Event Sender Setup Wizard
[10.58.78.148:8080]

1 Connect to SAP Business One 2 Configure Event Sender Parameters 3 Configure Integration Framework Parameters **4 Choose Company Databases** 5 Summary Information

Back Next Deploy

Event Sender Setup - Step 4

Generator

General Integration Framework Settings			
<input checked="" type="checkbox"/> HQ	Event Filter	Include List: 2,13,14,15,16,17,21,22,67,165,166,203,500,540000006,1210000008	B1 Users:
<input checked="" type="checkbox"/> SUB	Event Filter	Include List: 2,13,14,15,16,17,21,22,67,165,166,203,500,540000006,1210000008	B1 Users:
<input checked="" type="checkbox"/> SBODEMOUS	Event Filter	Include List: 2,13,14,15,16,17,21,22,67,165,166,203,500,540000006,1210000008	B1 Users:
<input type="checkbox"/> SUB2	Event Filter		B1 Users:

To prevent event creation for company databases in SAP Business One, deselect the checkbox.

- (8) To display filter details for a company database, click [Event Filter]. You can either use the include or the exclude list to define filter creating limitations.
- (9) To add entries to the *Exclude B1 User* list, enter the user name, not the user code. To additionally create events for journal entries, select the checkbox.

SAP Business One Event Sender Setup Wizard
[10.58.78.148:8080]

1 Connect to SAP Business One 2 Configure Event Sender Parameters 3 Configure Integration Framework Parameters **4 Choose Company Databases** 5 Summary Information

Back Next Deploy

Event Sender Setup - Step 4

Generator

General Integration Framework Settings			
<input checked="" type="checkbox"/> HQ	Event Filter	Include List: 2,13,14,15,16,17,21,22,67,165,166,203,500,540000006,1210000008	B1 Users:
<input checked="" type="checkbox"/> SUB	Event Filter	Include List: 2,13,14,15,16,17,21,22,67,165,166,203,500,540000006,1210000008	B1 Users:
<input checked="" type="checkbox"/> SBODEMOUS	Event Filter	Include List: 2,13,14,15,16,17,21,22,67,165,166,203,500,540000006,1210000008	B1 Users:
<input type="checkbox"/> SUB2	Event Filter		B1 Users:

To prevent event creation for company databases in SAP Business One, deselect the checkbox.

SAP Business One Event Filter Configuration

Company Database Name: SUB

Include List of B1 Object(s): 2,13,14,15,16,17,21,22,67,165,166,203,500,540000006,1210000008

Exclude List of B1 Object(s):

Exclude List B1 User:

☐ Create Complete Journal Entry Events

Close

- (10) To use the calculations of the event sender generator, click [Generator].
- (11) Select the packages that should be included in the event filter generation. Active packages are selected by default.
- (12) (13) Click [Generate] and [Apply].
- (14) In the *Select Companies* window, select the company databases for which you want to set the filters.

SAP Business One Event Filter Generator

Generate Apply

Event Sender Filter: 500,480000001,540000006

Status: Filter settings possible
Click [Apply] to copy filter databases

Select All

<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.ATPCheckR3	2.2.0 (2018/07/18 12:30:00)	Description
<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1.FinancialCons	1.0.0 (2018/01/04 09:58:25)	Description
<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1.IC.Purchasing	1.0.9 (2014/09/15 10:22:36)	Description
<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1.MD.BizPartner		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1.MD.Product		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1.Arriba		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1.Arriba.Supplier		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1H.MD.Product		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1RFQ	2.2.0 (2018/07/18 12:30:00)	Description
<input type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1SL.IC.Purchase	1.0.0 (2018/01/04 09:58:25)	Description
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sap.B1System	1.0.9 (2014/09/15 10:22:36)	Description

Select Companies

Include Filter: 500,480000001,540000006

☒ HQ
☒ SUB
☒ SBODEMOUS

Select companies to include filter settings and click [OK]

- Save your settings, close the window and click *Next*.

2.5 Step 5: Summary Information

The event sender setup displays the summary of your changes.

- (1) Click *Deploy*.

SAP Business One Event Sender Setup Wizard
[10.58.78.148:8080]

1 Connect to SAP Business One 2 Configure Event Sender Parameters 3 Configure Integration Framework Parameters 4 Choose Company Databases 5 Summary Information

Back Next Deploy

Event Sender Setup - Step 5

Summary

Event sender fetches events from SAP Business One server: [redacted]

Event sender sends events to integration framework server: localhost

Registered companies:

HQ
SUB
SBODEMOUS

Success

Configuration successfully deployed. Restart the service to make sure that new settings take effect.

OK

2.6 Stop and Start the Service and the SAP Business One Client.

- (1) (2) To activate the changes, stop and start the event sender service and the SAP Business One client.

Controller for SAP Business One Event Sender

Service Status: RUNNING

Actions: Start Stop Close

Explanations

Service Status: Event Sender Service Status

[Start] Start Event Sender Service

[Stop] Stop Event Sender Service

3 WHERE EVENT FILTERING HAPPENS

Event filtering can happen in the SEVT table of the SBO-COMMON database, in the event sender and in the integration framework.

3.1 Event Filtering in the SEVT Table

- If you deselect a company database from the list in the event sender setup to exclude it from event generation, you can significantly reduce the number of events.
- With settings in the *Include List of B1 Object(s)*, you reduce the event creation for the company database to the objects defined in the field. For all other objects, SAP Business One does not create events in the SEVT table.

3.2 Event Filtering in Event Sender

- With settings in the *Exclude List of B1 Object(s)*, events are created in the SEVT table. The event sender filters the events and does not forward them to the integration framework. As of SAP Business One 9.3 PL05, the separate event sender Java application no longer creates the events in the SEVT table.
- With settings in the *Exclude List for B1 Users*, events are created in the SEVT table, but the event sender filters the events.

3.3 Event Filtering in the Integration Framework

The B1i technical user is available in each SAP Business One company database. The user adds or changes data on behalf of the integration framework. The integration framework default settings ensure that changes happening in company databases caused by the B1i user do not trigger any scenarios in the integration framework.

- Choose *Maintenance* → *B1 Event Filter* to see that the filter for the B1i user is switched on by default. In the SLD entries for the SAP Business One company databases, you can see that the B1i user is used for the connection.

The screenshot shows the 'SAP Business One Event Filter Configuration' dialog. On the left, the 'B1i User Filter Switched On' checkbox is checked. A red arrow points from this checkbox to the 'B1i' entry in the 'userName' field of the 'B1DI' section on the right. The 'B1DI' section contains various fields for database connection details, including 'b1Server', 'licenseServer', 'sldServer', 'company', 'dbType', 'dbUser', 'dbPassword', 'userName', 'password', and 'language'.

- You can switch off the filter. But then, make sure to reduce the number of events, for example in the following way:

The screenshot shows the 'SAP Business One Event Filter Configuration' dialog with the 'B1i User Filter Switched On' checkbox unchecked. The 'Excluded SAP Business One Systems' field is set to 'all B1 Systems', 'Excluded SAP Business One Objects' is set to '4,17', and 'Excluded SAP Business One Tasks' is set to 'U'.

For all SAP Business One company databases, the integration framework picks up updates of 4 (items) and 17 (purchase orders). All other events created by the B1i user are ignored. Active and subscribed scenario steps are going to pick up the events and start processing.

4 FURTHER FUNCTIONS AROUND SAP BUSINESS ONE EVENTS

4.1 SAP Business One Event Generator

The SAP Business One event generator function allows you to generate events directly in the integration framework without affecting the SEVT table or the event sender. Use the function, for example, to synchronize mass data. Have an integration scenario available that picks up the events and processes the data to receiver systems.

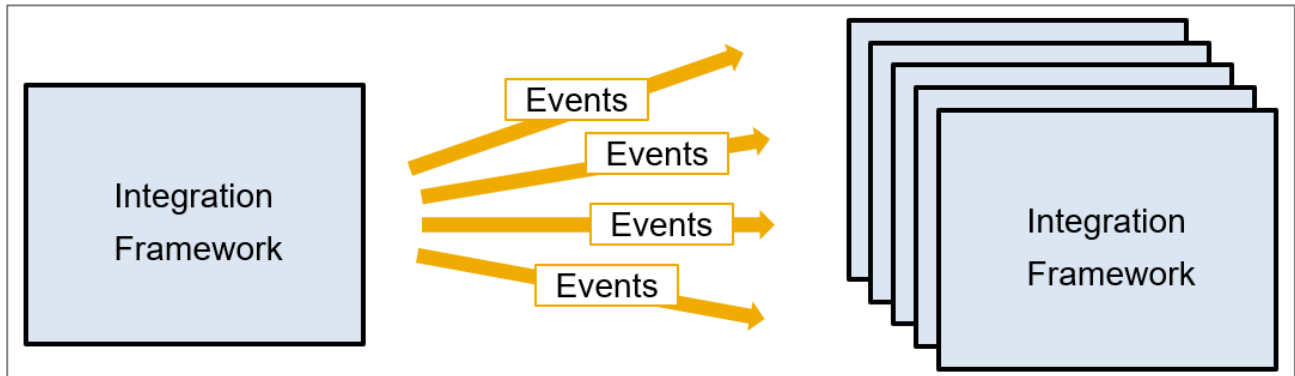
To use the function, choose *Tools* → *B1 Event Generator*.

System ID	0010000104
Event Generation ID	100
Event Identifier	
Object Type ID	4
Task Type	A
Table Key	ItemCode
Retrieval Block Size	100
Retrieval Limit	
SQL Statement	select ItemCode from OITM

The settings create events for added items from a company database and displays the result.

System ID	0010000104
Event Generation ID	100
Number of Events	69
Object Type ID	4
Table Key	ItemCode
Timestamp	2018/05/27 08:59:54
#	Key Value
1	A00001
2	A00002
3	A00003
4	A00004
5	A00005
6	A00006
7	aaa
8	B10000

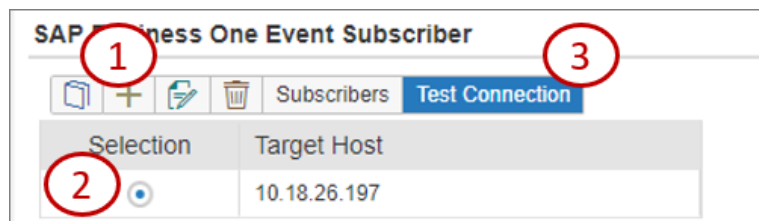
4.2 SAP Business One Event Subscriber



Use the SAP Business One event subscriber to dispatch events to other integration frameworks.

In the integration framework, choose *Maintenance* → *Cfg B1 Event Subscriber*.

- (1) Click the *Create* button and enter the connection parameters to the remote integration framework.
- (2) (3) Select the remote host that you created and test the connection.



- (3) Click *Subscribers* and enter, for example, the SLD system identifier for the company database, the object identifier and the task.

Target URI : /ReceiveB1Events/com.sap.b1i.system.eventdispatcher/ipo/ReceiveB1Events.ipo/ReceiveB1Events			
<input type="checkbox"/>	SysId	Local Object Type ID	Event Task
<input type="checkbox"/>	0010000104	4	A

In this example, all events for new items coming from the 0010000104 company database are forwarded to the remote integration framework. You can display the incoming events in both integration frameworks, in the SAP Business One event monitor.

4.3 SAP Business One Event Monitor

To monitor incoming SAP Business One events, choose *Monitoring* → *B1 Event Monitor*. The monitor is switched off by default. Switch on the monitor and display the incoming events.

Events can have the following status information:

- Success: The integration framework can process the information
- Filtered: There is no scenario step subscribed to the incoming event
- Failure: Scenario steps that subscribe to the event are not active. You can edit and resend such events.

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