Event Hub Testing with Service Bus Explorer and CluedIn

Wednesday, 13 July 2022 10:08 AM

Purpose

Let's use service bus explorer from the very beginning to understand what a freshly minted event hub looks like and how to configure it for use with CluedIn.

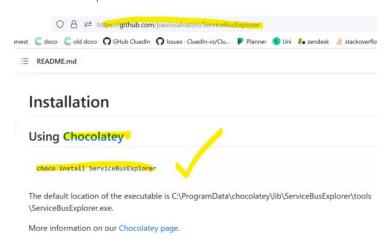
Results

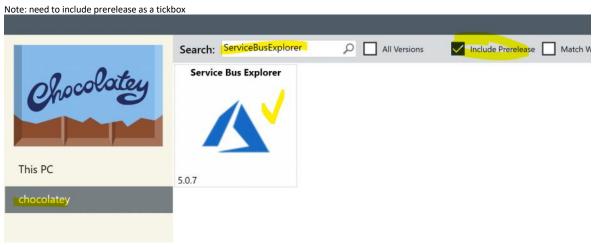
Events seen in the event hub as sent from CluedIn.

Method

Setup

Install Service Bus Explorer



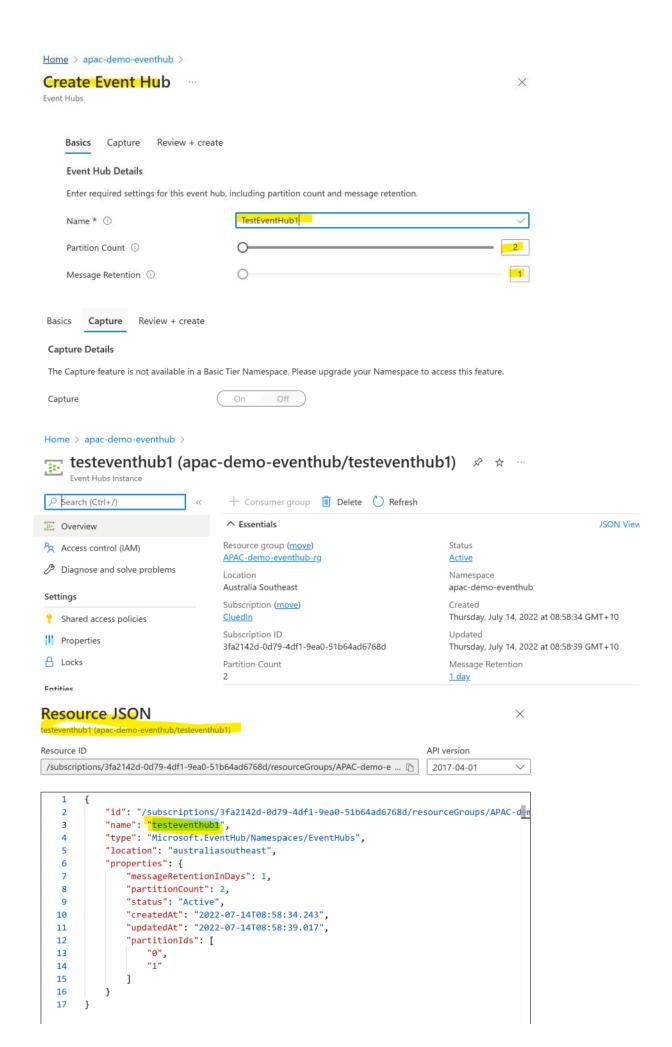


run as admin

 $\underline{C: \ ProgramData \ Chocolatey \ lib \ Service Bus Explorer \ tools \ Service Bus Explorer. exe}$

Create Event Hub

Let's create an event hub in the event hub namespace



https://docs.microsoft.com/en-us/azure/event-hubs/https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-about

Azure Event Hubs is a big data streaming platform and event ingestion service. It can receive and process millions of events per second. Data sent to an event hub can be transformed and stored by using any real-time analytics provider or batching/storage adapters.

The following scenarios are some of the scenarios where you can use Event Hubs:

- · Anomaly detection (fraud/outliers)
- Application logging
- Analytics pipelines, such as clickstreams
- Live dashboards
- Archiving data
- · Transaction processing
- · User telemetry processing
- · Device telemetry streaming

Capture event data

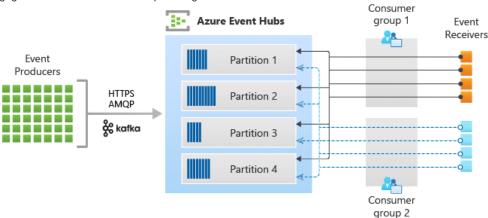
Capture your data in near-real time in an Azure Blob storage or Azure Data Lake Storagefor long-term retention or micro-batch processing. You can achieve this behavior on the same stream you use for deriving real-time analytics. Setting up capture of event data is fast. There are no administrative costs to run it, and it scales automatically with Event Hubsthroughput units or processing units. Event Hubs enables you to focus on data processing rather than on data capture.

Key architecture components

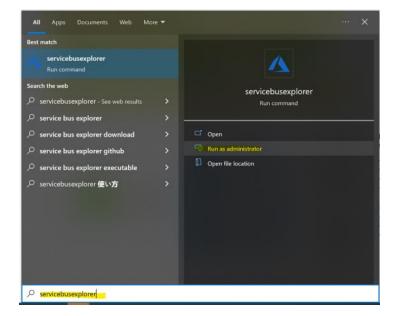
Event Hubs contains the following key components:

- Event producers: Any entity that sends data to an event hub. Event publishers can publish events using HTTPS or AMQP 1.0 or Apache Kafka (1.0 and above)
- Partitions: Each consumer only reads a specific subset, or partition, of the message stream.
- Consumer groups: A view (state, position, or offset) of an entire event hub. Consumer groups enable consuming applications to each have a separate view of the event stream. They read the stream independently at their own pace and with their own offsets.
- Throughput units (standard tier) or processing units (premium tier) or capacity units (dedicated): Pre-purchased units of capacity that control the throughput capacity of Event Hubs.
- Event receivers: Any entity that reads event data from an event hub. All Event Hubs consumers connect via the AMQP 1.0 session. The Event Hubs service delivers events through a session as they become available. All Kafka consumers connect via the Kafka protocol 1.0 and later.

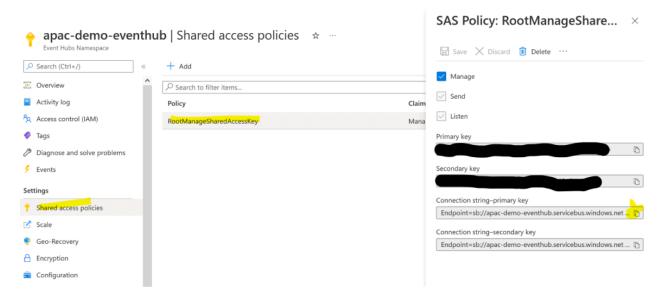
The following figure shows the Event Hubs stream processing architecture:



Connect to the blank event hub with ServiceBusExplorer

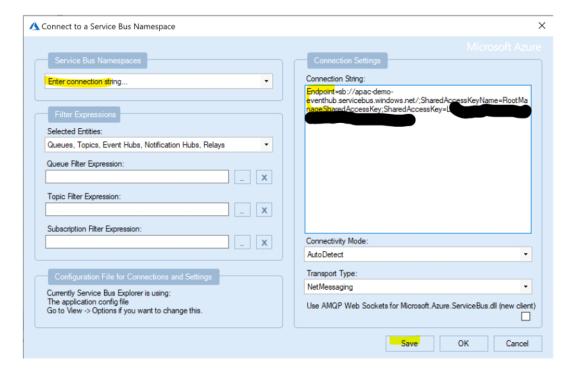


let's try the default connection string

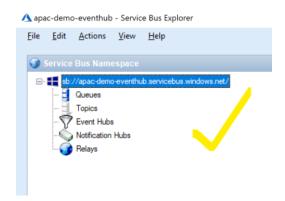


Endpoint=sb://apac-demo-

eventhub.service bus.windows.net/; Shared Access Key Name = Root Manage Shared Access Key; Shared Access Key = LcWsbG < redacted > Gx3r9 VFUc =



Success! - it is blank



Ensure The CluedIb.Connector.AzureEventHub is installed

```
cluedin:
components:
packages:
name: CluedIn.Connector.SqlServer
version: 3.3.0-*
name: CluedIn.Provider.ExternalSearch.Libpostal
version: 3.3.2-*
name: CluedIn.Connector.AzureEventHub
version: 3.3.0-*
```

Connection String

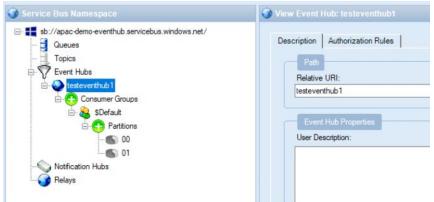
Endpoint=sb://apac-demo-

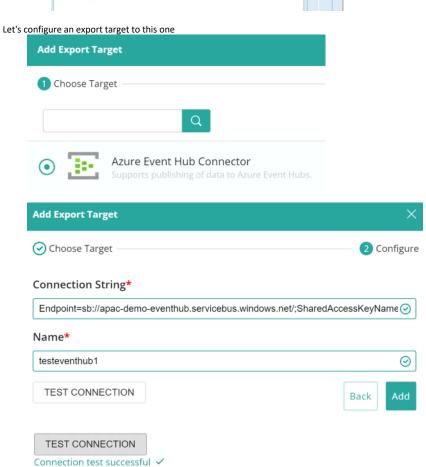
eventhub. service bus. windows.net/; Shared Access KeyName = Root Manage Shared Access Key; Shared Access Key = L < red acted > Gx3 r 9 V F U c =

Event Hub Name

testeventhub1

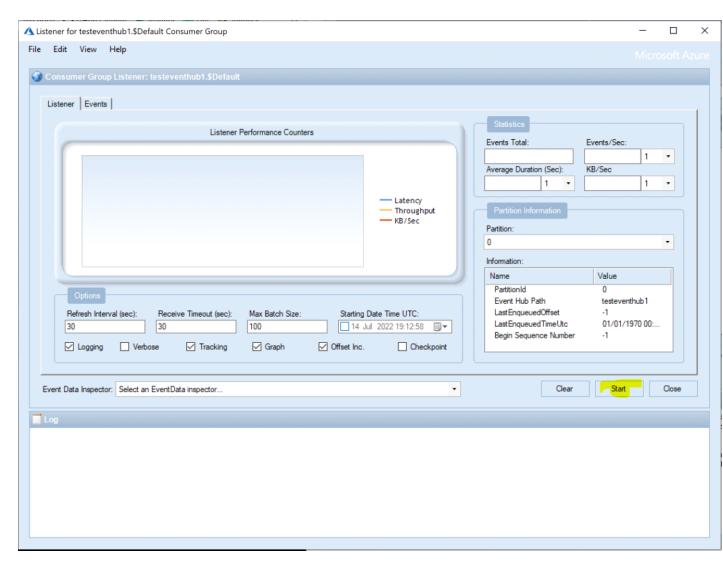
we can see this in the sbexplorer



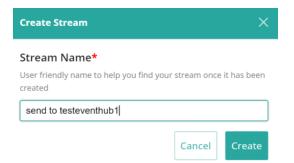


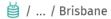


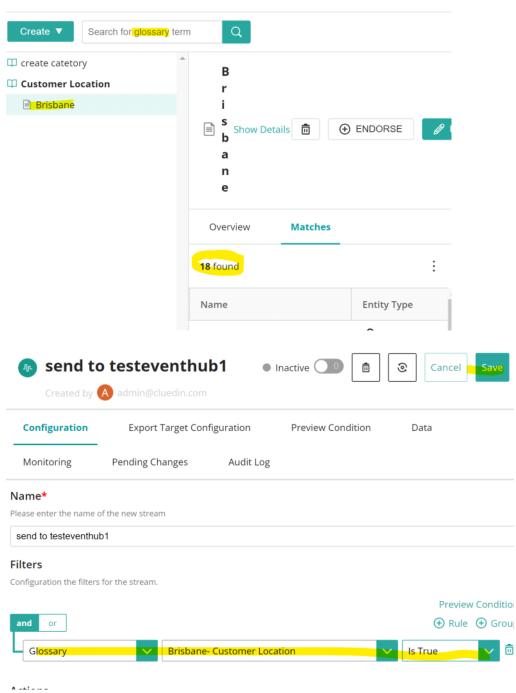




Create test stream - using glossary term as the filter







Configuration	Export Target Configuration Pr	eview Condition Data
Pending Changes	Audit Log	
Attribute Type	Property Person Address L	ine 1 Property Person Addre
/Metadata/KeyValue	8 smallwood pl	NULL
/Metadata/KeyValue	8 smallwood pl	NULL
/Metadata/KeyValue	8 SMALLWOOD PL	NULL
/Metadata/KeyValue	8 Smallwood place	NULL
/Metadata/KeyValue	smallwood place	NULL
'Metadata/KeyValue	8 smallwood pl	NULL
/Metadata/KeyValue	8 smallwood pl	NULL
/Metadata/KeyValue	8 smallwood Place	NULL
/Metadata/KeyValue	smallwood place	NULL
/Metadata/KeyValue	8 smallwood place	NULL

Target name*

The name of the target container for your exported data (eg: for SQL, this would be the r

customer_location

Streaming Mode*

Export targets has the option to support multiple streaming modes. The streaming mode the data should be exported into the target. A synchronized streaming mode, if supports between the data stored in Cluedin and the target. An event log streaming mode, on the events (delete, update, create) each time an action is happening in Cluedin.

This export target only supports Sync mode

Export Edges*

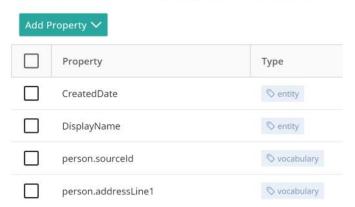
Export edges gives you the necessary information to link correctly your data once it has $\ensuremath{\mathsf{I}}$



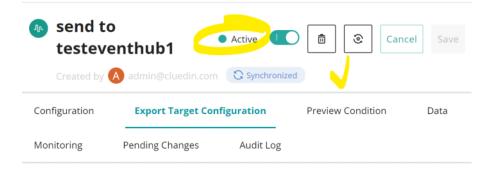
1 Incoming

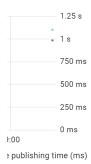
Properties to export

Default identify information for an entity is always exported. Add properties if you want



make the stream active such that events will start to stream



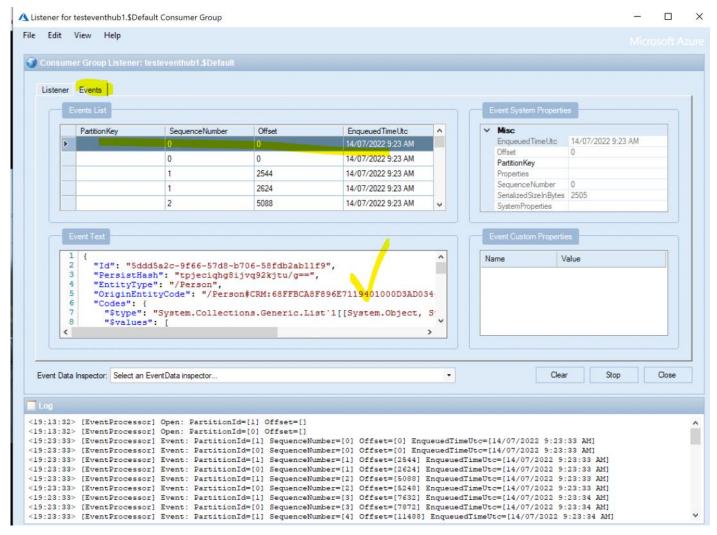




back to sbexplorer

```
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
 <question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="1"><question="
Enqueued1ImeUtc=[14/07/2022 9:23:34 AM]
<99:23:333 [EventProcessor] Event: PartitionId=[1] SequenceNumber=[17] Offset=[37176]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
<19:23:33> [EventProcessor] Event: PartitionId=[0] SequenceNumber=[14] Offset=[39840]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
 (49:23:33) [EventProcessor] Event: PartitionId=[1] SequenceNumber=[18] Offset=[38712]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
49:23:33) [EventProcessor] Event: PartitionId=[1] SequenceNumber=[19] Offset=[41248]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
 tingueedTimeOttc=[14707/2022 9:23:34 AM]
4(9:23:33)    [EventProcessor]    Event: PartitionId=[0]    SequenceNumber=[15]    Offset=[42024]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
4(9:23:33)    [EventProcessor]    Event: PartitionId=[1]    SequenceNumber=[20]    Offset=[43784]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
 cliqueted:lineOctessor] EventProcessor] Event: PartitionId=[1] SequenceNumber=[22] Offset=[48872]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
<19:23:333 [EventProcessor] Event: PartitionId=[1] SequenceNumber=[23] Offset=[51424]</pre>
 EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
  <19:23:33> [EventProcessor] Event: PartitionId=[0] SequenceNumber=[17] Offset=[45688]
 kt9.25.357 [EventProcessor] Event: PartitionId=[0] SequenceNumber=[17] 0ffset=[43686]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]

kt9.23:33> [EventProcessor] Event: PartitionId=[1] SequenceNumber=[24] 0ffset=[53976]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
 <19:23:33> [EventProcessor] Event: PartitionId=[1] SequenceNumber=[25] Offset=[57272]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
 call to the second second
  <19:23:33> [EventProcessor] Event: PartitionId=[1] SequenceNumber=[26] Offset=[60568]
 caption of the control of the contro
cnguctoriamette=[14707/2022 5:23:34 Mm]
(49:23:33) [EventProcessor] Event: PartitionId=[0] SequenceNumber=[20] Offset=[54064]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
(49:23:33) [EventProcessor] Event: PartitionId=[0] SequenceNumber=[21] Offset=[57336]
EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
 <19:23:33> [EventProcessor] Event: PartitionId=[0] SequenceNumber=[26] Offset=[88504]
 EnqueuedTimeUtc=[14/07/2022 9:23:34 AM]
```



Example of the event text

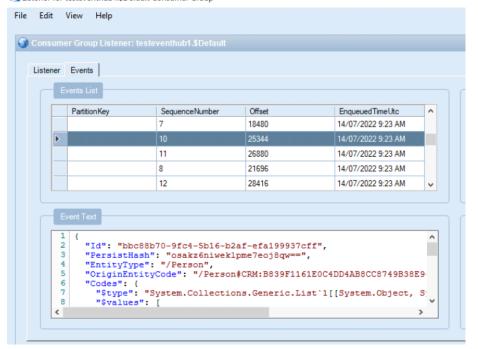
```
{
  "Id": "5ddd5a2c-9f66-57d8-b706-58fdb2ab11f9",
  "PersistHash": "tpjeciqhg8ijvq92kjtu/g==",
```

```
"EntityType": "/Person
   "OriginEntityCode": "/Person#CRM:68FFBCA8F896E7119401000D3AD0344E",
   "Codes": {
   "$type": "System.Collections.Generic.List`1[[System.Object,
System.Private.CoreLib]], System.Private.CoreLib",
    "Svalues": [
       "/Person#CluedIn(email):<redacted>",
"/Person#CluedIn(email):<Pedacted>",
"/Person#CluedIn(hash-
shal):32le83a280d5d684blec8a326a347c68512b636f",
"/Person#CluedIn(hash-shal):58f93a833b6ebe59a70a42cc4be1632ca125e439",
"/Person#CluedIn(hash-shal):808b401a17a8797e8bcfbfb329c44c490317b73a",
        "/Person#CluedIn(hash-
sha1):f40efacf0a1973282552b6be15a88f4565ae333b",
"/Person#CluedIn(hash-
shal):fc15ceaf65af9302039dff035f4b9acdaa9351f5",
    "/Person#CluedIn(mobilenumber):+<redacted>",
"/Person#CluedInImporter(dataset-8803377A86AE4801809D9DFEA6C4D391):11
"/Person#CluedInImporter(dataset-8803377A86AE4801809D9DFEA6C4D391):11
"/Person#CluedInImporter(dataset-8803377A86AE4801809D9DFEA6C4D391):65
"/Person#CluedInImporter(dataset-8803377A86AE4801809D9DFEA6C4D391):68
FFBCA8F896E7119401000D3AD0344E", "/Person#CluedInImporter(dataset-
DB5A90D46C77479991D1BBD122C7F5A3):68FFBCA8F896E7119401000D3AD0344E",
"/Person#CluedInImporter(datasource-3):68FFBCA8F896E7119401000D3AD034
4E",
       "/Person#CluedInImporter(datasource-5):110006705",
       "/Person#CluedInImporter(datasource-5):110213613"
       "/Person#CluedInImporter(datasource-5):65244",
"/Person#CluedInImporter(datasource-5):68FFBCA8F896E7119401000D3AD034
"/Person#CluedInImporter(datasource-7):68FFBCA8F896E7119401000D3AD034
       "/{\tt Person\#CluedInImporter(datasourcegroup-3):} 110006705",
       "/Person#CluedInImporter(datasourcegroup-3):110213613
       "/Person#CluedInImporter(datasourcegroup-3):65244",
"/Person#CluedInImporter(datasourcegroup-3):68FFBCA8F896E7119401000D3
AD0344E",

"/Person#CRM:68FFBCA8F896E7119401000D3AD0344E",
       "/Person#Frile Data Source:110006705",
"/Person#File Data Source:110213613",
       //Person#File Data Source:65244",
"/Person#File Data Source:68FFBCA8F896E7119401000D3AD0344E",
       "/Person#Global:68FFBCA8F896E7119401000D3AD0344E",
"/Person#Jasper:110006705",
       "/Person#Jasper:110213613",
       "/Person#Jasper:65244",
"/Person#Jasper:68FFBCA8F896E7119401000D3AD0344E",
       "/Person#Loyalty:68FFBCA8F896E7119401000D3AD0344E",
"/Person#Loyalty:B000738417"
     ]
  "CreatedDate": "2022-02-23T10:13:38+00:00",
"DisplayName": null,
"personsourceId": "110213613",
"personaddressLinel": "8 smallwood pl"
```

spot audit

⚠ Listener for testeventhub1.\$Default Consumer Group



num of records looks good

