





# INTEGRATION WITH ATOM IN BOOMI





#### Contents

INTEGRATION WITH ATOM IN BOOMI	2
What are Dead Letter Queues?	25
Pros and Cons of Atom Queue	

©TGH Software Solutions Pvt. Ltd.





## **INTEGRATION WITH ATOM IN BOOMI**

In this Blog let us see

- How to integrate Atom Queue in Boomi.
- What are Dead Letter Queues
- Pros and Cons of Atom Queue

#### What is Atom Queue?

Atom supports message queuing which means messages are managed by a shared server queue embedded in the atom. Each queue component specifies the configuration of a message queue, including its name and the messaging model with which the message queue can be used. Deploying an Atom Queue connector does not affect your license count.

In this Use Case, we have 2 processes where process 1 reads a file from Disk Connector and sends it to the Atom Queue. Process 2 will read a message from Atom Queue and send it to the ORACLE database.

#### Let us begin with the steps.

**Step 1:** Log on to the Boomi platform (<u>https://platform.boomi.com/</u>) with the required credentials i.e. Email Address and Password.



#### ©TGH Software Solutions Pvt. Ltd.





Step 2: Once logged into the Boomi platform, we will be able to view the Home page.

b	<u>Home</u>	Services -	Help 🕶	Settings <del>-</del>		
		1				
~ Pro	cesses					
0	¢ te	sting		•	¢.	Orders_Fron
ð	Sh	opify GET or	ders		Ö	Web_Insert_

**Step 3:** Now, click on Services followed by Integration. We will see the Build page. Click on New.



#### ©TGH Software Solutions Pvt. Ltd.





**Step 4:** Once, click on New, we will be able to see three fields i.e. Type, Component Name and Folder.

ettings <del>-</del>	Create Con	nponent
oy – M	* Required fields. Type	@ Process
come	Component Name*	
	Folder*	Q \Training-
n A Rece		
ies	<b>Create</b> Cance	1

• Select Type as process as we are building a process. Component Name and Folder can be given based on your choice (i.e. which name to be given and where do we want to create the process). Click on Create.

**Step 5**: We see that the process gets created with a start shape which is configured with AS2 Shared Server by default.



Step 6: Select the start shape and choose No Data. Click ok.









**Step 7:** Drag and drop the disk connector shape onto the process canvas to read a file from a specific directory.



• We have to configure 3 fields in connector i.e. Action, Connector and Operation.



• We see 2 actions i.e. Get and Send in Actions.

Get – To get the data from a disk location.

**Send** – To send to the disk location.

• Here, we will choose action as GET as we are reading the file.

General Paramet	ers
Display Name	
Connector ④	Disk
Action	Get
Action Connection ④	Get Q. Choose







• Click + on connection to create a new one.

General	Parameters	
Display Name		
Connector (i)	Disk	
Action	Get	
Connection (i)	Q Choose	0
Operation (1)	Q Choose	

• Name the file and give the directory from where we want to read the file. Here, we are reading JSON files from D drive and BoomiExamples folder as shown in the screenshot.

Name	0	Date modified	Туре	Size	
and Coc		11/3/2020 1:33 PM	JSON File		1 KB
Contact		10/26/2020 3:57 PM	Microsoft Excel Co		1 KB
🖳 emp		11/10/2020 10:48 AM	Microsoft Excel Co.,		1 KB
🗋 emp		10/28/2020 1:17 PM	XML Document		1 KB
Fil	e Read Con	nection - Disk 🛈 📁 Eolo	ler 🖋 Add Descripti	ion	

- Click save and close
- Now, we will configure the operation. Click + on operation to create a new one.



#### ©TGH Software Solutions Pvt. Ltd.





• Name the operation and configure the following.

Disk Connector Operat	ion Disk Operation 🛈	🖿 Folder 🕜 Add De
Options Archiving Tra	cking Caching	
Connector Action	Get 🗸	
File Filter	*	
File Matching Type	Wildcards 👻	
Maximum Files to Read	0	
Delete files after reading		
Fail if unable to delete files		

• **File Filter**: Read-only files with a file name that matches the file filter. Here, it will be **Acc.json** 

Disk Connector Opera	tion - Disk Operation 🛈	Folder 🖌 Add Des
Options Archiving Tra	acking Caching	
Connector Action	Get ×	
File Filter	Acc.json	
File Matching Type	Wildcards 🗸	
Maximum Files to Read	0	
Delete files after reading		
Fail if unable to delete files		

#### **File Matching Type:**

- Wildcards uses simple file filters like \* and. \* represent multiple characters and ? represents a single character.
- **Regular Expressions** can include complex regular expressions.
- **Exact Match** includes the filename that we are reading.



#### ©TGH Software Solutions Pvt. Ltd.





• Here, the file matching type would be **Exact Match** as we are giving the file name.

Disk Connector Operati	on - Disk Operation 🛈 🖀 Folder
Options Archiving Trac	king Caching
Connector Action	Get 🗸
File Filter	Acc.json
File Matching Type	Exact Match 🗸
Maximum Files to Read	0
Maximum Files to Read Delete files after reading	0

- Maximum files to read: It sets the maximum number of files to be read at one time. Let it be default i.e..
- **Delete files after reading**: If we want the file to be read and deleted, we can check this option. Here, we are leaving it to default. Click save and close
- The complete disk operation looks like this,



**Step 8:** First, we need to create a queue to store the message. Click on New as shown in the screenshot.



#### ©TGH Software Solutions Pvt. Ltd.





**Step 9:** Select Type as Queue as we are creating a queue to store the message. The component name will be Test Queue and save it in the Folder where you are creating the process. Click on Create.

Туре	🚰 Queue	
Component Name*	Test Queue	
Folder*	Q Tarana gana and a source gan and a source gan a source	

• Name the queue as Queue Demo. Click save and close.

Test Queue - Queue 🕡	E Folder 🖌 Add Description
Settings	
Queue Name	Queue Demo
Queue Type	Point-to-Point 🗸

**Step 10:** Drag and drop Atom Queue connector onto the process canvas and we have to configure Action, Connection and Operation.

General Para	meters	
Display Name		
Connector (j)	Atom Queue	
Action	Get	
Connection (1)	Q Choose	c
Operation 🕕	Q Choose	c

• We have 2 actions i.e. **GET** and **SEND**. Here, Action will be **Send** as we are sending message to the atom queue.

General	Parameters	
Display Name		
Connector 🕧	Atom Queue	v
Action	Send	~
Connection (	Q. Choose	0
Operation 🕕	Q, Choose	0

#### ©TGH Software Solutions Pvt. Ltd.





**Step 11:** Click + on connection and name it accordingly.

General	Parameters	
Display Name		
Connector 🕧	Atom Queue	v
Action	Send	~
Connection 🕧	Q. Choose	0
Operation ①	Q Choose	0

• Choose the atom queue which we have created. Here, it will be Test Queue. Click save and close.

Send Atom Qu	eue Connection - Atom Qu	eue (i)
Connection		
Queue	Test Queue	

**Step 12:** Click + on Operation and name it. Leave all the fields with default options. Click save and close.

General P	arameters			
Display Name				
Connector 🛈	Atom	Queue		~
Action	Send			~
Connection (i)	Q, Sen	id Atom Qu	eue Connection	/ 0
Operation 🕧	Q Cho	)05e		•
Send Ato Options Connector	m Queue C Archiving	peration	n - Atom Queue Caching	
Batch Size			5	

Step 13: Drag and drop stop shape on to the process canvas to indicate the end of the flow.



#### ©TGH Software Solutions Pvt. Ltd.





Step 14: Arrange all the shapes in an order and test it by configuring the local atom.

	Config	ure Copy Remove		-
			200	
Start - No Data	Disk File Read Connection Disk Connector Operation	Atom Queue Send Atom Queue Connection Send Atom Queue Operation	End and continue	
	Tort			
	Test			
	<ul> <li>local_</li> </ul>	atom		
	Test E	xtensions		

Step 15: We see that the process has been executed. Click on view source to see the output.

Process: Send_	<u>To_Atom Qu</u>	eue 🗸	
<b>P</b>		<del>.</del>	
Start - No	Data	Disk File Read Connectio Disk Connector Ope	Atom Queue End and continue n Send Atom Queue eration Connection
			Send Atom Queue Operation
Documents			Test Results
#	Logs	Shape Source Data	Connection Data
1 🕗	View Source	Size (kB)	
	٩	0.15	
	L		

#### ©TGH Software Solutions Pvt. Ltd.





Step 16: Once, we open the document, this is how file looks like

Doc	um	ient Viewer
	1	r
		L
	2	{
	3	"Account_ld": <b>101</b> ,
	4	"Account Name": " <b>Mark</b> ",
	5	"Branch": "Banglore"
	6	},
Ξ	7	{
	8	"Account_Id": <b>201</b> ,
	9	"Account Name": " <b>Sam</b> ",
	10	"Branch": "Hyderabad"
	11	}
	12	]

**Step 17:** To see the queue, Go to Manage > Atom Management and Click on the atom which we have configured.

-	Help +	Settings	-	
	Build	Deploy -	Manage 🔺	
er	+ New	Welcome	Process Reporting	
^	Sen	d_To_Aton	Atom Management	d Description
	Optio	ns Extensior	Boomi Assure	e
I.	Q		Process Library	
I.	Recure		Trading Partner Management	
I.			<b>D</b>	
	Connect		Start - No Data Disk File Read O Disk Conn	Connection ector Operation

Step 18: Next, go to Queue Management and we see a message existing in the queue.

Integration Dashboard - Buile	d Deploy - Manage -					
Filter Q. Search atoms and environm + New API Production > production   local_atom	Information: Atom Information Startup Properties Log Files	Environments » Queue M View and manag	production » local_atom » Queue Mai lanagement () e message queues, enqueued messag	nagement es, dead letters, and referenced document:	5.	
Test	Runtime:	2 Actions	Oueue Name	Oueue Type	Messages	Dead Letters
	Deployed Processes Listeners	۰	Queue_Demo	Point-to-Point	1	0
¢	Queue Management Cerumcates Installed Libraries					

#### ©TGH Software Solutions Pvt. Ltd.





• Click on view messages as shown below.

Environments » pr	oduction » local	atom » Queue Management	
Queue Mo	inageme	nt 🕖	
View and manage r	message queues,	enqueued messages, dead lett	ters, and referenced documents.
C			
Actions	Queue Name		Queue Type
٥	Queue_Demo		Point-to-Point
View Messages	5		
Clear Message	s		
Delete this Que	eue		

• Click on Number of Documents (i.e. 1).



• We see the document size and click on view document details to see the message existing in Atom Queue.

Environments » production » local\_atom » Queue Management

#### Queue\_Demo - Document (ID:LAPTOP-4AGFRNCE-49240-16044762584

View and manage message queues, enqueued messages, dead letters, and referenced documents.

Sack to All Messages		
Actions	ID	Document Size (kb)
0	0	0.15
View Document Details	5	

#### ©TGH Software Solutions Pvt. Ltd.





• We see that the Json file reading from disk has been sent to Atom queue.

```
      Document Viewer

      Raw Formatted Document

      [
      {

      "Account_Id": 101,
      "Account Name": "Mark",

      "Branch": "Banglore"
      },

      {
      "Account_Id": 201,

      "Account Name": "Sam",
      "Branch": "Hyderabad"

      }
      ]
```

**Step 19:** Now, we will create other process which reads message from the atom queue and send it to the database. Click on New as shown and follow steps 4 and 5 which are mentioned above.



Step 20: Configure start shape with connector type as shown.

Process Mode	MALING MI	
Туре	Connector C Trading Partner C Data Passthrough	O No D
General	Parameters	
Display Name		
Connector 🕢	AS2 Shared Server	~
Action	Listen	*
Connection	The Atom Web Server will manage connection settings.	
Operation (	Q Choose	0







**Step 21:** Choose connector as Atom Queue. We have two Actions as GET and LISTEN. We will set it to listen as it will listen to the messages which comes into the queue and trigger the process automatically and reads the message.

Process Mode	General	
Туре	● Connector ○ Trading Partner ○ Data Passthrough	🔿 No Da
General	Parameters	
Display Name		
Connector (	Atom Queue	v
Action	Listen	×
Connection ④	Q Choose	0
Operation (i)	Q Choose	0

**Step 22:** Do not click on + and choose the same connection which we have configured in 1<sup>st</sup> process (i.e. Send Atom Queue Connection)

General P	arameters	
Display Name		
Connector 🕧	Atom Queue	~
Action	Listen	~
Connection 🕧	Q Choose	0
Operation (i)	Q Search components	o
	Send Atom Queue Connection	-

**Step 23:** Click + on Operation and name it as Read\_Atom Queue \_Operation. Leave all the options to default. Click save and close.

F	Read_Atom Queue _Operation - Atom Qui			
	Options	Archiving	Tracking	
	Connector	Action		Listen 🗸
	Consume f	rom Dead Let oint Only)	ter Queue?	0
	Maximum	Concurrent E	recutions	0
	Exclusive C	onsumer?		







### Assuming that we have created a table named as Accounts in Oracle Database with 3 fields named as Account Id, Account Name and branch, will follow the below steps.

**Step 24:** We will configure the database connector to place the message in database which we receive from atom queue. Here, we are using ORACLE database. Drag and drop database connector onto process canvas.

General Parameters			
Display Name			
Connector 🕢	Database	~	
Action	Get	~	
Connection 🕕	Q Choose	0	
Operation (i)	Q Choose	0	

• Here, we have 2 actions i.e. Get and Send.

GET—To get the data from database.

SEND—To send the data to database.

• Action will be send as we are sending the data to database.

General Para	meters	
Display Name		
Connector 🛈	Database	~
Action	Send	~
Connection (1)	Q Choose	0
Operation (i)	Q Choose	0

**Step 25:** Click + on connection and name it accordingly. Configure the following details as shown.

- **Driver Type**: Select the required Database from Dropdown. Choose Oracle as we are integrating with Oracle Database.
- User Name and Password: Give the Database user name and password.
- Host: Give the name or IP Address of the Database.
- **Port**: It is used to connect to Database Server. Default port for Oracle is 1521.
- **Database Name**: Give the Database name of the server.

in 🔼

©TGH Software Solutions Pvt. Ltd.



Oracle_DB_Conr	ection - Database 🕕 🗧 Folder 🕜 Add Description
Connection Advar	ced Options Connection Pool
Database Co	onnection
The authentication deta	ils and location of the hosted Database.
Database URL 🥫	jdbc:oracle:thin:@localhost:1521:XE
Driver Type 🕧	Oracle 🗸
Class Name 🕧	oracle.jdbc.driver.OracleDriver
User Name 🛈	
Password 🕧	<encrypted></encrypted>
Host 🕢	localhost
Port 🕡	1521
Database Name 🛈	XE
Additional Options (i)	

• Click save and close.

**Step 26:** Click + on operation and name it. Click on profile as shown below.

Send_Databa	ase_Operation	- Database Operation 🛈
Options Arch	niving Tracking	Caching
Database	Options	
The operation repre example, in the oper database inserts, etc	sents a specific actic ration you define wh c.	on to be performed on the data nether to get or send informati
Connector Action	Send	~
Profile (i)	Q Choose	0
Commit Options		
Commit Option 🕧	Commit By Profile	e ~
Batch Count 👔	0	
JDBC Batching	🛃 Enable JDBC Bat	tching (i)

**Step 27:** Give it a name and select statement. Choose Type as Dynamic Insert and click on import.

Send Database Profile - Database	ofile (1) The Folder Add Description	Import
© ▼ Statement	Statement Details Define statements used in the profile. The available statement settings are dependent on the Execution Type (Read or Write) select Options tab and the statement Type selected in this tab.	cted in the
	Display Name Statement Type Standard Insert / Update / Delete Position Dynamic Insert SQL Script () Stored Procedure Write Dynamic Update Dynamic Delete	

#### ©TGH Software Solutions Pvt. Ltd.





**Step 28:** Chose the atom and connection. Add the table name as ACCOUNTS in Object Filter and click Next.

#### Database Import Wizard

The Import Wizard columns that you s	auto-generates a SQL statement, prof elect.	ile fields, and J
* Required fields.		
Browse in	local_atom	
Connection*	Q Oracle_DB_Connection	
Schema Filter 🕧		
Object Filter 🕧	ACCOUNTS	

• Choose a table and select all the fields. Click Next.

Choose a Table
Residence ACCOUNTS
Choose Columns For the table selected on the previous screen, select one or more f
Fields for     CCOUNTS       ACCOUNT_ID     ACCOUNT_NAME       BRANCH     BRANCH

• We see a success message that profile has been imported. Click on finish.

Success	
You successsfully imported the fields into your profile.	

• We see that the fields are imported from the table. Click save, close and ok.

Data Elements Options			
E ▼ Statement B E ▼ Fields @ ▼ ACCOUNT_ID @ ▼ ACCOUNT_NAME @ ▼ BRANCH	Define statement tab and the state	nt Details s used in the profile. The available statement ment Type selected in this tab.	nt settings are dependent on t
	Display Name	Statement	
	Туре	Dynamic Insert	~
	Position	1	
	Table Name	ACCOUNTS	

#### ©TGH Software Solutions Pvt. Ltd.

Send Database Profile - Database Profile (1) = Folder Add Description

No part of this document may be copied, reproduced, republished, uploaded, posted, publicly displayed, encoded, translated, transmitted or distributed in any way to any other computer, server, website or other medium for publication or distribution, without TGH's prior written consent

# (în 🕒



**Step 29:** Let us map Json profile to Database profile and send it to Database. Drag and drop Map shape onto the process canvas. Click + and Name the map.

Use maps to tr one profile to a	Shape () ansform data from one format to another, or more specifically, from another. The Map shape references a predefined Map component.
Display Name Map	Q. Choose

• Add source side and Destination side profiles to the map. Here, source side would be JSON profile and Destination side will be Database profile. First, we will add Source profile. Click choose and select the folder where we saved the profile.



• Here, Profile Type will be JSON and click on Create New Profile.



#### ©TGH Software Solutions Pvt. Ltd.





• Name the profile and click on import.

Accounts JSON Profile - JSON Profile	Folder / Add Description	Import
Data Elements		$\wedge$
🛡 Root		۲ ۲

• Choose the file from the directory where we have saved the file. Click on Next.

JSON In	nport Wizard			
Selec	t JSON File to Imp	ort		
File	Choose a File	Account.ison		

• We see that the profile is imported.

JSON Import Wizard	
Profile Loaded	
Root Element Name Root	

Step 30: Now, add the destination profile. Click choose on the right side as shown.

JSON_DB Map - Map (2) The Following Sources	der 🕜 Add Description			Import
Accounts JSON Profile	Choose	Functions	OIF	Choose
Filter       Q. Search for field         Image: Search for field </td <td></td> <td>ſ</td> <td></td> <td></td>		ſ		

#### ©TGH Software Solutions Pvt. Ltd.





• Profile Type will be Database and select the Database profile which we have imported in the previous steps. Click ok.



• We see that source and destination profiles have been imported. Provide one to one mapping from source to destination. Save and close.

JSON_DB Map - Map (i) Eolder /	Add Description					Import
Accounts JSON Profile	Choose	Functions	<b>O</b> 17	Send Databas	e Profile	Choose
Filter Q Search for field				Filter Q Seard	h for field	
😑 🚜 🐨 Root						Statement 🔻 💽 😑
😑 💽 🔻 Array						Fields 🔻 💽 😑
😑 🚜 🔻 ArrayElement1						ACCOUNT_ID 🔻 💓
😑 💽 🔻 Object					ACC	OUNT_NAME 🔻 💓
👽 🕆 Account_Id						-BRANCH 🔻 🍞
💓 🖛 Account Name						
🔵 🔻 Branch						

Step 31: Drag and drop stop shape onto the process canvas to indicate the end of the flow.



**Step 32:** Arrange all shapes in the order and deploy the process. Click on create packaged component as shown below.

Read_From_AtomQueu	Process ()      Folder      Add Description	Create Packaged Component Test
options Extensions Add Not	e Show Navigation Arrange	Λ
l Search shapes		4 2
у 🦓 Мар	Configure Copy Re	ernove
Set Properties	<b>-</b>	
Message	Start - Atom Queue JSON_DB Map Database Send Atom Queue Oracle_DB Connection Send_Data	and continue Connection abase_Operation
Notify	Read_Atom Queue	

#### ©TGH Software Solutions Pvt. Ltd.





• The process gets selected automatically. Click Add Details.



• Next, select the version and write notes if you have any. Click on create packaged component.

Create Pac	kaged Components: Add Details
Optionally apply detai each selected compo	is to the newest version of your packaged components. When you have multiple packaged components selected at one time, the details you sp ent results in its own individual version.
Version for all	From the set function as more a surveying a set from the site of the set of t
	g you an init pappy of memory and an experimentation of a second according to the participant comparison of the increments based on the latest version number.
Package Notes for All	
	$\langle \neg \rangle$
	4000 characters remaining.
Sharing 🕧	Allow Processes and APIs to be publicly shared to subaccounts. This setting is ignored for components that cannot be shared.
Create	e Packaged Component (1)

• Now, we see that the package has been created successfully and click on deploy.



• We will then have to select the environment. Choose production and click select version and review.

#### Deploy: Select Environment

Deployment Environment	Q Choose	
Deployment Notes	API Production Test production	

©TGH Software Solutions Pvt. Ltd.





Select the environment i	n which to deploy your packaged component(s), and optionally add notes about the deployment.
Deployment Environmen	API Production
Deployment Notes	choose production
	400 characters remaining
	Next: Select Versions
	Nevt- Deview

• We will be asked to cross check the environment which we have configured in deployment tab.

Deploy: Review			
You're almost done! Before deploying this version of yo	ur packaged component, confirm	that the destination environment you have selected is c	orrect.
Environment: production Deployment Notes:			
Name	Туре	Selected Version	Deployed Version
Read_From_AtomQueue	Process	1.0	N/A

• Once, we click on deploy we will be able to see that deployment is done successfully.

Your packaged cor	mponents were successfully deployed.
Click on the View E	Deployments button to see all deployments for this
account.	

**Step 33:** Now, we will test the first process and second process will automatically gets triggered and listens to the request.

d_To_Atom Queue - Process	Folder / Add Description		Create Packaged Component
ns Extensions Add Note Show	Navigation Arrange		
<b>D</b>	Config 	ure Copy Remove	2 <b>11</b>
Start - No Data	Disk File Read Connection Disk Connector Operation	Atom Queue Send Atom Queue Connection Send Atom Queue Operation	End and continue

#### ©TGH Software Solutions Pvt. Ltd.







Step 34: We see that the process has been executed. Click on view source to see the output.

← Process: Sen	<u>d_To_Atom Queue</u> 🚽	
Start -	No Data Disk File Read Connec Disk Connector C	Atom Queue End and continue tion Send Atom Queue Operation Connection Send Atom Queue Operation
Documents		Test Results
#	Logs Shape Source Dat	a Connection Data
1 🥝	View Source Size (kB)	
	0.15	

**Step 35:** Go to Manage > Process Reporting and we see that the second process (i.e. Read\_From\_AtomQueue) has been executed automatically without errors.

board -	Build	Deploy –	Manage 🔺				
ionent or folder	+ New	Welcome	Process Reporting	Queue ×			
-	Sen	d_To_Atom	Atom Management	d Descri			
	Optio	ns Extensior	Boomi Assure	e			
	Q Shapes		Process Library				
	<b>(2)</b>		Trading Partner Management				
Integration Dashboard - Build Deploy -	Manage -						
Executions -					Execute	Process Auto Re	fresh is Off 🔲
Past Hour 👻 🕹 🎿						All Errors	Pending Successes
Time		Actions	Atom 🗢 In	⇔ Out ⇔ El	apsed Time 🗘 Error Messag	e	
12 Nov 2020 13:06:35 Read_From_AtomQueue		۵	local_atom	1 1	0:00		

#### ©TGH Software Solutions Pvt. Ltd.





**Step 36:** We see that the message has been read from the queue and got inserted into database. If we look at the database table, we see 2 records have been inserted.



NOTE: If something goes wrong in the above process, the failure messages will go into the Dead Letter Queue.

Now, let us see what are Dead Letter Queues.

## What are Dead Letter Queues?

Dead Letter Queues contain failure of messages. When a failure occurs, the shared queue server will attempt to redeliver the message up to six more times. After the failures, the Dead Letter Queue will be created corresponding to the Destination Queue and the failed messages will be placed in the dead letter queue.

• We will see the concept of dead letter queues for the same Use Case. We have given wrong credentials for the data base so that the error pops out and the message gets inserted into Dead Letter Queue after seven attempts.

©TGH Software Solutions Pvt. Ltd.



in 🕨



• We will run Send\_To\_Atom Queue process in Test Mode and monitor Read\_From\_AtomQueue in Process Reporting tab to see the retries and error message.

Extens	sions Add Nata Show	Newigation		cre	ate Fackaged component
<u>Externs</u>	sions Addinote show	Navigation Arrange			
		Config	ure Copy Remove		
				9500	
	Start - No Data	Disk File Read Connection Disk Connector Operation	Atom Queue Send Atom Queue Connection Send Atom Queue Operation	End and continue	
		Tost			
		Test			
		local	.atom		
		local     Test	atom		

**Step 37:** We see that first process is executed and the message is pushed into the Atom Queue.

Process: Send_	To_Atom Qu	eue 🔺		
	• • • • • • • • • • • • • • • • • • • •	<b>2</b>		
Start - No	Data	Disk File Read Connectio	n Atom Queue n Send Atom Queue	End and continue
		Disk Connector Ope	connection Connection Send Atom Oueue	Operation
Documents				Test Results
#	Logs	Shape Source Data	Connection Data	
1 📀	View Source	Size (kB)		
	٩	0.15		

#### ©TGH Software Solutions Pvt. Ltd.





**Step 38:** Go to Manage > Process Reporting and monitor the second process. We see that process had failed to execute due to the wrong credentials and the shared queue server had attempted to redeliver the message up to six more times.

E	Executions - Execute Process Auto Refresh is Off												
Past Hour 🔻 🛛 Add Filter 👻 😰 🛃 All Errors Pending Successes										All Errors Pending Successes			
	Time		¢	Process	\$	Actions		Atom	\$	In ‡	Out \$	Elapsed Time 🖨	Error Message
•	-	13:10:37	2	Read_From_AtomQueue		¢		local_atom		1	0	0:02	lo exception: The Network Adapter could not establish t
•	-	13:10:21	1	Read_From_AtomQueue		•		local_atom		1	0	0:00	Io exception: The Network Adapter could not establish t
•		13:10:09	$\sim$	Read_From_AtomQueue		¢		local_atom		1	0	0:02	lo exception: The Network Adapter could not establish t
•		13:10:03	1	Read_From_AtomQueue		¢		local_atom		1	0	0:00	lo exception: The Network Adapter could not establish t
•	1	13:10:00	$\sim$	Read_From_AtomQueue		¢		local_atom		1	0	0:00	Io exception: The Network Adapter could not establish t
•	•	13:09:58	$\sim$	Read_From_AtomQueue		¢		local_atom		1	0	0:00	lo exception: The Network Adapter could not establish t
۰	_	13:09:54	1	Read_From_AtomQueue		¢		local_atom		1	0	0:02	Io exception: The Network Adapter could not establish t

**Step 39:** The failure message will now be sent to the Dead Letter Queue. Go to Manage > Atom Management

b Home	Services -	Help	- Settings	; <del>•</del>	
Integration D	ashboard -	Build	Deploy –	Manage 🛓	
Executions			Process Reporting		
				Atom Management	
Past Hour 👻	Add Filter 👻	2 🕹		Boomi Assure	
Time	¢	Process		Process Libr	ary
13:1	0:37 🔗	Read_From	n_AtomQueue	Trading Dart	nor Management
13:1	0:21 🔗	Read_From	n_AtomQueue	rrading Part	ner management

**Step 40:** Select the atom and click on Queue Management. We see that there is a message existing in Dead Letter Queue.

Home Services +	Help • Settings •				<u>م</u>	] Sign Out
Integration Dashboard - B Filter Q. Search atoms and environm + New API Production • local_atom • Test • Cloud_Atom	Deploy -         Manage           Information:         Atom Information           Atom Information         Startup Properties           Log Files         Runtime:	Environments Queue N View and mana Actions	» production « local_atom » Queu fanagement (i) ge message queues, enqueued m Queue Name	e Management essages, dead letters, and referenced documents. Queue Type	Messages	Dead Letters
	Deployed Processes Listeners Queue Management Certificates Installed Libraries Settings & Configuration:	•	Queue_Demo	Point-to-Point	0	1

#### ©TGH Software Solutions Pvt. Ltd.





Step 41: To see the failure message, click on Actions and choose view Dead Letters.



Step 42: Click on Number of Documents followed by View Document Details.

Environm	ents » production » local_atom » Queue Management					
Queue_Demo - Dead Letter Queue 🛈						
View and r	manage message queues, enqueued messages, dead letters, and reference	ed documents.				
Sack	to All Queues Retry • Delete • 2					
ID		Time Stamp	Number of Documents \$			
	:LAPTOP-4AGFRNCE-59156-1606378047963-2:1:167:1:1		1			

<ul> <li>Back to All Messages</li> </ul>		
Actions	ID	Document Size (kb)
•	0	0.15
View Document Details	5	

Step 43: We now see the document which has sent to the Dead Letter Queue.



#### ©TGH Software Solutions Pvt. Ltd.





**Step 44:** We have an option of Retrying the message and Delete the message in Dead Letter Queue. Here, we will retry and push the message from Dead Letter Queue to the Main Queue i.e. (Queue\_Demo) by selecting All Dead Letters in the Queue.

Queue_Demo	- Dead Letter Queue 🕡
View and manage messag	e queues, enqueued messages, dead letters, and refe
+ Back to All Queues	Retry • Delete • 2
ID	Selected Dead Letters
DILAPTOP-4AGFR	All Dead Letters in this Queue

**Step 45:** We will be asked if we want to send messages from dead letter queue to Main Queue. Choose ok.

<b>♠</b> <u>B</u> a	ack to All Queues Retry 🔹 Delete 🔹 🛛 😂	
	You are about to send all of the messages back into the queue. Do you want to continue?	
	OK Cancel	

#### ©TGH Software Solutions Pvt. Ltd.







**Step 46:** We see that message had been pushed into Queue\_Demo which is the main Queue. Click on Back to All Messages > Back to All Queues and refresh it.

Queue Management 🕖					
View and manage message queues, enqueued messages, dead letters, and referenced documents.					
Actions	Queue Name	Queue Type	Messages	Dead Letters	
٥	Queue_Demo	Point-to-Point	1	0	

## **Pros and Cons of Atom Queue**

Advantages	Disadvantages	
Atom Queues are simple, robust and	Messages cannot be sent between accounts	
reliable.	and cannot be directly accessed from outside	
	the Atom	
Atom message queueing can be used to	If the requirement is to set up a messaging	
monitor Event based tracking and	service out of Boomi scope, then we don't	
schedule based tracking	prefer Atom Queues	
Message queues can persist messages	No guarantee of message delivery in atom	
until they are fully processed	queue	
Atom message queueing allows you to	If all the processes run on single atom, then a	
scale your system when the number of	process can publish on Atom queue and other	
messages grows by adding more listeners	processes can subscribe to the message only if	
to a queue	they are on same atom	
Processes writing and reading data	Atom Queue is not designed to be an actual	
execute independently of each other in a	message service like JMS and compared to	
real-time scenario in atom queues	JMS based message queuing systems, it offers	
	a limited set of features	
If the scope of your messaging service is	Atom Queue life is within the atom which	
within a single atom, then we can use	means messages published in atom cannot be	
Atom Queue	consumed by any applications outside the	
	atom	
Dead letter queues helps in increasing	Boomi does not provide the ability to interact	
accuracy about information transferred	with dead letter queues during process	
and shared with other servers	execution	

#### ©TGH Software Solutions Pvt. Ltd.







## **TGH Software Solutions Pvt. Ltd.**

www.techygeekhub.com

At TGH, we specialize in driving digital transformation through seamless Integration Technologies.

Operating as an INTEGRATION FACTORY, we serve as a one-stop shop for all your integration needs. Our expert team is well-versed in enterprise software and legacy system integration, along with leading iPaaS technologies like Boomi, MuleSoft, Workato, OIC, and more.

We're committed to enhancing business processes and solving problems through our integration expertise.



B

Email address connect@techygeekhub.com

Phone number + 011-40071137 + 91-8810610395



#### Our offices

Noida Office iThum Plot No -40, Tower A, Office No: 712, Sector-62, Noida, Uttar Pradesh, 201301 **Hyderabad Office** 

Plot no: 6/3, 5th Floor, Techno Pearl Building, HUDA Techno Enclave, HITEC City, Hyderabad, Telangana 500081

