

# Americas Virtual Meetup #8

## 12 Cloud Studio Tips for the Holidays

December 15th, 2021

# Meetup Agenda

- Welcome & Introduction
- Meetup Format / Schedule
- Outline of Today's Session
- Technical Presentation
- Q&A / Feedback



## SCHEDULE

# FORWARD SCHEDULE & THEMES

### Previous Virtual Meetup available on Success Central:

- **Advanced Resources >> [Jitterbit Customer Workshops](#)**

### Event Schedule:

- December 15th, 2021: 12 Cloud Studio Tips for the Holidays
- NRF 2022 (NYC) - Jan 16-18, 2022
- Next Virtual Meetup: March 16th, 2022
  - **What should we cover? What would be valuable?**

### Topics/Themes:

- Enablement, Best Practice & Top Tips
- Product Demos
- Cloud Studio & API's
- Real-time Dashboards
- TBC
- System Monitoring



## TODAY'S SPEAKERS

# PROFILE



**Jaime Delgado**  
Senior Customer Success  
Architect

Jaime has 14 years of experience in the cloud application and integration technology space helping organizations through digital transformation and automation of processes. Jaime's interests are in helping organizations maximize their use of APIs to drive innovation and value for their customers.



**Mayank Bhasin**  
Senior Customer Success  
Architect

Mayank is an Enterprise Data Integration Architect by trade who has lead successful technology campaigns including software development and sales, business process improvements, data warehouse modernization on-prem and on-cloud, platform modernization on-prem and on-cloud, data engineering and streaming architectures, data governance, enterprise data cataloging, self-serve data-prep, and data science and advanced analytics; over 17 years of experience and focused mainly on healthcare, retail and utilities industries.

# Today's Meetup

OUTLINE / OVERVIEW OF SESSION

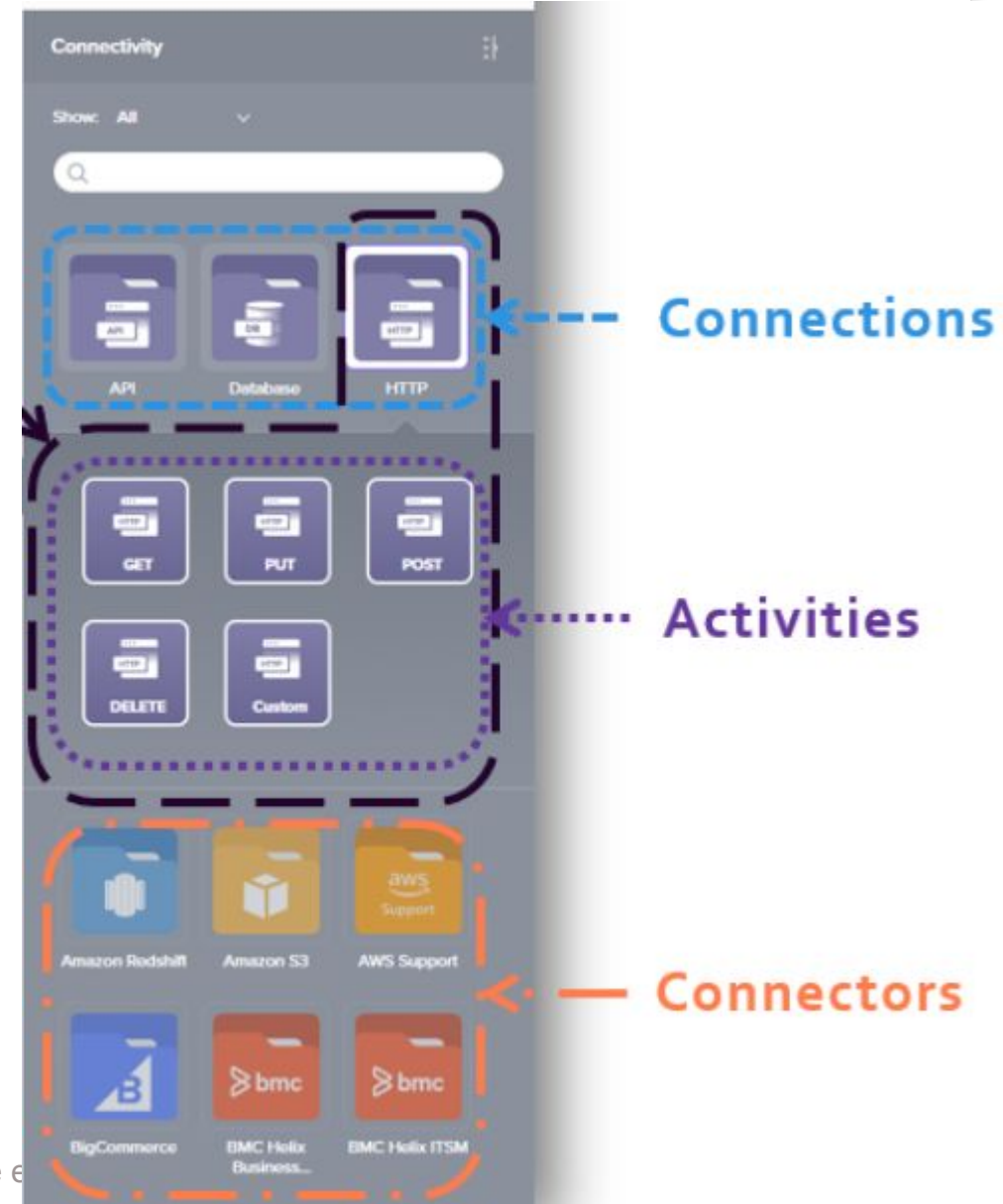
# Learnings

Tip	Best Practice	New Feature
Connection configuring and Endpoint / Activity in CS	CS project size limit	eBridge EDI connector in CS operations
CS connector builder	Chaining CS operations together	MS SQL Server events to API (event based architecture from MS SQL Server)
How to use Restore feature of CS	CS project & project variables migration / deployment history tracking	
Tagging	Running a CS operation from another CS project	
Error logging / alerting in CS operations		
Multiple developers collaborating simultaneously to the same CS project		

**Legend:** Cloud Studio (CS)

# Connection Configuration and Endpoint / Activity in CS

- CS design component palette provides access to many connectors
  - First, use connector to establish a connection (for eg: http, database, etc. connection)
  - Second, use the connection to configure one or more associated endpoint activities
    - http connection: GET / POST / etc. activity
    - database connection: Query / Upsert / etc. activity
  - Re-usability



# Running a CS operation from another CS project

- Allows to run operations from different CS projects that are located and already deployed within the same environment as the current project
- Valuable in case
  - there are common components that need to be built “once” and “re-use” in multiple projects
    - enforces consistency across multiple projects
    - saves time and effort during development, testing and maintenance
    - re-usability



# Running a CS operation from another CS project .....contd.

- Cloud Studio demo

- Step1:

- Capture the GUID of the remote operation (Project1)

- WriteToOperationLog(\$jitterbit.operation.guid);

- Step2:

- Refer to the GUID captured above in the calling operation (Project2)

- If(!RunOperation("op.2a908057-72bc-4fe4-89d7-b572800f9dde"),  
RaiseError(GetLastError()));

# Chaining CS Operations together

- Adopt Controller script instead of Success path approach
  - allows chaining or triggering operations based on
    - condition(s)
    - value(s)
    - output of database query
  - Graceful error handling
  - Allows inserting breakpoints at specific steps during script testing and troubleshooting activities  
[DebugBreak()]

# Chaining CS Operations together .....contd.

- Cloud Studio demo

- Operations chained together based on a value (captured in a global variable) in the condition defined in the controller script

- If(\$index >= 100,

```
    If(!RunOperation("<TAG>operation:jb.HighIndexMembers</TAG>"), RaiseError(GetLastError())),
```

```
    If(!RunOperation("<TAG>operation:jb.LowIndexMembers</TAG>"), RaiseError(GetLastError()))
```

```
);
```

# Error Logging and Alerting in CS Operations

- Handle response from the operation
  - RunOperation (when running Jitterbit operation)
    - If(!RunOperation("<TAG>Operations/Jitterbit Connect™/Target Loads/Load Target with LoadReady data</TAG>"), RaiseError(GetLastError()));
  - DBExecute (evaluate response from DB query in Jitterbit operation)
    - Eval(DBExecute(my SQL query), RaiseError(GetLastError()));
      - useful in scenarios when the operation completed successfully but the data did not load in the endpoint
        - Table Constraints, DDLs, etc.
        - Data Quality checks
      - <https://success.jitterbit.com/display/CS/Logging+and+Error+Functions>
      - <https://success.jitterbit.com/display/CS/Database+Functions#heading-DBExecute>

# Error Logging and Alerting in CS Operations .....contd.

- Based on the use case, use the response captured in If() or Eval() statements
  - On failure, put the last error into a variable
    - Eval(`orderType = DBLookup("<TAG>endpoint:database/My Database</TAG>", "SELECT ORDER_TYPE FROM PO_HEADER WHERE PO_NUMBER = " + PO_NUM), error = GetLastError());`
      - Inspect errored records from the endpoint to investigate the reasoning of error
    - If an error, raise it with the error in the message
      - If(`Length(error) > 0, RaiseError("Failed to lookup Order Type: "+ error), orderType);`
        - useful in creating an email alert to notify appropriate stakeholder(s)
- Cloud Studio Demo

# Multiple developers collaborating simultaneously to the same CS project

- For Design Studio users planning to adopt Cloud Studio
  - When multiple developers are contributing to the same project:

Design Studio	Cloud Studio
Need to build multiple folders (at least 1 folder per developer) in the project for versioning and deployment of operations	No need to manually build or organize folders <ul style="list-style-type: none"><li>- Dynamically structured list of operations</li><li>- Browser based</li></ul>
Each developer must deploy their respective folder(s) only	Developers can deploy the whole project <ul style="list-style-type: none"><li>- Valuable if the changes are being made to the common components</li></ul>
Each developer should work on individual use case	Multiple developers can contribute to the same use case or operation <ul style="list-style-type: none"><li>- Efficient collaboration</li></ul>
Extensive communication required	Minimal communication required
Alternatively, build separate project for each developer	No need to build separate projects <ul style="list-style-type: none"><li>- Easier to maintain and support</li></ul>

# Project Size

- Deploy and Sync Issues
  - Larger projects take longer to deploy
  - The sync process to private agents can be delayed
- Tip
  - Practice good project hygiene(delete unused components)
  - 40 MB max
  - ~30-40 Operations
- Benefits
  - Minimize deployment timeouts
  - Faster project synchronization with private agents
  - Simplified Maintenance

# Tagging Events

- Project Events
  - Deploys
  - Migrations
  - Restores
- Provides ability to label and group changes
  - recommended for versioning
- Viewed in Project History
- Ability to quickly identify versions
- <https://success.jitterbit.com/display/CS/Project+History#heading-TagginganEvent>

The screenshot displays the Jitterbit interface for an environment named 'meetup'. The top navigation bar shows several tabs: '2.0 jb.deduplication', '3.0 jb.validate', '6.0 jb.inMemory.lookUp', and '7.0 jb.cleansing'. Below the tabs, there are controls for 'Collapse All Operations' and 'Highlight Invalid Items'. The main content area is divided into two sections. The top section, titled 'e.testHarness', shows a single event with a code icon. The bottom section, titled 'e.transformation', shows a sequence of events with icons for 'InOut Read', a code icon, a migration icon, 'InOut Write', and another code icon. On the right side, a 'Project History' dialog box is open, showing a filter for 'Last 30 days' and a 'Tagged' dropdown menu. The dropdown menu is expanded, showing options for 'Deploys', 'Migrations', and 'Tagged' (which is selected). Below the dropdown, a list of events is shown, including one for '4:06pm Deployed by Jaime D.' with a version number '1.2'. Below the list, there are input fields for 'TAG NAME\*' (containing '1.2') and 'TAG DESCRIPTION', and 'Save' and 'Cancel' buttons.



# Project Migration

- Migration in Cloud Studio happens at the project level and within the same organization
- Migration will create a dependency chain based on the environments
  - Development, QA, Production
- Options
  - Tag deployment(recommended that it is unique)
  - Select which project variables to migrate(overwrite value in target environment)
- History Tracking
  - migration event label is now part of the project
- More Information
  - <https://success.jitterbit.com/display/CS/Project+Migration>
  - <https://success.jitterbit.com/display/CS/Component+Deployment>

# Project Restore

- Backups are automatically created
- Events available for restore
  - migrate, deploy, restore
- Available in project history

The screenshot displays the Jitterbit user interface. At the top right, it shows the user name 'Welcome back, Jaime', the account ID 'Jitterbit (314944)', and a 'Help' link. Below this is a tabbed interface with three active tabs: '3.0 jb.validate', '4.0 jb.memberIndex', and '6.0 jb.inMemory.lookUp'. A '+ ' icon is visible to the right of the tabs. Below the tabs are two buttons: 'Collapse All Operations' and 'Highlight Invalid Items' (which is checked). The main area is partially obscured by a 'Project History' panel on the right. This panel shows a timeline of events for the last 30 days. The events are grouped by date: December 13, 2021 (5:00pm - 4:30pm) with 1 Deploy and 1 Change; and December 10, 2021 (3:00pm - 2:30pm) with 2 Migrations. The most recent migration at 2:47pm is highlighted, and a 'Restore this version' button is visible next to it. A red dot on the left side of the main interface is connected by a red line to the 2:47pm event in the history panel. At the bottom right of the main interface, there are navigation icons: a refresh icon, a back icon, a forward icon, a list icon, and a more options icon.

# Leverage Connector Builder for Cloud Studio

- Quickly connect to REST based services
- Supported on Cloud and Private Agents
- Wizard based configuration
- Supports anonymous and basic authentication
  - more authentication schemes will be added in the future
- Once published the connector will be available as an endpoint
- More information
  - <https://success.jitterbit.com/display/CS/Connector+Builder+Prerequisites+and+FAQ>

# Event Driven Architecture using MS SQL Server and Jitterbit

- Benefits
  - Near real time integration
  - Building block of microservices
  - Efficiency in speed of development and processing of data
  - Quickly notify data owners of any errors
- Solution
  - APIM
    - Provides easy to create and manage API to receive real time messages
  - Cloud Studio Project
    - Flow that will receive the data and process it accordingly
  - MS SQL Server
    - Built in functionality to notify/send data to an API for processing

# Event Driven Architecture using MS SQL Server and Jitterbit

- Components
  - Jitterbit - APIM
    - Hosts the API to receive the customer update message
  - Jitterbit - Cloud Studio Project
    - Contains the flow that receives the API message
    - Reads the json message
    - updates the account record in Salesforce
  - MS SQL Server
    - trigger on customer table
      - when a record is created or changed the trigger fires and calls the stored procedure
    - stored procedure
      - creates the HTTP connection and calls the Jitterbit API

# New Feature eBridge Connector Activities

- New Jitterbit acquisition
- Ability to create EDI messages in the cloud
- EDI connector in Cloud Studio
  - xml to EDI transformation using eBridge EDI processing
  - xml to EDI transformation using CS transformations / mapping
- The connector allows the following activities
  - Send Document(target) - send data to generate and deliver an EDI document
  - Get Document(source) - get a document that has been received on the via an Ebridge Connector for this account(organization)
  - Get Status(source) - get status information on a document that has been sent for creation and delivery
- Ability to configure on the eBridge side to deliver the EDI message
- <https://success.jitterbit.com/display/CS/EDI+for+Cloud>

# Other ways to get Help from Jitterbit (CSA, TAM & other services)

- Best Practices session with Customer Success Architect (CSA)
  - Reach out to your Customer Success Manager (CSM) to schedule
- Health Check review with CSA
  - Reach out to your CSM to schedule
  - <https://success.jitterbit.com/display/DOC/Jitterbit+Integrate+Conference+2021%2C+Session+3>
- Architecture assessment with CSA or TAM (Technical Account Manager)
  - Reach out to your CSM to schedule
- Working session with CSA for Jitterbit examples and/or development activities
  - Reach out to your CSM to schedule
- CSA office hours every Wednesday @ 10am Pacific Time
  - Reach out to your CSM to get invited
- Customer workshops or customized training with CSA or TAM (customized to your use cases)
  - Reach out to your CSM to schedule
- Contact:
  - [success@jitterbit.com](mailto:success@jitterbit.com) | <https://success.jitterbit.com/>

# Other ways to get Help from Jitterbit (CSA, TAM & other services..... *contd.*)

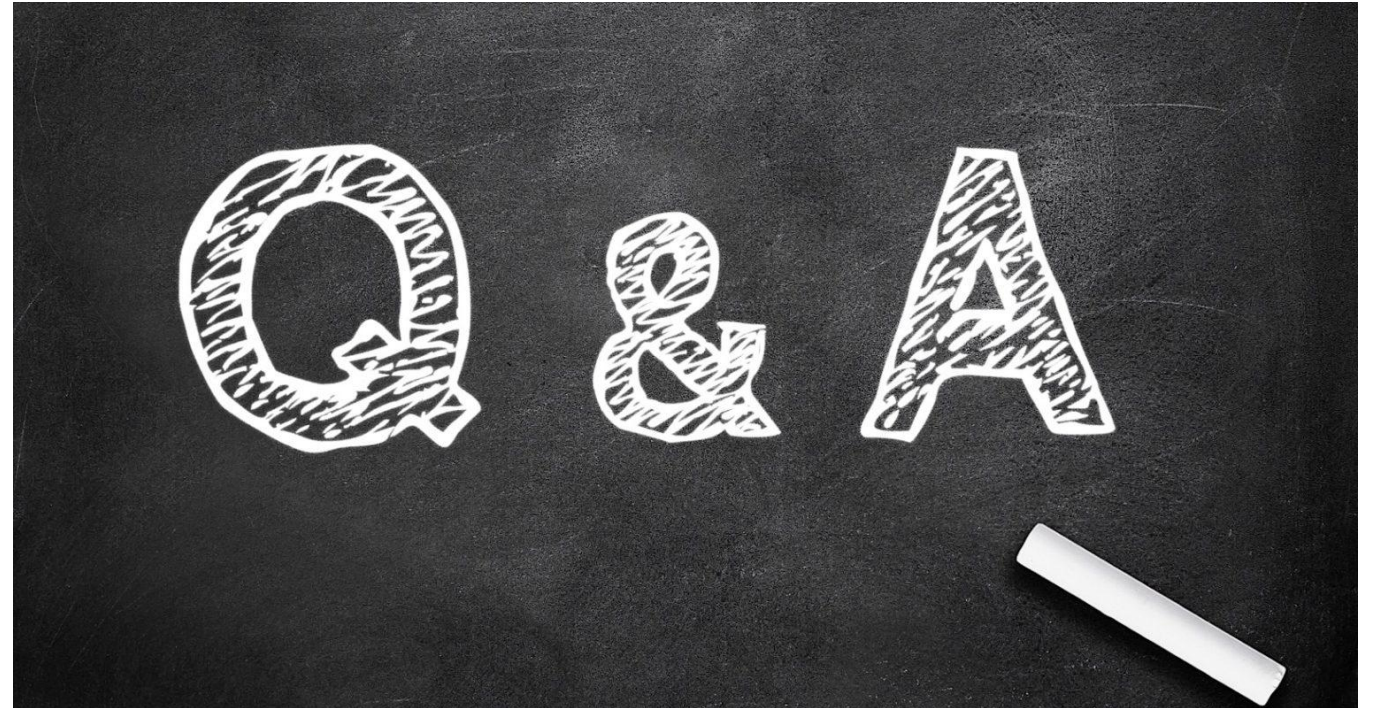
- Other useful Jitterbit resources

- [Success Central](#)
- [Best Practices with Jitterbit](#)
- [Integration Project Methodology](#)
- [Advanced Resources](#)
- [Getting Started](#)
- [Getting Training](#)
- [Jitterbit Customer Workshops](#)
- [Jitterbit Tech Talks](#)
- [Video Library](#)
- [Jitterbit Developer Portal](#)
- [Ask the Jitterbit Community](#)
- [Submit a Support Case](#)
- [Check Jitterbit System Status](#)



Q&A

# QUESTIONS & FEEDBACK



## **Mission**

Empowering innovation and delivering exceptional experiences by connecting data, people, and processes.

## **Vision**

To be the most sought-after partner, delivering best-in-class products and services connecting the world's systems.