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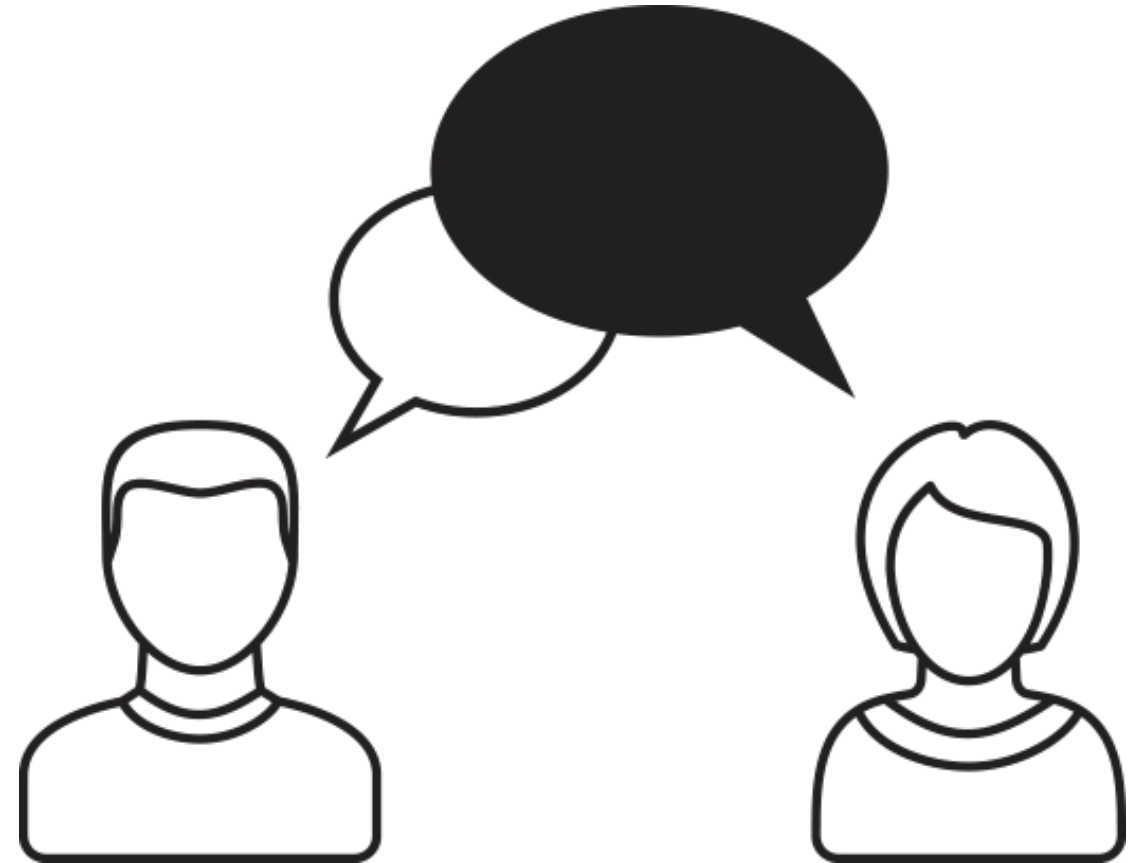
# Integrations | Overview

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# Introductions

- Take 5 Minutes
- Turn to a Person Near You
- Introduce Yourself



# Agenda

- Integration Options
- Integration Methods
- Framing the Integration
- High-Level Outbound Interface
- High-Level Inbound Interface
- Common Interfaces

# Location, location, location

- Is CA PPM On-Premise or SaaS?
- Is the system being integrated with On-Premise or SaaS
- Technical / Security Limitations
  - CA PPM SaaS to SaaS
    - Most SaaS applications have a rich API suite to facilitate integrations
    - Beware of security limitations of outbound web service calls from CA PPM
  - CA PPM SaaS to On-Premise
    - Cannot pull data from On-Premise
    - Cannot push data to On-Premise
  - CA PPM On-Premise to On-Premise
    - Many options

# Integration Methods

- Flat File Transfer
  - Simple to develop
  - High performing
  - Batch style
  - Available in SaaS and On-Premise
- Web Service
  - More complex development
  - Slower performing
  - Lower volume, more surgical
- Database Link
  - Simple to develop
  - High performing
  - Out of fashion

# Framing the Integration

- What data is being exchanged
  - Resource data
  - Timesheet data
  - Financial data
- Source
  - Another application / ERP System
  - Active Directory
  - MS Access
- Directionality
  - Outbound
  - Inbound
  - Bi-directional
- Timing
  - Real-time
  - Batch process

# High-Level Outbound Interface

- Flat file, high volume extracts
- Simple to create
- Steps
  - Create a file to receive the data
  - Query to extract data
  - Iterate through result set
  - Write records to file
  - Send file to destination
- Gotchas
  - GEL Query governor
  - GEL SFTP

# High-Level Inbound Interface

- Flat File, high volume import
- Steps
  - Locate and identify file to consume
  - Read data into a staging object
  - Validate the data
  - Load the data to CA PPM
  - Verify and communicate results
- Gotchas
  - Batching large volumes
  - Error handling



# Common Interfaces

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# Timesheet / Financial Export

- Interval: Typically weekly or monthly extracts from Clarity
- Volume: Large data volumes
- Tools: GEL, SQL, File Write, FTP
- Overview: GEL executes SQL query. Result set is written to a file and FTP'd to a server
- Common Challenges:
  - Writing large result sets to a file can utilize a lot of memory on the server. Best to write large datasets in batches.
  - In clustered environment you will not know which server the file is written to. Best to FTP the file after creation

# Timesheet / Financial Import

- Interval: Typically weekly
- Volume: Large data volumes
- Source: Another time reporting tool or financial system
- Tools: GEL, SQL, File Read, XOG
- Overview: A flat file is placed on a FTP site for Clarity GEL script to read. Contents are xog'ed into Clarity as timesheets
- Common Challenges:
  - Many validations, time periods open and exist, resource hire/term dates, resource open for time, project open for time
  - How to map resource, project, and task from source system to Clarity
  - Resources must first be assigned to tasks to report time against them
  - All time entries in timesheet must be valid
  - Cannot do edits or adjustments to timesheets through XOG

# Resource Import

- Interval: Daily
- Volume: Variable data volumes
- Source: AD, HR system
- Tools: GEL, SQL, XOG
- Overview: A staging table is populated in the Clarity database. Resources that do not already exist are xog'ed into Clarity.
- Common Challenges:
  - Timing issues, loading a resource manager before a resource

# Agile Tool Bi-Directional

- Interval: Real time / triggering event
- Volume: Low
- Source: Rally, V1, Jira, TFS
- Tools: API, SOAP, REST
- Overview: Web service calls are performed when defined events are performed by a user. Small packets of information are sent between the two applications.
- Common Challenges:
  - Security constraints
  - Coordination between two application teams

Questions?



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