Integrating with Front Office

An Overview

This Document provides an overview of the Biomni approach to integration and existing interfaces available within the Front Office Solution

Contents

1.0 Introduction

Integration with other systems is a frequent requirement given the role and function of the Biomni Front Office solution. Front Office has been designed to provide an open web-service oriented architecture and use XML as well as other standard file formats for messaging. In addition to this Biomni also provides out-of-the-box connectivity (via commercially supported adaptors) for a wide-range of service management and other back-office platforms.

Biomni has found the scope of an integration solution is typically driven by numerous factors such as:

- The high-level business objective of integration
- The target system(s) involved
- The business processes involved
- Existing interface and/or data exchange standards (such as an EAI platform)
- The physical distribution or topology of the involved systems
- The type of information being exchanged
- The frequency and mode of interaction (batch or synchronous)
- Technical or security constraints, i.e. platforms, firewall considerations etc.

To ensure that all of these factors are considered and accounted for, Biomni has developed and utilizes a methodology for integration projects, that can be used as part of wider Biomni implementation project or as standalone project post implementation of the Biomni solution.

This document provides an overview of how Biomni approaches integration: detailing the options available; outlining the integration methodology that is utilized; describing the existing application interfaces into and out of the Biomni applications, and; talking through existing integration adapters that have been designed and implemented for reuse.

2.0 Approach

Although integration requirements often for all intense and purposes look the same, for example, 'we need to integrate service requests into Remedy', when the real detail is drilled into there is often individual requirements that need to be catered for i.e. key data needs may be different, different versions of software and/or interfaces may be used. Biomni has therefore taken a pragmatic approach to integration and offers to its clients a number of different approaches to integrate the Biomni solution with other key systems. By offering a number of approaches Biomni ensures it offers a flexible and best fit integration solution to its clients rather than trying to shoe horn in a rigid integration approach.

2.1 Integration Approaches

The below describes the integration approaches that Biomni considers during the integration solution design:

2.1.1 Biomni Adaptor

Biomni Adaptors are specifically written to undertake predefined integration activities and fall into one of two categories:

Library – library adaptors are those that can be reused across a number of implementations. Existing adaptors include (not exhaustive):

- Symantec IT Management Suite (verified)
- ServiceNow
- WMWare
- Rackspace
- Amazon Web Services
- Cloud Stack
- IBM Smartcloud
- Openstack
- HP Cloud Services
- Symantec Netbackup 7.5
- SCCM
- Active Directory
- Quest Active Roles Server (ARS)

By using existing adaptors the cost and risk of the integration can be greatly reduced.

Bespoke – where a library adaptor does not exist for a particular integration requirement and that requirement is bespoke, Biomni would build a new adaptor to meet the integration needs. In terms of cost this would be calculated on a time and materials basis and would carry an annual maintenance fee.

2.1.2   Biomni Integration Accelerator for Databases

Most organizations have a great deal invested in relational databases and have many database instances distributed throughout the enterprise. Developing applications based on relational databases is one of the greatest challenges and involves translating from relational data to XML objects and back. In addition, the end user needs to understand and integrate database transactions, queries, caching, locking, sequencing and other key database concepts. The Biomni Integration Accelerators for databases provides an out-of-the-box, highly performing database connectivity solution.

The Biomni Integration Accelerators for Microsoft SQL Server provides the mechanism to get implementations up and running quickly.   With the accelerator providing mechanisms to:

- Retrieve data from the CMDB in real time and present this to a user within a Front Office request form
- Retrieve data from external systems, such as ERP solutions, a present this the retrieved data in real time to the user in a drop down field (list box)
- Populate data into fields within Front Office request form from external sources, based on selections or information provided by the user
- Export data captured within a Service request raised within Front Office, in the required format for external system to process, for example, passing a purchase request to an ERP solution to raise a purchase order

Accelerators are also available for integration into the following services/ solutions:

- Office 365 (user account provisioning)
- BMC Atrium

2.1.3 Client Adaptor (utilizing Biomni SDK's)

Where the client has the appropriate resources and desires to undertake the integration development themselves, Biomni is able to provide interface details and template adaptors which can be used to build an adaptor for the required integration. The template adaptors are available with the product license and are supported (i.e. Biomni can provide information on how to use/develop).

2.1.4 The Benefits of the Different Approaches

The table below compares the benefits of the different approaches

Adaptor Type	Typical Cost	Business Process Knowledge of Client	Application Knowledge of Client	Deploy Time	Solution Client Satisfaction
Biomni Library Adaptor	◔	◔	◔	◔	●
Biomni Integration Accelerator	◔	◑	◑	◔	●
Biomni Bespoke Adaptor	◑	●	●	●	●
Customer	○	●	●	●	●

Table Key: Low = ○   High = ●

2.2   Integration Methodology

The first and key step of the Biomni integration methodology is identifying the Client Business Owner and Client Technical Owner. The *Client Business Owner* will need to be someone from the client who has an understanding of the existing business process, the new process to be implemented and the authority to make decisions in regards to the integration and the related process(es). The *Client Technical Owner* will need to be someone from the business who understands both the underlying architecture and the application to be integrated to.

At the point the Client Business Owner and Client Technical Owner have been identified, the focus can shift to defining the integration fundamentals.

2.2.1   Integration Fundamentals

Before starting to define an integration solution with specific applications it is essential to establish some fundamental details, such as:

- What is the high-level business objective of integration?
- Which systems are involved?
- Which business processes are involved?
- Which system performs which process?
- Which system masters shared data?

- Are there any existing interfaces?

Once each of these has been clearly established and agreed the focus can move to capturing what the integration needs to do (functionality), more detail about the processes to be integrated and the data to be exchanged. All of this can be captured in a variety of ways depending on the availability of client resources and the requirements, the two most productive and most commonly used methods are described below:

2.2.2   Integration Workshop

An integration workshop should involve the Client Business and Technical Owners, plus in additional any key personnel who can value to the discussions, such as Software Specialists and/or Subject Matter Experts for applications that are to be integrated too, and Technical (infrastructure) resources who understand the limitations and capabilities of the infrastructure.

As each integration process/touchpoint is covered it should be captured on flip charts and should be affixed to the wall of the workshop/office and each one reviewed at the end of the workshop to ensure that no important information has been missed.

2.2.3   One to One Process Capture

Where a workshop is not feasible then an alternative is to carry out several one to one meetings with individual or small groups of client personnel who understand a specific integration process/touchpoint. It may be necessary at the end of the meeting to identify follow up sessions where the specific touchpoint is discussed in more detail and questions arising out the meeting are addressed, this also holds true for integration workshops.

At the end of each meeting the integration process/touchpoint discussed should be reviewed to ensure that no important information has been missed.

The aim of the integration workshop and meetings is to ensure that all parties understand the requirements of all required integration between the customer's existing systems and the Biomni request management product suite.

2.2.4   Integration Functionality and Processes

At the point that the integration fundamentals have been fully identified and agreed, the emphasis moves on to clearly defining the functionality and processes involved, i.e.:

- Which systems should be linked (integrated) in order to be able to exchange information?
- Do the systems reside on a local network or will information be exchanged via a distributed solution?
- What type of information will be exchanged, e.g. Purchase Orders, User Information etc.?
- How often will data be exchanged between the integrated systems?
- Are there any technical constraints, e.g. platforms, firewall considerations etc.?

2.2.5   Integration Details

Following on from defining the functionality and the processes involved, the next stage of the integration definition is to establish the detail that needs to move between applications to fulfill the agreed integration processes, this should include identifying:

- Data required
- The mapping of the data from one format to the other

- Incompatibilities i.e. one system stores particular information in a very different way to the system that it is integrating to
- Resolutions to any incompatibilities

2.2.6 Integration Implementation Approach

Using the information captured during the integration definition phase, Biomni will recommend the most appropriate approach (as defined under section 2.1) to meet the needs of the integration and work with the client to successfully implement.

3.0 Front Office Interfaces

Front Office includes a number of pre-built interfaces. These interfaces have been developed to enable integration to and from the solution at key points during the request process and also to assist with the maintenance of key data such as user records and other master data. The interfaces can be broken down into three key areas:

- Single Sign On
- Request (Business) Process
- Master and Catalog Data

The interfaces that are utilized during the request process have been developed to control the exporting and importing of data from Front Office, including validating inbound data. These interfaces pass and receive data from integration adaptors, with the integration adaptors applying the relevant business logic and managing the interaction with external systems. To ensure that the interaction between the interfaces and the adaptors are not broken during upgrades message versioning has been implemented.

3.1 Single Sign On

3.1.1 Portal

Portal integration allows for a user to be redirected from one web site into Front Office. Although this can be achieved in its basic form with a hyperlink to the Front Office home page, this interface additionally caters for automatic login to Front Office and redirection to a specific area of Front Office.

Automatic login ensures that users only need to sign in once at the portal and Front Office effectively 'trusts' the portal. Its implementation can vary somewhat and is dependent on the portals capabilities, but the basic principles usually remain constant. These are that the portal places a request against Front Office (http); Front Office validates who is making the request; the user credentials are then passed to Front Office before it validates the user against its internal user table and logs them in automatically.

Directing a user to a specific location of Front Office is taken care of by a home page controller which interprets a location key word passed in with the http request and redirects the user accordingly.

3.1.2 Authentication

Authentication offers a secure method for single sign on. The Front Office user id of the user is the domain id that is used to log on to the corporate network, for example, UK\John.Smith. When the user opens an Internet Explorer session and calls the Front Office application, the user's domain credentials are passed to Front Office, which validates these against the user profile stored in the Front Office database and logs the user in automatically.

Where Authentication is implemented, all users (except the system administrator account) must enter the system via this method; there cannot be a mixture of Authentication accounts and standard Front Office user accounts.

3.2 Request (business) Process

3.2.1 Request Update Hooks

Request Update Hooks allow data from an external source to be incorporated into the request prior to the approval route (workflow) calculation or can be used to notify external systems when a request is created. The activity of sourcing the external data is hidden from the requestor and occurs when the requestor clicks on the 'Update' button, 'Next' button or one of the navigations tab during the request creation process.

A Request Hook is associated to a Request Type. The following field types can be updated via the Request Update Hook: Text, Date, Time, Hyperlink, Numeric, Checkbox, Pick List and Email. A field must already exist in the request to be updated. System fields cannot be updated. Standard request validation is performed on any incoming amended fields.

Errors are handled and fall into one of two categories: critical (e.g. communication or adaptor errors), or: non-critical (e.g. schema validation), but both types will cause the request submission to approval process to continue, ignoring the whole update. This will ensure that the requestor's experience is unaffected. Notification of a critical error will be emailed to the Support Desk. Non-critical errors will be written to the Error Log.

3.2.2 External List Box

The external list box function allows a list box type field to be configured on a request form that when selected by the user makes a call to an external system to retrieve the data to be presented. The returned data can be presented over a number of columns with the ability to filter the returned results based on the user raising the request or selections made in other fields on the request form. The field itself can be configured to allow the user to select only one of the returned values or select multiple values, the selected value(s) are then stored against the request within Front Office.

3.2.3 Approval Hooks

Approval Hooks allow an approval stage to be assigned to an external system, which may approve or decline a request, or which may merely be passed the request for notification purposes. The external system may also update existing request fields.

The approval stage associated to the Approval Hook will always be re-run if the approval route is reset i.e. when the request is resubmitted post approval decline or restarted due to mid-approval recalculation. It is assumed that the integration adaptor will determine whether the external system should receive these updates.

In the case of a failed Approval Hook stage, a supervisor may approve or decline the request manually via the Approvals List. The system will try and send the message up to 10 times before marking it as failed. It is not possible to edit the approval route for an Approval Hook.

3.2.4 Request Import

The Request Import interface provides the ability to import requests raised within another system into Front Office. On import a request can either be left at the status draft for a user to submit manually or the request can be submitted for approval automatically on import. The interface is web service based and expects the calling application to pass it the request in a pre-defined XML format. All fields and

users referenced within the XML must already exist within Front Office for the request to be imported successfully.

3.2.5 Request Fulfillment Hook

Request Fulfillment Hooks enable Front Office to pass a fully approved request to another system as part of the fulfillment activity of that request. The call to the system receiving the request can be made immediately at the point that the request has been approved, or it can be made following the completion of fulfillment tasks managed within Front Office.

As part of the configuration within Front Office, the Request Fulfillment Hook call can be identified as fire and forget or wait for a response therefore allowing the receiving system to update the status of the request within Front Office, along with the ability to participate in the SLA measurement process. Via the Front Office API the external system is also able to close the calling Front Office task, thus allowing the initiation of dependent fulfillment activity within Front Office.

3.2.6 Request Export

Following the successful approval of a request, Front Office is able to pass the request out via a web service call to be consumed by another system, for example, passing a purchase request to an ERP system to raise a purchase order. The request is passed out as an XML message, which can then be transformed via an adapter into the required format for the receiving system. This interface is a one-way interface.

3.2.7 Front Office API

An API containing a number of methods, accessible via a web service, is available to allow other systems to retrieve data from a Front Office request, for example a document attached to a request. The API also allows the ability to update information on the originating Service Request within Front Office, ranging from specific fields through to status updates and closing fulfillment activities.

3.2.8 Receipting

Receipts and subsequent returns can be exported to an external system. On creation of a Receipt or a Return, the Receipt or Return information is passed to a designated web service and subsequently an integration adaptor, in an asynchronous action. The integration adaptor then undertakes any necessary processing before passing the receipt or return data to the external system.

In the case of a failed send, a supervisor may resubmit the Receipt or Return manually via the Task Queue. The system will try and send the message up to 10 times before marking it as failed.

3.2.9 Asset Retrieval

It is possible to search and retrieve assets (and related attributes) from an external assets system as part of the request creation process. The selected assets will be saved as part of the request. The external system can be configured on-line and communication is via a web service. This facility allows for digital certificates so that encryption and authentication may be used. A number of filtering options are configurable, as well as a fast select feature and maximum number of assets or selection. A hyperlink to the external system may also be included.

3.3 Master and Catalog Data

3.3.1 Punchout

Front Office supports punchout to supplier sites using the industry standard cXML approach. This enables users to access external suppliers' catalogs that may not exist within the Front Office system.

The user is routed to the supplier's web shop where they are able to add items to the shopping cart in the normal way, on checking out the items are transferred to the Front Office cart and the user returned to Front Office where they continue the request process. Punchout is particularly useful where the supplier's web site offers value added activities on top of the standard catalog such as configurators (for defining new PC requirements) or where the supplier offers products or services that are not easily catalogued such as travel.

3.3.2   Catalog Import

One or more supplier catalogs may be scheduled for import via a scheduled task, using a web service linked to an external system definition.

3.3.3   Master Data

A built in module allows the integration of information used by or created within Front Office with those systems that customers may be using in the back office e.g. Financial or ERP systems. The following master data inbound transactions (in csv format) are supported, either via manual import (via the UI) or automated file pickup:

- Addresses
- Approval Matrix
- Cost Centers
- Cost Centre Approvers
- Divisions
- Position Codes
- Request Field Pick Lists
- User Field Defaults
- User Groups
- User Group Members
- Users

Master Data maybe created, amended or deleted (some data such as users may not be deleted), with the action to be undertaken being defined against the data record. The module also allows for current data to be downloaded from the system in the required csv format.

3.3.4   Active Directory

Front Office integrates to Active Directory (AD) in two ways. Firstly to streamline user & group management and authentication at Front Office, and secondly to automate AD changes such as group membership and user provisioning via requests raised at Front Office.

Front Office maintains its own database of authorized users, their roles and preferences. The Active Directory adapters provide seamless integration into Active Directory for user authentication, active user synchronization and the mapping groups and roles. Support for multiple AD sources and organizational unit filtering ensures zero touch maintenance once configured.

4.0   Front Office Adaptors

Front Office Adaptors are specifically written to undertake predefined integration activities and fall into one of two categories:

- Library
- Bespoke

4.1 Library Adapters

This section of the document provides an overview of the adaptors that have been developed by Biomni for interfacing to specific applications and/or business processes and that can be reused across a number of implementations.

4.1.1 Front Office for Symantec

Biomni has developed an integrated solution around Front Office and Symantec's ITMS solution. This solution gives users self-service access to a broader range of requests with deeper context to the current asset estate. In many cases this can remove most or all of the human interaction that would normally have been required to fulfill several request types. The following list is an example of the type of service requests that have been implemented within the solution. This list is far from exhaustive and each can be tailored to meet customer specific processes:

- **Request for Software**, including conditional approval, procurement, auto distribution and orchestration of related activities
- **Request for Hardware** including conditional approval, conditional stock re-use, procurement, providing non-discoverable asset information and orchestration of related activities
- **New Hire Requests** encompassing the hardware and software requests
- **Move Requests** which includes updating user, location, and asset status information
- **Termination Requests** which include unregistering user information and asset allocations
- **Incident, Problem or Change** ticket submission into the Service Desk
- **Request a VM Server** including auto-deployment and build
- **Combination requests** which may encompass any number of the above items into a single request

The integration points that have developed between Front Office and the Symantec ITMS solution to facilitate these processes are detailed below:

Asset Fields

The Asset Field integration point allows assets held in the CMDB to be retrieved by a requestor or approver in Front Office and pulled into the request form. Many such fields can be created in Front Office for different purposes and there is no limit to the number of asset fields on a request. This reduces manual "swivel seat" lookups during approval and fulfillment and creates more opportunity to fulfill the request without human touch.

Get Software Attributes

The Get Software Attributes integration point allows software contract and delivery package information to be pulled back into a Front Office request automatically on submission by a requestor. Front Office approval can then be configured to reference those software attributes when deciding the approval routing for the request. This adds automated control to software requests, removing human touch where it's not needed but ensuring appropriate authorization where it is.

Software Delivery

The Software Delivery integration point provides automated delivery of software titles to client machines during request fulfillment.

Update Asset Status

The Update Asset integration point provides automated changes to the status of identified assets present on a Biomni request.

Create Helpdesk Ticket

The Create Helpdesk Ticket integration point provides automated ticket creation for a given Biomni request.

Workflow

Front Office is able to initiate a Symantec Workflow at various points in the request's life cycle post submission of the request by the user, these include:

- On submission of the request, i.e. no approval is required
- During the approval process - the called workflow can participate in approving or declining of the request or simply can be used to retrieve data that needs to be captured on the request via an adaptor
- On the request being fully approved – the workflow takes ownership of managing the process to fulfill the request and updates the originating request within Front Office with status information
- As part of an internal fulfillment process - on approval of the request within Front Office, the request is passed to a Front Office fulfillment process which manages the tasks required to fulfill the request; including calling any relevant workflows at the appropriate stages in the process. The workflows can be called in one of two ways:
  - Fire and forget - Front Office calls the workflow passing the request details and closes off the Front Office fulfillment task and does not wait for a response from the workflow
  - Fire and wait for response – on calling a workflow, Front Office leaves the fulfillment task open awaiting a response from the workflow informing that the workflow tasks have completed successfully. On receipt of the completion message, Front Office closes the task and any subsequent fulfillment task(s) is opened

Further Reading: *Front Office for Symantec 7.1 Front Office and Symantec Workflow*

4.1.2   Symantec Netbackup 7.5

The Symantec Netbackup 7.5 adapter allows users via the Front Office Service Catalog to browse backups of their systems and if required select files which will be automatically restored back to their system without any human intervention.

4.1.3   BMC Atrium Orchestrator

The BMC Atrium Orchestrator Adapter is a suite of Biomni Front Office (BFO) integration tools that allows Front Office to execute synchronous workflow processes within BMC Atrium Orchestrator (AO).

It includes:

- Request Fulfillment Hook - to enable request information to be passed to an AO workflow
- External List Box adapter - retrieves information from AO (via an AO workflow) then populates a BFO external list box.
- Request Update Hook - to pull information from AO (via an AO workflow) into a BFO request form

 It supports AO platform versions 7.5.x / 7.6.x

4.1.4   ServiceNow

The ServiceNow Adapter allows the creation / updating and viewing of Service Now Incidents from within Front Office. It works for all Front Office systems from v7.1+

The Adapter allows end users to raise incidents in ServiceNow from Front Office, either as a 'raise an incident request' or as part of the fulfillment for a request i.e. 'New Starter'.

A ticket viewer widget is also included which allows end users to update and receive information on the ticket as it is being worked on.

The end user never needs to access ServiceNow directly; it can all be done through Front Office.

4.1.5   Office365

The Office 365 User Provisioning Accelerator allows the provisioning / deletion of Office 365 users.

It works for all Front Office systems from v7.1+

4.1.6   VMWare

Biomni is a member of the VMware Technology Alliance Partner(TAP) program. This program helps technology vendors like Biomni integrate their products with VMware virtualization software and deliver timely, joint solutions to mutual customers. Adapters are available for the automated provisioning and de-provisioning of virtual servers from a Front Office request.

4.1.7   Rackspace – Cloud Provisioning

Biomni's adapters for Rackspace provide automated fulfillment of private and public cloud service requests. Cloud related service offerings published to the Biomni Service Catalog
can initiate deployment and management of virtual servers from pre-defined templates.

4.1.8   Amazon Web Services – Automated Cloud Provisioning

Biomni is a member of the Amazon Web Services (AWS) Solution Providers Program and provides an integrated Cloud Service Catalog solution for the publication, request, and automated delivery of AWS residing applications and infrastructure.

4.1.9   Cloud Stack

The Biomni Cloud Stack adapter enables a user within Front Office to request the provision of infrastructure within the Cloud Stack environment and then that the provision of that infrastructure to be provided automatically via the Cloud Stack API.

4.1.10   IBM SmartCloud

The Biomni IBM SmartCloud adapter enables a user within Front Office to automate the provisioning of a server within IBM SmartCloud, including the ability to create, remove and reboot cloud based virtual servers.

4.1.11   Openstack

Biomni provide adapters for Openstack which enable automated fulfillment of private and public cloud service requests. Cloud related service offerings published to the Biomni Service Catalog
can initiate deployment and management of virtual servers from pre-defined templates.

4.1.12   HP Cloud Services

Biomni have partnered with HP Cloud as a Solutions Partner within their Partner Ecosystem. Via Front Office Biomni customers are able to:

- Create, amend and delete cloud based infrastructure in minutes rather than days or weeks
- Publish standard infrastructure configurations in a consolidated enterprise Service Catalog
- Enable intuitive IT self-service for user across IT and business through a single, common Service Catalog portal

- Enforce a vital layer of compliance, auditability and business approval to the consumption of HP Cloud services
- Gain transparency on the demand for cloud based services
- Capture relevant consumption statistics for chargeback and usage based charging
- Bundle HP Cloud services with other IT products & services (Cloud, virtual or physical environments)
- Federate HP Cloud Services with other Public and Private Cloud solutions, and enable the business user/customer to select the best Cloud services that suits the business requirement (through a single interface).

4.1.13   Active Directory

The fulfillment of many requests can be automated through the update of the AD groups memberships e.g. a user's access to network resources. The Biomni AD adapters allow inclusion of such automated tasks within the wider fulfillment process and can, if required, go as far as automating the whole provisioning, re-provisioning, and de-provisioning of user accounts.

4.1.14   Quest Active Roles Server (ARS)

Biomni partner Quest and have integrated to their ARS product to allow requests raised in Front Office to automate changes in user directory services, most commonly but not restricted to Microsoft Active Directory. The adapter provides full add, edit, delete capabilities over all directory objects applying policies defined at ARS in process (i.e. as if the changes were manually made via the ARS console).

The adapter integrates via the SPML (Service Provisioning Markup Language) web service interface of Quest ARS.

4.1.15   Microsoft SQL Server Accelerators

Most organizations have a great deal invested in relational databases and have many database instances distributed throughout the enterprise. Developing applications based on relational databases is one of the greatest challenges and involves translating from relational data to XML objects and back. In addition, the end user needs to understand and integrate database transactions, queries, caching, locking, sequencing and other key database concepts. The Biomni Integration Accelerators for databases provides an out-of-the-box, highly performing database connectivity solution.

The Biomni Integration Accelerators for Microsoft SQL Server allow you to get your implementation up and running quickly and feature the following:

- Installed from a simple .exe to an existing implementation.
- Ship with a sample test database to get you up and running.
- Full instructions are included on how to configure the accelerators to your other systems

The accelerator enables the following functionality:

- the ability to generate multiple external list boxes from any SQL Server source
- the ability to populate line item request fields with additional item information derived from a configurable SQL data source
- the ability to generate multiple asset lists from any SQL Server source
- the ability to export request or goods received note data to a number of formats via various transport mechanisms

4.2　Bespoke Adapters

Biomni have extensive experience integrating to customer systems to provide highly cost effective resilient and scalable enterprise solutions. The list below details some of the systems we have integrated to:

- Microsoft System Center
- Microsoft Application Virtualization
- BMC Remedy
- BMC Service Request Management
- HP ServiceCenter
- CA Unicenter
- SAP
- Oracle
- Asset Authority from Ventana Software
- Agresso Business World from Unit 4
- Aptos from B-Plan

Appendix

Front Office API

The Front Office API provides the following methods that can be called from other systems:

- **AddAuditForRequest** – this allows the workflow to add audit information to a request created and stored within Front Office.
- **AddOffCataloguePart** – this allows the workflow to add an Off Catalog Item to the related service request within Front Office.
- **AddPart** – this allows the workflow to add a catalog item to the related service request within Front Office. The item being added to the request must already exist within one of the Front Office hosted catalogs.
- **AppendRequestStatusComment** – this allows the workflow to add comment information against a request within Front Office at the status level of the request. Comments added will be visible to all users who have access to the request within Front Office.
- **Approve** – this allows the workflow to approve a service request within Front Office at the appropriate stage of the approval process.
- **ClearRequestStatusExpectedCompletionDate** – this allows the workflow to remove the value stored against the Expected Completion Date field for an individual request within Front Office.
- **CloseSLA** – this allows the completion of an SLA defined as part of an internal fulfillment workflow.
- **CompleteRequest** – this allows the workflow to complete a request within Front Office. On being completed the request status of the completed request will be changed to 'Closed'.
- **CompleteRequestFulfillmentActivity** – this allows the completion of a task defined in an internal workflow and has initiated the specific Symantec Workflow. The originating task id is stored in activeTaskID.
- **Decline** – this allows the workflow to decline a service request within Front Office at the appropriate stage of the approval process. Comments regarding why the request has be declined are mandatory.
- **GetAttachmentComments** – this allows the workflow to retrieve comments associated to an attachment contained within a Front Office request.
- **GetAttachmentData** – this allows the workflow to retrieve an attachment that has been uploaded to a Front Office request.
- **GetAttachmentDataChunk** – this allows the workflow to retrieve an attachment that has been uploaded to the Front Office request in small chunks of data. The API call allows the workflow to define the size chunks it wishes to receive.
- **GetAttachmentName** – this allows the workflow to retrieve the name of a specific attachment that has been associated to a Front Office request.
- **GetAttachmentSize** – this enables the workflow to request information about the size of an attachment associated to a Front Office request.
- **GetRequestHeaderFieldValue** – this enables the workflow to retrieve the value entered against a specific field on the header of a service request. As part of the call the Front Office field code for the field must be passed.

- GetRequestItemFieldValue – this enables the workflow to retrieve the value entered against a specific field at item level of a service request. As part of the call the Front Office field code for the field must be passed, along with the related service request line number.
- GetRequestStatus – this enables the workflow to retrieve the current status of the service request as stored within Front Office.
- GetRequestSupplierFieldValue – this enables the workflow to retrieve the value entered against a specific field at supplier level of a service request. As part of the call the Front Office field code for the field must be passed, along with the related service request supplier.
- GetRequestXMLAsString – this enables the workflow to retrieve the whole service request as stored within Front Office as a string in XML format.
- OpenSLA – this allows the initiation of an SLA defined as part of an internal fulfillment workflow.
- SetRequestHeaderFieldValue – this enables the workflow to insert a value into a header level field within a Front Office service request.
- SetRequestItemFieldValue – this enables the workflow to insert a value into an item level field within a Front Office service request.
- SetRequestStatusDescription – this enables the workflow to update the status of a service request within Front Office. This status will be displayed to all users who have access to the service request within Front Office.
- SetRequestStatusExpectedCompletionDate – this enables the workflow to update the expected completion date of a service request within Front Office. This date is visible to all end users who access to the service request within Front Office.
- SetRequestSupplierFieldValue – this enables the workflow to insert a value into a supplier level field within a Front Office service request.
- UpdateRequestFieldValues – this enables the workflow to update the value of fields on a service request within Front Office by passing an XML message as part of the call.

Supplier Gateway

The Supplier Gateway module developed and supplied by Biomni, provides a portal that customers can present out to their supplier base for the provision of supplier catalogs along with mechanisms for delivering e-procurement orders to those suppliers.

Catalog Upload

The mechanism used to enable suppliers to integrate their catalog into SG, utilizes standard file formats and the file transfer protocol, FTP. It entails the supplier building a zip file which contains three CSV files that conform to a pre-defined standard; these files contain information about the products within the catalog and the associated pricing and availability. Also included in the zip file is an XML message which contains the control information that SG uses to process the file. The zip file is deposited onto a FTP site.

 SG extracts the zip files from the FTP site, cleansing and validating the information contained within, informing the supplier of any critical errors that occur via email. At the point all the catalog information

has been successfully validated, the catalog is published to the relevant customers' Front Office systems, where the end users are able to view and select from the contents of the catalog.

Order Delivery

SG comes with out of the box functionality to deliver orders to external suppliers via the following methods:

- Email
- Fax
- cXML

with the ability to format the order to meet the requirements of the sending organization. Additionally suppliers can sign into the SG portal and read their orders via the user interface.