More4apps Spreadsheet Wizard Mechanics

Technical Description of Infrastructure

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Status: Production

Introduction

The More4apps series of Excel wizards for Oracle E-Business Suite utilizes web-based XML to communicate with the server for all uploads and downloads. No additional software apart from Microsoft Excel is required on the PC. There is full integration with the E-Business login, SSO and security functionality. End users do not need any database usernames or passwords, they use their regular E-Business username/password for access.

As much as possible Oracle's E-Business procedures and APIs are utilized for the underlying architecture. This document explains further the mechanics of this interface.

Components

The More4apps Excel wizards consist of the following components:

1. Spreadsheet (e.g. Budget Wizard.xls) which is deployed to each client PC.
2. Server packages. Typically there are two packages in the APPS schema: **m4aps_xml** for the core communication infrastructure and a product-specific package (e.g. **m4aps_budgetwizard**).
3. *R12 only* – a communications servlet is installed in the mid-tier to replace the PLSQL gateway which was deprecated from 11i. The servlet is installed into the existing E-Business web server via Autoconfig template customizations.
4. Applications Settings. The wizards require some Profile Options to be created, and some settings checked or created in Oracle E-Business. You can see these by reading the product-specific readme and help documentation. The Profile Options enable you to centrally control certain behaviour in the wizards. Other settings are sometimes required, such as ensuring the AMG framework for Oracle Projects is enabled.

XML Communication Details

Description

The communication protocol between the spreadsheet and the E-Business database server is HTTP (or HTTPS if the E-Business mid tier has been configured for SSL). The traffic is in the form of XML. The spreadsheet authenticates then communicates with the E-Business web tier in the background, in the same way that an end-user would for iProcurement or WebADI.

Process Details

The spreadsheet makes HTTP/HTTPS calls to the servlet for R12, or to the **m4aps_xml** package via the Apache plsql gateway for 11i. Parameters are passed using the POST structure. The servlet and package do the following:

1. Verify the authentication of the calling spreadsheet by examining the E-Business cookie on the local PC. If the calling spreadsheet has not yet logged in then an error is returned to the spreadsheet and the E-Business login screen is presented to the user. (If SSO is enabled then the user is automatically forwarded to the SSO login screen). The user then logs in with their usual E-Business username/password and the local cookie is set. The cookie will expire if the user logs out or closes the spreadsheet, or if they are idle for a long period.

2. If the spreadsheet is authenticated then the procedure will generate the requested information in XML format and return it as a web response. If any errors occur then the error message is generated in XML format. The spreadsheet will listen for the XML response from the server and interpret the returned XML as appropriate.

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