

**ORACLE®**

---

**ATG WEB COMMERCE**

Version 10.1

**Multiple Application Integration Guide**

**Oracle ATG  
One Main Street  
Cambridge, MA 02142  
USA**

---

# ATG Multiple Application Integration Guide

Product version: 10.1

Release date: 03-14-12

Document identifier: MultipleApplicationIntegrationGuide1405051316

Copyright © 1997, 2012 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing. If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

## U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

The software is based in part on the work of the Independent JPEG Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/us/corporate/accessibility/index.html>.

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/support/contact.html> or visit <http://www.oracle.com/accessibility/support.html> if you are hearing impaired.

---

---

# Table of Contents

1. Introduction .....	1
About the Oracle ATG Web Commerce Platform .....	1
Oracle ATG Web Commerce .....	2
ATG Content Administration .....	2
Site Administration .....	2
ATG Platform User Interfaces .....	3
About the Applications .....	3
Oracle ATG Web Commerce Merchandising .....	4
Oracle ATG Web Commerce Search .....	4
Oracle ATG Web Commerce Business Intelligence .....	4
Oracle ATG Web Commerce Outreach .....	5
Oracle ATG Web Commerce Campaign Optimizer .....	5
Oracle ATG Web Commerce Reference Store .....	5
Oracle ATG Web Commerce Service Center .....	5
ATG Service .....	6
Oracle ATG Web Knowledge Manager .....	6
Oracle ATG Web Knowledge Manager Self Service .....	6
ATG Ticketing .....	6
Service Administration .....	6
Supported Environments .....	7
Terminology .....	7
2. Architecture Overview .....	11
Architecture Diagram .....	11
Components of a Multiple Application Environment .....	12
Customer-Facing Cluster .....	12
Agent-Facing Cluster .....	13
Asset Management Cluster .....	13
Search Engine .....	14
ATG Data Warehouse Load Server .....	14
Relationships between Clusters, Users, and Scenario Servers .....	15
3. Installing and Configuring Multiple Applications .....	17
Installation and Configuration Steps .....	17
Obtain ATG Products and Resources .....	18
Review Installation Requirements .....	18
Create Database and Server Accounts .....	19
Install the JDK and Utilities .....	19
Install the Application Server .....	19
Install the ATG Platform .....	19
Install Database Drivers and Set Environment Variables .....	19
Install ATG Applications .....	19
Create Database Schema .....	19
Set Up Data Source Components .....	20
Import Initial Data .....	20
Determine Startup Modules, Administrative Accounts, and Context Roots .....	20
Start ATG Platform and Applications .....	20
Set Up the Deployment Topology and Initialize Deployments .....	20
Register Your Web Sites in Site Administration (Multisite Environment Only) .....	21
Configure Remaining Components .....	21
Create Site Data .....	21
Verify that Services Are Running .....	21
4. Additional Configuration Considerations .....	23

---

Sharing External Profile Definitions Across Multiple Applications .....	23
Sharing External File Assets Across Multiple Applications .....	25
A. Troubleshooting .....	27
Scenario Stack Traces on JBoss .....	27
Database Tables Already Exist .....	27
Project Import Errors .....	28
Scenarios or ATG Outreach Campaigns Do Not Run As Expected .....	28
External Profile Information Not Visible in BCC .....	28
Index .....	29

---

# 1 Introduction

This manual provides guidelines for running multiple Oracle ATG Web Commerce applications in an integrated environment. It is intended for system administrators who are responsible for installing and configuring the software.

This chapter includes the following sections:

[About the Oracle ATG Web Commerce Platform \(page 1\)](#)

[About the Applications \(page 3\)](#)

[Terminology \(page 7\)](#)

## About the Oracle ATG Web Commerce Platform

All applications described in this guide run on the Oracle ATG Web Commerce platform (the ATG platform), which is a highly customizable, configurable framework for building and supporting Web sites, particularly sites used for e-commerce. The ATG platform includes several layers.

- The Dynamo Application Framework (DAF) is the base platform layer. It provides a component development environment made up of JavaBeans and JavaServer Pages (JSPs). Developers assemble applications out of component beans (based on standard ATG classes or custom Java classes) by linking them together through configuration files in Nucleus, ATG's open object framework.
- The Personalization module (DPS) provides the code for supporting Web site content that changes dynamically for each user. Through this module you create and maintain user profiles and business rules that define which content to show to whom. Targeted e-mail is also supported by this layer.
- The Scenarios module (DSS) extends the content targeting capabilities of the Personalization module. Scenarios are time-sensitive, event-driven campaigns designed to manage interactions between site visitors and content over a long period.

The ATG platform runs on one of three application servers: Oracle WebLogic, JBoss, or IBM WebSphere.

### Documentation

The ATG platform documentation set includes the following key pieces:

- *ATG Installation and Configuration Guide*
- *ATG Platform Programming Guide*

- 
- *ATG Personalization Programming Guide*
  - *ATG Page Developer's Guide*
  - *ATG Repository Guide*

Additional platform documentation is included in the Oracle ATG Web Commerce Online Documentation Library.

Note that the descriptions in this section include name abbreviations used in the architecture diagram in the next chapter of this guide and elsewhere in the documentation set.

## Oracle ATG Web Commerce

Oracle ATG Web Commerce (DCS) provides the foundation code for creating an online store. Commerce includes features that allow you to manage product catalogs, pricing, inventory, fulfillment, and promotions.

### Documentation

The documentation for Commerce includes the following pieces:

- *ATG Commerce Programming Guide*
- *ATG Commerce Guide to Setting Up a Store*
- *ATG Business Commerce Reference Application Guide*
- *ATG Reports Guide*

## ATG Content Administration

ATG Content Administration (CA) provides tools for publishing and maintaining content for ATG-built Web applications. It allows you to manage all stages of the content lifecycle, including creation, approval, and deployment to a staging or production site.

ATG Content Administration introduces the concept of assets, which represent all the content and other items that must be available on the production server for your Web sites to work correctly. Assets are versioned, meaning that a numbered instance of each asset is maintained in the ATG Content Administration database. Each application has its own asset types; for example, Commerce assets include catalogs, price lists, and promotions. Oracle ATG Web Commerce Outreach introduces assets related to e-mail and Web campaigns.

ATG Content Administration is installed with the platform. It is launched through the Business Control Center.

### Documentation

- *ATG Content Administration Guide for Business Users*
- *ATG Content Administration Programming Guide*

## Site Administration

A multisite environment is one in which a single instance of ATG products is used to maintain more than one Web site, where the sites are configured to share data such as user profiles and shopping carts. Site Administration is a utility you use to register and configure Web sites in a multisite setup. Site Administration is installed with the ATG platform. It is launched through the Business Control Center.

---

Documentation for Site Administration is included in the *ATG Multisite Administration Guide*.

## ATG Platform User Interfaces

The ATG platform is installed with several interfaces that are used by administrators and business users to configure the platform and support ATG applications. These are described below.

### Oracle ATG Web Commerce Business Control Center

The Business Control Center (BCC) is a browser-based user interface from which you launch and manage many ATG applications. It requires ATG Content Administration and is installed automatically with it.

Documentation includes the following manuals:

- *ATG Business Control Center Administration and Development Guide*
- *ATG Business Control Center User's Guide*

### ATG Control Center

The ATG Control Center (ACC) is a user interface through which system administrators and business users can perform many platform-related tasks, such as editing Nucleus components and creating scenarios. The ACC predates the BCC (see above); many activities can be performed in both applications. However, the BCC is typically the recommended interface.

The ACC is installed as part of the platform. Unlike the BCC, it does not require ATG Content Administration.

Documentation for the ACC is included in the following manuals:

- *ATG Installation and Configuration Guide*
- *ATG Platform Programming Guide*
- *ATG Personalization Guide for Business Users*

### Dynamo Server Admin

The Dynamo Server Admin is a set of HTML pages installed with the platform that system administrators and other technical personnel can use to configure and monitor ATG servers. In addition, the Dynamo Server Admin provides access to many platform-related services and utilities.

Documentation for this interface is included in the following manuals:

- *ATG Installation and Configuration Guide*
- *ATG Platform Programming Guide*

## About the Applications

This section provides a brief description of the products and utilities that run on the ATG platform. It includes references to the documentation for each application. The descriptions include name abbreviations used in the architecture diagram in the next chapter and elsewhere in the documentation set.

---

## Oracle ATG Web Commerce Merchandising

Merchandising (DCS-UI) is a business user tool that works with Commerce. It provides merchandisers with a user-friendly interface for performing many Commerce tasks, including managing catalogs, promotions, pricing, and coupons, and setting up faceted searching.

Merchandising is installed as part of the ATG platform; however, it is purchased separately.

### Documentation

- *ATG Merchandising Guide for Business Users*
- *ATG Merchandising Administration Guide*

## Oracle ATG Web Commerce Search

Oracle ATG Web Commerce Search is a powerful natural-language processing search product that can be added to an ATG-built Web site to help customers locate and retrieve relevant information. Search has several components, including the **Search Engine**, also referred to as the Search server, which is a C++ process that receives and processes requests for searches. For a view of how it fits into a multiple application configuration, see [Architecture Overview \(page 11\)](#).

Search also includes a configuration interface, **Search Administration**, which is launched through the BCC.

### Documentation

- *ATG Search Installation and Configuration Guide*
- *ATG Search Administration Guide*
- *ATG Search Query Guide*

## Oracle ATG Web Commerce Business Intelligence

Oracle ATG Web Commerce integrates with Oracle Business Intelligence to provide reports on the performance of your Commerce sites. It gathers data about the operation of your sites and presents it through reporting analyses that run on an Oracle Business Intelligence server.

### Documentation

- *ATG Business Intelligence Installation and Configuration Guide*
- *ATG Data Warehouse Guide*
- *ATG Reports Guide*

**Important:** Oracle ATG Web Commerce Outreach 10.1 (see below) does not integrate with Oracle Business Intelligence to provide reports. Instead it uses the ATG Customer Intelligence reporting mechanism available in previous versions of the ATG product suite. For information on ATG Customer Intelligence, refer to the following guides in the Oracle ATG Web Commerce 10.0.2 online documentation library:

- *ATG Customer Intelligence Installation and Configuration Guide*
- *ATG Customer Intelligence Data Warehouse Guide*
- *Reporting Center User Guide*



- 
- *ATG Multiple Application Integration Guide* (includes an architecture diagram showing the ATG Outreach Data Warehouse Load Server and ATG Customer Intelligence)

## **Oracle ATG Web Commerce Outreach**

Oracle ATG Web Commerce Outreach (ACO) allows you to create and manage marketing and service-oriented campaigns, such as product promotions, purchasing incentives, or service change alerts. Campaigns can be Web-based or e-mail-based.

### **Documentation**

- *ATG Outreach Administration and Development Guide*
- *ATG Outreach Guide for Business Users*

## **Oracle ATG Web Commerce Campaign Optimizer**

Oracle ATG Web Commerce Campaign Optimizer (CO) allows you to conduct simultaneous A/B tests on promotions, products, page content, and page layout. The test results help you choose the best combination of content and layout for your Web sites.

### **Documentation**

- *ATG Campaign Optimizer User Guide*

## **Oracle ATG Web Commerce Reference Store**

The Oracle ATG Web Commerce Reference Store (CRS) is an online store built with Commerce. It provides implementations of many features included with Commerce, as well as customizations and extensions of Commerce features. It is designed to serve as both a demonstration of many of the capabilities of Commerce and as a framework to help customers build their own stores more quickly.

### **Documentation**

- *ATG Commerce Reference Store Installation and Configuration Guide*
- *ATG Commerce Reference Store Overview*

## **Oracle ATG Web Commerce Service Center**

Oracle ATG Web Commerce Service Center (CSC) is a customer service application that allows companies using Commerce to perform agent tasks such as managing customer profiles; creating and managing orders; issuing refunds and exchanges; processing returned items; and researching customer activity.

### **Documentation**

- *ATG Commerce Service Center Installation and Programming Guide*
- *ATG Commerce Service Center User Guide*
- *ATG Service Center UI Programming Guide*

---

## ATG Service

ATG Service is a collective term for a suite of applications related to providing customer support for your Web sites. ATG Service applications include Oracle ATG Web Knowledge Manager, Oracle ATG Web Self-Service, and ATG Ticketing. These are described below.

### Oracle ATG Web Knowledge Manager

Oracle ATG Web Knowledge Manager (KM) is a knowledgebase application for use in call centers and help desks. It enables employees in these organizations to author, publish, and find content related to customer issues.

#### Documentation

- *ATG Service Installation and Configuration Guide*
- *ATG Knowledge Manager Guide for Business Users*
- *ATG Service Center UI Programming Guide*

### Oracle ATG Web Knowledge Manager Self Service

Self Service (SS) gives customers Web-based access to content deployed from Knowledge Manager, allowing them to find answers to questions and complete transactions on a Web site without needing to interact with agents.

#### Documentation

- *ATG Service Installation and Configuration Guide*
- *ATG Service Center UI Programming Guide*

### ATG Ticketing

ATG Ticketing allows you to record and track customer-and transaction-driven inquiries and events received through call centers, order placement, and similar applications.

ATG Ticketing is automatically installed when you install several other ATG Service applications.

#### Documentation

- *ATG Ticketing User Guide*
- *ATG Service Center UI Programming Guide*

### Service Administration

Service Administration is a BCC-based application through which system administrators and other ATG Service users modify settings in Knowledge Manager and Self Service.

#### Documentation

- *ATG Service Installation and Configuration Guide*

---

# Supported Environments

For detailed information about the application servers, databases, browsers, and other third-party software supported for use with ATG products, refer to the Oracle ATG Commerce Supported Environments Matrix document in the My Oracle Support knowledge base at <https://support.oracle.com/>.

## Internet Explorer and ATG Applications

Internet Explorer 8 and 9 treat queries originating from the Internet and an intranet differently. They use the following settings by default:

- All **Internet** sites are displayed in IE 8/9 mode (Tools > Compatibility View is turned off)
- All **intranet** sites are displayed in IE 7 mode (Tools > Compatibility View is turned on)

ATG products follow the default settings. Compatibility View is **not supported** for use with external ATG applications (products that run on the production server). Compatibility View is **required** for use with internal ATG applications (products that run on the management server).

External applications: ATG Commerce Reference Store, Self Service

Internal applications: All other ATG products

# Terminology

This section includes descriptions of the terms or concepts used throughout this manual to describe the installation and configuration of multiple ATG applications.

## Agent-Facing Server

This is the server (or cluster of servers) on which you install the agent-facing pieces of your applications and services.

For more information about the agent-facing server and the applications that can run on it, see the architecture diagram and [Agent-Facing Cluster \(page 13\)](#) in [Architecture Overview \(page 11\)](#).

## Asset Management Server

This is the server (or cluster of servers) on which you install the applications and services used to manage and publish assets to the customer-facing server. Assets include applications and services.

This is also called the management server, the publishing server, or the ATG Content Administration server.

For more information about the asset management server and the applications that can run on it, see the architecture diagram and the [Asset Management Cluster \(page 13\)](#) section in the [Architecture Overview \(page 11\)](#).

## Cluster

In a multiple application configuration, you can have clusters (groups) of asset management servers, customer-facing servers, and agent servers. The servers in each cluster must be configured to correctly communicate with each other.

---

For more information about working with clusters, refer to the instructions on setting up clustering for your application server in the *ATG Installation and Configuration Guide*.

## Customer-Facing Server

This is the server (or cluster of servers) on which you install the customer-facing pieces of your applications and services.

The customer-facing server is sometimes referred to as the production server.

For more information about the customer-facing server and the applications that can run on it, see the architecture diagram and [Customer-Facing Cluster \(page 12\)](#) in [Architecture Overview \(page 11\)](#).

## Data Warehouse Load Server

This is the server that supports the Data Warehouse reporting and analysis database for ATG applications

For a complete view of the Data Warehouse load servers and what they include, see the [Architecture Overview \(page 11\)](#).

## Internal and External Users

An ATG environment includes two type of users: internal and external. **Internal users** are people in your company who use ATG applications to perform activities related to your customer-facing sites. For example, marketers who use the Business Control Center to create user segments or other targeting assets are internal users. Customer service representatives (agents) are also internal users. **External users** are your Web site customers (for Commerce or ATG Service installations) or site visitors (for non-commerce sites).

Both types of users have profiles that can be managed through the Business Control Center.

For more information about users and user profiles, see the following documentation:

- *ATG Business Control Center Administration and Development Guide*
- *ATG Business Control Center User's Guide*
- *ATG Personalization Programming Guide*
- *ATG Personalization Guide for Business Users*

## Internal and External Scenarios

You can create scenarios for internal or external users. Scenarios are a series of choreographed interactions that are tailored to the user. For example, you can create an external user scenario that customizes the Web site content, promotions, and e-mail messages based on that user's actions when visiting your Web sites. You can create an internal user scenario for use by customer service representatives to guide them through a suggested sequence of events when interacting with a customer.

For details about scenarios, creating them, and setting up your system to use them, see *Creating Scenarios* in the *ATG Personalization Guide for Business Users* and *Scenarios Module Programming* in the *ATG Personalization Programming Guide*.

## Multisite Environment

A multisite environment is one in which a single instance of ATG products is used to support more than one Web site, and the Web sites are configured to share data such as user profiles or a shopping cart. For example, a clothing manufacturer could have two brands, one for luxury items and one for regularly priced items. Each

---

brand could have its own Web site, but they would share certain data and could both be supported by the same ATG instance.

## Scenario Servers

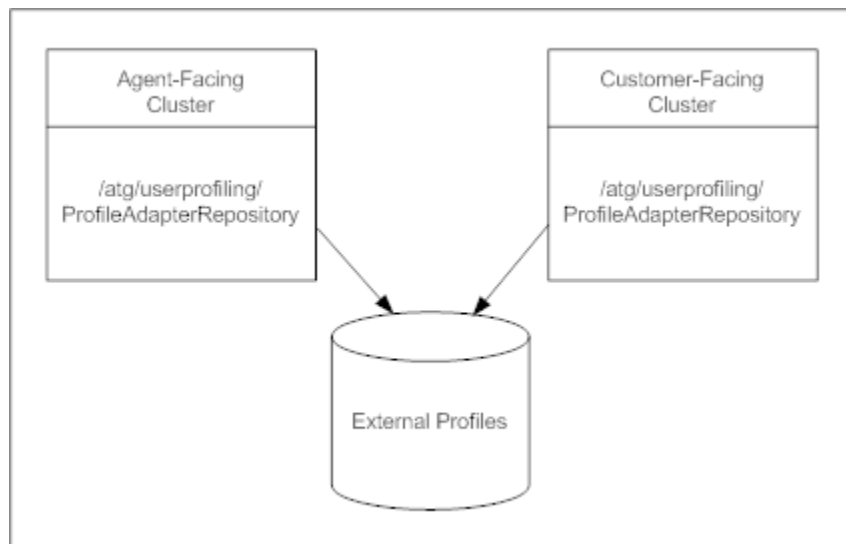
Scenario servers are servers that handle scenario events or actions. A scenario server can be individual or global. Scenario editor servers are instances of process editor servers.

For details about scenarios and the types of scenario editor servers, see *Scenarios Module Programming* in the *ATG Personalization Programming Guide*.

## Shared Repositories

Shared repositories are repositories that run on dissimilar ATG instances but point at the same database table.

In the following example, the agent-facing and customer-facing clusters each have a repository named `/atg/userprofiling/ProfileAdapterRepository` that points to the same database schema. The schema contains external profiles that represent customers. The customer-facing cluster uses the external profiles to store information related to customer interactions with your Web site (e-mail address, preferences, gift list data, available discounts, and so on). The agent-facing cluster also needs access to external profiles so that agents (internal users) can view the profile information of customers visiting the Web site and use it to assist them.



Shared Repository Example

---

---

## 2 Architecture Overview

This chapter describes the recommended system architecture of an Oracle ATG Web Commerce 10.1 installation running multiple applications. It includes an architecture diagram and provides additional details on the pieces that make up a multiple application environment.

[Architecture Diagram \(page 11\)](#)

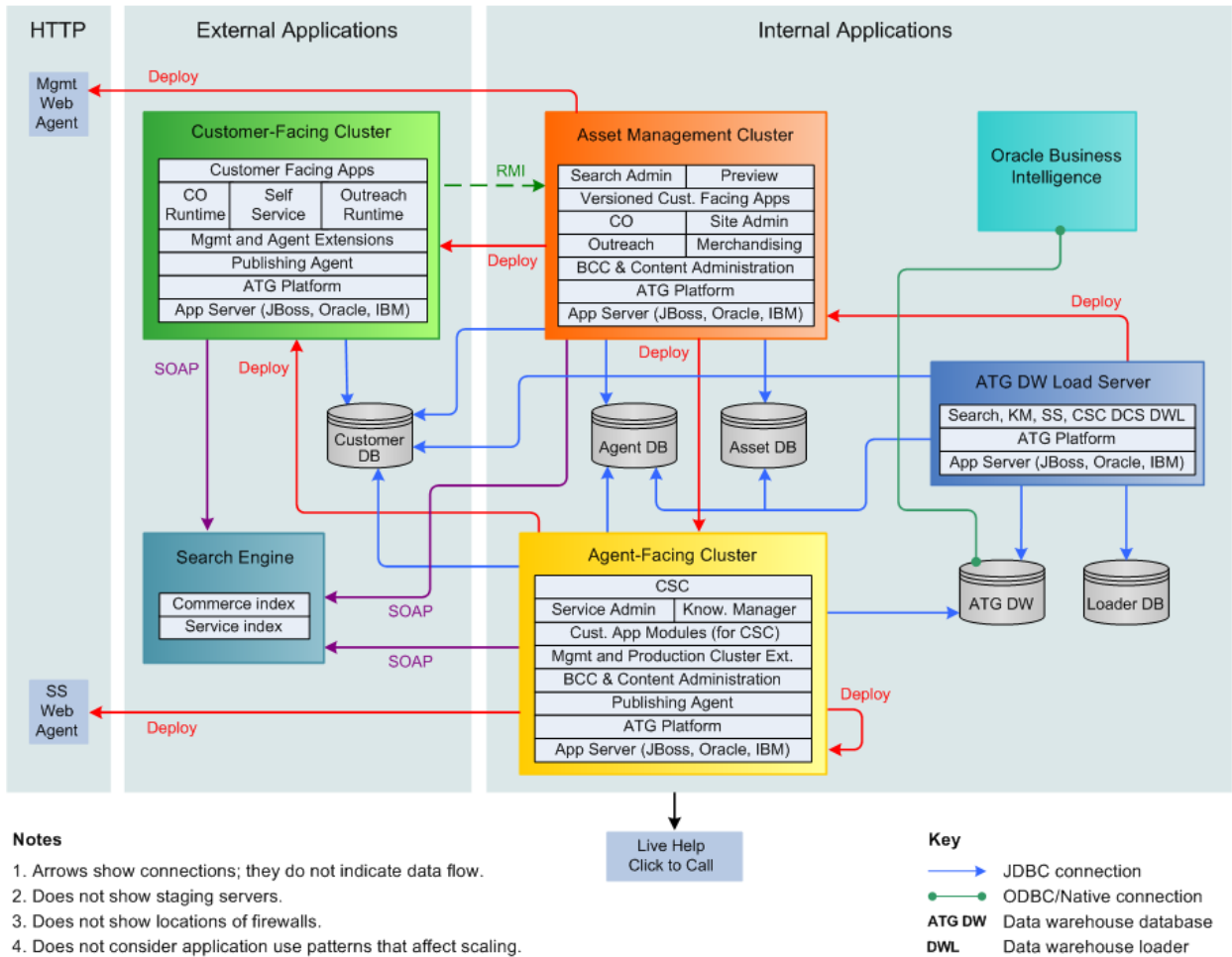
[Components of a Multiple Application Environment \(page 12\)](#)

[Relationships between Clusters, Users, and Scenario Servers \(page 15\)](#)

### Architecture Diagram

The diagram below shows the recommended server architecture for a multiple application environment running on Oracle ATG Web Commerce. A larger, printable version of this diagram, filename `ATGArchitectureDiagram101.pdf`, is located in this documentation library.

## Oracle ATG Web Commerce 10.1 Server Architecture



## Components of a Multiple Application Environment

This section describes the servers, clusters, database instances, and other components that make up the recommended system architecture shown in the diagram in the previous section.

### Customer-Facing Cluster

The customer-facing cluster is also referred to as the production cluster. The modules that make up your customer-facing Web applications run here.

The users associated with applications running on this cluster are external users (your Web site customers).

All instances in this cluster run the same modules. These include `ABTest.runtime` and `Outreach.runtime` as well as the modules for outward facing applications.



---

If Self Service is running on this cluster, it receives deployments from the asset management cluster and the agent-facing cluster.

The customer-facing cluster requires an external scenario editor server. You must designate one instance in the cluster as the global scenario editor server. The instance you designate is usually dedicated to that task; the load manager does not send it Web traffic in production. Refer to the *ATG Personalization Programming Guide* for more information. See also [Relationships between Clusters, Users, and Scenario Servers \(page 15\)](#) in this guide.

Another instance in this cluster is usually dedicated to running lock managers. The load manager does not send it Web requests.

## Agent-Facing Cluster

The following ATG applications run on the agent-facing cluster:

- Commerce Service Center (CSC)
- Knowledge Manager (KM)
- Service Administration

You use the Business Control Center on the agent-facing cluster to manage agent profiles, external users, organizations, roles, internal and external user segments, deployments (such as Knowledge customer deployments to Self Service), and assets. You can also use the Business Control Center to provide internal user access to Service Administration and Search Administration.

An agent-facing cluster requires an internal scenario editor server. It also can run external scenarios as an individual scenario server pointing to the external scenario editor server (which typically runs on the customer-facing cluster).

Commerce Service Center is integrated with Oracle Live Help On Demand Click to Call, which initiates and manages telephone communication between customers and agents.

You should configure a process editor server for this cluster so that workflows and scenarios for internal users can be edited. Refer to the *ATG Personalization Programming Guide* for more information.

## Asset Management Cluster

The following Oracle ATG Web Commerce applications run on the asset management cluster:

- ATG Content Administration
- Merchandising
- ATG Outreach
- ATG Campaign Optimizer
- Search Administration
- Site Administration

---

These applications are available through the Business Control Center to internal users with the appropriate roles. With these applications, internal users complete content creation and asset management tasks such as maintaining product catalogs, setting up promotions, and creating e-mail marketing campaigns. Administrators use the Business Control Center to manage internal and external users, organizations, roles, internal user segments, and deployments from the asset management cluster to the customer-facing cluster.

Search Administration runs on the asset management cluster and is installed as part of ATG Search.

Site Administration also runs on the asset management cluster. This utility is used to configure Web sites for use in a multisite ATG environment (one in which a single ATG installation supports more than one Web site, and data such as user profiles or a shopping cart is shared among the sites). For more information on this utility, refer to the *ATG Multisite Administration Guide*.

The asset management cluster uses the default internal scenario server. In addition, if you want this cluster to manage scenarios that are deployed to the customer-facing server, configure an external individual scenario server on this cluster.

If the ATG Content Administration asset preview feature is enabled, this cluster includes a repository of Preview users. An external Preview scenario server is required to preview external users.

For details about using the Preview feature, see the following documents:

- *ATG Content Administration Programming Guide*
- *ATG Business Control Center Administration and Development Guide*

## Search Engine

The Search Engine is a C++ based application that receives XML requests from servers that are searching against it and sends XML responses back to those servers.

## ATG Data Warehouse Load Server

The ATG Data Warehouse load server is a required part of any ATG environment that uses Oracle Business Intelligence for reporting. It summarizes the reporting data logged by the ATG platform and the applications shown below. For some applications, it loads individual transactions (orders, visits, searches) into the data warehouse.

- Commerce
- Search
- Self Service
- Knowledge Manager

This server does not have a user interface other than the Dynamo Server Admin, which you use to trigger data loading.

ATG Campaign Optimizer includes its own reports; it does not use Oracle Business Intelligence reporting.

ATG Outreach uses an existing instance of ATG Customer Intelligence to provide reports. Refer to the architecture diagram in the *ATG Multiple Application Integration Guide* 10.0.2 for more information.

# Relationships between Clusters, Users, and Scenario Servers

The following table summarizes the relationships of multiple-application clusters to users and scenario editor servers (SES). Refer to the architecture diagram in this chapter for more information about the cluster types in the table.

The abbreviation ISS represents individual scenario servers, and SES represents a scenario editor server (an instance of a process editor server).

For information on how to set up scenario editor servers, refer to the *ATG Personalization Programming Guide*.

**Note:** The Configuration and Installation Manager (CIM) cannot be used to configure scenario editor servers or global scenario servers.

Cluster/ Cluster Type	External Users	External Scenario Server	Internal Users	Internal Scenario Server	Preview Users	Preview Scenario Server
Customer-facing Applications/ External	Customer Users	Customer SES	NA	NA	NA	NA
Agent-facing Applications/ Internal	Customers	ISS points to Customer SES	Agents and Service Administrators (in <code>svcagent</code> DB)	Agent SES	NA	NA
Asset Management Applications/ Internal	Customers	ISS points to Customer SES	Management Users	Starts up but not used	Preview Users	Preview SES
Search Engine	NA	NA	NA	NA	NA	NA
ATG Data Warehouse Loader/ Internal	Customers	NA	Dynamo Administration Users	NA	NA	NA

Methods on the ATG Data Warehouse load server are invoked using the Dynamo Server Admin or run on a schedule.

Note also that the scenario server on the asset management server does not run scenarios (the `editOnlyMode` property in the Scenario Manager is set to `true`). Users can create and edit scenarios through the ACC, but the system makes no attempt to run them, and the scenarios do not appear in the Dynamo Server Admin. This behavior is required to avoid conflicts with external user profiles in the customer-facing database. If the Preview layer is enabled, however, the scenario manager does run scenarios so users can preview their results. In this case, the database being referenced is the preview user profile database, where the conflicts do not occur.

---

## Order of Server Startup for Correct Behavior of Scenarios

**Important:** As shown in the previous table, several ATG applications use a scenario editor server instance running on the customer-facing server. If your environment includes ATG Service as well as other applications that use the customer-facing scenario editor server, for example ATG Outreach, make sure you start the customer-facing server **before** the agent server. Otherwise, the agent server becomes the scenario editor server, which can cause errors to occur; for example, ATG Outreach campaigns fail to run.

---

# 3 Installing and Configuring Multiple Applications

This chapter provides a high-level guide to the tasks you need to complete to install and configure multiple applications successfully.

## Using CIM to Configure Applications

The Configuration and Installation Manager (CIM) is a command-line utility you can use to perform many of the post-installation setup tasks for Oracle ATG Web Commerce applications. Using CIM can considerably reduce the amount of time it takes to complete configuration tasks, especially those related to server and data source setup. Note, however, that you are still required to have server and database administration experience to use CIM; while it guides you through the configuration tasks, ensuring they are performed in the correct order, you still need to be familiar with the settings that CIM prompts you to enter.

For basic information on using CIM, refer to the *ATG Installation and Configuration Guide*. Information on CIM plug-ins is also included in the documentation for each application, and you can display help for most CIM options by typing `h` at the prompt. Note also that the *ATG Commerce Reference Store Installation and Configuration Guide*, which explains how to set up the Commerce Reference Store demo, contains detailed instructions on using CIM and can be very helpful as an introduction to installing Oracle ATG Web Commerce applications.

The sections that follow in this chapter indicate the tasks that can be performed through CIM.

## Installation and Configuration Steps

This section outlines the tasks you need to complete to install and configure multiple ATG applications.

1. [Obtain ATG Products and Resources \(page 18\)](#)
2. [Review Installation Requirements \(page 18\)](#)
3. [Create Database and Server Accounts \(page 19\)](#)
4. [Install the JDK and Utilities \(page 19\)](#)
5. [Install the Application Server \(page 19\)](#)
6. [Install the ATG Platform \(page 19\)](#)
7. [Install Database Drivers and Set Environment Variables \(page 19\)](#)

- 
8. [Install ATG Applications \(page 19\)](#)
  9. [Create Database Schema \(page 19\)](#)
  10. [Set Up Data Source Components \(page 20\)](#)
  11. [Import Initial Data \(page 20\)](#)
  12. [Determine Startup Modules, Administrative Accounts, and Context Roots \(page 20\)](#)
  13. [Start ATG Platform and Applications \(page 20\)](#)
  14. [Set Up the Deployment Topology and Initialize Deployments \(page 20\)](#)
  15. [Register Your Web Sites in Site Administration \(Multisite Environment Only\) \(page 21\)](#)
  16. [Configure Remaining Components \(page 21\)](#)
  17. [Create Site Data \(page 21\)](#)
  18. [Verify that Services Are Running \(page 21\)](#)

## Obtain ATG Products and Resources

After purchasing your ATG products, obtain the following information and resources:

- The distribution files for the ATG products.

After purchasing your ATG products, gather information about the distribution files you need to install the products. Note that previous versions of ATG products used \*.properties license files; these license files are no longer required.

Download distribution files from the Oracle Web site. To determine the files that are required to install the ATG platform and applications, see the installation instructions for each product.

- Locate the documentation for all the products you will be using.

See the descriptions of each product in the [Introduction \(page 1\)](#) chapter for links to documentation.

## Review Installation Requirements

Before beginning the installation, gather information about system requirements, installation instructions, and recommended system architecture. For these details about setting up your ATG applications, familiarize yourself with the following information:

- See the [Architecture Overview \(page 11\)](#) for details on configuring your ATG applications to work together.
- For information about supported operating systems and third-party system compatibility, including application servers, databases, and the JDK, refer to the Oracle ATG Commerce Supported Environments Matrix document in the My Oracle Support knowledge base at <https://support.oracle.com/>.
- Read the installation and configuration instructions for the ATG platform and each ATG application you are setting up.

For instructions on installing configuring the ATG platform, see the *ATG Installation and Configuration Guide*.

---

For application instructions, refer to each application's documentation. For instructions on installing and configuring Service Administration, see the *ATG Service Installation and Configuration Guide*.

- Review the documentation provided by the vendors of your application server and database. Please note that ATG manuals do not typically duplicate material available in third-party documentation.

## Create Database and Server Accounts

Create all necessary database and server accounts and set up passwords.

For information about creating the databases you need for each application and the users associated with the databases, and for details about the administration and user accounts needed to use your ATG products, see the installation and configuration instructions for the ATG platform and applications.

Information on the databases used by an ATG environment is contained in the *ATG Installation and Configuration Guide*.

## Install the JDK and Utilities

Install the JDK and any utilities you need, such as a text editor and a compression tool.

## Install the Application Server

Before installing the ATG platform and applications, install your application server (JBoss, IBM WebSphere, or Oracle WebLogic). Refer to your application server vendor's documentation for installation details.

## Install the ATG Platform

Refer to the *ATG Installation and Configuration Guide* for detailed information on how to install the ATG platform. Note that this guide is sometimes overlooked. It contains extremely important information, particularly about configuration for performance, so reviewing its contents before you begin the installation process is highly recommended.

## Install Database Drivers and Set Environment Variables

Install your database drivers and set your environment variables. For details, see the installation and configuration instructions for the ATG platform and each application you are installing. Also review the documentation provided by your database vendor.

## Install ATG Applications

Install the applications according to the instructions for each one. Before doing so, review the recommendations for setting up your ATG applications to work together. See [Architecture Overview \(page 11\)](#) for details.

## Create Database Schema

Create your database schema according to the installation and configuration instructions for each application.

---

**Note:** If your combination of ATG applications involves more than one application requiring the same database schema, create the schema only once to avoid possible errors.

This step can be performed through CIM.

## Set Up Data Source Components

Set up the data source components you need to import data. For a comprehensive list of data sources used by ATG applications and the modules where they are defined, refer to *Appendix C: Data Storage and Access* in the *ATG Installation and Configuration Guide*. For details on configuring the data sources, refer to your third party documentation, as well as documentation for the ATG platform and the applications you are installing.

This step can be performed through CIM.

## Import Initial Data

Import the initial data needed to set up your ATG environment, such as admin user profiles, default publishing roles, default user interface elements, projects, and the ATG Service framework.

**Note:** Before you begin this step, review the instructions for importing data for the ATG platform and each application you are installing. In some cases, two or more ATG applications can require you to import the same data. If your combination of ATG products involves duplicate import instructions, import the data only once. Importing the same data more than once can cause errors.

This step can be performed through CIM.

## Determine Startup Modules, Administrative Accounts, and Context Roots

Review your ATG documentation to determine the startup modules, administrative accounts, and context roots you need to access and run your ATG products.

Refer to [Sharing External Profile Definitions Across Multiple Applications \(page 23\)](#) in this guide for additional information on startup modules specific to a multiple application environment.

## Start ATG Platform and Applications

For instructions, refer to the documentation for each application.

## Set Up the Deployment Topology and Initialize Deployments

Create a deployment topology for deploying content for your ATG applications, and then initialize the deployments.

**Notes:** Before creating your topology, review the documentation and make a list of all repository and agent mappings. Ensure that you do not create duplicate mappings for a site.

You define your deployment topology and control deployments in ATG Content Administration. For an overview of deployments and details about setting up and running deployments, see the deployment chapters in the *ATG Content Administration Programming Guide*. For details about setting up deployments for specific applications, refer to each application's documentation.



---

Refer to [Sharing External File Assets Across Multiple Applications \(page 25\)](#) in this guide for additional information about configuring deployment for a multiple application environment.

## **Register Your Web Sites in Site Administration (Multisite Environment Only)**

Use the Site Administration utility to register and configure all the customer-facing Web sites you want your ATG installation to manage. This step is necessary only if your ATG environment supports more than one Web site, and you want those sites to share data (for example, user profiles or a shopping cart). For more information, refer to the *ATG Multisite Administration Guide*.

## **Configure Remaining Components**

Configure any additional components needed for your environment, such as those required for search indexing, lock managers, scenario managers, and e-mail. Refer to each application's documentation. For specific information on lock managers, scenario managers, and e-mail components, refer to the ATG platform documentation.

## **Create Site Data**

Create the remaining site data, for example user profiles for your company's business users. Refer to each application's documentation.

## **Verify that Services Are Running**

Make sure that all services are functioning as expected. In particular, ensure that search indexing is set up and working correctly.

For details about setting up search indexing, see the *ATG Search Administration Guide*.



---

# 4 Additional Configuration Considerations

This chapter presents information on additional topics to consider when setting up a multiple application environment. It includes the following sections:

[Sharing External Profile Definitions Across Multiple Applications \(page 23\)](#)

[Sharing External File Assets Across Multiple Applications \(page 25\)](#)

## Sharing External Profile Definitions Across Multiple Applications

Internal users viewing external profiles through the Business Control Center can see only the profile properties defined in the `userProfile.xml` file on the server where their Business Control Center is running. By default, the `userProfile.xml` file contains only properties for the applications running on that server. For example, agents looking at customer profiles in the agent-facing cluster cannot typically see external profile properties such as opt-in mailing preferences added to the `userProfile.xml` file by ATG Outreach on the asset management server. However, it is possible to configure a multiple application environment so that the Business Control Center running on any internal-facing server (any agent-facing or management server) can be configured to display a complete view of the external user profile.

Any application that adds properties to the standard external profile definition and that runs in the asset management cluster, the agent-facing cluster, or the customer-facing cluster has a sub-module that contains the application's user profile extension file (`userProfile.xml`) and any required supporting files. The sub-modules follow the naming convention `main module.ExternalUsers`, for example `ABTest.ExternalUsers`. Run these sub-modules on any management, agent, or production server where external user profiles will be viewed and edited. In addition, make sure that any profile extensions you make for use in these applications are added to the `userProfile.xml` file in an appropriate `ExternalUsers` sub-module. (For information on extending a profile definition file, refer to the *ATG Personalization Programming Guide*.) In addition, you should create an `ExternalUsers` sub-module for any custom module that includes profile extensions.

Example: ATG Outreach typically does not run on the agent-facing cluster. As mentioned above, ATG Outreach extends the standard profile definition, adding properties that track settings such as a customer's opt-in preferences for receiving e-mails. These profile extensions are stored in `ACO.communication.ExternalUsers`, which runs by default in the asset management cluster. Make sure this module also runs on agent servers so that the extra profile properties can be viewed through the Business Control Center on an agent server.

The following table shows the applications that have `ExternalUsers` sub-modules and the servers where they should be run.

Application	Name of <code>ExternalUsers</code> sub-module(s)	Already running here	Run here as well to ensure all properties are visible
ATG Outreach	<code>ACO.communication.ExternalUsers</code>	Asset management cluster	Agent-facing cluster
	<code>ACO.framework.ExternalUsers</code>	Customer-facing cluster	Note that running <code>ACO.communication.ExternalUsers</code> runs <code>ACO.framework.ExternalUsers</code> automatically. You do not need to specify both modules.
ATG Campaign Optimizer	<code>ABTest.ExternalUsers</code>	Asset management cluster Customer-facing cluster	Agent-facing cluster
Platform.Agent (see note)	<code>Agent.ExternalUsers</code>	Agent-facing cluster	Asset management cluster Customer-facing cluster
Self Service	<code>Service.ExternalUsers</code>	Agent-facing cluster	Asset management cluster
		Customer-facing cluster	

**Note:** `Platform.Agent` is a module installed with the ATG platform that supports agent users in ATG Service applications – it includes external profile extensions such as properties that store agent comments.

To run these modules on a given server, assemble an EAR file that includes the modules and deploy this application on the appropriate server. For information about assembling and deploying applications, see the *ATG Platform Programming Guide*.

## Hiding Sensitive Profile Information: Important

Be aware that using the `ExternalUsers` sub-module configuration makes external profile properties visible to internal users. If there are any properties you do not want internal users to see, make sure you hide those properties so that they do not appear in the Business Control Center. Refer to the *ATG Business Control Center Administration and Development Guide* for information on how to do so.

## Referencing Foreign Repositories

If an external profile extension references a repository that does not exist on the server where the sub-module is running (a foreign repository), the property's value is displayed in the Business Control Center as the ID of the object being referenced. The value can be changed if necessary by entering the appropriate object ID.

---

# Sharing External File Assets Across Multiple Applications

(**Note:** external file assets are content targeters, content groups, profile groups, segments, slots, and scenarios that are created for use with external user profiles.)

It is usually desirable for external file assets that are created through a Business Control Center in one server cluster to be visible to a Business Control Center in another cluster. Consider the following situation: an ATG Outreach user working with the Business Control Center on an asset management server creates an external segment that is deployed to a production server. Similarly, a Commerce Service Center user creates an external segment on an agent server and deploys it to production. However, neither the management user nor the agent user can see the segments each other created. An agent communicating with a customer may therefore not be able to see all the segments to which the customer belongs.

It is possible to configure a multiple application environment so that all external file assets are visible on both the asset management cluster and the agent-facing cluster. To do so, complete the steps below.

**Important:** For this configuration to work correctly, you must ensure that all external file assets that you want to be visible on both the asset management cluster and the agent-facing cluster are created on the management cluster **only** and then deployed to the agent-facing cluster using the steps shown in the procedure. File assets that you create on an agent server **cannot** be deployed to the management cluster and are thus not visible there.

File assets that do not have to be visible in both places can be created on the agent-facing cluster if necessary. Knowledge Manager users, for example, can create file assets that are attachments for solutions and deploy those to the customer-facing cluster.

1. Run the Publishing Agent's `DeployedConfig` sub-module on each agent-facing server. The `DeployedConfig` sub-module provides the code necessary to allow the agent server to both initiate its own deployments to the customer-facing cluster and receive deployments from the asset management cluster. (In technical terms, the `DeployedConfig` sub-module contains an instance of a `ConfigFileSystem` called `DeployedConfigFileSystem`. The standard `ConfigFileSystem` is used to expose versioned file assets for deployment, and the `DeployedConfigFileSystem` is used as an unversioned `JournalingFileSystem` for receiving deployments.)
2. Configure deployment on the asset management cluster. For each server in the agent-facing cluster, add an agent to the deployment site used to deploy assets to production. For each of these deployment agents, map the `ConfigFileSystem` to the `DeployedConfigFileSystem` on the agent cluster. (Do this through the Available File Systems/Include File Systems fields in the Agents tab of the ATG Content Administration deployment UI.) For detailed information on setting up deployment, see the *ATG Content Administration Programming Guide*.
3. Edit your workflow so that the deployment-related elements contain the production site as the deployment target. (This step is part of the general process you follow when you set up deployment in ATG Content Administration. See the *ATG Content Administration Programming Guide* for more information.) However, because of the configuration you completed in step 2, when you deploy your file assets to production, they are deployed automatically to the agent-facing cluster as well.
4. Ensure that all repositories that should be versioned (and thus managed by ATG Content Administration) are versioned on either the asset management cluster or the agent-facing cluster, but not both. This behavior avoids conflicts that could occur if a repository is managed by ATG Content Administration from the wrong cluster. Note that the `ConfigFileSystem` is versioned on both clusters, which allows external file assets to be edited in the management cluster and internal file assets specific to agent servers to be edited in the agent-facing cluster.

---

---

# Appendix A. Troubleshooting

This appendix provides descriptions of messages that you might see or problems that you might encounter when installing and running multiple applications.

For additional troubleshooting information on the ATG products you are using, refer to the documentation for those products.

The following topics are covered in this section:

[Scenario Stack Traces on JBoss \(page 27\)](#)

[Database Tables Already Exist \(page 27\)](#)

[Project Import Errors \(page 28\)](#)

[Scenarios or ATG Outreach Campaigns Do Not Run As Expected \(page 28\)](#)

[External Profile Information Not Visible in BCC \(page 28\)](#)

## Scenario Stack Traces on JBoss

**Problem:** Stack traces are thrown when a server attempts to run a scenario at start-up on JBoss installations.

When a server attempts to run a scenario at start-up, and the scenario elements needed to run the scenario (such as events and actions) are not defined in the server's config path, error traces are thrown.

Note that the scenario runs correctly.

**Possible solution:** You can ignore the errors, or to start the server without these errors occurring, ensure that all scenario elements are defined in the server's config path.

For details about scenario events associated with ATG applications, refer to the application documentation (see [About the Applications \(page 3\)](#) for a list of application documentation).

For details about setting up scenarios, see *Scenarios Module Programming* in the *ATG Personalization Programming Guide*.

## Database Tables Already Exist

**Problem:** When creating database schema, you see a message about tables already existing.

---

This message could be a result of running the same script twice when creating your database schema. Some applications share the same underlying framework, and running the same script (or scripts containing duplicate information) twice generates messages about tables already existing.

**Possible Solution:** Usually this error message does not cause problems; however it is good practice to avoid running scripts more than once.

See [Create Database Schema \(page 19\)](#) and your application documentation to determine if there are duplicate scripts in your installation instructions.

## Project Import Errors

**Problem:** When importing data, you see a message about not being able to import a project because a project with that name already exists.

This message could be a result of attempting to import the same data twice.

**Possible Solution:** Usually this error message does not cause a problem; however it is good practice to avoid importing data multiple times.

See [Import Initial Data \(page 20\)](#) and your application documentation to determine if there is duplicate data (that you attempted to import more than once).

## Scenarios or ATG Outreach Campaigns Do Not Run As Expected

**Problem:** Scenarios or ATG Outreach campaigns do not run as expected in an environment that also includes ATG Service.

**Possible Solution:** Make sure that you started your servers in the correct order. The customer-facing server must be started before the agent-facing server.

Refer to [Order of Server Startup for Correct Behavior of Scenarios \(page 16\)](#) for more information.

## External Profile Information Not Visible in BCC

**Problem:** Business Control Center users cannot see all available customer profile information.

Internal users viewing customer profiles through the Business Control Center can see only the profile properties defined in the `userProfile.xml` file on the server where their Business Control Center is running. By default, the `userProfile.xml` file contains only properties for the applications running on that server.

**Possible Solution:** Set up and run `ExternalsUsers` submodules on all asset management and agent-facing servers. For more information, see [Sharing External Profile Definitions Across Multiple Applications \(page 23\)](#).



---

# Index

## A

agent users, 8, 15  
agent-facing server, 7, 13, 16  
applications  
    installing, 17  
    overview, 3  
architecture diagram, 11  
asset management server, 7, 13  
ATG Control Center (ACC), 3

## B

Business Control Center (BCC), 3

## C

Configuration and Installation Manager (CIM), 17  
customer-facing server, 8, 12

## D

Data Warehouse load server  
    about, 8  
    ATG platform and applications, 14  
DeployedConfig module, 25  
Dynamo Server Admin, 3

## E

external users, 8, 15, 23  
ExternalUsers modules, 23

## F

file assets, sharing across applications, 25

## I

installing applications, 17  
internal users, 8, 15, 23  
Internet Explorer compatibility mode, 7

## M

management server (see asset management server)  
multisite environment, 21

## P

platform, ATG, 1  
production server (see customer-facing server)  
profiles, sharing across applications, 23  
publishing server (see asset management server)

## R

repositories, shared, 9

## S

scenario servers, 9, 15, 16  
scenarios  
    external, 8  
    internal, 8  
Search Engine, 14  
shared repositories, 9  
Site Administration, 2

## T

troubleshooting multiple applications, 27

## U

users (see agent users, internal users, or external users)

---