

Getting Started with the webMethods Product Suite and Terracotta

Version 9.8

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This document applies to webMethods Product Suite Version 9.8 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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About this Guide

This guide provides an introduction to the ways in which the webMethods product suite uses Ehcache, BigMemory, and the Terracotta Server Array. The guide also describes client-side licensing requirements and provides general instructions for configuring the Terracotta Server Array.

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Narrowfont	Identifies storage locations for services on webMethods Integration Server, using the convention <i>folder.subfolder:service</i> .
UPPERCASE	Identifies keyboard keys. Keys you must press simultaneously are joined with a plus sign (+).
<i>Italic</i>	Identifies variables for which you must supply values specific to your own situation or environment. Identifies new terms the first time they occur in the text.
Monospace font	Identifies text you must type or messages displayed by the system.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

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To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the [Knowledge Center](#).

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- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

1 webMethods Products that Use Terracotta

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The webMethods Product Suite and Terracotta

Ehcache is a standards-based caching API that enables applications to fetch frequently used data from memory (or other nearby resource) rather than having to retrieve it from a database or other back-end system. Terracotta extends the Ehcache API to enable applications to:

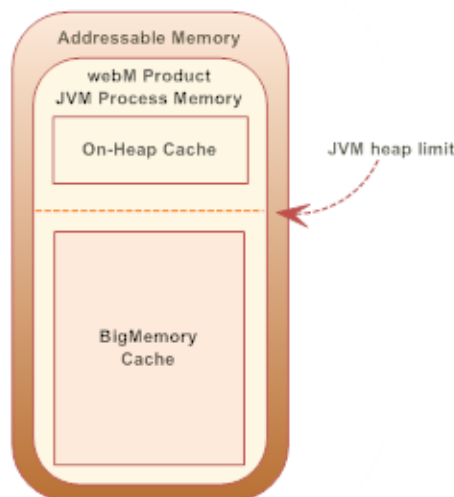
- Create very large in-memory caches.
- Share cached data with other applications on the network.

This chapter provides a general overview of how components of the webMethods product suite use Ehcache and, more specifically, how they use the extensions enabled by Terracotta. The content of this chapter is designed to introduce you to Terracotta usage by various webMethods products. For detailed information, it refers you to the appropriate webMethods product guide.

Using Terracotta to Create Very Large In-Memory Caches with BigMemory

BigMemory is an extension to Ehcache that enables you to create caches that reside outside of the Java heap. Using BigMemory, you can create much larger caches than with local on-heap memory alone. You can use up to a terabyte for caching, depending on the platform you use. Caches that you create using BigMemory also perform more predictably and consistently than on-heap caches, because they are not subject to the JVM garbage-collection process.

BigMemory cache resides outside of the Java heap space



webMethods products that support Ehcache for caching also support BigMemory; however, you must install a Terracotta license on the webMethods product to enable the BigMemory feature.

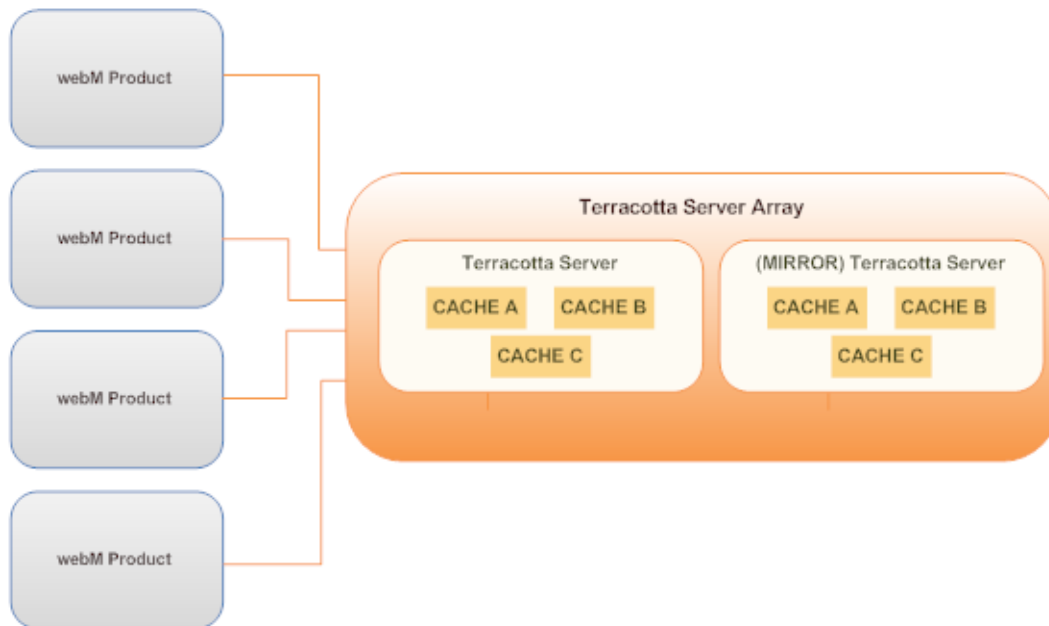
For additional information about the BigMemory extension to Ehcache, see the sections on BigMemory in the Ehcache 2.8 documentation available at <http://ehcache.org/>.

Using a Terracotta Server Array to Share Cached Data Among Applications

The Terracotta Server Array is an extension to Ehcache that enables you to share a cache with other applications. With this extension, cache is maintained centrally on a Terracotta Server Array and clients access the cache via the network.

As shown in the following figure, a Terracotta Server Array generally consists of an active Terracotta Server and a mirror Terracotta Server for high availability. You can add Terracotta Servers and their mirrors to the array if you require additional storage, but such configurations require additional licensing.

A Terracotta Server Array enables applications to share cached data



Most webMethods products that use Ehcache also support the use of a Terracotta Server Array. To use these products with a Terracotta Server Array, you must install a Terracotta license on the webMethods product.

For additional information about the Terracotta Server Array, see the BigMemory Max product documentation for 4.1 at <http://www.terracotta.org/documentation/4.1/bigmemorymax/overview>.

Important: The products in version 9.7 of the webMethods Product Suite require version 4.1.4 of the Terracotta Server Array. When newer versions of the Terracotta Server Array become available, the webMethods Product Suite may add support for those versions. To check whether a webMethods product supports a given version of Terracotta, see the *Terracotta Compatibility with webMethods and Intelligent Business Operations Products* matrix on the “webMethods System Requirements, Installation, and Upgrade” page of the Software AG Documentation website at <http://documentation.softwareag.com>.

System Caches Used by the webMethods Product Suite

Many webMethods products cache data for their own internal processes. The caches that they use internally are called *system caches*. For a list of the system caches that webMethods products use, see "[System Caches Used by the webMethods Product Suite](#) " on page 29. You can use this information as input for sizing efforts related to BigMemory or the Terracotta Server Array.

How Business Process Management Uses Terracotta

Business Process Management uses Terracotta to create a system cache in which it temporarily stores process audit data that cannot be inserted into the process audit database. For more information about the system caches that Business Process Management uses, see "[System Caches Used by the webMethods Product Suite](#) " on page 29.

How Software AG Common Platform Components Use Terracotta

The Software AG Common Platform components use Terracotta to store information related to security.

For more information about the system caches that the Software AG Common Platform components use, see "[System Caches Used by the webMethods Product Suite](#) " on page 29.

How CentraSite Uses Terracotta

For performance purposes, CentraSite caches the registry objects that are returned by search and get operations. Doing this enables CentraSite to quickly retrieve these objects from memory when they are requested again.

If your CentraSite server is equipped with the proper license, you can configure the server to cache registry objects in BigMemory.

Note: CentraSite does not support caching on the Terracotta Server Array.

For more information about the system caches that CentraSite uses, see "[System Caches Used by the webMethods Product Suite](#)" on page 29.

For more information about using Terracotta with CentraSite, see the caching topics in the CentraSite user documentation.

How webMethods CloudStreams Uses Terracotta

webMethods CloudStreams uses Terracotta to cache the virtual services that you deploy to a CloudStreams server. It also uses Terracotta to cache many of the artifacts associated with the virtual services (for example, performance metrics, policies, and consumer applications). When you install webMethods CloudStreams on a cluster of Integration Servers, CloudStreams maintains these caches on the Terracotta Server Array.

For more information about the system caches that CloudStreams uses, see "[System Caches Used by the webMethods Product Suite](#)" on page 29.

Note: CloudStreams does not support sharing of Connector Virtual Services, Virtual Services and policies across nodes in a clustered scenario. Such artifacts must be deployed to a clustered node on an as-needed basis.

How Software AG Command Central Uses Terracotta

Software AG Command Central uses Terracotta to cache data objects returned by get operations from Platform Manager. Caching enables Command Central to quickly retrieve data objects from memory on subsequent requests, even when the Platform Manager on the remote installation is not accessible. The caches are also used in different search operations and to improve performance.

If a Command Central Server is equipped with the proper Terracotta licenses, you can configure Command Central to cache registry objects in BigMemory.

Important: Command Central does not support caching on the Terracotta Server Array.

For more information about the system caches that Command Central uses, see "[System Caches Used by the webMethods Product Suite](#)" on page 29.

How Software AG Event-Driven Architecture Uses Terracotta

Software AG Event-Driven Architecture uses Terracotta for guaranteed delivery of EDA events.

The general flow of emitted events is as follows:

1. The emitting product, such as webMethods Optimize or webMethods BPM, issues an emit call.
2. Software AG NERV stores the event in a persistent cache.
3. Event routing and variation takes place, and the event is delivered to the destination endpoint(s).
4. NERV removes the event from the cache.

If the hosting JVM stops before the event is successfully delivered to all destination endpoints, the event is not removed from the cache. Instead, NERV sends the event after the JVM is restarted.

Caches are persistent and are used primarily for write operations. Read operations are performed only upon JVM restart.

For more information about the system caches that Software AG Event-Driven Architecture uses, see ["System Caches Used by the webMethods Product Suite "](#) on page 29.

How webMethods eStandards Modules Use Terracotta

The following webMethods eStandards modules create system caches in which they store transaction-related data and/or configuration information related to the use of the module in a cluster:

- webMethods Chem eStandards Module
- webMethods FIX Module
- webMethods ebXML Module
- webMethods RosettaNet Module

When you use these modules in a clustered environment, they maintain their system caches on the Terracotta Server Array.

For more information about the system caches that these adapters use, see ["System Caches Used by the webMethods Product Suite "](#) on page 29.

How webMethods Integration Server Uses Terracotta

webMethods Integration Server uses Terracotta for the following purposes:

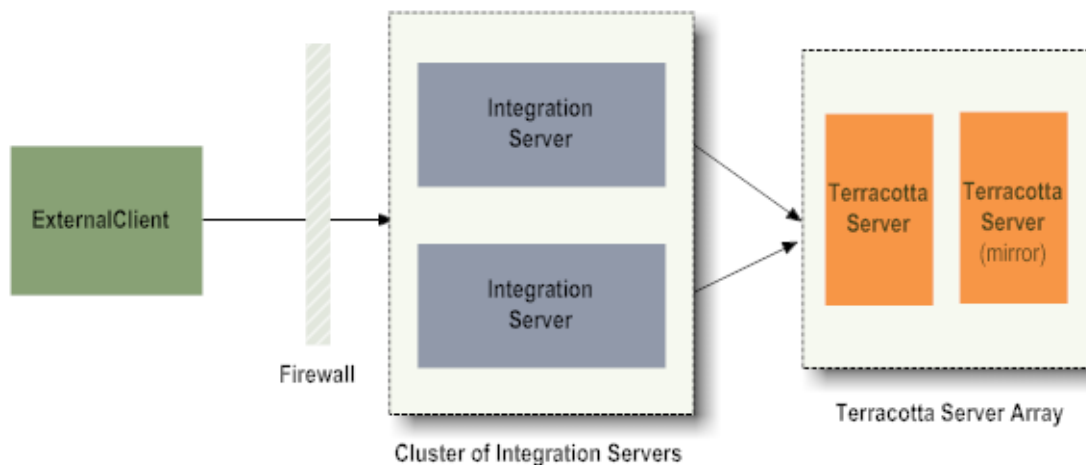
- **For creating public caches.** Public caches are user-defined caches that integration solutions running your Integration Server can use. Integration Server provides built-in services that you use to build integration solutions that use caching.

If an Integration Server is equipped with the proper Terracotta licenses, you can create public caches that reside in BigMemory or on the Terracotta Server Array.

For more information about how Integration Server uses Terracotta with public caches, see the chapter on Ehcache in *webMethods Integration Server Administrator's Guide*. For more information about the services you use to add caching to an integration solution, see the `pub.cache` services in *webMethods Integration Server Built-In Services Reference*.

- **For clustering.** When you cluster Integration Servers using Terracotta, the members of the cluster share data using caches on the Terracotta Server Array. Each Integration Server in the cluster connects to the Terracotta Server Array to store and retrieve items from the shared caches.

Figure 3. Members of the cluster use caches on the Terracotta Server Array to share data



For more information about how Integration Server uses Terracotta for clustering, see *webMethods Integration Server Clustering Guide*.

- **For caching service results.** When you enable a service to cache results, Integration Server saves the service invocation results in the cache for a specified period of time. While the results are in the cache, rather than re-invoking the service, Integration Server can quickly retrieve the service results for subsequent client requests for the service.

Note: Service results are local to an Integration Server and are not distributed.

For more information about caching service results, see *webMethods Integration Server Administrator's Guide*.

- **For caching data related to the OAuth Authorization Framework (OAuth).** When acting as an OAuth authorization server, Integration Server maintains registered clients, scope definitions, access tokens, and refresh tokens in cache. When running in a clustered environment, Integration Server maintains these caches on the Terracotta Server Array.

For more information about OAuth, see *webMethods Integration Server Administrator's Guide*. For more information about the caches Integration Server uses for OAuth, see "[System Caches Used by the webMethods Product Suite](#) " on page 29.

- **For caching data related to digest authentication.** When you configure HTTP/HTTPS ports on Integration Server to support digest authentication, Integration Server maintains the generated nonces in cache. When running in a clustered environment, Integration Server maintains these caches on the Terracotta Server Array.

For more information about digest authentication, see *webMethods Integration Server Administrator's Guide*. For more information about the caches Integration Server uses for digest authentication, see "[System Caches Used by the webMethods Product Suite](#) " on page 14.

- **For Enhanced XML Parsing operations.** If the caching option is enabled for the Enhanced XML Parser, Integration Server uses a cache to manage memory during parsing operations. If your Integration Server is licensed to use BigMemory, you can configure the Enhanced XML Parser to extend the cache to BigMemory. For more information about how the Enhanced XML Parser uses cache, see the *webMethods Integration Server Administrator's Guide*.

Note: How Integration Server uses Terracotta will affect what licenses you will need. For more information about Terracotta licenses and Integration Server, see "[License Requirements for Integration Server](#) " on page 23.

For more information about the system caches that Integration Server uses, see "[System Caches Used by the webMethods Product Suite](#) " on page 29.

How webMethods Mediator Uses Terracotta

webMethods Mediator uses Terracotta to cache the virtual services that you deploy to it. It also uses Terracotta to cache many of the artifacts associated with the virtual services (for example, performance metrics, policies, consumer applications, and registered consumers). When you install Mediator on a cluster of Integration Servers, Mediator maintains these caches on the Terracotta Server Array.

For more information about the system caches that Mediator uses, see "[System Caches Used by the webMethods Product Suite](#) " on page 29.

How webMethods Mobile Support Uses Terracotta

Mobile Support uses the locking and unlocking functionality of Ehcache to achieve synchronization. In a clustered environment, Mobile Support maintains its system cache on the Terracotta Server Array.

For more information about the system caches that Mobile Support uses, see "[System Caches Used by the webMethods Product Suite](#)" on page 29.

How webMethods OneData Uses Terracotta

webMethods OneData uses Terracotta to maintain *in-memory databases*. An in-memory database is a cached version of a given data object. When you enable caching for a data object, OneData stores the records associated with the object in cache as well as in the release area. Caching improves the performance of REST services that use the data object, because the services interact with the cache instead of the database.

Note: Creating in-memory databases using OneData requires the use of a Terracotta Server Array.

For information about enabling caching for a data object, see the section on in-memory databases in *Developing for webMethods OneData*. For information about configuring OneData to use a Terracotta Server Array, see *Administering webMethods OneData*. For more information about the system caches that OneData uses, see "[System Caches Used by the webMethods Product Suite](#)" on page 29

How webMethods Optimize Uses Terracotta

For maximum performance, webMethods Optimize uses Terracotta to cache much of the data it uses in support of business activity monitoring. Data that it caches includes:

- Metadata such as dimension definitions, rule definitions, and KPI definitions
- Raw data that is provided by data collectors for analysis
- Readings, statistics, and other results produced during monitoring
- Messages and notifications related to the handling of events

Optimize also uses Terracotta for Analytic Engine clustering. Analytic Engine clustering distributes the Optimize information processing load across multiple Analytic Engines, either to facilitate system high availability or to maximize Analytic Engine data throughput. When you cluster Analytic Engines, the members of the cluster share data using caches on the Terracotta Server Array. Each Analytic Engine in the cluster connects to the Terracotta Server Array to store and retrieve items from the shared caches.

For more information about how Optimize uses Terracotta for clustering, see the clustering section in *Configuring BAM*. For more information about the caches that Optimize uses during business activity monitoring, see "[System Caches Used by the webMethods Product Suite](#)" on page 29.

How webMethods Trading Networks Uses Terracotta

Trading Networks uses Terracotta to create a system cache in which it stores session-based query results and assets.

Note: Trading Networks maintains this cache locally, even when running in a clustered environment.

For more information about the system caches that Trading Networks uses, see "[System Caches Used by the webMethods Product Suite](#)" on page 29.

2 Licensing Requirements

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An Overview of Licensing When Using Terracotta with webMethods

If your webMethods product is licensed to use BigMemory Max, you will receive a Terracotta license key from Software AG. You must install this key to enable these features in your webMethods product.

Note: When upgrading from Terracotta Server Array version 3.x, you must obtain a new license file. Contact Software AG Global Support.

Installing the Terracotta License File on a webMethods Product

The Terracotta license resides in a file called terracotta-license.key. Use the following procedure to install this file with your webMethods product.

To install the Terracotta license key on a webMethods product

1. On the machine where you have installed the webMethods product, navigate to the following folder and check for the presence of a terracotta-license.key file.

Software AG_directory\common\conf

If this folder already contains a terracotta-license.key file, review the information in ["What to do if a Terracotta License Key Already Resides in the Software AG_directory \common\conf Folder"](#) on page 22. Do not proceed to the next step unless you have determined whether you should replace the license key that already exists in this folder.

2. Copy the terracotta-license.key file to the *Software AG_directory* \common\conf folder.

Important: Do not change the name of the license file.

3. If the webMethods product that requires the Terracotta license is already running, restart it to put the license key into effect.

What to do if a Terracotta License Key Already Resides in the Software AG_directory\common\conf Folder

If you install multiple webMethods products in the same *Software AG_directory*, it is possible that two or more products will each have their own Terracotta license keys.

In this case, you might discover that the *Software AG_directory\common\conf* folder already contains a key for one of the installed products.

Under these circumstances, you are permitted to select one license key for the Terracotta-licensed products in the *Software AG_directory* to use.

To determine which license key to use, examine each key file with a text editor. The file will describe the capabilities that the key enables. Install the key file that satisfies the needs of the webMethods product with the most demanding licensing requirements.

License Requirements for Integration Server

The Terracotta license you need to use with Integration Server depends on how you will use Terracotta with Integration Server. For some uses, you will not need a Terracotta license. For others, you will use the Terracotta BigMemory Max license originally provided to you when you purchased Integration Server. For some uses, you will need to purchase an upgraded Terracotta BigMemory license to install on the client Integration Server or the computers in your Terracotta Server Array.

The following table shows the different configurations and corresponding license requirements:

<u>Integration Server</u>	<u>Client License</u>	<u>Terracotta Server Array License</u>
Stand-alone, with system caches or local caches created with pub.cache	No license needed	Not applicable
Stand-alone, with system caches or local caches created with pub.cache, and off-heap storage	Upgraded Terracotta BigMemory license	Not applicable
Clustered	Terracotta BigMemory Max license	Terracotta BigMemory Max license
Clustered, with Terracotta Server Array and off-heap storage	Upgraded Terracotta BigMemory license	Upgraded Terracotta BigMemory license
Distributed custom caches created on the Terracotta Server Array with pub.cache	Upgraded Terracotta BigMemory license and Integration	Upgraded Terracotta BigMemory license

Integration Server

Client License

**Terracotta Server
Array License**

Server
distributed cache
license

3 Installing and Configuring the Terracotta Server Array for Use with webMethods Products

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Introduction

This chapter outlines the steps for installing and configuring a Terracotta Server Array for use with webMethods products.

Note: The version of Terracotta software that you install on the Terracotta Server Array must be compatible with the version of the Terracotta client libraries that your webMethods product uses. For compatibility information, see the *Terracotta Compatibility with webMethods and Intelligent Business Operations Products* matrix on the “webMethods System Requirements, Installation, and Upgrade” page of the Software AG Documentation website at <http://documentation.softwareag.com>.

Installing and Configuring the Terracotta Server Array

Note: For a list of the platforms supported by Terracotta server, see the “Server Information” section in the [4.1 Platform Support](#) document.

1. Install the Terracotta program files and license key on each machine in your array as described in *Installing webMethods and Intelligent Business Operations Products*.
2. Configure the Terracotta Server Array as described in "[Configuring the Terracotta Server Array for your webMethods Product](#)" on page 26.

Configuring the Terracotta Server Array for your webMethods Product

The Terracotta license provided with your webMethods product requires the use of BigMemory Hybrid. You must configure your Terracotta Server Array to use the Hybrid extension. The Server Array can contain a single stripe with 2 servers (an active server and a mirror server) to provide high availability.

The configuration and behavior of the Terracotta Server Array is specified by parameters in a configuration file called the *tc-config file*. This file identifies the servers that make up the array and specifies whether the servers are mirrored. This file also contains parameters that relate to the capacity of the server, parameters that control certain behaviors of the clients that connect to the array, and a healthchecker (a process that monitors the connections between the Terracotta Server Array and its clients).

For BigMemory Hybrid, you set the total data capacity of the server. You can find the total allowable data capacity in your terracotta-license.key under the `terracotta.serverArray.maxDataStorage` setting. The BigMemory Hybrid server also requires the usage of off-heap storage. The server will utilize the off-heap storage to

store the keys associated with all of the cache entries. By default, off-heap storage is configured to use 512MB. For more information about BigMemory Hybrid, see <http://www.terracotta.org/documentation/4.1/terracotta-server-array/hybrid>.

Note: The off-heap memory required by the Hybrid server is in addition to the heap memory required by the server. If you are upgrading from version 3.7, you will need at least 512MB of additional off-heap memory.

The `tc-config` file is not installed with the Terracotta program files. You must create this file and configure it for your particular server array. To aid you in creating this file, you can refer to the sample file shown in "[Configuring the Terracotta Server Array for your webMethods Product](#)" on page 26. This sample includes basic settings that are required by webMethods products. You can use it as a starting point for defining the configuration and behavior of your particular Terracotta Server Array.

For complete information about creating and configuring the `tc-config` file, see the section on configuring the Terracotta Server Array in the Terracotta product documentation.

The Location of the `tc-config` File

By default, a Terracotta server expects to find the `tc-config` file in the `TerracottaHome / server/bin` folder. If you maintain the `tc-config` file in the default location, you must place an identical copy of the `tc-config` file in the `TerracottaHome / server/bin` folder of every server in the array. (Typically, you create the `tc-config` file on one server and then copy it to the other servers in the array.)

Alternatively, you can place the `tc-config` file in a central location where all servers in the array can access it. If you use this approach, you must specify the location of the `tc-config` file when you invoke the start-up script on each server. For information about specifying the location of the `tc-config` file, see the section on configuring the Terracotta Server Array in the Terracotta product documentation.

Sample `tc-config` File

The following is a sample file you can use as a template to create the `tc-config` file for your Terracotta Server Array. This sample includes settings in the `<tc-properties>` and `<clients>` sections that are required by webMethods products.

The `<servers>` section in this sample defines an array consisting of two mirrored Terracotta servers. Revise this section as needed to define the configuration of your particular server array. For more information about defining the configuration of the Terracotta Server Array, see BigMemory Max product documentation for 4.1 at <http://terracotta.org/documentation/4.1/bigmemorymax/overview>.

```
<tc:tc-config xmlns:tc="http://www.terracotta.org/config">
  <!-- This is a required property for webMethods products -->
  <tc-properties>
    <property name="ehcache.storageStrategy.dcv2.perElementTTITTL.enabled"
      value="true"/>
  </tc-properties>
```

```
<servers>
  <!-- Replace the host and name values for your server -->
  <server host="YOUR-HOST-1" name="YOUR-NAME-HERE">

    <data>server-data</data>
    <logs>server-logs</logs>

    <!-- Adjust the data storage size for the total amount of data -->
    <!-- being stored by the server array up to the maximum allowed -->
    <!-- by your Terracotta license.-->
    <dataStorage size="20g">

      <!-- hybrid mode is required by the Terracotta license provided -->
      <!-- with webMethods products. -->
      <!-- Terracotta server off heap is required to hold the keys -->
      <!-- used for all caches. -->
      <offheap size="2g"/>
      <hybrid/>

    </dataStorage>

  </server>

  <server host="YOUR-HOST-2" name="YOUR-NAME-HERE">
    <data>server-data</data>
    <logs>server-logs</logs>

    <!-- The data storage settings must be identical for each server -->
    <!-- in the mirror group. -->
    <dataStorage size="20g">
      <offheap size="2g"/>
      <hybrid/>
    </dataStorage>
  </server>

  <!-- This replaces the permanent-store attribute -->
  <!-- from the 3.7.X version. This is not required to be enabled. -->
  <!-- The setting applies to all servers in the mirror group. -->
  <restartable enabled="true"/>

</servers>

<clients>
  <logs>%(com.softwareag.tc.client.logs.directory)</logs>
</clients>
</tc:tc-config>
```

A System Caches Used by the webMethods Product Suite

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Overview

Many webMethods products cache data for their own internal processes. The caches that they use internally are called *system caches*. This appendix identifies the system caches that the webMethods product suite uses.

Note: System caches are not meant to be accessed by user applications.

The information in this appendix is intended to be used for sizing efforts related to BigMemory or the Terracotta Server Array. It is provided as a starting point. You will need to test to see how these caches actually behave under typical workloads in your environment and make adjustments as necessary.

Business Process Management Caches

SoftwareAG.IS.PE.FailedProcessAudit

Contains process audit records that failed to be inserted into the process audit database. The records are automatically inserted into the process audit database when it becomes available and are removed from the cache.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0 elements during normal operation	Varies	Each element exists in the cache until the element can be inserted into the process audit database.
Searchable?	Local / Distributed	
No	Always local	

Software AG Common PlatformCaches

SSOAssertionsCacheManager.SSOAssertionsCache

Contains SAML assertions. Used to verify if SSO Assertion has already been used.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10000 (default size of cache)	4 to 10 KB	Controlled by the <code>timeToldleSeconds</code> (120 seconds, by default) and <code>timeToLiveSeconds</code> (120 seconds, by default) settings for the cache
Searchable?	Local / Distributed	
No	Local	

CentraSite Caches

The following system caches belong to CentraSite:

- `SoftwareAG.CentraSite.model.ObjectCache_<MachineName>_<port>`
- `SoftwareAG.CentraSite.model.TypeCache_<MachineName>_<port>`

SoftwareAG.CentraSite.model.ObjectCache_<MachineName>_<port>

Contains CentraSite Registry objects stored as simple Java objects.

The first time CentraSite reads an object, CentraSite places the object into the cache, where it stays until it is removed implicitly or explicitly. If an object is out-of-date, it will be reloaded implicitly by a search.

Note: CentraSite uses the transactional cache functionality of Terracotta to add multiple objects to the cache concurrently.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10,000 (default size of cache)	1 KB or less	Controlled by garbage collection

Searchable?	Local / Distributed
No	Always local

SoftwareAG.CentraSite.model.TypeCache_<MachineName>_<port>

Contains types defined in CentraSite stored as simple Java objects.

CentraSite shares the elements among all connections within a JVM.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
100	1 KB or less	Lifetime of the cache

Searchable?	Local / Distributed
No	Always local

webMethods Chem eStandards Module Caches

SoftwareAG.IS.Chem.CHEMModelSessionCache

Contains data required to complete business transactions (that is, original business document data for response transactions, including TPA data and data related to instances and failure scenarios).

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
5 to 10	5 KB or less	Controlled by the Time to Live and Time to Idle cache settings

Searchable?	Local / Distributed
No	Distributed

webMethods CloudStreams Caches

The following system caches belong to webMethods CloudStreams:

- [SoftwareAg.IS.CloudStreams.ClusterStatusCache](#)
- [SoftwareAg.IS.CloudStreams.CollectionKeysCache](#)
- [SoftwareAg.IS.CloudStreams.ConsumerApplicationsCache](#)
- [SoftwareAg.IS.CloudStreams.IntervalNotificationCache](#)
- [SoftwareAg.IS.CloudStreams.MetricAccumulatorCache](#)
- [SoftwareAg.IS.CloudStreams.RegisteredConsumerNamesCache](#)
- [SoftwareAg.IS.CloudStreams.RuntimePolicyCache](#)
- [SoftwareAg.IS.CloudStreams.VirtualServicesCache](#)

SoftwareAg.IS.CloudStreams.ClusterStatusCache

Contains String, Date, and enum objects that indicate webMethods CloudStreams clustering status.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
5 to 10	Less than 100 bytes	As long as webMethods CloudStreams is active

Searchable?	Local / Distributed
No	Distributed

SoftwareAg.IS.CloudStreams.CollectionKeysCache

Contains CollectionKeys objects for deployed outbound virtual services.

webMethods CloudStreams generates this information using input from the Software AG Designer plug-in.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One per deployed virtual service	Less than 1 KB	As long as the virtual service is deployed
Searchable?	Local / Distributed	
No	Always local	

SoftwareAg.IS.CloudStreams.ConsumerApplicationsCache

Contains consumer application descriptions in the form of an XML string for each deployed consumer application.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per consumer application deployed to the cluster	1 to 2 KB	As long as the consumer is deployed
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAg.IS.CloudStreams.IntervalNotificationCache

Contains policy evaluation interval settings as stored in PolicyActionKey and PolicyAction objects. webMethods CloudStreams generates this data from deployed virtual service descriptions.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per policy action configured for a virtual service, plus 1 per virtual service if	1 KB per deployed virtual service	As long as the virtual service is deployed

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
performance metrics are enabled		
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAg.IS.CloudStreams.MetricAccumulatorCache

Contains accumulated service request data for policy evaluation and performance metrics as stored in accumulator objects for each policy action key. webMethods CloudStreams generates this data from deployed virtual service descriptions.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per deployed virtual service	1 to 2 KB per deployed virtual service	As long as the virtual service is deployed
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAg.IS.CloudStreams.RegisteredConsumerNamesCache

This cache is not currently used by webMethods CloudStreams.

SoftwareAg.IS.CloudStreams.RuntimePolicyCache

Contains policy details for deployed virtual services as stored in PolicyInfo objects. webMethods CloudStreams generates this data from deployed virtual service descriptions.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per deployed virtual service	1 KB per deployed virtual service	As long as the virtual service is deployed

Searchable?	Local / Distributed
No	Always local

SoftwareAg.IS.CloudStreams.VirtualServicesCache

Contains virtual service descriptions. This data is persisted on the file system of each webMethods CloudStreams cluster node.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per deployed virtual service	5 to 10 KB per deployed virtual service; varies by service WSDL, number and complexity of the virtual service's policies, and whether the virtual service references external XML schema files	As long as the virtual service is deployed

Searchable?	Local / Distributed
No	Always local

Software AG Command CentralCaches

The following system caches belong to Software AG Command Central:

- [com.softwareag.plm.cce.cache.alert](#)
- [com.softwareag.plm.cce.cache.basicmonitoringstatecached](#)
- [com.softwareag.plm.cce.cache.configurationDataInfo](#)
- [com.softwareag.plm.cce.cache.configurationInstanceInfo](#)
- [com.softwareag.plm.cce.cache.configurationTypeInfo](#)
- [com.softwareag.plm.cce.cache.environment](#)
- [com.softwareag.plm.cce.cache.fixInfo](#)

- [com.softwareag.plm.cce.cache.node](#)
- [com.softwareag.plm.cce.cache.platformInfo](#)
- [com.softwareag.plm.cce.cache.productInfo](#)
- [com.softwareag.plm.cce.cache.repositories](#)
- [com.softwareag.plm.cce.cache.runtimeComponentInfo](#)
- [com.softwareag.plm.cce.cache.runtimeMetadata](#)

The size of most cache elements can be measured in tens of bytes. The size of most caches depends on the following factors:

- **Number of managed nodes in the landscape.** This number can vary from a few nodes to up to hundreds or even thousands for very large installations.
- **Number of managed components on each node.** This number typically varies from a few managed components to tens of managed components.
- **Number of configuration instances for each component and node.** Although there are typically only tens of configuration instances for each node, there can be hundreds of configuration instances for larger installations.

It is expected that all data resides in memory. If the caches are not large enough, severe performance degradation can occur.

com.softwareag.plm.cce.cache.alert

Contains information about monitoring alerts for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per alert; can have several alerts per run-time component in the landscape	Measured in bytes	As long as Command Central is active
Searchable?	Local / Distributed	
Yes	Local	

com.softwareag.plm.cce.cache.attributes

Contains information about Command Central attributes for run-time components, nodes, and environments.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per attribute name/value; number of attributes could be tens per run-time component, node, or environment	Measured in bytes to kilobytes	As long as Command Central is active; must remain active during a restart of Ehcache and the Terracotta Server Array
Searchable?	Local / Distributed	
Yes	Local	

Usage Notes

The cache is a system of record. The information that the cache contains is not persisted anywhere else.

com.softwareag.plm.cce.cache.basicmonitoringstatecached

Contains basic Command Central monitoring data for run-time status and state.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per run-time state, including 3 KPI metrics for each run-time component in the landscape	Measured in bytes	As long as Command Central is active
Searchable?	Local / Distributed	
Yes	Local	

com.softwareag.plm.cce.cache.configurationDataInfo

Contains the data stored for each configuration instance and the node alias of each configuration instance for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per configuration instance; number is the same as for the <code>configurationInstanceInfo</code> cache	Measured in bytes to kilobytes	As long as Command Central is active

Searchable?	Local / Distributed
Yes	Local

com.softwareag.plm.cce.cache.configurationInstanceInfo

Contains information about the configuration instances and the node alias of each configuration instance for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per configuration instance; up to hundreds for each run-time component	Measured in bytes	As long as Command Central is active

Searchable?	Local / Distributed
Yes	Local

com.softwareag.plm.cce.cache.configurationTypeInfo

Contains information about the configuration types and the node alias of each configuration type for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per configuration type;	Measured in bytes	As long as Command Central is active

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
expected to be less than 20 per run-time component, but could be up to 100		
Searchable?	Local / Distributed	
Yes	Local	

com.softwareag.plm.cce.cache.environment

Contains the environments data for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per environment; expected to be less than 100	Measured in bytesf	As long as Command Central is active; must remain active during a restart of Ehcache and the Terracotta Server Array
Searchable?	Local / Distributed	
Yes	Local	

Usage Notes

The cache is a system of record. The information that the cache contains is not persisted anywhere else.

com.softwareag.plm.cce.cache.fixInfo

Contains information about the fixes that have been applied along with the node alias for nodes where fixes have been applied for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per fix; expected to be less than 100 per node	Measured in bytes	As long as Command Central is active
Searchable?	Local / Distributed	
Yes	Local	

com.softwareag.plm.cce.cache.node

Contains the installation node data for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per node; expected to be less than 10,000 and typically less than 100	Measured in bytes	As long as Command Central is active; must remain active during a restart of Ehcache and the Terracotta Server Array
Searchable?	Local / Distributed	
Yes	Local	

Usage Notes

The cache is a system of record. The information that the cache contains is not persisted anywhere else.

com.softwareag.plm.cce.cache.platformInfo

Contains information about the Platform Manager instances installed for the manageable products, along with the node alias they belong to for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per platform instance; equals the number of nodes	Measured in bytes	As long as Command Central is active
Searchable?	Local / Distributed	
Yes	Local	

com.softwareag.plm.cce.cache.productInfo

Contains information about the products installed in the landscape and the node alias of each product for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per product; number of products per node is less than 300	Measured in bytes	As long as Command Central is active
Searchable?	Local / Distributed	
Yes	Local	

com.softwareag.plm.cce.cache.repositories

Contains the repositories data for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per repository; number of repositories is typically 10 to 30	Measured in bytes	As long as Command Central is active; must remain active during a restart of Ehcache and the Terracotta Server Array

Searchable?	Local / Distributed
Yes	Local

Usage Notes

The cache is a system of record. The information that the cache contains is not persisted anywhere else.

com.softwareag.plm.cce.cache.runtimeComponentInfo

Contains information about the run-time components installed in the landscape and the node alias of each run-time component for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per run-time component; number is the same as for the runtimeMetadata cache	Measured in bytes	As long as Command Central is active

Searchable?	Local / Distributed
Yes	Local

com.softwareag.plm.cce.cache.runtimeMetadata

Contains the run-time components metadata for Command Central.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per component; number of components per node is approximately 1 to 5 for each supported managed product on the node	Measured in bytes	As long as Command Central is active; must remain active during a restart of Ehcache and the Terracotta Server Array

Searchable?	Local / Distributed
Yes	Local

Usage Notes

The cache is a system of record. The information that the cache contains is not persisted anywhere else.

webMethods ebXML Module Caches

SoftwareAG.IS.ebXML.EBXML

Contains TN partner and agreement, profile, and inbound and outbound message data. Each type of data uses a separate java.util.Hashtable in the cache.

Note: Caching is optional for the ebXML Module but is recommended for optimization.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
5 to 10	5 KB	As long as the ebXML Module is active

Searchable?	Local / Distributed
No	Distributed

webMethods Enterprise Gateway Caches

SoftwareAG.IS.Core.NonceCache

Contains the nonces generated during authentication of a new user.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per each authenticated user	Less than 1 KB	From the time a user logs in until the user logs out, or the interval specified in the <code>watt.server.clientTimeout</code> parameter, whichever is shorter

Searchable?	Local / Distributed
No	Local

Usage Notes

- The cache is used only if authentication is enabled at the Enterprise Gateway side and the authentication type is digest authentication.
- The information held in the cache is temporary. The cache is not persisted.

Software AG Event-Driven Architecture Caches

eventTypeQName

Contains EDA events that have not yet been sent. Used to ensure guaranteed delivery of those events.

Each event type has a corresponding cache. The name of the cache matches the event type's unique identifier, in the format `{namespace}localName` (for example, `{http://namespaces.softwareag.com/EDA/WebM/Sample/CableboxMonitoring}CableboxHealth`).

Whenever the hosting JVM is restarted, NERV sends any events that were not removed from the cache before the JVM was stopped.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
Up to 1,000 (configurable) and varies depending on	Varies from 1 KB to several megabytes depending on use case	Events are removed when they are sent successfully

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
the speed of the event bus		
Searchable?	Local / Distributed	
No	Always local	

webMethods FIX Module Caches

SoftwareAG.IS.FIX.FIXCache

Contains the ID of the Integration Server cluster node that is connected to the Appia engine.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per configured session	Less than 100 bytes	As long as the FIX Module is active
Searchable?	Local / Distributed	
No	Distributed	

webMethods Integration Server Caches

The following system caches belong to Integration Server:

- [SoftwareAG.IS.Core.ClusterMembers](#)
- [SoftwareAG.IS.Core.NonceCache](#)
- [SoftwareAG.IS.Core.OAuthAccessTokens](#)
- [SoftwareAG.IS.Core.OAuthAuthCodes](#)
- [SoftwareAG.IS.Core.OAuthClients](#)
- [SoftwareAG.IS.Core.OAuthRefreshTokens](#)
- [SoftwareAG.IS.Core.OAuthScope](#)

- [SoftwareAG.IS.Core.OAuthTokens](#)
- [SoftwareAG.IS.Core.SessionStore](#)
- ["SoftwareAG.IS.Core.XMLParser.Partitions" on page 52](#)
- ["SoftwareAG.IS.IteratorHandles" on page 52](#)
- ["SoftwareAG.IS.IteratorResults" on page 53](#)
- ["SoftwareAG.IS.Services.ServiceResults" on page 53](#)

SoftwareAG.IS.Core.ClusterMembers

Contains the list of cluster nodes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per node	4 KB	As long as the node is part of the cluster
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Core.NonceCache

Contains the nonces generated during authentication of a new user.

The information held in this cache is temporary. This cache is not persisted.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per each authenticated user	Less than 1 KB	From the time a user logs in until the user logs out, or the interval specified by the <code>watt.server.clientTimeout</code> parameter, whichever is shorter

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Core.OAuthAccessTokens

Contains OAuth access tokens generated by the OAuth authorization server.

The information held in this cache is persisted to the ISInternal database. When clustering is enabled, this cache is distributed to provide consistent data access on all cluster nodes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element for each active OAuth access token	Less than 1 KB	Varies by client application; controlled by the expiration interval specified on the OAuth Client Registration screen. An element will also be removed from this cache if an access token is manually deleted.

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Core.OAuthAuthCodes

Contains OAuth authorization codes that are issued for the OAuth authorization code grant flows.

The information held in this cache is temporary. This cache is not persisted.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element for each authorization code grant in progress	Less than 1 KB	From the time an access request is approved by the resource owner until the time

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
		an access token is issued, or the interval specified by the <code>watt.server.oauth.authCode.expirySeconds</code> parameter, whichever is shorter
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Core.OAuthClients

Contains information about each registered OAuth client application.

The information held in this cache is persisted to the ISInternal database. When clustering is enabled, this cache is distributed to provide consistent data access on all cluster nodes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element for each registered client application	2 KB, up to 9 KB if custom Approval Page parameters are defined for a client	As long as a client application remains registered with the OAuth application server
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Core.OAuthRefreshTokens

Contains OAuth refresh tokens generated by the OAuth authorization server.

The information held in this cache is persisted to the ISInternal database. When clustering is enabled, this cache is distributed to provide consistent data access on all cluster nodes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element for each active refresh token	Less than 1 KB	Varies by client application; controlled by the refresh count specified on the OAuth Client Registration screen. An element will also be removed from this cache if a refresh token is manually deleted.

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Core.OAuthScope

Maps scope names to folders and services in the Integration Server namespace.

The information held in this cache is persisted to the ISInternal database. When clustering is enabled, this cache is distributed to provide consistent data access on all cluster nodes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element for every defined scope	Less than 1 KB, or larger if there is a list of folders and services	As long as the scope defined on the application server

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Core.OAuthTokens

Contains information common to both OAuth access tokens and refresh tokens.

The information held in this cache is persisted to the ISInternal database. When clustering is enabled, this cache is distributed to provide consistent data access on all cluster nodes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element for each active access token and refresh token	Less than 1 KB	Varies by client application; controlled by the expiration interval and refresh count on the OAuth Client Registration screen. An element will also be removed from this cache if an access token or refresh token is manually deleted.
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Core.SessionStore

Contains session objects that provide data about active sessions on cluster nodes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element per active session in the cluster	Less than 1 KB plus any additional state saved by the client application	Controlled by the Time To Idle element level setting, which is taken from the Session Timeout clustering setting
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Core.XMLParser.Partitions

Provides off-heap storage for XML documents processed by the Enhanced XML Parser. The cache contains one or more document-encoded partitions for each document the Enhanced XML Parser processes. The cache is managed by the Enhanced XML Parser and is not visible to other webMethods components.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per off-heap document partition	Varies according to the size of the XML document being parsed and the current memory demands of the system. As a rule of thumb, the combined size of all partitions for a given document will be approximately three times the size of the raw XML document itself.	Element exists until the parsed XML document is no longer referenced by a running service
Searchable?	Local / Distributed	
No	Always local	

SoftwareAG.IS.IteratorHandles

The cache contains an element comprising the collection of handles that reference each of the iterator service result cache entries for a given request.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 Element for each iterator service call.	Element size is determined by the number of elements in the IteratorResults cache for a given request.	All elements for a given iterator service request will be removed from the cache upon delivery of the last result batch, an error, or expiration of

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
		the time to live for elements in the cache.
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.IteratorResults

The cache contains the batched results that the iterator service returns to the caller.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
n Elements for each iterator service call. Depends on the size of the IData[] result set and the batch size.	Element size is determined by the batchSize parameter as input to the iterator service.	All elements for a given iterator service request will be removed from the cache upon delivery of the last result batch, an error, or expiration of the time to live for elements in the cache.
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Services.ServiceResults

Holds the contents of the pipeline that result from the execution of a service.

Important: Do not make this cache a distributed cache. Doing so will cause Integration Server to fail during startup. Set the Eternal parameter setting to true and do not specify Time To Live (TTL) and Time To Idle (TTI) parameter settings for the cache.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
<p>1 element for each set of input data for a service. Will vary according to:</p> <ul style="list-style-type: none"> ■ The number of services that are configured to cache results ■ The input that is passed to execute the service 	<p>Varies according to the services whose results you cache</p>	<p>Controlled by the Cache expire property in Software AG Designer and the <code>watt.server.cache.flushMins</code> and <code>watt.server.cache.gcMins</code> configuration parameters</p>
Searchable?	Local / Distributed	
No	Always local	

webMethods Mediator Caches

The following system caches belong to Mediator:

- [SoftwareAg.IS.Mediator.APIKeysCache](#)
- [SoftwareAG.IS.Mediator.ClusterStatusCache](#)
- [SoftwareAG.IS.Mediator.ConsumerApplicationsCache](#)
- [SoftwareAG.IS.Mediator.IntervalNotificationCache](#)
- [SoftwareAG.IS.Mediator.MetricAccumulatorCache](#)
- [SoftwareAG.IS.Mediator.OAuth2TokensCache](#)
- [SoftwareAG.IS.Mediator.RegisteredConsumerNamesCache](#)
- [SoftwareAG.IS.Mediator.RuntimePolicyCache](#)
- [SoftwareAG.IS.Mediator.VirtualServicesCache](#)

SoftwareAg.IS.Mediator.APIKeysCache

Contains descriptions for deployed API-based consumers. Each description includes the API key for a given consumer along with other consumer details. This data is persisted on the file system of each Mediator cluster node.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 element for each API- based consumer deployed to the cluster	1 to 2 KB	As long as the consumer is deployed.
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Mediator.ClusterStatusCache

Contains String, Date, and enum objects that indicate Mediator clustering status.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
5 to 10	Less than 100 bytes	As long as Mediator is active
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Mediator.ConsumerApplicationsCache

Contains consumer application descriptions in the form of an XML string for each deployed consumer application. This data is persisted on the file system of each Mediator cluster node.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per consumer application deployed to the cluster	1 to 2 KB	As long as the consumer is deployed

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Mediator.IntervalNotificationCache

Contains policy evaluation interval settings as stored in PolicyActionKey and PolicyAction objects. Mediator generates this data from deployed virtual service descriptions.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per policy action configured for a virtual service, plus 1 per virtual service if performance metrics are enabled	1 KB per deployed virtual service	As long as the virtual service is deployed

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Mediator.MetricAccumulatorCache

Contains accumulated service request data for policy evaluation and performance metrics as stored in accumulator objects for each policy action key. Mediator generates this data from deployed virtual service descriptions.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per deployed virtual service	1 to 2 KB per deployed virtual service	As long as the virtual service is deployed

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Mediator.OAuth2TokensCache

Contains an extension of consumer application descriptions in the form of an XML string for each deployed OAuth2 consumer application. The extension consists of an additional OAuth2 client ID of the consumer. This data is persisted on the file system of each Mediator cluster node.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per OAuth2 consumer deployed to the cluster	1 to 2 KB	As long as the consumer is deployed

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Mediator.RegisteredConsumerNamesCache

Contains registered consumer names in the form of an XML string for each deployed virtual service that has registered consumers. This data is persisted on the file system of each Mediator cluster node.

Note: Consumer names are registered to support SLA policies. Not all services have registered consumer names.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per deployed virtual service with at least one registered consumer	1 to 2 KB per deployed virtual service	As long as the virtual service is deployed

Searchable?	Local / Distributed
No	Distributed

SoftwareAG.IS.Mediator.RuntimePolicyCache

Contains policy details for deployed virtual services as stored in PolicyInfo objects. Mediator generates this data from deployed virtual service descriptions.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per deployed virtual service	1 KB per deployed virtual service	As long as the virtual service is deployed
Searchable?	Local / Distributed	
No	Distributed	

SoftwareAG.IS.Mediator.VirtualServicesCache

Contains virtual service descriptions. This data is persisted on the file system of each Mediator cluster node.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per deployed virtual service	5 to 10 KB per deployed virtual service; varies by service WSDL, number and complexity of the virtual service's policies, and whether the virtual service references external XML schema files	As long as the virtual service is deployed
Searchable?	Local / Distributed	
No	Distributed	

webMethods Mobile Support Caches

SoftwareAG.IS.MobileSupport.RecordLocker

Facilitates locking and unlocking of records for mobile data synchronization across Integration Servers in a cluster. No data is stored in this cache.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0	Not applicable	100 seconds

Searchable?	Local / Distributed
No	Distributed

webMethods OneData Caches

SoftwareAG.OneData.core.cacheName

Contains the data associated with a data object in the OneData release area. The data in the cache includes master/reference data from the tables associated with the data object. The cache also contains configuration metadata, which occupies a minimal amount of space in the cache.

The name of the cache is constructed dynamically as follows:

DO#objectid#repositoryid#projectid#clientid#schemaid.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1 per record in the release area for associated data object	Varies because caches are dynamically generated based on the number of data objects (tables) that need to be cached. (Elements in a cache containing records for a sample customer master data object, for example,	As long as the OneData application is active

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
	are approximately 2,550 bytes each. A million records of customer master data may occupy 2 GB of space in the cache.)	
Searchable?	Local / Distributed	
Yes	Distributed; this cache always resides on a Terracotta Server Array	

webMethods Optimize Caches

webMethods Optimize has the following types of caches:

- [Metadata Caches](#)
- [Operational Caches](#)
- [Locally Persistent Operational Caches](#)

Metadata Caches

webMethods Optimize maintains metadata in the following caches. When Optimize runs in clustered mode, these caches reside on the Terracotta Server Array.

All metadata caches are created programmatically based on the “defaultCache” settings in the `sag.opt.clusterable.caches.xml` file.

- `sag.opt.clusterable.caches.deployed/dimensiondef`
- `sag.opt.clusterable.caches.deployed/dimensiondef-BASE_TYPE`
- `sag.opt.clusterable.caches.deployed/dimensiondef-DISPLAY_NAME`
- `sag.opt.clusterable.caches.deployed/dimensiondef-ID`
- `sag.opt.clusterable.caches.deployed/dimensiondef-NAME`
- `sag.opt.clusterable.caches.deployed/dimensionfilter`
- `sag.opt.clusterable.caches.deployed/dimensionjoin`
- `sag.opt.clusterable.caches.deployed/dimensionjoin-DISPLAY_NAME`
- `sag.opt.clusterable.caches.deployed/dimensionjoin-ID`

- sag.opt.clusterable.caches.deployed/dimensionjoin-NAME
- sag.opt.clusterable.caches.deployed/dimensionsubscriber
- sag.opt.clusterable.caches.deployed/eventmap
- sag.opt.clusterable.caches.deployed/eventmap-BASE_TYPE
- sag.opt.clusterable.caches.deployed/eventmap-DISPLAY_NAME
- sag.opt.clusterable.caches.deployed/eventmap-ID
- sag.opt.clusterable.caches.deployed/eventmap-NAME
- sag.opt.clusterable.caches.deployed/hierarchydef
- sag.opt.clusterable.caches.deployed/hierarchydef-DISPLAY_NAME
- sag.opt.clusterable.caches.deployed/hierarchydef-ID
- sag.opt.clusterable.caches.deployed/hierarchydef-NAME
- sag.opt.clusterable.caches.deployed/ilink
- sag.opt.clusterable.caches.deployed/kpidef
- sag.opt.clusterable.caches.deployed/kpidef-DISPLAY_NAME
- sag.opt.clusterable.caches.deployed/kpidef-EVENT_MAP_NAME
- sag.opt.clusterable.caches.deployed/kpidef-ID
- sag.opt.clusterable.caches.deployed/kpidef-NAME
- sag.opt.clusterable.caches.deployed/rule
- sag.opt.clusterable.caches.deployed/rule-DISPLAY_NAME
- sag.opt.clusterable.caches.deployed/rule-ID
- sag.opt.clusterable.caches.deployed/rule-NAME
- sag.opt.clusterable.caches.latest/dimensiondef
- sag.opt.clusterable.caches.latest/dimensiondef-BASE_TYPE
- sag.opt.clusterable.caches.latest/dimensiondef-DISPLAY_NAME
- sag.opt.clusterable.caches.latest/dimensiondef-ID
- sag.opt.clusterable.caches.latest/dimensiondef-NAME
- sag.opt.clusterable.caches.latest/dimensionfilter
- sag.opt.clusterable.caches.latest/dimensionjoin
- sag.opt.clusterable.caches.latest/dimensionjoin-DISPLAY_NAME
- sag.opt.clusterable.caches.latest/dimensionjoin-ID
- sag.opt.clusterable.caches.latest/dimensionjoin-NAME

- `sag.opt.clusterable.caches.latest/dimensionsubscriber`
- `sag.opt.clusterable.caches.latest/eventmap`
- `sag.opt.clusterable.caches.latest/eventmap-BASE_TYPE`
- `sag.opt.clusterable.caches.latest/eventmap-DISPLAY_NAME`
- `sag.opt.clusterable.caches.latest/eventmap-ID`
- `sag.opt.clusterable.caches.latest/eventmap-NAME`
- `sag.opt.clusterable.caches.latest/hierarchydef`
- `sag.opt.clusterable.caches.latest/hierarchydef-DISPLAY_NAME`
- `sag.opt.clusterable.caches.latest/hierarchydef-ID`
- `sag.opt.clusterable.caches.latest/hierarchydef-NAME`
- `sag.opt.clusterable.caches.latest/ilinkdef`
- `sag.opt.clusterable.caches.latest/kpidef`
- `sag.opt.clusterable.caches.latest/kpidef-DISPLAY_NAME`
- `sag.opt.clusterable.caches.latest/kpidef-EVENT_MAP_NAME`
- `sag.opt.clusterable.caches.latest/kpidef-ID`
- `sag.opt.clusterable.caches.latest/kpidef-NAME`
- `sag.opt.clusterable.caches.latest/rule`
- `sag.opt.clusterable.caches.latest/rule-DISPLAY_NAME`
- `sag.opt.clusterable.caches.latest/rule-ID`
- `sag.opt.clusterable.caches.latest/rule-NAME`

sag.opt.clusterable.caches.deployed/dimensiondef

Contains all the deployed Dimension definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension definition	1 KB and up; varies according to the number of defined attributes	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/dimensiondef-BASE_TYPE

Contains index mappings between a Dimension definition base type and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension definition	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/dimensiondef-DISPLAY_NAME

Contains index mappings between a Dimension definition display name and its definition name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension definition	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/dimensiondef-ID

Contains index mappings between a Dimension definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension definition	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/dimensiondef-NAME

Contains index mappings between a Dimension definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension definition	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/dimensionfilter

Contains all the deployed Dimension Filter definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension filter.	1 KB and up; varies according to the number of instance IDs in the filter	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/dimensionjoin

Contains all the deployed Dimension Join definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension join	1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/dimensionjoin-DISPLAY_NAME

Contains index mappings between a Dimension Join definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension join.	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/dimensionjoin-ID

Contains index mappings between a Dimension Join definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension join	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/dimensionjoin-NAME

Contains index mappings between a Dimension Join definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension join	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/dimensionsubscriber

Contains all the deployed Dimension Subscriber definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension subscriber.	1 KB and up; varies according to the number of instance IDs associated with the subscriber	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/eventmap

Contains all the deployed Event Map definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed event map	2 KB and up; varies according to the number of defined attributes in the event map	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/eventmap-BASE_TYPE

Contains index mappings between an Event Map definition base type and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed event map	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/eventmap-DISPLAY_NAME

Contains index mappings between an Event Map definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed event map	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/eventmap-ID

Contains index mappings between an Event Map definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed event map	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/eventmap-NAME

Contains index mappings between an Event Map definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed event map	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/hierarchydef

Contains all the deployed Dimension Hierarchy definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension hierarchy	1 KB and up; varies according to the number of levels defined in the hierarchy	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/hierarchydef-DISPLAY_NAME

Contains index mappings between a Dimension Hierarchy definition display name and name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension hierarchy.	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/hierarchydef-ID

Contains index mappings between a Dimension Hierarchy definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension hierarchy	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/hierarchydef-NAME

Contains index mappings between a Dimension Hierarchy definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed dimension hierarchy	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/ilink

Contains all the deployed Intelligent Link definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed Intelligent Link	.5 KB and up; varies according to number of user-defined parameters	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/kpidef

Contains all the deployed KPI definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed KPI definition	1.3 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/kpidef-DISPLAY_NAME

Contains index mappings between a KPI definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed KPI definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/kpidef-EVENT_MAP_NAME

Contains index mappings between an event map name and a list of KPI names and versions.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined event map associated with one or more KPIs	6 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/kpidef-ID

Contains index mappings between a KPI definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed KPI definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/kpidef-NAME

Contains index mappings between a KPI definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed KPI definition	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/rule

Contains all the deployed Rule definitions that the engine uses during operations.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed rule definition	1 KB and up; varies according to the complexity of the rule expression	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.deployed/rule-DISPLAY_NAME

Contains index mappings between a Rule definition display name and name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed rule definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/rule-ID

Contains index mappings between a Rule definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed rule definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.deployed/rule-NAME

Contains index mappings between a Rule definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per deployed rule definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensiondef

Contains all the latest Dimension definitions for display in the customer user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension definition	1 KB and up; varies according to the number of user-defined attributes	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensiondef-BASE_TYPE

Contains index mappings between a Dimension definition base type and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensiondef-DISPLAY_NAME

Contains index mappings between a Dimension definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensiondef-ID

Contains index mappings between a Dimension definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensiondef-NAME

Contains index mappings between a Dimension definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensionfilter

Contains all the latest Dimension Filter definitions for display in the customer user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension filter	1 KB and up; varies according to the number of instance ids in the filter defined by the user	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensionjoin

Contains all the latest Dimension Join definitions for display in the customer user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension join	1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensionjoin-DISPLAY_NAME

Contains index mappings between a Dimension Join definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension join	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensionjoin-ID

Contains index mappings between a Dimension Join definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension join	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensionjoin-NAME

Contains index mappings between a Dimension Join definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension join	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/dimensionsubscriber

Contains all the latest Dimension Subscriber definitions for the user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension subscriber	1 KB and up; varies according to the number of instance IDs associated with the subscriber	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/eventmap

Contains all the latest Event Map definitions for the user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined event map	2 KB and up; varies according to the number of attributes defined by the user	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/eventmap-BASE_TYPE

Contains index mappings between an Event Map definition base type and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined event map	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/eventmap-DISPLAY_NAME

Contains index mappings between an Event Map definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined event map	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/eventmap-ID

Contains index mappings between an Event Map definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined event map	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/eventmap-NAME

Contains index mappings between an Event Map definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined event map	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.latest/hierarchydef

Contains all the latest Dimension Hierarchy definitions for the customer's user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension hierarchy	1 KB and up; varies according to the number of levels defined in the hierarchy	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.latest/hierarchydef-DISPLAY_NAME

Contains index mappings between a Dimension Hierarchy definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension hierarchy	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/hierarchydef-ID

Contains index mappings between a Dimension Hierarchy definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension hierarchy	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/hierarchydef-NAME

Contains index mappings between a Dimension Hierarchy definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined dimension hierarchy	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/ilinkdef

Contains all the latest Intelligent Link definitions for display in the user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined Intelligent Link	.5 KB and up; varies according to the number of parameters the user defined for the Intelligent Link	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/kpidef

Contains all the latest KPI definitions for display in the customer's user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined KPI definition	1.3 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/kpidef-DISPLAY_NAME

Contains index mappings between a KPI definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined KPI definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/kpidef-EVENT_MAP_NAME

Contains index mappings between an event map name and a list of KPI names and versions.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined event map associated with one or more KPIs	6 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/kpidef-ID

Contains index mappings between a KPI definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined KPI definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/kpidef-NAME

Contains index mappings between a KPI definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined KPI definition	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.latest/rule

Contains all the latest Rule definitions for display in the customer's user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined rule definition	1 KB and up; varies according to the complexity of the rule expression	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.latest/rule-DISPLAY_NAME

Contains index mappings between a Rule definition display name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined rule definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/rule-ID

Contains index mappings between a Rule definition ID and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined rule definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.latest/rule-NAME

Contains index mappings between a Rule definition name and a name and version number.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element per defined rule definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

Operational Caches

webMethods Optimize maintains the following caches for operational data. When Optimize runs in clustered mode, these caches reside on the Terracotta Server Array.

- [sag.opt.clusterable.caches.AcceptedJMSMessageIdsCache](#)

- sag.opt.clusterable.caches.kpiCompInstStateCache
- sag.opt.clusterable.caches.kpiInstStateCache
- sag.opt.clusterable.caches.KPIISID2ID_IndexCache
- sag.opt.clusterable.caches.kpiLastProcTimeCache
- sag.opt.clusterable.caches.kpiLockCache
- sag.opt.clusterable.caches.KPIN2IIDS_IndexCache
- sag.opt.clusterable.caches.KPIN2MIDS_IndexCache
- sag.opt.clusterable.caches.LIID2CIID_IndexCache
- sag.opt.clusterable.caches.lockCache
- sag.opt.clusterable.caches.metadataDefinitionLoadLockCache
- sag.opt.clusterable.caches.metadataOpsLockCache
- sag.opt.clusterable.caches.monitorCache
- sag.opt.clusterable.caches.monitorChangeInFlightCache
- sag.opt.clusterable.caches.monitorLastReadingTimeCache
- sag.opt.clusterable.caches.OptAEClerMemberCache
- sag.opt.clusterable.caches.optimizeAlgorithmStateCache
- sag.opt.clusterable.caches.optimizeDiagnosesCache
- sag.opt.clusterable.caches.optimizeDimensionIndexByStringIdCache
- sag.opt.clusterable.caches.optimizeDimensionOpsCache
- sag.opt.clusterable.caches.optimizeDimensionOpsIndexByDimKeyCache
- sag.opt.clusterable.caches.optimizeDimensionOpsIndexByDimNameCache
- sag.opt.clusterable.caches.optimizeDimensionOpsIndexByIdentityCache
- sag.opt.clusterable.caches.optimizeROStatsOpsCache
- sag.opt.clusterable.caches.optimizeStatsAccumulationOpsCache
- sag.opt.clusterable.caches.OreEvaluatorCache
- sag.opt.clusterable.caches.OreEvaluatorIndex_EMID2RIIDS
- sag.opt.clusterable.caches.OreEvaluatorIndex_ET2RIIDS
- sag.opt.clusterable.caches.OreEvaluatorIndex_KMID2RIIDS
- sag.opt.clusterable.caches.OreStubCache
- sag.opt.clusterable.caches.OreStubCache_RDID2RIID
- sag.opt.clusterable.caches.OreStubCache_RISID2RIID

- `sag.opt.clusterable.caches.OreStubIndex_EMID2RIIDS`
- `sag.opt.clusterable.caches.OreStubIndex_KMID2RIIDS`
- `sag.opt.clusterable.caches.pt_activeInstanceIDsCache`
- `sag.opt.clusterable.caches.pt_cluster_member_cache`
- `sag.opt.clusterable.caches.pt_partition_data_cache_template`
- `sag.opt.clusterable.caches.pt_partitionTableCache`
- `sag.opt.clusterable.caches.ScheduledKPIInstanceDeletionJobs`

sag.opt.clusterable.caches.AcceptedJMSMessageIdsCache

Contains the String identifiers for the lists of events the Analytic Engine has consumed.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
100,000	Less than 1 KB; varies according to number of messages received in the dca_event JMS queue per minute	Controlled by the TimeToLiveSeconds setting; initially set to 60 seconds
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.kpiComplnstStateCache

Contains readings awaiting aggregation into composite KPI readings.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each composite KPI instance	1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.kpiInstStateCache

Contains data awaiting aggregation into KPI readings.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in monitorCache	1 KB and up; varies according to number of events received in the aggregation interval for each KPI instance	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.KPIISID2ID_IndexCache

Contains index mappings between a String ID and a monitor instance ID.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in monitorCache	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.kpiLastProcTimeCache

Contains data that Optimize uses to coordinate the generation of readings among the members of a cluster.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.kpiLockCache

Contains information that Optimize uses to manage the creation and loading of KPI instances.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0; lock is made on key value while no element is in cache.	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.KPIN2IDS_IndexCache

Contains index mappings between a KPI name and a collection of KPI instance state object IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each deployed KPI definition	1 KB and up; varies according to the number of monitors per KPI definition	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.KPIN2MIDS_IndexCache

Contains index mappings between a KPI name and a collection of Monitor object IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each deployed KPI definition	1 KB and up; varies according to number of monitors per KPI definition	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.LIID2CIID_IndexCache

Contains index mappings between a leaf KPI instance ID and a collection of composite KPI instance IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each KPI instance that participates in a composite KPI	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.lockCache

Contains information used to provide a distributed locking mechanism that is used during internal operations of the Analytic Engine. No data is stored in the cache.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0; lock is made on key value while no element is in cache	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.metadataDefinitionLoadLockCache

Contains information used to provide a distributed locking mechanism during metadata loading.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0; lock is made on key value while no element is in cache	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.metadataOpsLockCache

Contains information used to facilitate definition changes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0; lock is made on key value while no element is in cache	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.monitorCache

Contains the KPI state information that Optimize displays in the user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
100 plus number of licensed KPIs	1.2 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
Yes	Distributed	

sag.opt.clusterable.caches.monitorChangeInFlightCache

Contains the processing-complete count for a newly changed monitor.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
100,000	Less than 1 KB	Controlled by the TimeToLiveSeconds setting; initially set to 300 seconds
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.monitorLastReadingTimeCache

Contains information that Optimize uses to distribute readings among threads and cluster members.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in monitorCache.	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.OptAECClusterMemberCache

Contains information for coordinating changes in cluster membership.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
Up to 20	Less than 1 KB	125 seconds unless renewed

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.optimizeAlgorithmStateCache

Contains data that Optimize uses to track trending information.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
Eight elements for each element in monitorCache	1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.optimizeDiagnosesCache

Contains the current collection of diagnoses for individual monitors.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
Eight elements for each element in monitorCache	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.optimizeDimensionIndexByStringIdCache

Contains index mappings from a unique string ID to an object holding a dimension name and instance ID.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in optimizeDimensionOpsCache	1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.optimizeDimensionOpsCache

Contains all known dimension instances (as Dimension objects.)

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
Sum of the number of dimension instances for each dimension definition	1 to 2 KB; varies according to number of attributes defined in each dimension definition and on the average size of the value for each attribute	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.optimizeDimensionOpsIndexByDimKeyCache

Contains index mappings from a Dimension name and instance ID to a collection of objects holding a Dimension name, attribute name and attribute value.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in optimizeDimensionOpsCache	1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.optimizeDimensionOpsIndexByDimNameCache

Contains index mappings from a Dimension name to a collection of objects holding a Dimension name and instance IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each deployed dimension definition	2 KB; size varies according to the number of instances for each dimension definition	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.optimizeDimensionOpsIndexByIdentityCache

Contains index mappings from a Dimension name, Attribute name and Attribute value to a Dimension name and instance ID.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
At least one element for each element in optimizeDimensionOpsCache	1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.optimizeROStatsOpsCache

Contains completed statistics.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
Number of elements in monitorCache * 33 * 7	1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.optimizeStatsAccumulationOpsCache

Contains the data that Optimize uses to calculate values for a statistical bucket.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in monitorCache	1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.OreEvaluatorCache

Contains Rule evaluator objects.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in OreStubCache	4 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.OreEvaluatorIndex_EMID2RIIDS

Contains index mappings between a monitor ID and a collection of Event Rule instance IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in monitorCache	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.OreEvaluatorIndex_ET2RIIDS

Contains index mappings between an Event Type and a collection of Rule instance IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each deployed event map	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.OreEvaluatorIndex_KMID2RIIDS

Contains index mappings between a monitor ID and a collection of KPI Rule instance IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in monitorCache	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.OreStubCache

Contains the Rule instance state information that Optimize displays in the user interface.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
2 times the number of elements in monitorCache (allows for each KPI definition to be referenced in the rule expression in two deployed rules definitions)	2 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
Yes	Distributed

sag.opt.clusterable.caches.OreStubCache_RDID2RIID

Contains index mappings between a Rule definition name and a collection of Rule instance IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each deployed rule definition	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.OreStubCache_RISID2RIID

Contains index mappings between a unique String ID and a Rule instance ID.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in OreStubCache	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.OreStubIndex_EMID2RIIDS

Contains index mappings between a monitor ID and a collection of event rule instance IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in monitorCache	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.OreStubIndex_KMID2RIIDS

Contains index mappings between a monitor ID and a collection of KPI rule instance IDs.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element for each element in monitorCache	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.pt_activeInstanceIDsCache

Contains the external IDs of all known open process instances.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
50,000,000	Less than 1 KB	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Distributed	

sag.opt.clusterable.caches.pt_cluster_member_cache

Contains information about the cluster member heartbeats.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
500	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.pt_partition_data_cache_template

Used as a template for creating data caches with data partition queues. A data partition queue has one data cache that holds the data in the queue. By default the number of cache partitions is set to one. You configure the number of cache partitions in a performance tuning properties file. When setting up a cluster of Analytic Engines, you must manually adjust the number of cache partitions using the formula $(n * (n - 1))$, where n is the number of Analytic Engine nodes in the cluster. For example, a cluster of four Analytic Engine nodes would have the number of partitions set to $(4 * 3) = 12$.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
5000; coordinated with the <code>process_partitioning_queue_manager.maxInFlightLists=1000</code> setting in the performance tuning properties file. The value of <code>maxInFlightLists</code> (1000) must not exceed 75% of the maximum number of elements in the cache (5000).	4 KB (estimate)	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

Usage Notes

The cache depends on the number of process control operations.

sag.opt.clusterable.caches.pt_partitionTableCache

Contains information about the assignment of data partitions to the Analytic Engine cluster members.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
One element	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

sag.opt.clusterable.caches.ScheduledKPIInstanceDeletionJobs

Contains information for coordinating the deletion of KPI instances.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
Up to 100	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Distributed

Locally Persistent Operational Caches

webMethods Optimize maintains certain kinds of operational data in persistent caches. These caches are maintained locally, even when Optimize runs in a clustered configuration.

- [sag.opt.eventhandling.caches.EventsForStorage](#)

- [sag.opt.eventhandling.caches.PendingEventLists](#)
- [sag.opt.eventhandling.caches.TaskObserver_MessagesCache](#)
- [sag.opt.eventhandling.caches.TaskObserver_TasksCache](#)
- [sag.opt.eventhandling.caches.TempEventsForStorage](#)
- [sag.opt.jmscommunication.caches.JMSCommunicationResendCache](#)
- [sag.opt.notifications.caches.dimensionDefNotificationsCache](#)
- [sag.opt.notifications.caches.dimSubscriberNotificationsCache](#)
- [sag.opt.notifications.caches.eventMapNotificationsCache](#)
- [sag.opt.notifications.caches.kpiDefNotificationsCache](#)
- [sag.opt.notifications.caches.monitorChangeNotificationsCache](#)
- [sag.opt.notifications.caches.ptRoutingTableNotificationsCache](#)
- [sag.opt.notifications.caches.ruleDefNotificationsCache](#)

sag.opt.eventhandling.caches.EventsForStorage

Contains data used to guarantee the storage of received events to the fact table.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
500,000	1 KB and up	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Always local

sag.opt.eventhandling.caches.PendingEventLists

Contains data to guarantee handling of received events.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
25,000	100 KB and up	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Always local

sag.opt.eventhandling.caches.TaskObserver_MessagesCache

Contains data used to guarantee publication of process notifications for received events.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
500,000	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Always local

sag.opt.eventhandling.caches.TaskObserver_TasksCache

Contains data used to guarantee the publication of process notifications for received events.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
500,000	Less than 1 KB	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Always local

sag.opt.eventhandling.caches.TempEventsForStorage

Contains data used to guarantee the storage of received events to the event temp table.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
500,000	1 KB and up	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Always local	

sag.opt.jmscommunication.caches.JMSCommunicationResendCache

Contains messages waiting to be published to JMS.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
100,000	1 KB and up	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Always local	

sag.opt.notifications.caches.dimensionDefNotificationsCache

Contains notification objects for delivery to subscribers of Dimension definition changes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10,000	1 KB and up	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Always local	

sag.opt.notifications.caches.dimSubscriberNotificationsCache

Contains notification objects for delivery to subscribers of Dimension instance subscription changes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10,000	1 KB and up	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Always local	

sag.opt.notifications.caches.eventMapNotificationsCache

Contains notification objects for delivery to subscribers of Event Map definition changes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10,000	1 KB and up	Element exists until deleted by the application
Searchable?	Local / Distributed	
No	Always local	

sag.opt.notifications.caches.kpiDefNotificationsCache

Contains notification objects for delivery to subscribers of KPI definition changes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10,000	1 KB and up	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Always local

sag.opt.notifications.caches.monitorChangeNotificationsCache

Contains notification objects for delivery to subscribers of Monitor instance state changes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10,000	1 KB and up	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Always local

sag.opt.notifications.caches.ptRoutingTableNotificationsCache

Contains notification objects for delivery to subscribers of Process Tracking responsibility changes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10,000	1 KB and up	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Always local

sag.opt.notifications.caches.ruleDefNotificationsCache

Contains notification objects for delivery to subscribers of Rule definition changes.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
10,000	1 KB and up	Element exists until deleted by the application

Searchable?	Local / Distributed
No	Always local

webMethods RosettaNet Module Caches

SoftwareAG.IS.RosettaNet.RNModelSessionCache

Contains data required to complete business transactions (that is, original business document data required in response transactions, including TPA data and data related to instances and failure scenarios).

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
5 to 10	5 KB or less	Controlled by Time to Live and Time to Idle cache settings

Searchable?	Local / Distributed
No	Distributed

webMethods Trading Networks Caches

The following system caches belong to webMethods Trading Networks:

- [SoftwareAG.IS.TN.TNDocAttribute](#)
- [SoftwareAG.IS.TN.TNDocType](#)
- [SoftwareAG.IS.TN.TNProfile](#)
- [SoftwareAG.IS.TN.TNProfileId](#)

- [SoftwareAG.IS.TN.TNProfileSummary](#)
- [SoftwareAG.IS.TN.TNQueryResults](#)
- [SoftwareAG.IS.TN.TNTPA](#)
- [SoftwareAG.IS.TN.TNTPAId](#)

SoftwareAG.IS.TN.TNDocAttribute

Contains elements for all document attributes required to process documents.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0 (unlimited)	1KB to 10KB	Element exists in cache until deleted by the application.

Searchable?	Local / Distributed
Yes	Always local

SoftwareAG.IS.TN.TNDocType

Contains elements for all document types required for XML and flat files.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0 (unlimited)	1KB to 10KB	Element exists in cache until deleted by the application.

Searchable?	Local / Distributed
Yes	Always local

SoftwareAG.IS.TN.TNProfile

Contains elements for profiles of all corporations who are trading partners in your network.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
50	Up to 1MB	Element exists in cache until deleted by the application. However, if the cache is full, element is evicted if using LRU (Least Recently Used) eviction policy.
Searchable?	Local / Distributed	
No	Always local	

SoftwareAG.IS.TN.TNProfileId

Contains elements for the profile IDs of all profiles present in your network.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0 (unlimited)	1KB to 10KB	Element exists in cache until deleted by the application.
Searchable?	Local / Distributed	
No	Always local	

SoftwareAG.IS.TN.TNProfileSummary

Contains elements for all profile summaries. A profile summary is a subset of profiles.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0 (unlimited)	1KB to 10KB	Element exists in cache until deleted by the application.

Searchable?	Local / Distributed
Yes	Always local

SoftwareAG.IS.TN.TNQueryResults

Contains session-based query results (in a page-wise manner). Factors that affect this cache include query frequency and query result size.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
5000	1 to 10 KB; varies by data type and configured page size (20 rows by default)	Controlled by Time to Live and Time to Idle cache settings

Searchable?	Local / Distributed
No	Always local

Usage Notes

- The cache is impacted by the query frequency and the size of the query results.
- The cache is local, even when webMethods Trading Networks is running in a cluster.

SoftwareAG.IS.TN.TNTPA

Contains elements for trading partner agreements between various partners in your network.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
1000	3KB	Element exists in cache until deleted by the application. However, if the cache is full, element is evicted if using FIFO (First In First Out) eviction policy.
Searchable?	Local / Distributed	
No	Always local	

SoftwareAG.IS.TN.TNTPAId

Contains elements for the TPA IDs of all the trading partner agreements between various partners in your network.

Number of Elements in Cache	Approximate Size of Element	Lifetime of Element
0 (unlimited)	1KB	Element exists in cache until deleted by the application.
Searchable?	Local / Distributed	
No	Always local	