

XAP 7.0 – What's New

Q. The load balancer in your architecture diagram was outside of the XAP. Is the management of load balancers (virtual load balancers) a weak point for GigaSpaces?

A. The load balancer is out of the scope of the GigaSpaces infrastructure. To obtain high availability for the load balancer, there are a number of options:

1. Use hardware load balancer which is more reliable than a software one, such as F5 for example.
2. Use two load balancers with an active passive load balancer configuration and IP takeover. i.e. when the active instance fails the backup instance takes over its IP.
3. Use two load balancers with DNS round robin. When one fails the other is still available to service requests.

Note that the above solution is commonly used regardless of GigaSpaces XAP.

Q. Following the load balancer question - how does your reply work with EC2?

A. With EC2 you can use the [Elastic IP](#) mechanism which is [supported](#) by the GigaSpaces cloud framework. Basically, you assign the same elastic IP to more than one load balancer instance. The first one that manages to take the IP becomes the active instance. The others continue to periodically acquire the same IP and fail as long as the first instance is still up. When it fails, one of the remaining instances will acquire the same elastic IP and your service will still be available. Alternatively you can use EC2's [built in load balancing support](#) which provides both high availability load distribution across all load balancer instances.

Q. What happens to my data when you relocate an instance - will I lose data?

A. If your configuration includes backups, i.e. the data resides on more than one data grid instance (which is a simple configuration option with XAP), you will not lose any data.

What will happen is that the backup copy will kick in and become primary since the relocated instance will take time to recover all the data from the remained instance.

Q. With GS 7.0, are there any limitations of .Net as compared with Java?

A. The .Net edition is very similar to the Java one and supports most of the things that the Java version supports. There are a number of features which are still not supported in the .Net edition, but we plan to implement some of them in future versions. Here are the most noticeable ones:

1. The new administration & monitoring API
2. Space based remoting
3. Code mobility with task execution over the space
4. Built in web application support

Q. Apart from index, what is the percentage reduction in footprint for data?

A. There have been some improvements in other areas, although less noticeable than the indexing improvements. In our internal system tests, the improvement in footprint can reach up to 50% less memory utilization (i.e. twice the capacity)

Q. Is stock demo code bundled as examples with XAP 7.0? If not could we get stock demo code

A. Yes, the code for the demo is available in our forge site, OpenSpaces.org. You can get it [here](#). It is documented [here](#).

Q. What is the relationship between the info exposed via admin API and that exposed via JMX? Is one on top of the other?

A. These are not related, so you do not need to have JMX enabled for the Admin API to work. Also note that the Admin API provides a cluster-wide view of the information, which enables you to monitor the entire cluster easily, unlike with the traditional JMX tools.

Q. Is there a way to change the definition of a Task after it's been run once? Can the class def. be cleared/reloaded in some way?

A. This is not currently supported. You should rename your task class or redeploy the processing unit which contains the space. This capability will be provided in future version. Another option is to use our dynamic language support and execute dynamic language scripts which are compiled and run on the space. With this option you can choose whether or not to cache the script in the space.

Q. Is there a readMultipleByID which takes a list of IDs?

A. No, this will be provided in future versions. Currently the recommended way to achieve this functionality is via a task that contains a list of IDs and retrieves the matching entries for the space using the readById operation

Q. Will there be an out of the box LDAP based security provider in 7.0.1?

A. 7.0.1 will only contain a default file based user registry implementation. Future version will integrate natively with Spring Security which provides an open API to implement integration with additional user registries. It also supports LDAP integration out of the box.

Q. Is the WAN supported through Solace?

A. Solace is one way to implement WAN connectivity, and is recommended when the requirements are very demanding and the amount of messages you have to pass is very high. We will also provide an out of the box solution in one of our future versions.

Q. Have there been any changes in SQL Support in the SQLQuery?

A. There have been some improvements and bug fixes in the SQLQuery mechanism, most notably parallel processing of queries that contain the "OR" keyword, and a number of bug fixes around the support for the "IN" keyword. For more details please refer to the [release notes](#).

Q. Are there any known forward compatibility issues with XAP 6 or 6.6. projects?

A. All code that runs on XAP 6.6 will run unchanged with 7.0. IN terms of runtime compatibility, 6.6 client are not compatible with 7.0 server and vice versa.

Q. What if we have database in 100 of GB or even in TBs. Then what will be affects of in memory grids?

A. Naturally the data grid can only store so much information. We have some customers running tens and hundreds of nodes, reaching a capacity of hundreds of gigabytes. If more capacity is required, we recommend a read-through configuration where the space is used as a front end to the database and only contains the most frequently used data.

Q. What about multi-datacenter support? Is there a expected latency among them?

A. The recommended solution for multi-site environments is based on asynchronous propagation of changes to the remote sites through a reliable gateway service that communicates with the other site(s) across the WAN and uses filtering and compression to optimize the WAN bandwidth utilization. Naturally, it is still affected by the latency and bandwidth of the link between the sites, but this does not affect the latency for local clients on each site.

Looking for More? Get Started Now!

Visit our website at www.gigaspaces.com, and:

- View [the recording](#) of this and other on-demand webinars
- See how easy it is to [scale your Java EE app](#) using GigaSpaces XAP
- Check out what GigaSpaces XAP [users are saying](#)
- Read our [documentation](#) about GigaSpaces XAP autoscaling capabilities and the specific example demonstrated in the webinar

About GigaSpaces

GigaSpaces Technologies is a leading provider of scalability solutions for Java, .Net and C++. The company's flagship product, GigaSpaces eXtreme Application Platform (XAP), is a next-generation application server built for today's most demanding enterprise and web applications. Unlike traditional application servers, GigaSpaces XAP scales predictably and on-demand, and integrates with existing development frameworks. GigaSpaces customers include leaders in financial services, telecommunications, government, manufacturing, oil & gas, on the Web and other industries.

U.S. Headquarters

GigaSpaces Technologies Inc.
317 Madison Ave, Suite 823
New York, NY 10017
Tel: 646-421-2830
Fax: 646-421-2859

International Office

GigaSpaces Technologies Ltd.
4 Maskit St., P.O. Box 4063
Herzliya 46140, Israel
Tel: +972-9-952-6751
Fax: +972-9-956-4410

Europe Office

GigaSpaces Technologies Ltd.
2 Sheraton St.
London, W1F 8BH, United Kingdom
Tel: +44-207-117-0213
Fax: +44-870-383-5135

Asia Pacific Office

GigaSpaces Technologies Ltd.
Level 21, Centennial Tower
3 Temasek Avenue
Singapore, 039190
Tel: +65-6549-7220
Fax: +65-6549-7001

Corporate site: www.gigaspaces.com
Team's Blog: blog.gigaspaces.com
Community Site: www.openspaces.org