

# JOnAS OpenSource Java EE Application Server - Main - Cooperation

## [JO2NAS](#)

PKUAS and JOnAS teams cooperation to build JO2nAS The goal of this wiki page is to maintain the current status of the cooperation activities between JOnAS team (involving Bull, UPM, UNIFOR...) and PKUAS team (Peking University, CVICSE, ...). Project leads are Minghui Zhou on PKU side and François Exertier on Bull side. The goal of the cooperation activity is to merge the best of PKUAS and JOnAS application servers into a common application server named JO2nAS. This collaboration has been initialised by a memorandum of understanding (MoUBullCVICSEPKU\_V3\_3\_final.pdf) signed by Bull, CVICSE and PKU. Some technical topics and corresponding working groups have been defined, they are described below with their participants and current status. On JOnAS side, this work will occur on the new JOnAS 5 OSGi based services architecture, PKU people will contribute to the definition of this new services architecture, check that they will be able to easily plug some PKUAS services implementations, and contribute to some application related technologies like clustering.

**Last News:** 2007 October 24-26, François Exertier (JOnAS team leader) and Guillaume Sauthier (JOnAS 5 lead) have visited PKU in Beijing. A 3 days technical meeting about cooperation and JO2nAS has been held, minutes are available here: [JO2nAS\\_meeting\\_Oct\\_2007.pdf](#).

## **Development process**

This group is in charge of refining the development process.

Participants:

Name	Company/Institute	e-mail
Cao Donggang	PKU	caodg at sei.pku.edu.cn
Liu Zongfu	CVICSE	liu_zfu at cvicse.com
Benoit Pelletier	Bull	Benoit.Pelletier at bull.net
Florent Benoit	Bull	Florent.Benoit at bull.net

This group could provide a wiki page specifying shortly the development process. First input was

- Most of the technical discussions are done on the [jonas-team@objectweb.org](mailto:jonas-team@objectweb.org) mailing list
- Specification are published on the project wiki (currently the JOnAS wiki)
- Detailed workplan is published on the wiki
- Developers are working on the SVN repository and provide associated unit tests which are added to the tests suite
- Maven 2
- use JIRA as project management software tool (already available at [forge.ow2.org](http://forge.ow2.org))
- use the IRC or jabber.[objectweb.org](http://objectweb.org)
- Fisheye (to browse SVN/CVS)
- Continuous integration: have to choose among cruise control, continuum (maven2), bamboo (atlassian), hudson
- Docbook for doc, xmlmind
- Misc tools: pmd, findbugs, checkstyle

As there are issues with network connection between Europe and China (too slow), we need to investigate Maven 2 mirroring solutions (at least for binaries).

Donggang Cao has been visiting the Bull JOnAS team during one week in Grenoble, in April 2007, and choices about the development tools have been consolidated.

Zongfu Liu has been visiting the Bull JOnAS team from early May 2007 to end of July 2007, and has set up the Bamboo based JOnAS continuous integration framework.

## **Services Architecture**

The goal of this working group is to define and implement the new JO2nAS services architecture, based on OSGi (JOnAS 5 approach) and PKU Service Integration Framework. Details on the JOnAS 5 architecture specification and progress status may be found [here](#) on the JOnAS wiki.

Participants:

Name	Company/Institute	e-mail
Guillaume Sauthier	Bull	Guillaume.Sauthier at bull.net
Zhang Yifei	PKU	zhangyf05 at sei.pku.edu.cn
Xiao Zan	PKU	xiaozan05 at sei.pku.edu.cn

Guillaume is currently implementing the JOnAS 5 architecture on top of OSGi: JOnAS application code has been splitted into independant modules representing technical services that will be packaged into bundles, he also has extracted the list of services interfaces that will allow to easily replace one service

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implementation by another (this complies to the Service Integration Framework). Yifei is working on the transactional service interface. These interfaces will also be packaged into an OSGi bundle and committed on the week 5-9 March. These interfaces mainly satisfy the current JOnAS services requirements, PKU will check these interfaces and complement them so that they also fit additional requirements (like PKUAS ones). For bundling and activators creation of the defined services, a choice of technology is required: ipoyo, declarative service, spring osgi, ... A study has been conducted the first half of April by PKU, result is available here: Service Oriented Component Model.ppt. Discussing PKU EJB2-3 container integration within JO2nAS (TCK).

**Meeting August 8th:** Yifei Hang and Yan Li should help moving JOnAS 5.0 M1 on top of OSGi. They should also discuss the use of Ipojo. JOnAS 5.0 M3 (on OSGi) in October should be the basis of JO2nAS, and should be ready for the visit of Bull JOnAS team to PKU and CVCISE. Also Yifei will finish his work about transaction service with Philippe Durieux.

### Clustering

Participants:

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Meng Jia	PKU	mengjia at sei.pku.edu.cn
Wang Ziyou	PKU	wangzy06 at sei.pku.edu.cn
Benoît Pelletier	Bull	Benoit.Pelletier at bull.net
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Meng Jia and Wang Ziyou have studied JOnAS clustering mechanisms. They will provide some new load balancing algorithms. They will also contribute to the CMI re-engineering task. PKU also intends to work on Group Communication layer management; this work will then have to coordinate with the activity of UNIFOR of using a generic layer on top of Group Communication Protocol implementations. There are also two master students in Bull (Ning Zhu and Zhouyue Wei) who will work on EJB3 clustering. UPM is working on HA mechanisms at EJB level, they have provided an horizontal replication mechanism in JOnAS 4.8 and are working on a vertical replication mechanism for JOnAS 5, which may use the PKU EJB3 persistence layer. All details (spec, roadmap...) about the JOnAS clustering activity may be found [here](#) on the JOnAS wiki. End April, info to be provided about new CMI design to PKU. Work started about re-using mechanisms from the current EJB2-3 PKU container clustering for CMI refactoring, and then identify tasks for PKU to work on it. PKU EJB2-3 source code has been provided to JOnAS team.

**Meeting August 8th:** First versions of the new CMI have been released. Wang Ziyou has checked it out and will study the code, with the help of Loris Bouzonnet. Ziyou will then study replication pairs mechanisms.

### Advanced Management

Participants:

Name	Company/Institute	e-mail
You Chao	PKU	
Benoît Pelletier	Bull	Benoit.Pelletier at bull.net
Guillaume Sauthier	Bull	Guillaume.Sauthier at bull.net

Most of the work regarding advanced administration will be done in the context of the [JASMINe](#) ObjectWeb project. PKU will have a look at the JASMINe project, main interest is in self configuration features.

**Meeting August 8th:** You Chao will work on JASMINe, he will focus on rules.

## ***EJB3 Persistence***

PKU has implemented an EJB3 persistence layer (JPA) for PKUAS EJB container. They have been using the [EasyBeans](#) test suite for validation, and have raised some issues in the suite. The PKU EJB3 persistence layer has been integrated to EasyBeans at PKU, and is currently tested by JOnAS team. A new project for OW2 has been set up, named xplus. Some more testing has to be investigated (JPA TCK, Open JPA and Hibernate tests ? ...).

**Meeting August 8th:** an xplus jar package will be provided to Florent.

Participants:

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Lin Liang	PKU	linliang04 at sei.pku.edu.cn
Florent Benoit	Bull	Florent.Benoit at bull.net

## ***IDE for EJB3***

Participants:

Name	Company/Institute	e-mail
Tian Chao	PKU	

Tian Chao will take a look about Eclipse Dali project (<http://www.eclipse.org/dali/>).

## ***ESB***

The subject of this working group is about the integration of ESB technologies with the JO2nAS application server. Zhao Dong, a master student at PKU will study the integration with [Petals](#), the ObjectWeb JBI implementation.

Participants:

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A fruitful jabber conference held on March 6th between Dong Zhao (PKU), Adrien Louis (EBM), Gael Blondelle (EBM) and François Exertier (Bull) has conducted to the following result:

The key aspect of the integration of JO2nAS with Petals will be the new OSGi based services architecture. First step: JO2nAS needs to provide a JBI container, to achieve this goal, Petals should be packaged as a JO2nAS service within an (or several) OSGi bundle (this corresponds to the first step we did with JOnAS and ServiceMix). Second step: Petals may also be considered as a set of basic services, some of them relying on some resources provided by JO2nAS, so why not decomposing Petals into a set of OSGi bundles, some of them, like the JORAM one, may be common with JO2nAS; this way, JO2nAS becomes not only a Java EE platform, but also a JBI infrastructure.

EBM Websourcing has already discussed about an OSGi version of PETALS, for other projects (related to [JASMINE](#) for instance).

So Zhao Dong's master dissertation subject could be:

- Dong to learn about Petals code (with the help of Petals team/Adrien),
- Dong to learn about OSGi-ification of JOnAS 5 (with the help of Yifei and Guillaume)
- Dong to bundle-ize Petals

Details about this work will be available on Petals wiki pages, [here](#)

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Dong has provided an OSGI version of PEtALS (in June) that can run on top of any OSGI implementation.

[JO2NAS](#) (en)

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