

# The Introduction of Management of Trustworthiness Software Resource



Junfeng ZHAO  
Peking University, CHINA

2011.10.11



1

**Introduction & Current status of TSRR**

2

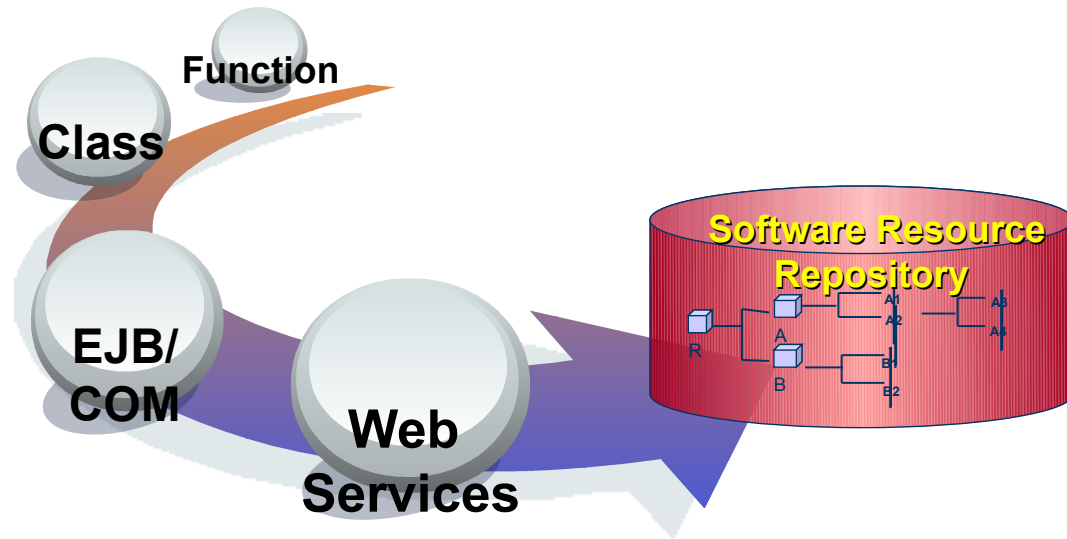
**Trustworthiness Resource Management**

3

**Introduction of INFLUX**



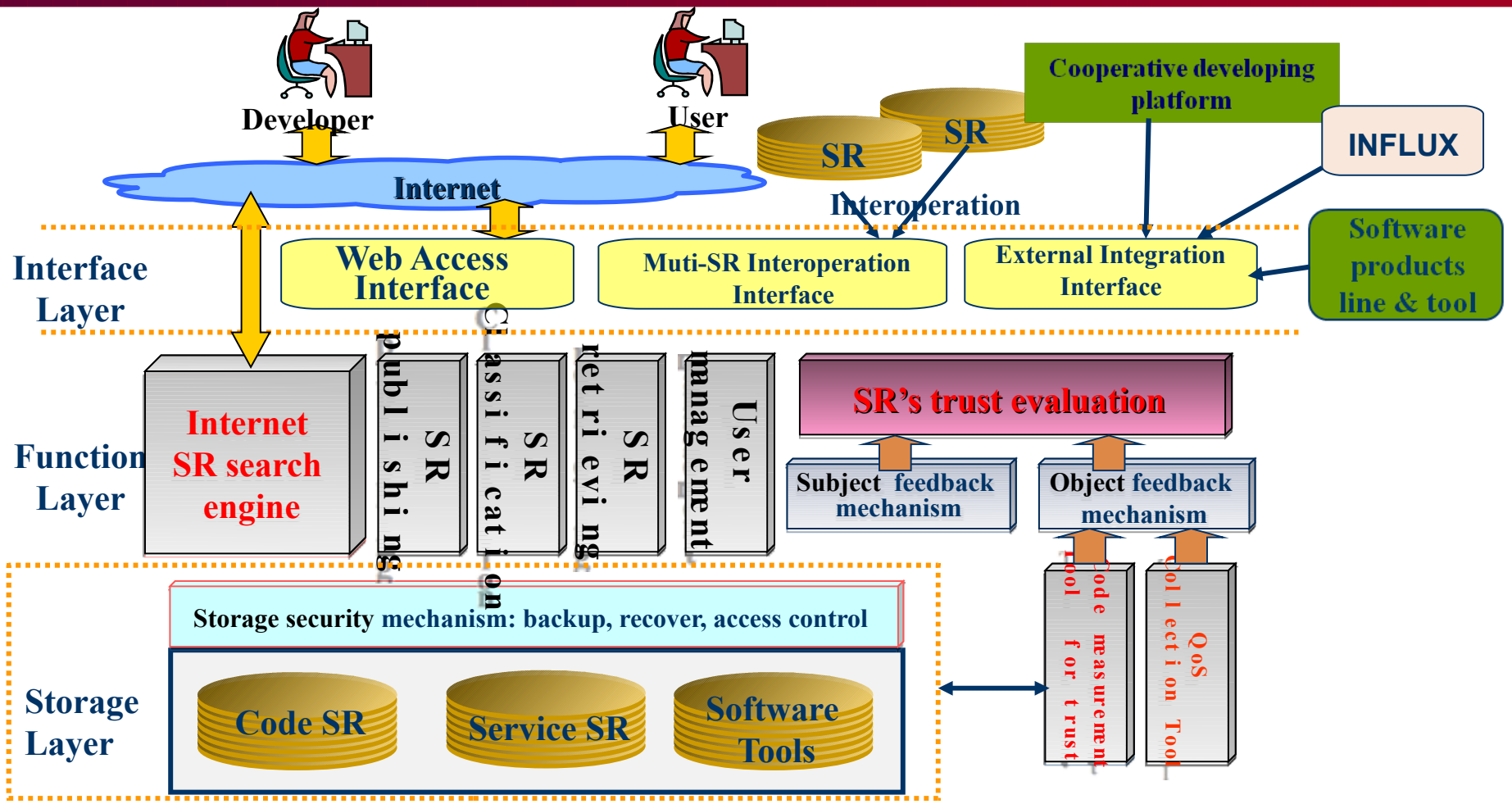
- Software resources(SR) are diversifying
  - **From closed, static, code**
  - **TO open, dynamic, service**
- More and more Web based development & application
- The development environment requires
  - Enhance Software Quality
  - Improve Software reuse



- Trust is the belief that the trustor has in the trustee willingness and capability to deliver a quality of service in a given context and in a given Timeslot. [Chang 2005]
- The Trustie (Trust integrated environment) Software Resource Repository (**TSRR**) is to provide mechanism to describe, collect, evaluate, classify and manage software resources' trustworthiness, to support trust software development.



# The Framework of TSRR



❖ TSRR can

- Provide SR management mechanism and software resources sharing environment
- Provide multi-SRs acquisition, organization and management in Internet
- Provide SR's trust evaluation and classification mechanism



<http://websvn.ow2.org/listing.php?reaname=tsrr&path=%2Ftrunk%2F&rev=0>

## ❖ Three sub-projects (corresponding to the three modules under svn/trunk )

■ **707Web: Source code of web application.** High level view (web pages) and business logic is implemented in this project. With improvement of the system function, modification on this project will be performed. This is a web application project under Eclipse. It is relied by sub-project TSRR. Please refer to referenced-lib under 'Release Files' section for the lib files it relies.

■ **Complib4Jonas: Source code of EJBs which are in charge of basic business logic implementation and data persistence.** This module seldom needs modification for new function because it is designed as extensible as possible. It is relied by TSRR. Please refer to referenced-lib under 'Release Files' section for the lib files it relies.

■ **TSRR: Enterprise Application Project for Eclipse.** It relies on project '707Web' and 'Complib4Jonas'. With this project, an deployable EAR file which can be deployed on Jonas directly can be exported.



# Homepage on OW2 Forge



Go to OW2... OK

Advanced - Powered by Google



Software/Group [ ] Search

Go to Project [ ]

[Log Out](#)  
[My Account](#)

- Home
  - My Page
  - Project Tree
  - 版本協助
  - Trustie Software Resource Repository
- 首頁
  - Admin
  - 電子郵件
  - 新聞
  - Filesgroup short\_forum 論壇
  - SVN

Trustie Software Resource Repository aims to provide a trustworthy software resource management mechanism and a software resources sharing environment. This project is hosted on the Trustie forge, operated by the OW2 China Local Chapter.

This project has not yet categorized itself in the [Trove Software Map](#).

Registered: 2010-05-19 10:13

**開發者資訊**

專案管理者:  
[Lijie Wang](#)  
[Junfeng ZHAO](#)

開發者:  
2 [[View Members](#)]

### 最新檔案發表

檔案包類	檔案版本	Date	附註 / 監看	檔案下載
referenced-lib	Referenced-lib	November 1, 2010	-	<a href="#">檔案下載</a>
documentation	TSR-Installation-Guide	November 1, 2010	-	<a href="#">檔案下載</a>

[\[View All Project Files\]](#)

### 公共區域

- [專案首頁](#)
- 電子郵件討論群 ( 0 public mailing lists)

### 最新消息

**User manual 1.0 is released**  
*Lijie Wang - 2010-11-01 17:46*

(0 Comments) [[Read More/Comment](#)]

[[News archive](#)]  
[[Submit News](#)]





Leading Open Source Middleware

## OW2 SUBVERSION REPOSITORIES TSRR

[ / ] [ trunk/ ] - Rev 10

Changes | View Log | RSS feed

### LAST MODIFICATION

Rev 10 2010-11-01 10:04:17

Author: lijiejacy

Log message:

FTP configuration information is added.

Path	Last
707Web/	9 2h 06m
Complib4Jonas/	10 2h 05m
TSRR/	6 144d 00h

Compare Paths

[ / ] [ trunk/ ] [ 707Web/ ] - Rev 10

### LAST MODIFICATION

Rev 9 2010-11-01 10:02:42

Author: lijiejacy

Log message:

Introduced cache mechanism into TSR. Fault handling is improved.

#### Path

- .settings/
- src/
- WebContent/
- .classpath
- .project

Compare Paths

[ / ] [ trunk/ ] [ Complib4Jonas/ ] - Rev 10

### LAST MODIFICATION

Rev 10 2010-11-01 10:04:17

Author: lijiejacy

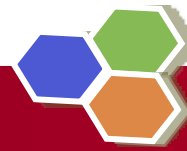
Log message:

FTP configuration information is added.

#### Path

- .settings/
- bin/
- build/
- lib/
- src/
- .classpath
- .project
- build.xml
- default.properties

Compare Paths



## tsr.trustie.net

Total Resources: 25269

➤ Components: 11845

➤ Services: 13022

➤ Tools: 265

➤ Architectures: 76

➤ Others: 61

Registered Users: 10027

可信的国家软件资源  
共享与协同生产环境 软件资源库

用户登录

名称:  搜索

资源统计

- 资源总数: 25269
- 构件: 11845
- 服务: 13022
- 工具: 265
- 构架: 76
- 其他: 61
- 已注册的用户总数: 10027

下载排行榜

- 中间报表展示构件
- 推理机
- 可信软件资源库Trustful Software Repository
- 软件可靠性评估与检测工具
- 软件可靠性测试工具
- PKIAS Container
- 可信软件资源库部署包包
- FSOM
- Web-服务引擎Axis
- 软件可靠性测试工具

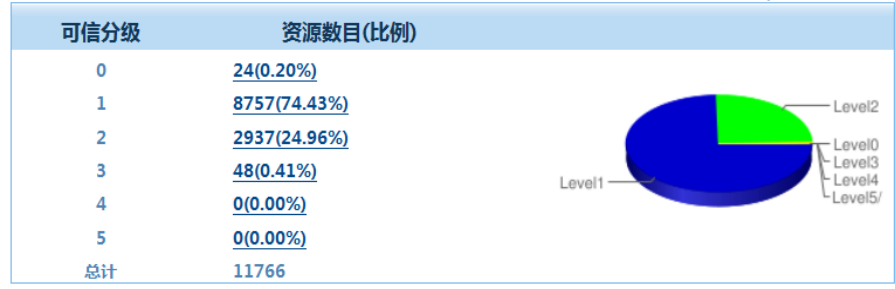
北京大學Jar包可信分级评估方法

[点此查看方法简介](#) [点此查看方法详情](#)



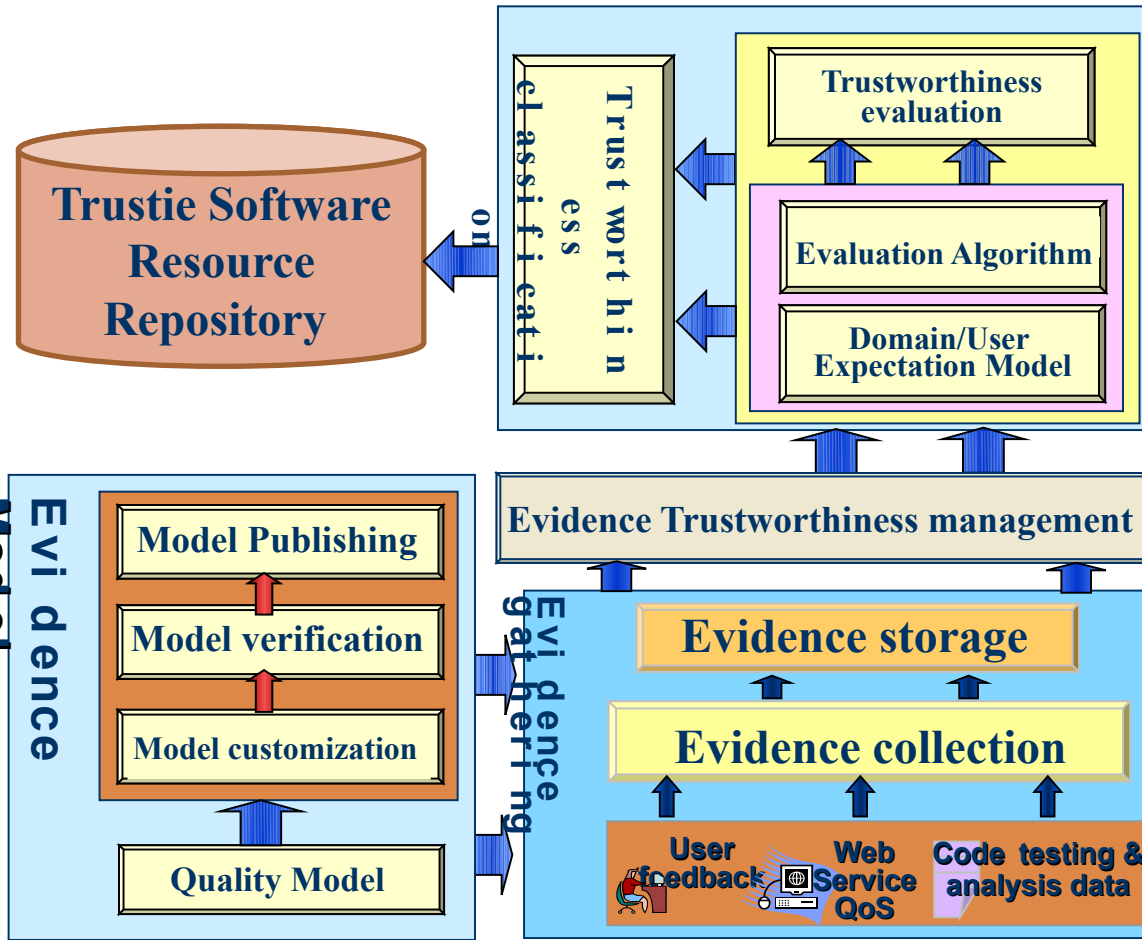
北京大學WebServices可信评级方法

[点此查看方法简介](#) [点此查看方法详情](#)



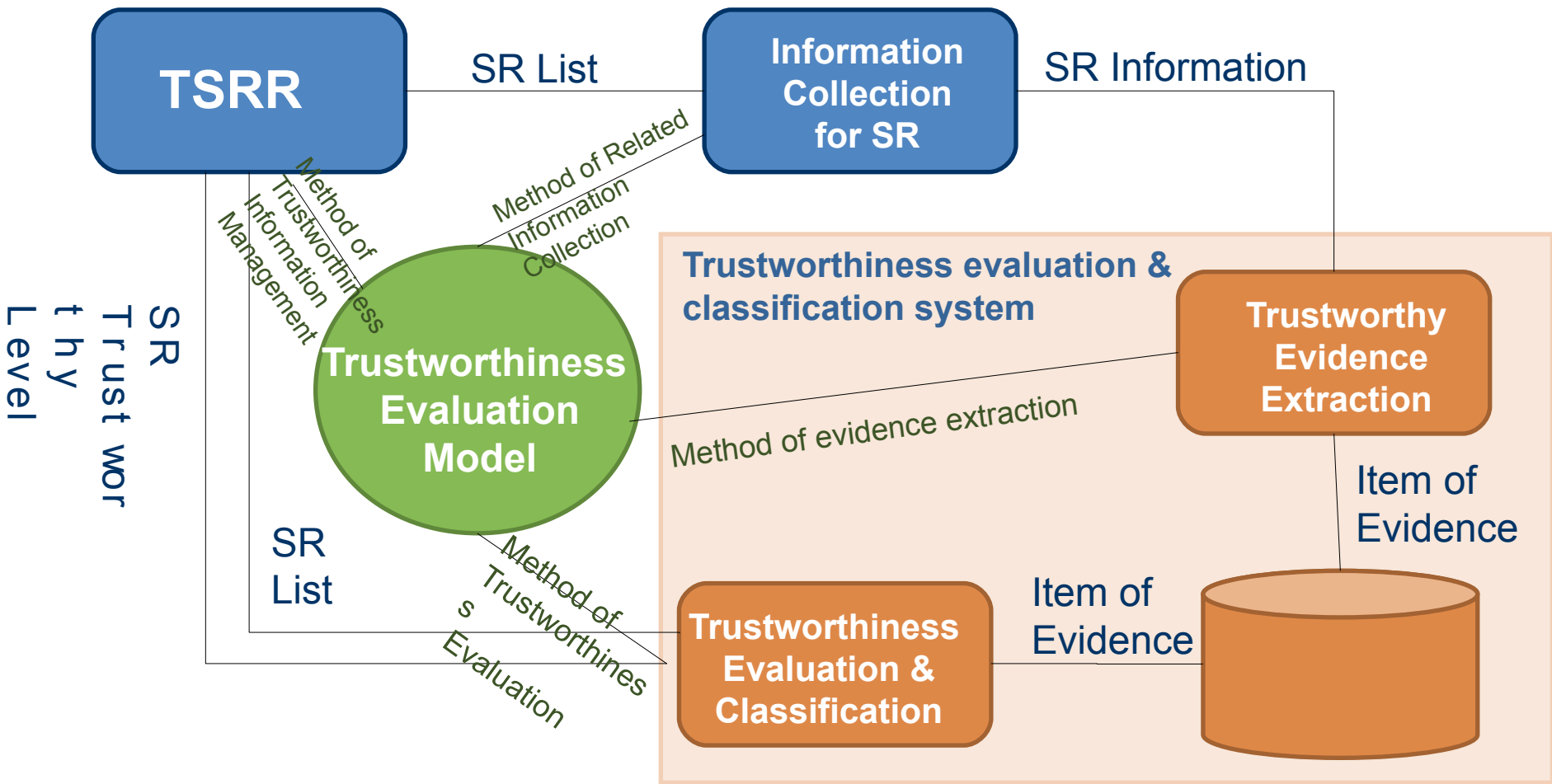
● TSRR has been deployed and served several Software Incubators which are established by National Hightech Plan over China , including Beijing, Shanghai, Changsha, Xi'an etc.

● Also, there are several companies has installed TSRR to support their software development ,such as Digital China.



- **Evidence model** determines what is needed to collect and organize the evidence.
- **Evidence gathering module** collects and stores various kinds of evidence for trustworthy software resource evaluation.
- **Evidence trustworthiness management module** deals with the situation that the collected evidence is false or inaccurate.
- **Trustworthiness evaluation and classification** uses gathered evidence and the user-defined expectation model to evaluate the trustworthiness of software resources.





❖ Nearly 17000 components & services have been evaluated and classified by collected evidence



可信的国家软件资源  
共享与协同生产环境 软件资源库

**Web Service Info**

**Service Name :** ndfdXML  
**Trust Level :** **Level 3** ★★ ★  
**Provider :** weather.gov  
**Description :**

**Quick Links**

- View Trust Evidences
- View QoS Info
- View Feedbacks
- View Descriptions

**Web Service Trust Classification Evidences**

Date	Evidence Name	Value
10-12-12 10:16	是否有WSDL地址信息?	Yes
10-12-12 10:16	Web服务是否可用?	Yes
10-12-12 10:16	Web服务可用性是否达到80%以上?	Yes
10-12-12 10:16	是否有在线测试工具?	Yes
10-12-12 10:16	是否有功能描述信息?	Yes
10-12-12 10:16	Web服务可用性是否达到90%以上?	Yes
10-12-12 10:16	至少有一个使用案例?	No
10-12-12 10:16	Internet上正面评价多于负面评价?	Yes
10-12-12 10:16	是否被权威第三方进行过可信性评估?	No

**Web Service QoS Info**

**Is Available? :** **Yes**  
**Availability:** 0.977272727272727  
**Response Time:** 1536 ms  
**Calculated Date:** 10-12-14 18:01



**Web Service Feedbacks**

Date	Feedback	Attitude
09-12-07 00:46	Very poorly documented and written by C programmers that don't know you're allowed to use descriptive variable names now that we don't use punch cards.	Positive

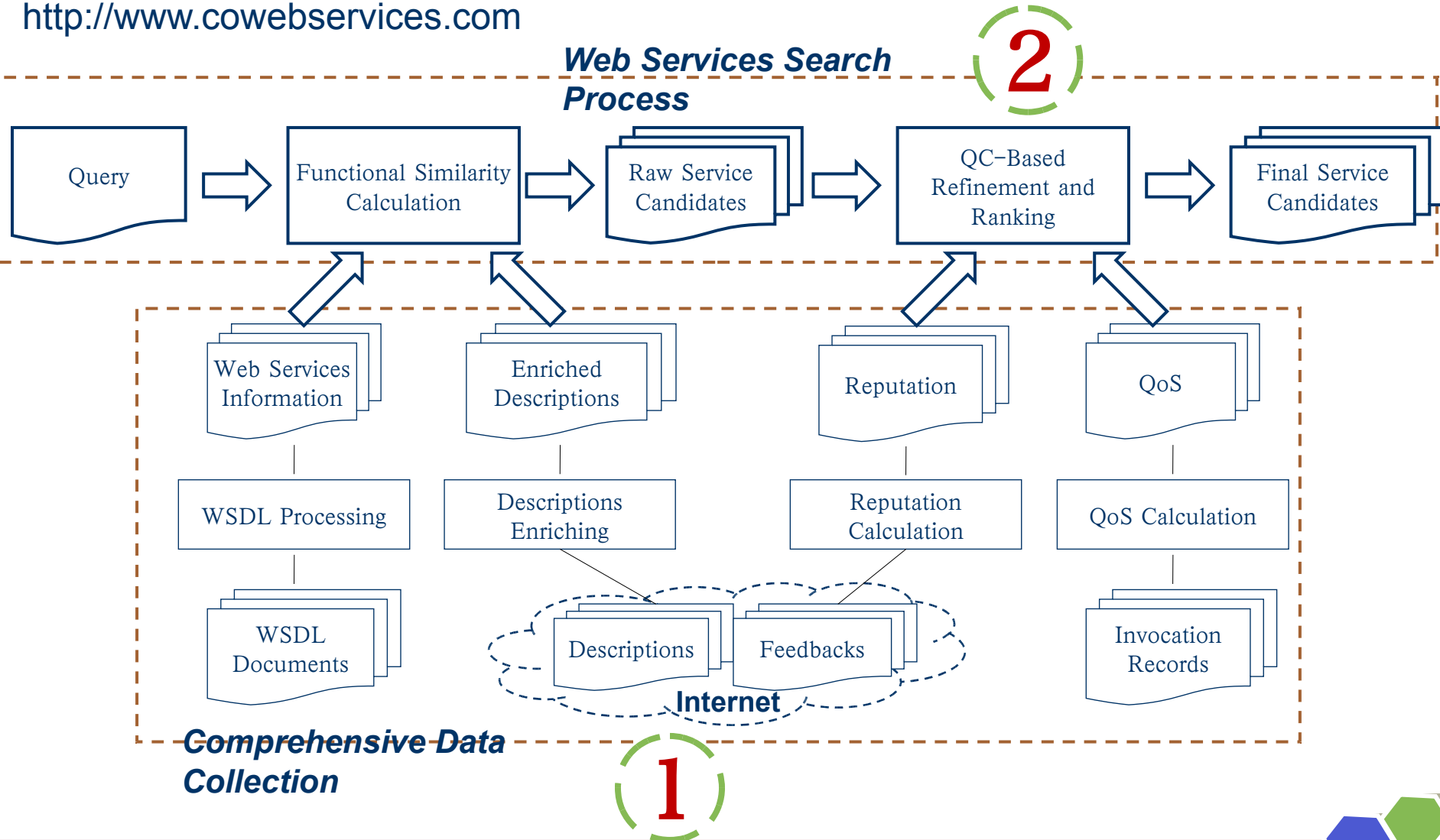
[Back to Top](#)

**Web Service Descriptions**

Content	Source	Detail
The service has 11 exposed functions, NDFDgen, NDFDgenLatLonList, NDFDgenByDay, NDFDgenByDayLatLonList, LatLonListSubgrid, LatLonListLine, LatLonListZipCode, CornerPoints, LatLonListSquare, GmlLatLonList, and LatLonListCityNames. For the NDFDgen function, the client needs to provide a latitude and longitude pair and the product type. The client also needs to provide the start and end time (local) of		

Take Web service as example, we develop CoWS to help people find proper services.

<http://www.coweb services.com>



# Introduction to INFLUX



Trustie inside  
**INFLUX**

**NUDT INFLUX Group**

**Searching and Mining of Open Source Data**

**2011.10.11**



## ❖ Target

- Evaluating open source software by the data through Internet

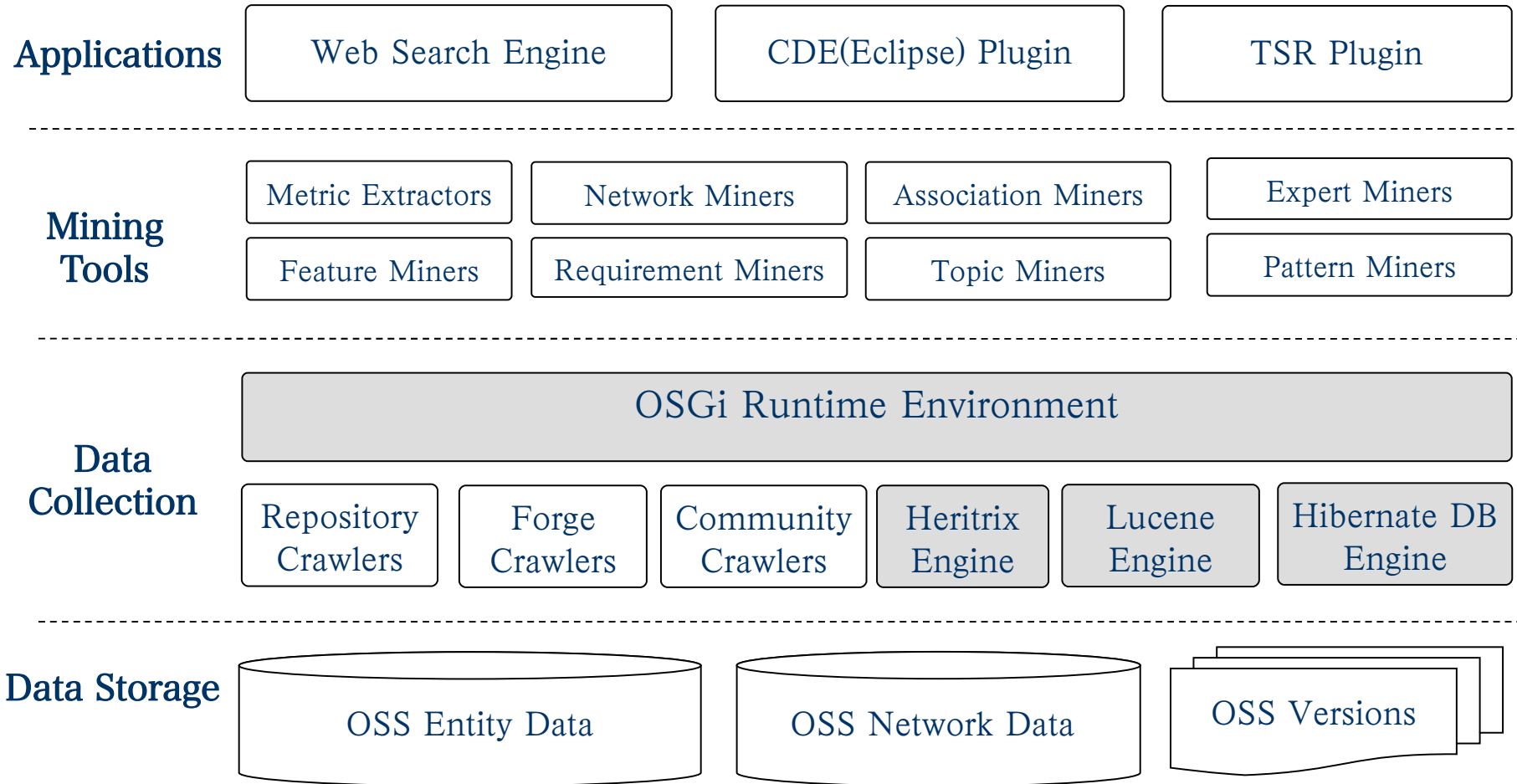
## ❖ Method

- Construct the network hidden in these data
- Comparing and ranking open source software over the network

## ❖ Open source data through Internet

- Open source forges
  - **project data:** name, topics, description, programming languages, operating systems, ...
  - **people data:** name, projects, programming languages, email, ...
  - **social data:** downloads, followers, comments, ...
  - **development data:** SVN, mailing list, bug list, feature request, ...
- Open source communities
  - **forums:** blog, topics, texts, comments, discussions
  - **people data:** name, comments, posts

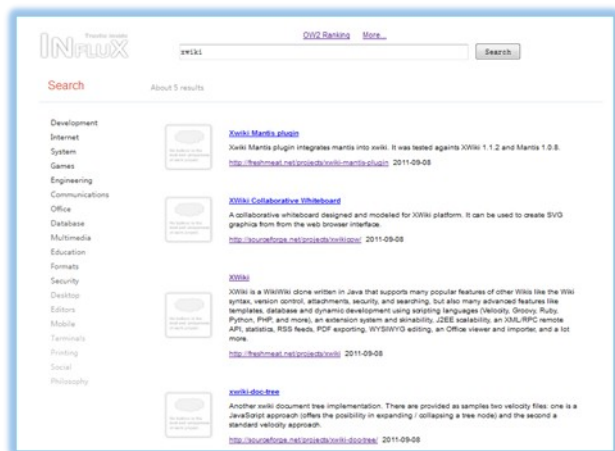




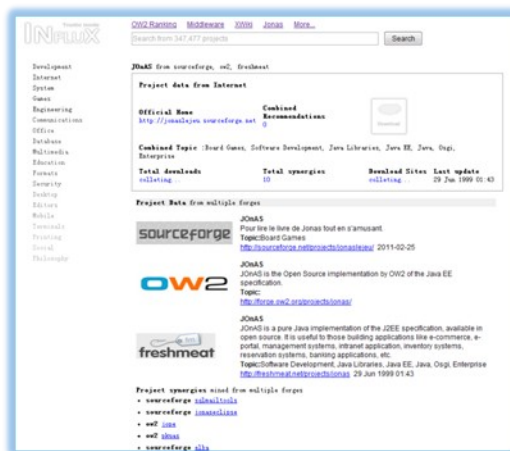
# Current Progress of INFLUX



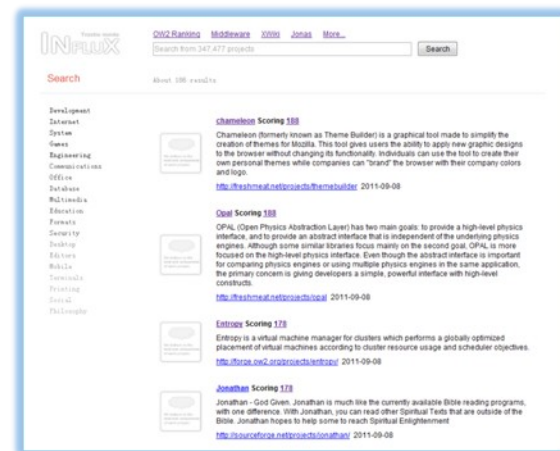
The home page for INFLUX specially customized for OW2.



Typical search and classification interfaces are provided by current version of INFLUX.



Every project in INFLUX shows its data mined from its resided forges.



OW2 projects are ranked by their data integrity, synergies and resided forges.



可信的国家软件资源  
共享与协同生产环境



**谢谢！**  
**Thank you!**  
**Merci Beaucoup!**

