SCOUT IN THE CLOUD

How to Scale Eclipse Scout Applications in the Cloud?

Judith Gull & Thomas Schweigler
Overview

- Introduction to Eclipse Scout
- Dynamically Scaling Scout Applications
- Support for different Cloud Platforms
- Demo: A Scout Application on Multiple Nodes
- How do I get my Scout Application into the Cloud
Introduction to Eclipse Scout
Eclipse Scout

- Framework for Business Applications
- Based on Java/Eclipse platform
- Multi Frontend (Mobile, Tablet, Desktop)
- Open Source
Eclipse Scout

- Framework for Business Applications
- Based on Java/Eclipse platform
- Multi Frontend (Mobile, Tablet, Desktop)

- Open Source

Scout Goals
- Boost developer productivity
- Long term strategy
- Simple to learn
Example – BSI CRM
Application architecture
Hello World
Dynamically Scaling Scout Applications

With Upcoming Luna Release
Eclipse Scout Applications - so far

- Rich Clients
- Web Clients
- Web-Server
- App-Server
- Database
Eclipse Scout Applications – future?

- Rich Clients
- Web Clients
- Web-Server
- Load balancer
  - App-Server 1
  - App-Server ...
  - App-Server n
- Database
Eclipse Scout Applications - future?

Rich Clients

Web Clients

Load balancer

Web-Server 1
Web-Server ...
Web-Server n

Load balancer

App-Server 1
App-Server ...
App-Server n

Database
Eclipse Scout Applications - future?

Rich Clients

Web Clients

Load balancer

Web-Server 1  Web-Server ...  Web-Server n

Load balancer

App-Server 1  App-Server ...  App-Server n

Database
Stateless?

- Rich Clients
- Web Clients
- Servlet Container
- Load balancer
- App-Server 1 → App-Server 2 → App-Server n
- Database

Stateless?
Stateless?

Servlet Container

Eclipse Scout Server Application

Rich Clients

Web

Load balancer

App-Server 1

App-Server ...

App-Server n

Database
Stateless?

Servlet Container

Eclipse Scout Server Application

HTTP-Session

Load balancer

App-Server 1

App-Server 1

App-Server ...

App-Server n

Database

Rich Clients
Stateless?

Servlet Container

Eclipse Scout Server Application

HTTP-Session

Cached Data

Load balancer

App-Server 1

Rich Clients

Web

Web

Database

Servlet Container

Eclipse Scout Server Application

HTTP-Session

Cached Data

Load balancer

App-Server 1

Rich Clients

Web

Web

Database
Stateless?
Eclipse Scout Applications – future!

Dynamically Scaling Scout Applications

With Upcoming Luna Release
Support for different Cloud Platforms

How Eclipse Scout supports many Platforms out of the Box
# PaaS Vendors

<table>
<thead>
<tr>
<th>Vendor</th>
<th>PaaS Product</th>
<th>Webserver</th>
<th>Cache Service</th>
<th>Message Service</th>
</tr>
</thead>
<tbody>
<tr>
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Platform independent

App-Server Bundles

OSGI Service Registry
Platform independent

App-Server Bundles

Scout RT Server

OSGI Service Registry
Platform independent

App-Server Bundles

Scout RT Server

OSGI Service Registry

Server Application
Platform independent

App-Server Bundles

Scout RT Server

OSGI Service Registry

Some other Bundles

Server Application

App-Server Bundles
Platform independent

App-Server Bundles

Scout RT Server
- ...
- Cache Service
- Message Service

OSGI Service Registry

Some other Bundles

Server Application
Platform independent

App-Server Bundles

Scout RT Server
- ...
- Cache Service
- Message Service

Memcached Cache
- Memcached Cache Service

RabbitMQ Messages
- RabbitMQ Message Service

OSGI Service Registry

Some other Bundles

Server Application

Some other Bundles

Server Application
Demo

A Scout Application Running on Multiple Nodes
How do I get my Scout Application into the Cloud?
Prepare your Application

» Choose a PaaS Provider
» Download the specific Service-Plugins from Eclipse Marketplace
» Add as Dependencies to your Product
Configure Services

» Add Service Credentials to config.ini

#Cache
org.eclipse.scout.cloud.cachestore.MemcachedCacheService#host=
org.eclipse.scout.cloud.cachestore.MemcachedCacheService#port=
org.eclipse.scout.cloud.cachestore.MemcachedCacheService#username=
org.eclipse.scout.cloud.cachestore.MemcachedCacheService#password=

#Message Queue
org.eclipse.scout.cloud.notification.rabbitmq.RabbitMQMessageService#host=
or
org.eclipse.scout.cloud.notification.rabbitmq.RabbitMQMessageService#user=
org.eclipse.scout.cloud.notification.rabbitmq.RabbitMQMessageService#password=
Build and Deploy

→ Build your Application (e.g. with Maven)
→ Upload the war-file into the Cloud
Check your Applications status

Eclipse Scout

Global logging is inactive [activate]
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What’s next?

Try Scout:
Download: www.eclipse.org/downloads
Tutorials: wiki.eclipse.org/Scout

Today’s Demo:
wiki.eclipse.org/Scout/Demo#Bahbah_Chat_Cloud

Scout Forum: www.eclipse.org/forums/eclipse.scout
Follow Scout  @EclipseScout
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