SPICY STONEHENGE: PROPOSING A SOA CASE STUDY

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WHY A CASE STUDY?

• **Research** in SOA lacks a standard tool

This deficiency makes it difficult to:

a) **Compare** results of different approaches

b) **Validate** results from other researchers
“CASE IN POINT”

Principles of Engineering
Service-Oriented Systems

PESoS 2012

Special Session
“The Quest for Case Studies”
WHICH CASE STUDY?

Spicy Stonehenge!

- Service-oriented Application
- Based on Apache Stonehenge
- Simulation of stock market
WHY THIS CASE STUDY?

Research **evaluation/validation** should be done in a setting as close to the real-world as possible.
The same applies to software
• The Apache flavor was built for interoperability
  • Created by Apache, Microsoft® & Oracle®
  • Built on top of PHP, JAX-WS, .NET, etc
  • Goal: interoperability.
• We don’t care so much for interoperability

• So we ported it to **Turmeric SOA**
  (a spice! - also a SOA platform)
TURMERIC SOA

eBay's platform for services
TURMERIC SOA

Our rationale:

• If eBay built it and uses it, it’s as close as we can get to industry

• Plus, it’s all open-source since January 2011
GOALS

• Create a service-based software system built on a robust platform (Stonehenge on top of Turmeric SOA)

• Build on the monitoring features of Turmeric SOA

• Harness these features to aid maintenance through obtaining runtime information of the system - future research.
Source and instructions @ http://git.io/stonehenge
Login

Username
Password

Login

Try password "xxx" for user "uid:0" to access the stock trader web application.

First time user?
FUTURE WORK

• Using runtime information to aid maintenance of services
  • What data do we need to achieve this?
  • Performance drawbacks? What’s the trade-off?
• Detecting dead code in services
• Determining the safest time of the day to perform maintenance in a specific service
• Most importantly... how do we do all of this, online without downtime for the users?
QUESTIONS, SUGGESTIONS, DISCUSSION

Presentation available at http://goo.gl/wlvB8