

Windows Azure, Java & Interoperability

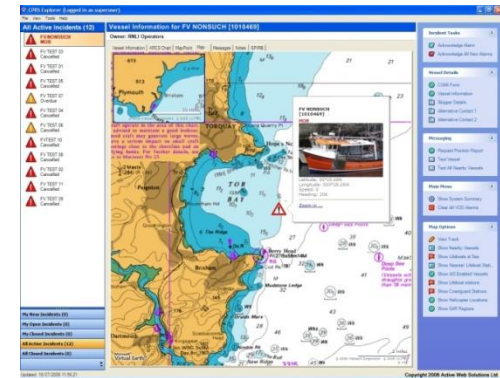


Rob Blackwell, R&D Director



Active Web Solutions

- Leading edge software development:
 - Windows Azure / cloud computing
 - RNLI sea safety project
 - Process management
 - Content management
 - Microsoft Surface
- Offices in Ipswich & Prague
- www.aws.net



Suggested Agenda

- UK Interop Web Site
- How Azure is Interoperable
- Using Azure Storage from Java
- Running Java in Azure Compute
- The Service Bus “Plumbing Kit”
- Summary & Resources

ukinterop.cloudapp.net

MICROSOFT INTEROP @ AIC

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Java Edition

WELCOME TO MICROSOFT INTEROPERABILITY @ AIC 2010!

The Microsoft UK Interop team will be [AIC 2010](#) to show off the interoperability characteristics of the Microsoft Development Platform from the development tools and language support from the server to the cloud!

If you're at AIC come and tell us why you think Microsoft is or isn't taking interoperability seriously!

If you're not or you're shy then just write your comments down here and we'll let you know what we think by return!

Visit us @ [AIC](#) from 31 March - 1 April at Microsoft London (Cardinal Place). Or follow us on Twitter: [#AIC2010](#)



This site is written in Java and hosted on the Windows Azure Platform. We also have great support for PHP, Ruby and many other development languages and tools. We've also started to build a [Ruby on Rails](#) version of the site if you prefer!

Does Microsoft take interoperability seriously? You bet and we're here to prove it! If we do or if we don't, then just tell us!

Microsoft serious about interoperability because:



stop spam.
read books.

Post comment

RESOURCES

- [Interop Team Blog](#)
- [Interop Vendor Alliance](#)
- [Microsoft.com/Interop](#)
- [Microsoft.com/Interop](#)
- [Channel9 Interoperability](#)
- [Document Interop Initiative \(DII\)](#)
- [Port25](#)

PROJECT TAGS

- [.NET Framework](#)
- [Azure](#)
- [Bing](#)
- [Eclipse](#)
- [HTML](#)
- [Identity](#)
- [Java](#)
- [ODF](#)
- [OpenXML](#)
- [PHP](#)
- [REST](#)
- [Ruby](#)
- [Silverlight](#)
- [UOF](#)
- [Web Services](#)
- [WSRP](#)



Java™ GET POWERED. ukinterop.cloudapp.net

- Written in Java using the Restlet framework
- Uses Windows Azure Queues and Tables for Storage
- Running in Windows Azure Compute via AzureRunMe
- Pure Java



Ruby Version

- Written in Ruby on Rails
- Uses Windows Azure Queues and Tables for Storage
- Running in Mongrel on Windows Azure Compute
- WAZ Storage

MICROSOFT INTEROP @ AIC
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Ruby Edition

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Visit us @ [AIC](#) from 31 March - 1 April. Or follow us on Twitter: [#AIC2010](#)

This site is written in Ruby on Rails and is a work in progress application, hosted on the Windows Azure Platform. We also have a fully functional Java version at <http://ukinterop.cloudapp.net>

We are still working on comment submission but you can click [here](#) to see a list of comments submitted via the Java version.

Does Microsoft take interoperability seriously? You bet and we're here to prove it! If we do or if we don't, then just tell us!

RESOURCES

[Interop Team Blog](#)
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[Microsoft.com/InteropChannel9](#)
[Interop Interoperability Document](#)
[Interop Initiative \(DI\) Part25](#)

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[Web Services](#) [WSRP](#)

Architected and developed by

AWS

ACTIVE WEB SOLUTIONS

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BLOGS @ MICROSOFT ([CLICK HERE FOR MORE ...](#))

[OData interoperability with .NET, Java, PHP, iPhone and more](#)
by jccim - Mar 16, 2010
Wouldn't that be cool to have more ways to unlock your data and free it from applications silos? Today at MIX10, we presented ...

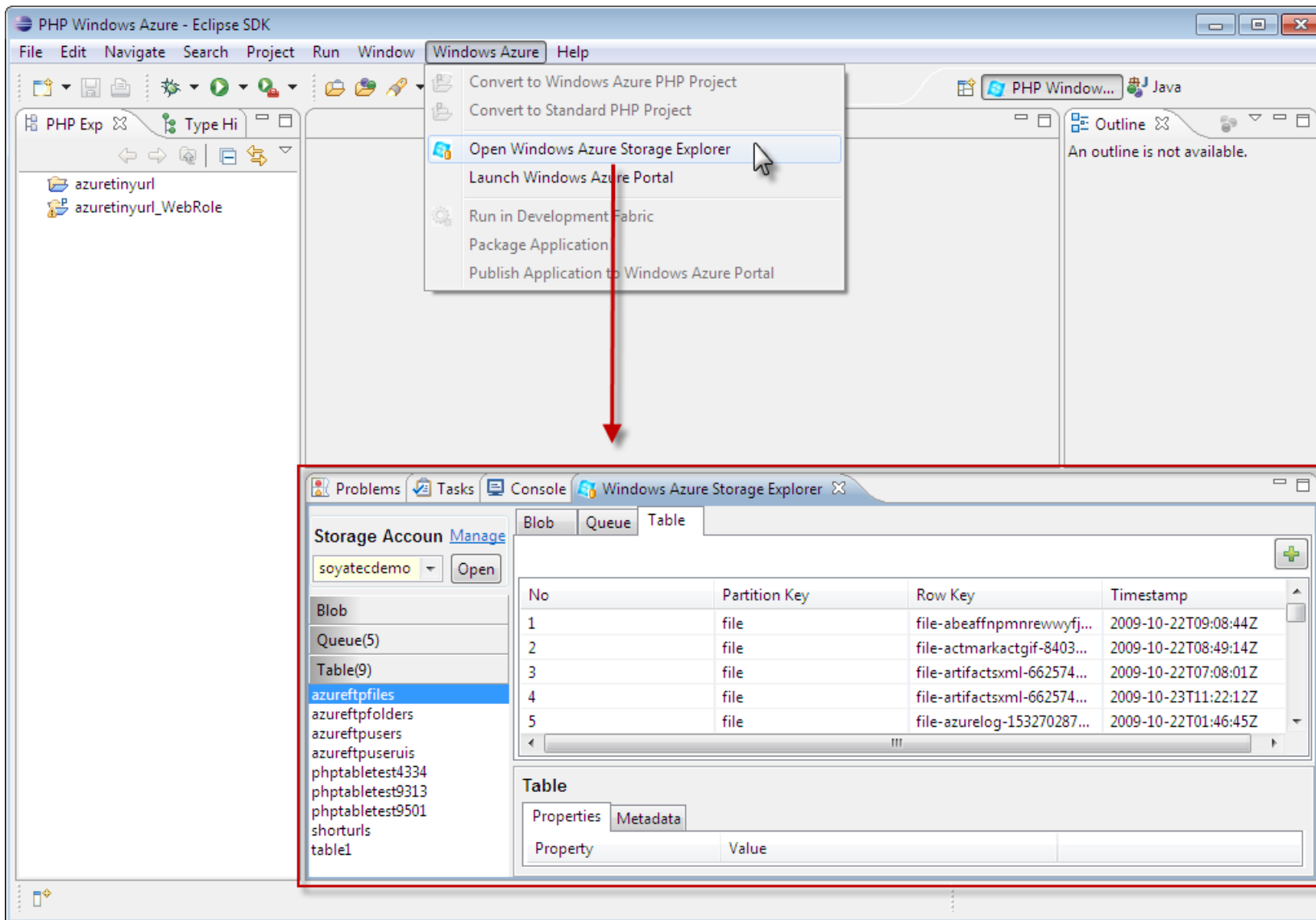
INTEROP TWEETS @ AIC2010 ([CLICK HERE FOR MORE ...](#))

Twitter / Development Gateway: [#AIC2010](#) mind shift re ope ... <http://bit.ly/aBLANC>
Mon, 29 Mar 2010 22:24:20 +0000
[Read it on Twitter](#)

How is Azure Interoperable?

- Componentised, open, language-agnostic
- Windows Azure Storage Services REST API
- Windows Azure Service Management REST API
- AppFabric Service Bus REST API
- AppFabric Access Control REST API
- Open, standard formats - HTTP, XML, WRAP, SWT
- Ecosystem of tools and libraries

www.windowsazure4e.org



WindowsAzure4j

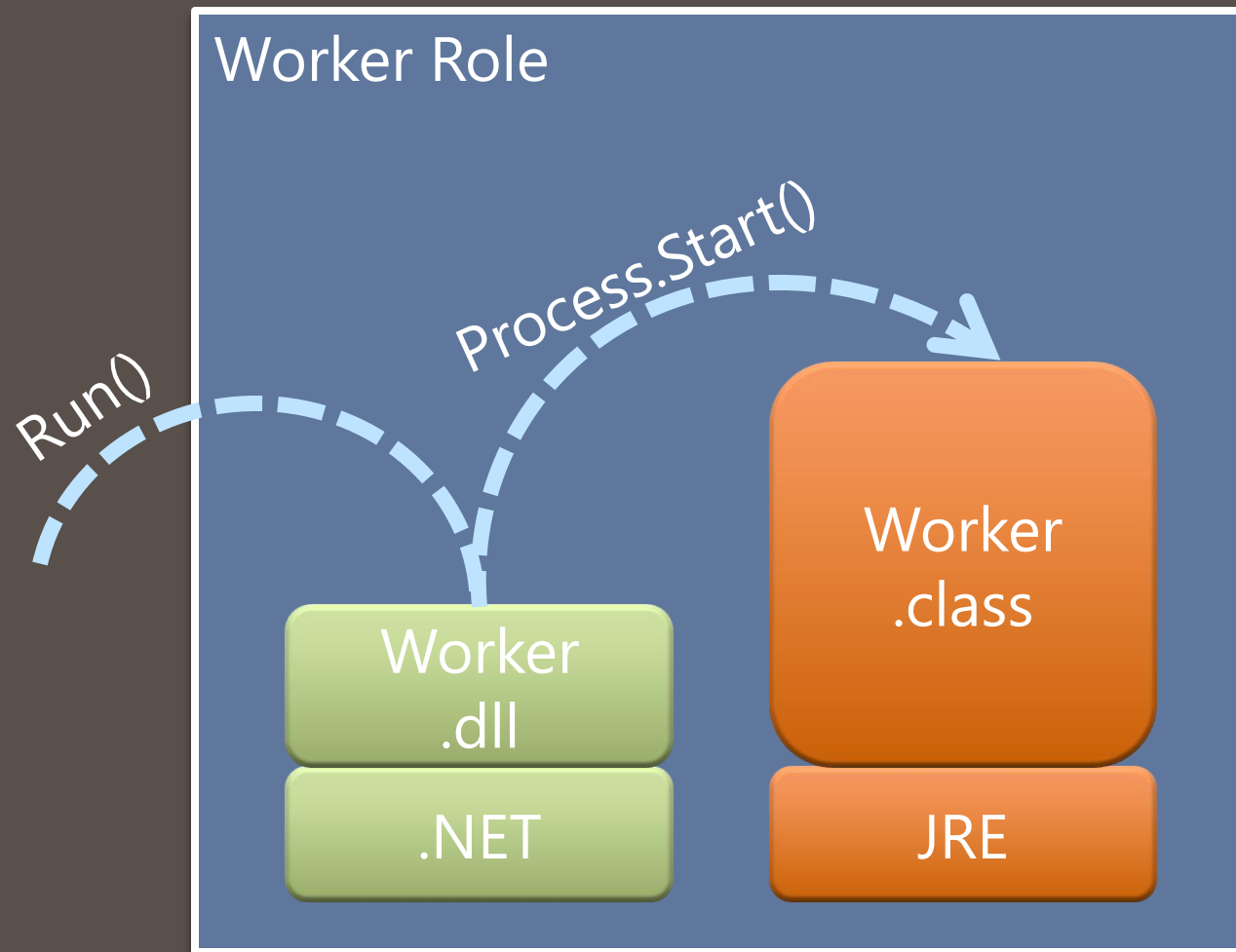
- <http://www.windowsazure4j.org/>
- Allows Java apps to access Windows Azure Storage.



Using Windows Azure 4J to list Comments

DEMO

Anatomy of a Java Worker Role



Windows Azure Tomcat Solution Accelerator

- code.msdn.microsoft.com/winazuretomcat
- Easy to use, but ..
- Generates large packages (including JRE and Tomcat)
- We wanted a more modern web framework
- Didn't work well from my Rural Broadband

Azure RunMe

- <http://azurerunme.codeplex.com>
- Allows Java apps to run on Windows Azure (or Ruby, Python ... etc)
- Just ZIP your app and put it in Blob storage
- Your app must
 - run on Windows as non-admin user
 - be self contained
 - have no traditional install or setup
 - “Run from a BAT file”

.cscfg File

<ConfigurationSettings>

<Setting name="DataConnectionString" value="..." />

<Setting name="TraceConnectionString" value="..." />

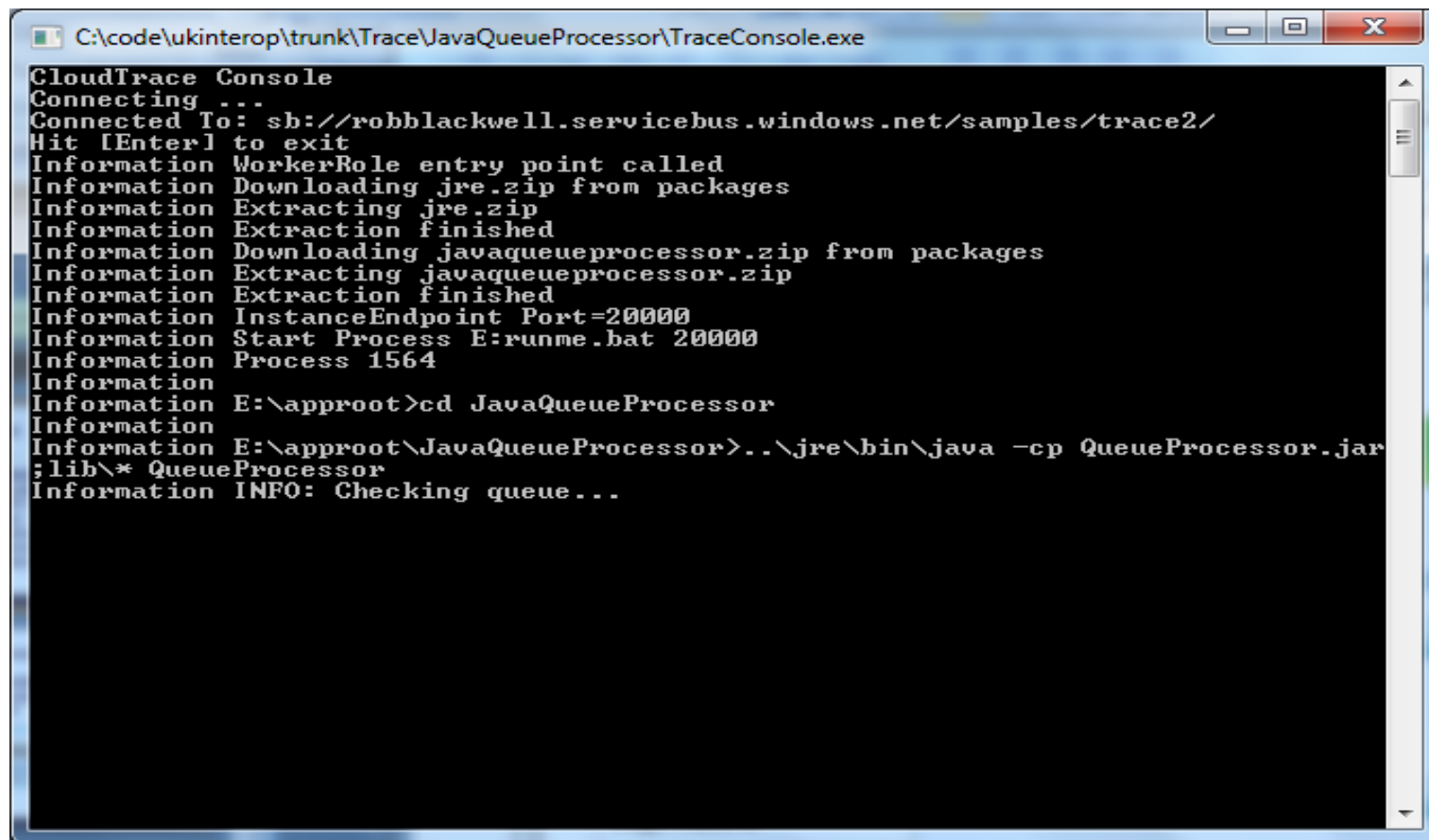
<Setting name="Packages" value="packages\jre.zip;packages\dist.zip" />

<Setting name="Commands" value="runme.bat" />

.....

</ConfigurationSettings>

Tracing over Service Bus

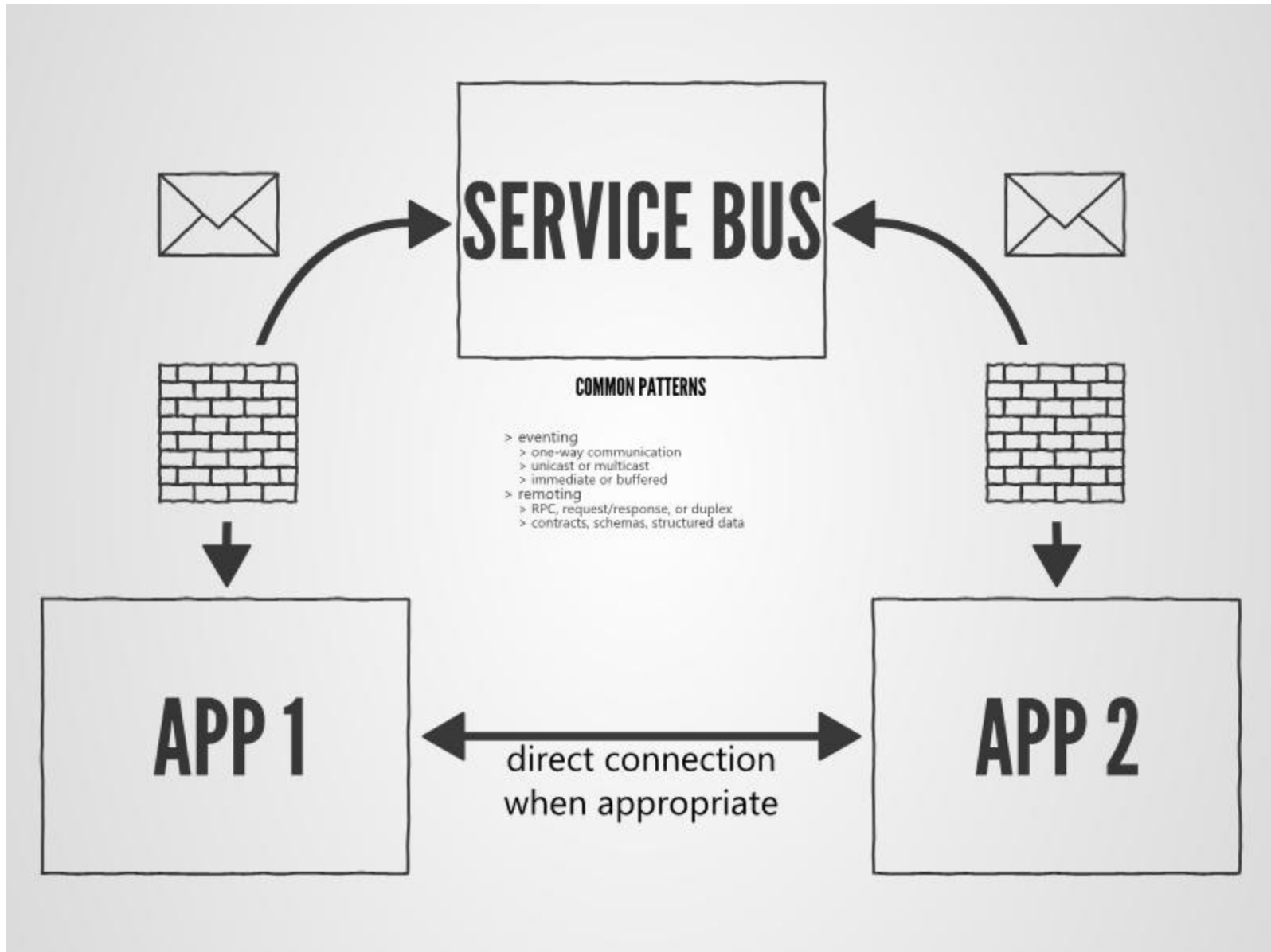


```
C:\code\ukinterop\trunk\Trace\JavaQueueProcessor\TraceConsole.exe
CloudTrace Console
Connecting ...
Connected To: sb://robblackwell.servicebus.windows.net/samples/trace2/
Hit [Enter] to exit
Information WorkerRole entry point called
Information Downloading jre.zip from packages
Information Extracting jre.zip
Information Extraction finished
Information Downloading javaqueueprocessor.zip from packages
Information Extracting javaqueueprocessor.zip
Information Extraction finished
Information InstanceEndpoint Port=20000
Information Start Process E:runme.bat 20000
Information Process 1564
Information
Information E:\approot>cd JavaQueueProcessor
Information
Information E:\approot\JavaQueueProcessor>..\jre\bin\java -cp QueueProcessor.jar
;lib\* QueueProcessor
Information INFO: Checking queue...
```

CloudStorageStudio, AzureRunMe + Tracing **DEMO**

Service Bus

- Securely connect applications
 - Over the internet
 - Across any network topology
 - Across organizational boundaries
- Patterns
 - Eventing:
 - Notify applications and/or devices
 - Service Remoting:
 - Securely project on-premises services out to the cloud
 - Tunneling:
 - App-to-app communication with NAT/Firewall traversal



Other JVM Languages

- We've been talking about Java, but what we really mean is JVM
- I've been playing with clojure.org in my spare time and its lots of fun ..

; -)

www.interoperabilitybridges.com

INTEROPERABILITY BRIDGES AND LABS CENTER

Bridges between Microsoft and non-Microsoft technologies

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[PROJECTS](#)
[BLOG](#)
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All Projects

- Apache POI OpenXML Java API
- Apache Stonehenge
- AppFabric SDK for Java
- AppFabric SDK for PHP
- AppFabric SDK for Ruby
- Bing 404 Web Page Error Toolkit for PHP
- Eclipse Tools for Silverlight
- Enhancements of Eclipse on Windows 7
- Information Cards for C
- Information Cards for Java
- Information Cards for PHP
- Information Cards for Ruby
- Lab: Development Environment and Software Configuration Management (SCM) Interoperability
- Lab: Directory Management Interoperability
- Lab: Document & Records Management Across Portals
- Lab: Federated Identity
- Lab: Interoperability with Open XML
- Lab: Multi-platform System Management
- Lab: Portal Aggregation and Integration
- Lab: Remote Desktop Interoperability
- Lab: Systems Management
- OData SDK for Objective C (iPhone-Mac)
- OData SDK for PHP
- Office Binary to Open XML Translator
- OpenXML Document Viewer/HTML

Welcome to the Interoperability Bridges and Labs Center



The Center is dedicated to technical collaborative work to improve interoperability between Microsoft and non-Microsoft technologies. In this site, you will find a live directory of freely downloadable technical **interoperability Bridges & Labs** and related content such as demos, technical guidance and articles. The vast majority of the projects are Open Source. The Center is run by the Microsoft Interoperability Strategy Group working with the community at large.

[Browse All Projects >>](#)

Project Spotlights

No	PathName	Size	Date	Description
1	azure	1.04	200-06-20 10:12:12	
2	azure	2.1	200-06-20 10:12:12	
3	azure	0.01	200-06-20 10:12:12	

Windows Azure SDK for Java

Provides tools and resources to help bridge Java developers to Windows Azure.

[More>>](#)

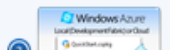
Latest Additions & Recently Updated



AppFabric SDK for PHP

AppFabric SDK for PHP Developers is an open source software development kit (SDK) that helps PHP programs communicate with Windows Azure platform AppFabric using RESTful APIs.

[View Project Details>>](#)



Windows Azure Command-line Tools for PHP

Conclusions

- Windows Azure Compute and Storage plays well with Java. (& Ruby, Python etc).
- App fabric service bus as “a globally scalable plumbing kit”
- Windows Azure actually **makes sense** for some Java apps
- Microsoft *is* taking interoperability seriously these days

Links and Resources

- Resources:
 - www.windowsazure4j.org
 - azurerunme.codeplex.com
 - www.interoperabilitybridges.com
- rob.blackwell@aws.net
 - www.aws.net
 - www.robblackwell.org.uk
 - www.twitter.com/RobBlackwell