



TECHNOLOGY TRANSFER PRESENTS

Rome, May 15-16, 2017  
Residenza di Ripetta  
Via di Ripetta, 231

INTERNATIONAL  
CONFERENCE  
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# The Software-Defined Enterprise

Microservices, Docker and Containers, Large Scale Data Processing,  
Cloud, and Modern Architecture

In today's dynamic enterprise, business requirements and deliverables are expanding at an accelerating pace. Business agility is now more critical than ever while our traditional Information Technology (IT) strategies are challenged. As usual for enterprise IT, change is more than a constant; it is continuous and relentless.

To adapt and react to this environment, IT's approach to services Architectures have evolved as well. Applications are now composed of an increasingly growing collection of smaller services reachable via a very large set of APIs and libraries. And to manage these applications, new models of software design using small, independently deployable "Microservices" have proven successful in many use cases.

Over the past few years, there have been significant changes in enterprise IT with amazingly powerful tools and techniques that address the need for Agility. Companies are evolving beyond simple Cloud Computing, which is essentially a software-defined data center. These organizations are now moving to sophisticated, fine-grained service Architectures that are effectively rendering these companies into Agile, software-defined enterprises.

There are a number of modern tools, new techniques and clear trends in using microservices architectures that every informed technology executive, technical manager and enterprise architect should know.

You will learn:

- Lessons Learned with Enterprise Microservices
- Latest Details on Docker and Containers
- Techniques on How to Scale Enterprise Systems
- How to Manage Large Enterprise Datasets in a Microservices Architecture
- Case Studies on Migrating from a Monolith to a Set of Microservice
- Building Fault Tolerant Enterprise Services
- How to Design a Reliable Enterprise Architecture through Protocols
- High Performance Streaming Data Services
- Accessing Enterprise Services using the Web
- Modern Web Delivery of Services using Progressive Web Apps
- Event-driven Services vs. REST-based Services
- Serverless Computing
- What's Next for the Services Enterprise? - Panel of Experts

Examples of topics that will be covered:

- The State of Microservices
- Microservices minus the Hype
- Scaling Up to Your First 10 Million Users
  - An Agile Extension to Docker for Building Reliable Software
  - An Open Model for Batch and Stream Data using Apache Beam
- The Fallacies of Distributed Computing: Building Fault Tolerant Services
- Progressive Web Applications - A New Approach to Accessing Services
  - Apache Spark and Streaming Services
  - Managing Containers with Kubernetes
- Building Event-driven Serverless Applications
  - Where Do We Go From Here?



## Day One

### Introduction and Keynote

Frank Greco

### Session 1

#### The State of Microservices

John Davies

Migrating to the Cloud 10 years ago seemed real but something few enterprises were using. Today you have to justify why you are not using Cloud Computing. Similarly we are only a few years into using, designing and developing Microservices and it's already de facto with many of my clients. Who is using Microservices, why do they use it and how do they use it? What are the Microservices options, how do we migrate and what are the costs? This talk covers the current state of Microservices and will hopefully answer these many questions and more.

### Session 2

#### Microservices minus the Hype

Bert Ertman

With popular poster children such as Netflix and Amazon, using Microservices - based architectures seems to be the killer approach to twenty-first-century architecture. But are they only for Hollywood coders pioneering the bleeding edge of our profession? Or are they ready to be used for your projects and customers? This presentation goes beyond the hype and explains why organizations are doing this and what struggles they need to deal with providing you with an unbiased and objective view on the Microservices architectural style.

### Session 3

#### Scaling Up to Your First 10 Million Users

Danilo Poccia

Cloud Computing gives you a number of advantages, such as the ability to scale your Web application or Website on demand. If you have a new Web application and want to use Cloud Computing, you might be asking yourself, "Where do I start?" In this session you will learn best practices for scaling your resources from zero to millions of users. We show you how to best combine different AWS services, how to make smarter decisions for architecting your application, and how to scale your infrastructure in the Cloud.

### Session 4

#### An Agile Extension to Docker for Building Reliable Software

Steve Ross-Talbot

Using an extended notion of Docker, applied to existing technologies we shall explore a full lifecycle of change from some requirements through to deployment using some real tools in a hands on session. After this session you should be able to apply the same tools and techniques within your own organizations and gain benefits in reduced defects, faster time to value and ever more reliable software systems that meet their ever-changing requirements.

### Session 5

#### An Open Model for Batch and Streaming Data Services

Robert Kubis

In this talk you will learn about Apache Beam (incubating). A project that came out of more than 10 years of experience with Big Data processing at Google. We will show you how to improve your

Apps, Web or Mobile by capturing and processing activity data from batch and streams in one model and run it on Google's managed Dataflow service. In this talk we'll demonstrate Dataflow's capabilities through a real-time demo with practical insights on how to manage and visualize streams of data.

## Day Two

### Session 6

#### **The Fallacies of Distributed Computing: Building Fault Tolerant Services**

Bert Ertman

Modern Software Architectures increasingly rely on the network for applications to communicate with each other. In the minds of many developers the network will never fail. But when Peter Deutsch wrote the "Fallacies of Distributed Computing" back in 1994, he was probably never more right than today.

One of the hardest things when designing and testing for distributed failures is that most issues such as slow networks and lost packets will only be found in production. In this talk I will show you how to deal with distributed dependencies, improving fault tolerance in distributed Architectures i.e. Microservices, but also applicable if your application is deployed to a failure prone environment such as a "Cloud"

### Session 7

#### **Progressive Web Applications - A New Approach to Accessing Services**

Frank Greco

Over the past 10 years, enterprises have created many services for external customers and internal users. To use these services on a mobile device, these companies typically develop a Web application

or create a native (Android or iOS) application. However, native applications can be quite difficult to deploy/install, and Web applications are usually sluggish or inoperable without a network. Progressive Web Apps (PWA) are a way of addressing both issues and allows enterprises to deploy modern services to mobile devices in any network environment, even offline. This development model takes advantages of modern Web standards to incrementally deliver a satisfying, rich User Experience and dramatically increase customer conversions.

### Session 8

#### **Apache Spark and Streaming Services**

John Davies

Apache Spark is a solution to many of the problems encountered by the use of Apache Hadoop, an early, distributed framework used for processing extremely large data sets. Spark is a cluster-computing framework that is vastly more efficient, faster and significantly easier to use. As Data Science and Business Intelligence has matured over the past few years, so has the need for a different approach to Data Management. Spark is a real-time data processing framework that relies on the data efficiently "piped" or "streamed" in-to and out-of the systems. Mr. Davies will cover and demonstrate Apache Spark showing just how significant streaming is in a typical Spark architecture.

### Session 9

#### **Managing Containers with Kubernetes**

Ray Tsang

Today's Cloud technology is moving fast towards using containers and managing a large fleet of containers. This session will give you hands-on experience with creating containers using Docker and depl-

oy a fleet of containerized Java Microservices into Kubernetes, a production-grade container orchestration tool. You will learn how to build a Java Microservice, build a Docker container, deploy the container into a private container registry, deploy a fleet of containerized Microservices, learn service discover and perform rolling update, canary, and roll backs.

## Session 10

### **Building Event-Driven Serverless Applications**

Danilo Moccia

We built Event-Driven user interfaces for decades. What about bringing the same approach to Mobile, Web, and IoT backend applications? You have to understand how data flows and what is the propagation of changes, using reactive programming techniques. You can focus on the core functionalities to build and the relationships among the resources you use. Your application behaves similarly to a “spreadsheet”, where depending resources are updated automatically when something “happens”, and is decomposed into scalable Microservices without having to manage the infrastructure. The resulting architecture is efficient and cost effective to run on AWS and managing availability, scalability and security becomes part of the implementation itself.



**Frank Greco**

He is the Chief Technologist for Crossroads Technologies located in New York. He is a recognized authority on Cloud/Mobile Computing and the integration of business value with information technology. Mr. Greco is a frequent blogger and author as well as deep experience in Cloud/Mobile strategy, system integration startups, strategic technology/business partnerships, enterprise infrastructure and emerging technologies particularly for financial systems and large enterprises.



**John Davies**

He is co-founder and CTO of C24, a London based fast data company specialising in high-volume, low-latency complex messaging. With customers including many of the world's largest investment banks, C24 provides data optimisation for standards like SWIFT, ISO-20022, FpML and FIX as well as proprietary formats. C24 has recently released a new data optimization product - PREON - that creates highly optimized binary versions of these complex messages reducing memory and network usage by over 20 times, while significantly increasing performance. Mr. Davies has been global chief architect at JP Morgan, BNP Paribas and was the original architect behind Visa's V.me (now Visa Checkout). Mr. Davies has co-authored several Java books and is a frequent speaker at technical and banking conferences around the world.



**Robert Kubis**

He is a Senior Developer Advocate for the Google Cloud Platform based in London, UK, focusing on Big Data technologies and Machine Learning. Before joining Google, Mr. Kubis collected over 10 years of experience in Software Development and Architecture. He has driven multiple full-stack application developments at SAP with a passion for algorithms, distributed systems and databases.

SPEAKERS

- Frank Greco
- Bert Ertman
- John Davies
- Daniele Poccia
- Robert Kubis
- Steve Ross-Talbot
- Ray Tsang

REGISTRATION FORM



Once filled to be given to:  
Technology Transfer  
Piazza Cavour, 3 - 00193  
Roma  
Tel. 06-6832227  
Fax 06-6871102  
[www.technologytransfer.it](http://www.technologytransfer.it)  
[info@technologytransfer.it](mailto:info@technologytransfer.it)



This Conference is designed for senior Architects and technology Managers. It aims to provide valuable information and expertise on the latest technologies and techniques to address these important aspects of Modern Enterprise Services, development and deployment.

#### PARTICIPATION FEE

Euro 1500  
The fee includes all seminar documentation, luncheon and coffee breaks.

#### HOW TO REGISTER

You must send the registration form with the receipt of the payment to:  
TECHNOLOGY TRANSFER S.r.l.  
Piazza Cavour, 3 - 00193 Rome (Italy)  
Fax +39-06-6871102

#### PAYMENT

Wire transfer to: Technology Transfer S.r.l.  
Banca: Cariparma  
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**within May 2, 2017**

#### ROME

**May 15-16 2017**  
**Residenza di Ripetta**  
**Via di Ripetta, 231**

**Registration fee**  
**Euro 1500**

#### GROUP DISCOUNT

If a company registers 5 participants to the same seminar, it will pay only for 4. Those who benefit of this discount are not entitled to other discounts for the same seminar.

#### EARLY REGISTRATION

The participants who will register 30 days before the seminar are entitled to a 5% discount.

#### CANCELLATION POLICY

A full refund is given for any cancellation received more than 15 days before the seminar starts. Cancellations less than 15 days prior the event are liable for 50% of the fee. Cancellations less than one week prior to the event date will be liable for the full fee.

#### CANCELLATION LIABILITY

In the case of cancellation of an event for any reason, Technology Transfer's liability is limited to the return of the registration fee only.

#### SEMINAR TIMETABLE

2 days: 9.30 am - 1.00 pm  
2.00 pm - 5.00 pm

### International Conference 2017

first name \_\_\_\_\_

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**Bert  
Ertman**

He is a Fellow at Luminis in the Netherlands. Besides his day job he served as the Java User Group leader for NLJUG, the Dutch Java User Group (approx. 4000 members) for the past decade. A frequent speaker on Java, Software and Services Architecture related topics all over the world, as well as a book author **Building Modular Cloud Applications with OSGi**, O'Reilly 2013, and member of the editorial advisory board for Dutch software development magazine: **Java Magazine**. In 2008, Mr. Ertman was honored by being awarded the coveted title of **Java Champion** by an international panel of Java leaders and luminaries. He is a **JavaOne 2012 Rock Star Speaker** and a **2013 Duke's Choice Award** winner.

**Danilo  
Poccia**



He is Technical Evangelist at Amazon Web Services and works with startups and companies of any size to support their innovation. In his role, he leverages his experience to help customers bringing their ideas to life using the AWS platform, focusing on technical and business impact of mobile, IoT, and Data Analytics. He is author of **AWS Lambda in Action from Manning**, a book for developers that want to build event-driven serverless applications. Mr. Poccia works with customers throughout Europe and is a frequent speaker at public events and technical workshops.



**Ray  
Tsang**

He is a Developer Advocate for the Google Cloud Platform. Mr. Tsang had extensive hands on cross-industry enterprise systems integration delivery and management experiences during his time at Accenture, managed full stack application development, DevOps, and ITOps. He specialized in **Middleware, Big Data, and PaaS** products during his time at Red Hat while contributing to open source projects, such as **Infinispan**.

**Steve  
Ross-Talbot**



He is a Professor of Distributed Computing at Kingston University in London. He is an Hon. Research Fellow at Napier University in Edinburgh. He is also an author of the **SOA Manifesto** and a former chair of all the **Web Services standards in W3C**. He is cofounder of the **Zero Deviation Lifecycle (ZDLC)** having been the CEO and CSO of the ZDLC Business Unit in Cognizant. Amongst his previous exploits are project **Hoodini** at Nomura, the founder of **SpiritSoft** and the first commercial **Java Messaging System (JMS)** and **Complex Event Processing (CEP)** systems. Mr. Ross-Talbot is currently a senior consultant for many large international banking clients.





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