TECHNOLOGY TRANSFER PRESENTS

Rome, May 14-15, 2018
Residenza di Ripetta
Via di Ripetta, 231

INTERNATIONAL
CONFERENCE
2 0 1 8

Agile Enterprise IT

Containers, Microservices, Blockchain, Serverless, Artificial Intelligence and Machine Learning

A B O U T   T H E   C O N F E R E N C E

Business Agility is the necessary quality of an enterprise to rapidly respond to a changing market or operational environment. This adaptability and flexibility is critical for today's modern companies and large organizations, particularly with on and off-premises Cloud-based systems. For the senior Information Technology (IT) Professional, understanding how to successfully manage change in such a complex environment is a core competency that drives transformation.

Many of the world's biggest and most successful Internet companies such as Netflix, Amazon, Google, Twitter, Microsoft and Uber, have learned to become agile and create such flexible, Cloud and on-premises systems. They understand today's Enterprise Architecture must be modeled as a large, complex adaptive system within an environment of well-known management policies. However this type of model requires new approaches. To build these types of systems, there are a number of modern tools, new techniques and clear trends in using Microservices, Serverless architectures along with innovations in Machine Learning that every informed technology executive, technical manager and enterprise architect should know.

This Conference covers these topics and brings together senior IT consultants, enterprise architects, and services experts from some of the most influential leading-edge technology companies on the planet.

You will learn:

• Why Companies are doing Enterprise Microservices Wrong
• The Impact of Serverless on Enterprise Computing
• Practical Tips on a Highly Distributed Enterprise Architecture
• How to Leverage Kubernetes to Manage Your Containers
• How to Manage State in a Large Microservices Architecture
• Security in a Distributed Microservices System
• Machine Learning for the Senior IT Professional
• How to Design a Reliable and Provable Enterprise Architecture
• Intelligent Routing and Load Balancing for Microservices
• The Reality of Microservices in the Enterprise
• What's Next for Enterprise IT Architecture?

O U T L I N E

Day One

Introduction and Keynote

Frank Greco

Session 1

Serverless - The Future of the Cloud

Bert Ertman

Are you still using Docker in production? Get over it! Serverless is the NEW future of the Cloud. But since the Cloud is still someone else's computer, that needs to be managed too. And if it is sitting idle, you probably have to pay for it whether you like it or not. No server can be more easily managed than no server. Therefore: meet Serverless, a new paradigm that truly approaches the Pay-as-You-Go philosophy once promised by the Cloud.

This talk explores Serverless, its impact on existing architectures, and assesses it's usability for Mobile Back-ends as a Service (MBaaS), Functions-as-a-Service (FaaS) and also for Microservices based architectures hosted in the Cloud. Internet connectivity permitting, there will be demos too.

Session 2

Create a Hybrid Cloud with Kubernetes

Ray Tsang

Kubernetes is a powerful, open source, container orchestration/cluster management tool created by Google. It drew upon all the lessons learned from a near-decade of using containers at Google. Kubernetes handles deployment and provisioning of your application architecture, and it also handles number of failure scenarios gracefully, from a crashed process, to a failure of a cluster node.

In this talk, we will develop a Java application locally, run and test it locally and deploying it into a cluster of machines with Kubernetes and container orchestration. But we'll take this even a step further, and see how we can configure and utilize Kubernetes Cluster Federation to deploy this application into multiple datacenter regions around the globe, configuring global load balancing, and regional level service discovery that can handle a variety of failure scenarios.

Session 3

Controlling Chaos: Bringing Microservices under control

Steve Ross-Talbot

The world we live in is becoming increasingly distributed and yet we manage to adapt to the complexity it brings. In the 1990's we all started to leverage databases and their notion of ACID consistency, and until recently this has been a key aspect of distributed solutions. But as Microservices grow so eventual consistency becomes the norm and reflects the way that we adapt as human beings. But it comes at a price that is a function of complexity.

As our services shrink in size so the interactions between them become the dominant architectural norm and coupled with compensating transactions for eventual consistency so the complexity multiplies. Never has then been a more urgent need to bring such chaos under control. And this is what OpenTracing and Distributed Monitoring though tools like Zipkin, Hawkular, Promethus and Jaeger bring. In this session we shall see for ourselves how to leverage OpenTracing and Distributed Monitoring to show how you can embrace it yourselves.

Session 4

Building Innovative Apps with the Modern Web

Frank Greco

The Web has evolved extensively since its inception, particularly over the past few years. We have progressed significantly beyond simply browsing text to mobile eCommerce applications, high-definition video, CD-quality sound and sophisticated APIs that truly leverage the world's information and thousands of useful services. Despite the extensive functionality, Web applications are usually very sluggish or inoperable without a reliable network. In addition, senior developers and technology managers have to manage serious applications created in a non-traditional enterprise development environment with non-traditional enterprise tooling.

Progressive Web Apps (PWA) are a way of addressing the lack of responsiveness of Web applications. They allow enterprises to deploy modern services to mobile devices in any network environment, even while offline. This development model takes advantages of modern Web standards to incrementally deliver a satisfying, rich user experience and dramatically increase customer conversions. But this model requires your development team understands the tenets of mobile app development.

This session will first discuss the elements of good mobile design which is a critical foundation. Then we will drill down into the details of PWA so you understand how PWA can help your web-deployed applications. In addition, we will discuss some new Web frameworks and tools for enterprise use that you should be aware of.

Session 5

Machine Learning Exposed - The Fundamentals

James Weaver

Artificial Intelligence, specifically "Machine Learning" (ML) has become a powerful and effective tool for the enterprise. Its capabilities can be quite pervasive. However, many organizations still do not understand the basics of ML or how to apply or embed these ML techniques into our IT systems for the benefit of our businesses.

In this session, Mr. Weaver will give a gentle introduction to Machine Learning concepts such as supervised learning, unsupervised learning, reinforcement learning and deep learning. He will also give you an overview of what you can achieve with Machine Learning, as well as offer an intuition on the math behind these powerful techniques.

This session will start right at the beginning with the basics of Machine Learning, and build on that knowledge in an easy-to-understand, approachable way. After explaining the foundations of Machine Learning, Mr. Weaver will lead you into more advanced and interesting ML techniques. This approach will allow you to fully understand the advantages of Machine Learning to benefit your organizations.

Day Two

Session 6

What can go wrong with MicroServices

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. This session goes over the benefits, but more so the pitfalls, of using a Microservices-based architecture. What impact does it have on your organization, your applications, and dealing with scale and failures, and how do you prevent your landscape from becoming an unmaintainable nightmare.

Session 7
Blockchain for the Enterprise
Nick Meyne

Blockchain, or Distributed Ledger Technology, has been called "infrastructure that enables us to transact globally, between institutions, in real time"; "a distributed database you can trust"; and "a new organizing paradigm". A great deal of hype has continued to drive experimentation and speculative technology-investment by startups, governments and large corporate enterprises. Is this excitement justified? What are the design patterns and problems the technology might help to solve, or new business opportunities it might bring? What are the downsides and trade-offs to incorporate blockchain in your enterprise? Are there any stable, mature blockchain platforms available for mission-critical corporate use? If not, when would they be ready, and what could an Agile enterprise learn and do in the meantime? In this session Mr. Meyne will discuss these questions, some of the leading platforms and some private and public sector use case examples.

Session 8
Intelligent Routing and Management of Microservices
Ray Tsang

Microservices are here to stay. When applied proper-

ly, Microservices techniques and culture ultimately help us continuously improve business at a faster pace than traditional architecture. However, Microservices architecture itself can be complex to configure. All of a sudden, we are faced with the need for a service discovery server, how do we store service metadata, make decisions on whether to use client side load balancing or server side load balancing, deal with network resiliency, think how do we enforce service policies and audit, trace nested services calls... The list goes on.

Sure, it's easy to have a single stack that makes everything work provided there are good Microservices support - but what if you have a polyglot environment? How would you make sure all of the stack can address the same concerns in a consistent way? This is where a service mesh comes in.

In his talk, the speaker will introduce Istio, an open source service mesh framework created by Google, IBM, and Lyft. We'll see how the service mesh work, the technology behind it, and how it addresses aforementioned concerns.

Session 9
Ops and Security in a PaaS and Serverless World
Chris Swan

"With a monolith it's easy... you just pile a bunch of appliances in front of it" - Frank Chen (a16z.com). For many years we've had an audit paradox where built-in security is preferred over bolted-on solutions.

But bolt-ons are easier to audit. PaaS and serverless change this notion by building security directly into the platform - so each app can have security bolted in.

However this architecture causes a dramatic shift in our approach to configuration management and other aspects of IT operations. This session will take a deep look at the nature of this new philosophy and the necessary culture change critical for success.

Session 10

Ask Me Anything - Panel of Experts

Speakers

This is a highly informational session where all the Conference speakers discuss their thoughts on the state of enterprise IT, real-world best practices and where our industry is headed. Most importantly, it's a great opportunity for attendees to ask our expert speakers any specific questions regarding Serverless, Microservices, Best Practices for Container management, modern monitoring techniques, usage of Machine Learning in your company or any other enterprise IT topic. In past Conferences, this session has been highly rated by attendees due to its real-world perspective.

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.

James Weaver

He is a Java developer, author, and speaker with a passion for Cloud-native applications, Machine Learning, and quantum computing. He is a Java Champion, and a JavaOne Rockstar. Mr. Weaver has written books including Inside Java, Beginning J2EE, the Pro JavaFX series, and Java with Raspberry Pi. As a Pivotal Developer Advocate, James speaks internationally at software technology conferences. He tweets as @JavaFXpert, blogs at http://JavaFXpert.com and http://CulturedEar.com and may be reached at jweaver [at] pivotal.io

Nick Meyne

He is the founder of a 'new economy' consulting enterprise called the Social Market Technology Network (a digital, distributed business for some exciting and innovative change in trade, tax, public administration and welfare). He was previously a chief architect and technical strategist for Capgemini and was their UK public sector blockchain lead, exploring some innovative use-cases in loyalty and identity. Mr. Meyne has continued his interest in the development of 'distributed business' and platform thinking. He's a part-time advisor to startups and regular contributor at events.

REGISTRATION FORM

Once filled to be given to:
Technology Transfer
Piazza Cavour, 3 - 00193
Roma
Tel. 06-6832227
Fax 06-6871102
www.technologytransfer.it
info@technologytransfer.it

Who should Attend

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.

Chris Swan

HHe is CTO for the Global Delivery Organisation at DXC Technology, where he leads the shift towards design for operations across the offerings families, and the use of data to drive optimisation of customer transformation and service fulfilment. He was previously CTO for Global Infrastructure Services and General Manager for x86 and Distributed Compute at CSC. Before that he held CTO and Director of R&D roles at Cohesive Networks, UBS, Capital SCF and Credit Suisse, where he worked on app servers, compute grids, security, mobile, cloud, networking and containers.

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.

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
Agenzia 1 di Roma
Iban Code:
IT 03 W 06230 03202 000057031348

within April 30, 2018

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.

ROME

May 14-15 2018
Residenza di Ripetta
Via di Ripetta, 231

Registration fee
Euro 1500

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

International Conference 2018

first name_____

surname_____

job title_____

organisation_____

address_____

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city_____

country_____

telephone_____

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Stamp and signature

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