TECHNOLOGY TRANSFER PRESENTS

MAX DOLGICER

THE NEW INTEGRATION MANIFESTO
APPLICATIONS, DATA, CLOUD, MOBILE,
AND THE INTERNET OF THINGS

DECEMBER 10-11, 2015
RESIDENZA DI RIPETTA - VIA DI RIPETTA, 231
ROME (ITALY)
How to integrate applications and data stores in a predictable, consistent and repeatable fashion is a challenge that has remained among the top priorities of most CIOs. At the same time the new mega trends of Cloud, Mobile, Social, and Big Data have quickly become a reality in most enterprises. How do we connect our core systems to the extended ecosystem of Cloud, Mobile devices, business partners, external app developers and always connected end users? In a recent forecast, Gartner Group predicted a 33% increase in integration cost over the next few years.

Much of this cost increase is driven by the need for Cloud and Mobile integration. Legacy applications are migrated to the Cloud, or their business functions are replaced by SaaS, and new applications are purpose-built for the Cloud. Now we have applications and data residing in different Clouds and on-premise, and they have a multitude of interdependencies. Mobile apps often need to access and be synchronized with back-end applications.

Many companies are prone to fall into the trap of repeating the “Integration Spaghetti” of the 1990s. The integration technology landscape today is becoming increasingly more complex - companies face a wide variety of approaches and middleware platforms that could be utilized. We will look at data integration, a long standing staple for any company: what are the major use cases today and what functionality should you be looking for when selecting a tool. We will also look at application integration: how can we move legacy applications forward into a world of services and what middleware platforms can be used to integrate with the Cloud and across Clouds?

Leading companies have started to enable the extended ecosystem of Mobile apps and business partner systems on a global scale. APIs are rapidly becoming the glue that allows us to safely and efficiently connect our internal systems to the world. Gartner predicts that by the end of 2014 more than 75% of the Global 1000 enterprises will have implemented an API program - but how will they maximize the value of such an initiative?

We will present a case study and put everything we have learned together so that the attendees of the seminar can start formulating a comprehensive integration strategy for their company.

Benefits of attending

• Understand how to solve the integration challenges when enterprise applications are extended to Mobile
• Learn how to architect scalable Integration solutions that can be reused and how to integrate and reduce the complexity of your application portfolio
• Understand the major use cases for data integration and what functionality the leading technology platforms provide
• Learn how to integrate applications on-premise, in a Cloud, and across Clouds
• Distinguish between hype vs. reality so that you can use the right technology to solve the right problem in your organization.
• Learn how different Middleware technologies can be used to integrate mobile, on-premise and cloud applications
• See why Services Based Architecture is an efficient approach to facilitate application integration on a large scale
• Understand how to integrate the Internet of Things into your enterprise ecosystem and capitalize on its potential.

WHO SHOULD ATTEND

• IT Managers that need to understand the challenges and opportunities for integrating on-premise applications, Cloud-based systems and Mobile apps
• IT Architects who want to define architecture to facilitate successful integration projects
• IT professionals who need to see when and how different integration solutions can be applied
• Developers and IT Managers who want to obtain an overview of the different approaches to integration that are available today
• IT Managers and IT Strategists selecting new technologies
• IT Architects and Managers who need to develop an integration strategy for their company
• IT professionals looking for best practices to be applied in integration projects
• Consultants who need to recommend different strategies for implementing integration solutions
1. Integrating the Extended Enterprise

- The IT mega-trends that drive integration today
  - Cloud, Mobile, Big Data, Social
- The next frontier: The Internet of Things (IoT)
- The perpetual challenge: increasing business velocity
  - How can IT respond?
- The evolution of integration
  - The three major phases
  - Why each phase increases the degree of complexity
- How not to reproduce the “Integration Spaghetti” of the 1990s
  - Seven things you must know about integration
- Exercises for integrating the extended enterprise

2. The Integration Technology Landscape

- What are the Integration Technology choices today?
  - Portals – integration on the glass
  - Data level integration
  - Interface level integration
  - Service-based integration
  - Process level integration
  - Cloud integration
  - Mobile integration
  - IoT Integration
- Exercises for the integration technology landscape

3. Data Integration

- When to use Data Integration
  - Business Intelligence (BI)
  - Master Data Management (MDM)
  - Data conversion
  - Data synchronization
- Functionality to look for in a Data Integration Platform
  - Adapters
  - Movement of data
  - Data transformation
  - Data virtualization
  - Meta data & modeling
- Major Data Integration Platforms
- Exercises for Data Integration

4. Interface and Service-based Integration

- What problems do we need to solve?
  - Data transformation, routing, protocol switching etc.
- Architecture choices
  - Services, service layers, and Service Oriented Architecture (SOA)
- When to use Service-based Integration
- Architecture patterns: Multi step process vs. Composite Application
- Which standards can make interface and Service Integration more scalable?
- Exercises for Service-based Integration

5. Platforms for Interface and Service-based Integration

- What functionality to look for?
  - Enterprise Service Bus – a popular platform for Service-based Integration
- How do enterprises use Integration Platforms today?
- Product examples and Open Source
- Exercises for Integration Platforms
6. Integration Platform as a Service (iPaaS) and Hybrid Integration

- Evolution or revolution: what makes Cloud disruptive?
- IaaS, PaaS, SaaS – or something in between?
- What drives the need for Cloud integration
- Why do we need a new technology for Cloud integration?
- Integration Platform as a Service (iPaaS) defined
- iPaaS product examples
- Choices for Cloud integration architectures
- The rise of the Hybrid Integration platform
- Exercises for Cloud integration

7. Mobile Enterprise Apps

- Use cases for mobile applications
- Device native applications vs. mobile Web applications
- Requirements for integrating mobile apps with backend systems
- Connecting mobile apps to enterprise systems – a step by step walk-through
- Mobile Cloud Computing
  - Advantages, architectures, challenges
  - A comprehensive enterprise mobile integration architecture
- Exercises for mobile enterprise applications

8. Tools for Integrating Mobile Enterprise Apps

- Cross-platform solutions: Mobile Application Development Platform (MADP)
- Product example: IBM MobileFirst Platform
- Mobile Backend as a Service (MBaaS)
- DreamFactory – a mobile backend integration framework
- Exercises for mobile integration

9. The Next Frontier: Internet of Things (IoT)

- What is the Internet of Things (IoT)?
  - $14 Trillion “Value at Stake” – can you afford to miss it?
- Use case examples: Smart Cities, Usage Based Insurance
- Consumer vs. Industrial IoT
- IT (Information Technology) vs. OT (Operations Technology)
- Typical solution architectures
- Exercises for IoT

10. Enterprise IoT – The New Integration Challenge

- Why IoT integration is exponentially more complex
- Integration on the edges: Gateway topologies and fog computing
- IoT integration platform – yet another ESB?
- iPaaS for IoT
- Integrating IoT data – a semantic catalog of things?
- The Web vs. the Web of Things
- Exercises for integrating the IoT

11. Putting It All Together

- Real world case studies
- Developing an integration strategy for your company
- Approaches to leverage legacy systems
- Organizational impact of integration projects
- Exercises for developing an integration strategy
**INFORMATION**

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**VENUE**
Visconti Palace Hotel
Via di Ripetta, 231
Rome (Italy)

**SEMINAR TIMETABLE**
9.30 am - 1.00 pm
2.00 pm - 5.00 pm

**MAX DOLGICER**

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Rome (Italy)

Registration fee: € 1200

If registered participants are unable to attend, or in case of cancellation of the seminar, the general conditions mentioned before are applicable.
Max Dolgicer is an internationally recognized expert, Technical Director and Principal at International System Group, (ISG) Inc., a leading consulting firm that specializes in design, development and integration of large-scale distributed applications using leading edge Middleware technologies. Mr. Dolgicer is a contributing editor for Application Development Trends magazine and recognized speaker, instructor and lecturer. Mr. Dolgicer has more than 30 years of management and technical experience in development and support of Business applications, software products and systems internals. Mr. Dolgicer’s academic background includes a Master in Computer Science from Technion, Israel Institute of Technology.