



1-2 March 2016, One Great George St, London

Conference Programme

Welcome to Integrated EA 2016

Welcome to the ninth annual Integrated EA conference. I'm delighted to welcome our keynote speakers, Chris Ensor from CESG to kick off our first day on 'Architecting for Security' and Hadley Beeman, Digital Advisor to the Cabinet Office, who will be telling us about how the Government is changing how it approaches data on day two.

The last few years have seen huge cuts in Government spending and something of a backlash against enterprise architecture in social media channels. Not the greatest environment for a government EA conference to exist in, you'd think. However, I'd have to say that the last few years have seen some of our best conferences (and the feedback from delegates supports this). The number of UK Government attendees has also increased, with great support coming from the Ministry of Defence. I am convinced the content keeps getting better and better too, so what's all the fuss about EA on social media about? Nothing, mostly, it would seem. I think the practice of EA has now matured to the point where it's business as usual, and organisations have begun to learn it's a tool (amongst many others) you can use in improving the way your business works. Faced with savvy customers and a well understood discipline, there are a lot of people with nothing left to do but shout at each other on LinkedIn. Meanwhile, the rest of us get on with our day jobs.

So, I don't think EA is dead but I do reckon there are some challenges left to sort out though. EA lends itself towards large systems-integration and business change programmes. It seems less of a good fit for agile software development projects – especially ones where data is not clearly understood or often changes, something that we will be looking into at this year's conference. The other thing I still don't see EA tackling properly is enterprise security. We all understand that security is as much about the human factors as it is about physical and IT security – which should make it an ideal candidate for tackling in EA. More often than not though, we see security being left out of architectures to the last minute – i.e. it's "bolted on" rather than "baked-in". Our guest speakers from CESG and GDS will be talking about better ways of security architecture on day one.

Thanks go to our main sponsor, MEGA International and our exhibitors: Corso, Illumr, ODI and CESG, without you this event would not be possible.

I hope you enjoy this year's conference. I'm really looking forward to it.

Ian Bailey

Conference Chair and Managing Director, Model Futures



Conference information

I would like to welcome you to Integrated EA 2016. Please find below some logistical information to help you enjoy your time at the conference. If you have any questions please do not hesitate to ask Karan or myself at the registration desk.

We hope you enjoy your time at the conference please don't forget to complete your evaluation form and provide your honest feedback.

Penny Creed, Conference Manager

WIFI: Complimentary Wi-Fi is provided by the venue. Please look for **OneGreatGeorgeStreet**. No password is required.

Finding your way around:

- You will find a staffed cloakroom on the ground floor (behind the stairs)
- Lunch and all refreshments will be served in the Great Hall
- The drinks reception will take place in the Rotunda area (outside the Great Hall) at the end of day one. All day one attendees are welcome to attend.

Name Badges: All delegates must wear their name badges in order to gain access to the conference sessions.

Mobile devices: Please ensure all mobile devices are switched to silent or off during the conference sessions.

Personal possessions: Please do not leave any items in the theatre overnight. If you wish to leave items at the venue overnight please use the venue cloakroom. Items are left at the owner's risk.

Health and safety: The Fire Alarm is a two-tone klaxon (note, if you hear a single bell ring it is likely to be the Division Bell, calling members to Parliament to vote). On hearing the alarm you must evacuate immediately by the nearest fire exits. You should not stop to collect personal belongings and must not use the lifts. There is no test scheduled for the next two days.

Assembly Points are located at the corner of Little Great George Street corner and Parliament Square, Storey's Gate and Prince's Mews. You must remain in one of the assembly points until authority is given by the Incident Controller to return to the building.

Social Media: We welcome tweeters and interaction on other social media. Though please do respect the wishes of any speakers who request secrecy during their presentation. Our twitter handle is **@IntegratedEA**. Please use hashtag **#IEA16**.

Presentations: Presentations will be available for download from www.integrated-ea.com after the conference. Notification of when they have been uploaded and a password to access the presentations will be emailed to delegates in due course. Please note we will only be providing for download those presentations we have been given permission by the authors to publish.

Speaker biographies: Can be found on our website.

Questions: Questions will be taken at the end of each session. Please wait for a roving microphone and state your name and organisation before asking your question.

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Day 1 – Architecting for Security

09.30	<i>Registration and coffee</i>
10.30	Welcome by Ian Bailey , Managing Director, Model Futures
10.45	Keynote address: CESG and the NTA Research Chris Ensor , Deputy Director for National Technical Authority & Cyber Growth, CESG Richard Crowther , Lead Security Architect, CESG
11.25	Enabling a Secure Enterprise <ul style="list-style-type: none"> • Good security starts at Board level, it's not just about IT • Communication, the language and the way we discuss security • Effective risk trades and security decisions • EA relevant risk management principles to help navigate through the key aspects of security • The Sociotechnical Security Group and what you can expect to see coming from it Leader of the Engineering Processes & Assurance team, CESG
12.10	Agile Security <ul style="list-style-type: none"> • Agile methods of development and operation for more securely designed and operated systems • Are agile methodologies incompatible with traditional security governance and risk management structures? • How we can change the way we approach security to enable rapid development, changing requirements and yet produce a system that is more secure Michael Brunton-Spall , Technical Architect. The Government Digital Service
12.45	<i>Lunch</i>
13.45	Panel Session – Can we balance agility and security? Ian Bailey , Managing Director, Model Futures (moderator)
14.30	Innovation & Enterprise Architecture Martin Owen , CEO & Co-Founder, Corso
14.50	<i>Tea and coffee</i>

15.05	<p>Advanced Enterprise Architectures for Autonomous UAV Traffic Management</p> <ul style="list-style-type: none"> • A study into advanced enterprise architectures for Unmanned Aerial Vehicles (UAV) traffic management. • The sheer numbers of UAVs, including autonomous vehicles, will force a paradigm shift for Air Traffic Management (ATM) requiring new enterprise architectures • Why current human-centric ATM will not work and the need for highly-automated distributed solutions • Using a holistic Enterprise Architecture approach, including quantitative assessment • Cyber/Data/Physical Security and Safety are important factors <p>Steve Winter, Engineering Fellow, Raytheon Company</p>
15.40	<p>Architecting for Security</p> <ul style="list-style-type: none"> • Why risk-driven enterprise architecture methods and models are improving security in architecture layers • How enterprise security depends in general on these enterprise architecture security improvements while overall enterprise security depends on security from new and emerging threat sources (e.g., cyber-security, weather, terrorism, and infectious disease) • Why risk-driven methods of enterprise architects are positively positioned to play a greater role increasing overall enterprise security <p>Dr. Edward J. Glantz, P.E., Senior Lecturer, The Pennsylvania State University, College of Information Sciences and Technology</p>
16.15	<i>Refreshment break</i>
16.45	<p>Illumr lightening pitch</p> <p>Jason Lee, Founder & CEO, illumr</p>
16.55	<p>Building Blocks, Taxonomies and Hackathons – MOD’s engagement with NATO Architecture</p> <ul style="list-style-type: none"> • NATO EA Policy • What is the latest regarding the journey to NAF v4 • NATO C3 Service Taxonomy and NSOIT/DAAP • How MOD and NATO are using NAF v4 to develop Architecture Building Blocks • How NATO is using an architectural approach to join up data sources <p>Kevin Walls, Chief Architect, MOD</p>
17.40	<i>Drinks reception</i>

Day 2 – Data Architecture

08.30	<i>Registration and coffee</i>
09.00	Welcome by Ian Bailey , Managing Director, Model Futures
09.05	<p>Keynote address: Changing how we approach data</p> <ul style="list-style-type: none"> • Registers: How we are getting our own data in shape • The Data Finds Project • How we are joining up policy and delivery action <p>Hadley Beeman, Digital Advisor to the Cabinet Office</p>
09.45	<p>Everything as code - Infrastructure, networking, specification, testing, security policies</p> <ul style="list-style-type: none"> • Examples of some of the tools in use today to describe everything in code; from software defined networking to infrastructure as code via behaviour driven development • The importance of insisting on APIs from vendors to take full advantage of software defined everything • The benefits of using code when it comes to change control processes, and the knock on effect that makes drastically faster change possible • How declarative languages, data centric programming and domain specific languages are lowering the barrier to entry for non-software-developers to code • The sharp edges of all that code; what does that mean for the skills and teams required to manage a modern stack, and what areas do not lend themselves to being described purely in software <p>Gareth Rushgrove, Senior Software Engineer, Puppet Labs</p>
10.25	<p>The Role EA in a Digital Transformation</p> <ul style="list-style-type: none"> • Delivering a digital business <ul style="list-style-type: none"> – Context of change – Challenges to change • Scope of change <ul style="list-style-type: none"> – Re-architecting IT – People and operations models – Measuring the journey <p>Chris Boyd, Director for Digital Architecture and Transformation, Telefonica</p>
11.05	<i>Tea and Coffee</i>

11.35	<p>European ATM Architecture – “The Human Factor”</p> <ul style="list-style-type: none"> • The use of Enterprise Architecture techniques to identify business transformations required to deliver performance improvements • The identification and definition of options for change dependent upon business and operational environmental considerations • Assuring that the business transformations defined by the SESAR programme maintain and enhance the security aspects of Air Traffic Management. • The definition of Solution Architectures for the options clearly based upon the required changes in Human behaviour supported by technological change <p>Tony Vaudrey, <i>Head of International Architecture, NATS</i></p> <p>Allen Clarke, <i>Enterprise Architect, International Architecture, NATS</i></p>
12.15	<p>Model Driven Requirements Engineering</p> <ul style="list-style-type: none"> • Implementing a model driven approach to requirements engineering to solve some of the problems associated with requirements engineering. • Visual representation of the requirements in a rooted tree to help stakeholders in multiple ways. • How modelling of the requirements as a rooted tree increases the quality of requirements engineering. • As this approach is embedded in NAF, it is possible to document the impact of requirements on the system architecture. <p>Patrick Salm, <i>IT-Architect, RUAG Defence</i></p> <p>Martin Krähenbühl, <i>IT-Architect, RUAG Defence</i></p>
12.50	<p style="text-align: center;"><i>Lunch</i></p>
13.50	<p>Architecting Business is the Key Mission for Vanguard EA</p> <ul style="list-style-type: none"> • Why enterprise architecture must become engrained in the essential process of architecting business • The confusion about what EA is and what it does and why the discipline has remained too insular and disaggregated • Why EA must become integrated with strategic planning, strategic business architecture, capital planning, and enterprise portfolio management • Penetrating business transformation initiatives with better design thinking and a better beacon for systems engineering – Why EA is not just for Enterprise Architects, but for all CxOs and business leaders, directors, and managers • Proving EA is essential for Architecting Business - The key for Vanguard EA success <p>Dr. Steve Else, <i>Founder and CEO, EA Principals</i></p>

14.25	<p>Transitioning from UPDM to the Unified Architecture Framework</p> <ul style="list-style-type: none"> • Integrating MODAF, DoDAF and NAF • Why is UPDM useful? • Human Views, Security Views and other extensions. • Why a Unified Architecture Framework? <p><i>Aurelijus Morkevicius, Head of Solutions Department, No Magic Europe</i></p> <p><i>Graham Bleakley, Solution Architect, Unleash the Labs, IBM Rational Software</i></p>
15.00	Tea and coffee
15.20	<p>Panel Session – Does EA have a future?</p> <p><i>Ian Bailey, Managing Director, Model Futures (moderator)</i></p> <p><i>Tom Graves, Principal Consultant, Tetradian</i></p> <p><i>Kim Holm, Commander, Danish Defence It Agency</i></p> <p><i>Adam Jeffries, Account Manager, MEGA International</i></p> <p><i>Kevin Wallis, Chief Architect, MOD</i></p>
15.55	<p>The Tom Graves Yard Slot: Disintegrated-EA? - how to fight against fragmentation</p> <ul style="list-style-type: none"> • How an integrated enterprise-architecture supports the aim that “things work better when they work together, on purpose” • The huge pressures against integration, across all aspects of the enterprise, and at every level • Identifying, challenging and mitigating forces of fragmentation to help the enterprise work well • Every key aspects of an integrated EA begins and ends with people <p><i>Tom Graves, Principal Consultant, Tetradian</i></p>
16.30	Chair’s closing remarks
16.40	Close