



Managing Performance Risks in Service Oriented Architectures (SOA)

24–25 March 2009

Presenters: Mr Paul Brebner and Dr Liam O'Brien

NICTA CRL, 7 London Circuit, Canberra, ACT

The course will be conducted from 9.00am to 5.00pm. Morning tea will be available at approximately 10.00am to 10.30am, lunch from 12.30pm to 1.30pm and afternoon tea at approximately 3.00pm to 3.30pm.

Format:

- **Day 1: technology overview, level: Intermediate;**
- **Day 2: practical class, level: Advanced.**

Registration Fee:

- **1 day: AU\$770** (incl. GST)
- **2 days: AU\$1320** (incl. GST)

Group and PhD student discounts available. Please enquire.

How to Register

To register fill out the registration form (overleaf) and

- fax it to +61-8-8302-3115
- or
- scan and email it to industryeducation@nicta.com.au

Cancellation Policy

At least **4 weeks** notice is required for cancellation of a place in a course for full reimbursement. If cancellation is later than 4 weeks then the place can either be given to another person or the registrant can be provided with a credit towards other NICTA training.

For details of further courses please see our web site: www.nicta.com.au/short_courses or contact NICTA Industry Education Manager.

About this Course

Can you afford to have your core enterprise systems meltdown under load? SOA technology is widely promoted as a fundamental software infrastructure used in the creation of agile, scalable, robust, flexible, and adaptable enterprise systems. SOA is supposed to leverage business value from legacy systems, facilitate re-use, and reduce costs of total lifetime ownership. But... how do you know if your new SOA implementation will perform adequately with your current business loads, and will it scale-up and cope with growing future business loads? Established technologies for performance analysis and system load testing do not work well when faced with complex, distributed, heterogeneous compositions of software services sourced from many different vendors and geographical locations. This NICTA course presents a novel approach, based on Service Oriented Performance Modelling, to understanding and managing performance-related risks in an SOA environment.

Target Audience: Program Managers, Enterprise Architects, Developers, Testers.

Brief Course Outline

Day 1 is intended for program managers and enterprise architects who are responsible for the development and deployment of SOA initiatives in their organisation. This course component provides a comprehensive overview of the business risks associated with major SOA projects. It emphasises the importance of early management and thorough analysis of critical performance attributes such as scalability, reliability, availability, and maintenance of SOA implementations. Day 1 provides an introduction to a performance modelling and simulation technology used to predict, analyse, and configure SOA implementations. Example performance models of enterprise SOA's will be presented, and simulations of system behaviour will be demonstrated. Using the predicted performance results from these simulations, the application and benefits derived from this technology at both project and enterprise levels of an organisation, are explained. Course participants have an opportunity to gain hands-on experience with the example performance models and run demonstrations on their laptops.

Day 2 provides further practical experience with the performance modelling and simulation technology introduced in Day 1. Course participants will be instructed in the techniques of constructing and calibrating performance models, and learn how to build predictive models of realistic SOA implementations. The simulation tools allow performance issues to be identified and analysed in the SOA implementation under varying business loads. Response times and throughputs can be explored under extreme loads and system "meltdown" scenarios can be identified. Using this information, the implementations can be re-architected to optimise performance, and system capacity can be determined. Participants will also learn how the SOA modelling technology can be applied to non-SOA implementations.

Pre-requisite: For Day 1 attendance, equipment is not essential, however, it is required by those participants who want to run demonstrations on their own laptop. Course participants who continue with the practical components of Day 2 will require a laptop running MS-Windows (XP or Vista). The instructors will install a demonstration copy of the modelling and simulation tools onto this laptop for completion of the practical exercises.

Assumed Knowledge: For Day 1, course participants are likely to have some years of experience in IT development and IT project management, but the background knowledge is not specific to any particular vendor technology. Some familiarity with basic SOA concepts is an advantage. The practical activities in Day 2 assume that participants have significant career experience in software development, software architectures, and/or system testing.

More Information about the Course

Please visit [the course web page](#) for more information on the course outcomes, topics covered in the course and presenters' biographies.

About NICTA and Short Course Program

National ICT Australia (NICTA) is Australia's ICT Centre of Excellence and was established to drive innovation through high quality research, research training and technology transfer. As a world-class research institute NICTA uniquely combines excellence in research, education, commercialisation and collaboration. We are working to ensure that Australia is well placed to benefit from the significant opportunities that ICT research delivers.

NICTA is funded by the Australian Government as represented by the Department of Communications, Information Technology and the Arts and the Australian Research Council through *Backing Australia's Ability* and the ICT Centre of Excellence program. NICTA members are the Australian Capital Territory Government, the New South Wales Government, the University of New South Wales and the Australian National University.

NICTA short courses offer scientists, engineers and managers technical training with a leading edge in areas such as telecommunications, transport, security, defence, logistics, e-government, mining, finance and biotechnology.

There will be ample opportunities for discussion and questions and answers. Morning and afternoon tea/coffee and a light lunch will be provided. Extensive workshop materials will be made available to participants.

How to register

Please complete the registration form below and

- Fax it to +61-8-8302-3115 or
- Scan and email it to industryeducation@nicta.com.au

Send the form as soon as possible to secure your place.

For further information please contact
Anne-Marie Eliseo
Industry Education Manager
Telephone: +61-8-8302-3928
Email: anne-marie.eliseo@nicta.com.au

Registration Form and Tax Invoice* ABN 62 102 206 173

*Upon completion of this form, including the relevant payment, this form will become a Tax Invoice.

Please register me for Managing Performance Risks in Service Oriented Architectures (SOA) on 24-25 March 2009.

PLEASE PRINT

Date: _____

Title: _____ First Name: _____ Surname: _____

Position: _____ Organisation/Division: _____

Postal Address: _____

Telephone No: _____ Facsimile No: _____ Email: _____

Dietary preference: _____

Course Fees: 2-days: AU\$1320 (incl. GST)
(Register before **Mar 10th, 2009.**)

1-day: AU\$770 (incl. GST)
(Register before **Mar 10th, 2009.**)

Method of Payment (please tick below):

Cheque (payable to National ICT Australia Ltd)

Forward the cheque and a copy of THIS registration form to:

Anne-Marie Eliseo, Industry Education Manager, NICTA, SPRI Bld, Mawson Lakes Boulevard, Mawson Lakes SA 5095, Australia.

Credit Card: Credit Card No.: _____ Expiry Date: _____

Visa Master Card Name on card: _____

Amount: AU\$ _____ Signature: _____ Tick if receipt required

Email address of card holder: _____

Electronic Funds Transfer

Please advise by email to Annette Van Bramer
annette.vanbramer@nicta.com.au
when payment is made

BANK	Commonwealth Bank of Australia
ACCOUNT NAME	National ICT Australia Limited
BSB	062 900
ACCOUNT NUMBER	1032 4576
REFERENCE NUMBER	240309

FAX the form to +61-8-8302 3115 or EMAIL it to industryeducation@nicta.com.au

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You can use the following options to access or remove your personal information from NICTA's databases, make a complaint about a breach of privacy or if you have a query relating to NICTA's privacy practices and policies:

- Send an email to comments@nicta.com.au or
- Phone NICTA's Industry Education Manager on +61 8 8302 3928.