

# Real-time and Embedded Systems Forum San Francisco Agenda 4-6 February 2003

## Security for Real-time A two day session 4-5 February 2003

- This will be a continuation of work on Protection Profiles started at a previous meeting (14 November 02).
- The Security for RT session starts Tuesday afternoon and continues on Wednesday.
- This is a large group with participants from RTOS vendors (including Linux with RT), systems integrators, middleware providers, and users.

**Tuesday February 4, 2003, 1330--2100 Hours\*\***

**Security for RT – Sam Bowser**

**\*\* Joint Participation by the [Security Forum](#)**

- 1330-1345 **Introduction** - Sam Bowser (Aerospace Corp)
- 1345-1530 **Protection Profile Review (Part 1)** - Michael McEvilley (Decisive Analytics)
- 1530-1545 **Break**
- 1545-1700 **Protection Profile Review (Part 2)** - Michael McEvilley (Decisive Analytics)
- 1700-1730 **Security in a Distributed RT Environment** - Bill Beckwith (OIS)
- 1730-1800 **Achieving EAL 7** - Joe Wlad (Wind River)
- 1800-1830 **Security Profile for Industrial RT (EAL 4)** - Victor Yodaiken (FMS Labs)
- 1830-1930 **Break Dinner**
- 1930-2100 **PP Approach – Layered vs. Systems (Part 1)** - Sam Bowser et al.

**Wednesday February 5, 2003, 0930 -1730 Hours**

**Security for RT (Cont'd) – Sam Bowser**

- 0930-1045 **PP Approach - Layered vs. System (Part 2)** - Sam Bowser et al.
- 1045-1100 **Break**
- 1100-1230 **Extending the PP from EAL 7 to EAL 4** - Michael McEvilley (Decisive Analytics)
- 1230-1330 **Lunch**
- 1330-1730 **The Way Forward** - Sam Bowser et al.

# Open Architecture for Real-time and Embedded Systems

**Wednesday February 5, 2003, 1000-1800 Hours**

The aim of this session is to start a working group using the US Navy approach to Open Architecture for RT Environments as a basis for going forward.

## **Introduction**

1000- 1015 - LtCol Glen Logan (OSD/OSJTF).

1015-11130 **Introduction to Open Architecture for RT** - Doug Locke (TimeSys)

1130-1230 **Open Toolkit for Mission Critical Applications**  
- Doug Wells (The Open Group)

1230-1330 **Lunch**

1330-1430 **US Navy Open Architecture** - Dave Marlow (US Navy NSWC)

1430-1530 **Industry Approach to OA #1**  
**Systems Integrator** - TBA

1530-1630 **Industry Approach to OA #2**  
**Systems Integrator** - TBA

1630-1800 **The Way Forward** - LtCol Glen Logan (OSD/OSJTF)

# **“QoS/Real-time Aggregated Systems Challenge”**

**Thursday, February 4, 2003, 0900-1030 Hours  
Joint Session QoS/Real-time**

**Open to Members Only**

**Thursday – (9:00 – 10:30) Joint Session -- Real-Time and QoS to Gather Requirements for the "QoS/Real-Time Aggregated Systems Challenge"**

**This session is Joint with the QoS Task Force**

Today's businesses are forming complex multi-partner commercial arrangements which involve some level of integration of their computing systems; at the same time governments are building "systems of systems" to integrate legacy applications with new capabilities. We see an increasing trend towards the aggregation of disparate systems, and their applications. The result is the complex integration of independently developed computing systems to create new capabilities; we call this Aggregation of Systems.

One effect of aggregation is that network traffic becomes unpredictable as application data patterns interfere with one another; applications that ran successfully on a LAN experience failures in an aggregated system. A second effect is that Quality of Service parameters are lost when a request transits from one infrastructure to another. In many cases it is impossible to determine if the system will be able to meet end-to-end QoS needs. This is especially serious for applications that have end-to-end timeliness requirements.

In other words, we do not know how to build these systems so that we know they will work! That is the reason for the Aggregate Systems Challenge and this Requirements Gathering Session for that Challenge.

# **RT Java for Mission and Safety Critical Applications**

**Thursday February 6, 2003, 1030-1900 Hours**

This session is looking to formalize a RT Java Expert Group for Mission and Safety Critical applications to develop a specification for this version of RT Java. This effort is being championed by Boeing et al. The expectation is that the work will be open source and royalty-free.

There will be a discussion and presentation on the required resources to accomplish this effort.

- 1030-1100    **Introduction/Update** - Robert Allen (Boeing)
- 1100-1145    **Project Hawk – A Partnership Proposal** - Kelvin Nilsen (NewMonics Inc.)
- 1145-1230    **JPL Update** - Eddie Benowitz (JPL)
- 1230-1330    **Lunch**
- 1330-1415    **FAA & Java** - John Chilenski (Boeing)
- 1415-1500    **Distributed Java Update** - Doug Jensen (Mitre)
- 1500-1545    **Open Toolkit for RT Java & Networking** - Doug Wells (The Open Group)
- 1545-1600    **Break**
- 1600-1900    **Proposed JSR Terms & Conditions, JSR for Mission/Mission Critical, Develop schedule** - Robert Allen et al.