

## **Modular Multifunction Information Transfer System (MMITS) Forum March 17, 18, 19 1998**

The ninth Modular Multifunction Information Transfer System Forum general meeting was held on March 17, 18, 19 1998 at the Mission Palms Hotel in Tempe AZ, sponsored by Motorola SSTG.

### **March 17, 1998**

Pete Cook, Forum Vice-chair, opened the meeting at 8:30 AM with an overview of the meeting agenda. He read the anti-trust statement prepared by the Forum's legal counsel and asked if the participants had any knowledge of patents which are essential to the standards being developed; there were no affirmative responses.

Shinichiro Haruyama reported on plans and the agenda for the workshop to be held held at Keio University in Japan on April 1.

### **Committee Reports**

Chris Mangum presented the Markets Committee's schedule for releasing the market demand survey.

Allan Margulies discussed the Operations Committee support for the workshop in Japan and asked for volunteers to prepare a paper for MilCom '98.

Mark Cummings talked about the Technical Committee's activities and then described a presentation on support for software radios that had been given at the Wireless Communication Alliance meeting. he then had subcommittee reports by Steve Heath and Pete Cook.

Pete Cook described the MMITS API Definition (MAD) process. This is an attempt to develop an automated process to define and validate interface standards using a formal descriptive language.

Steve Heath presented the first API implementation developed by the Technical Committee. This API for the switcher module, which controls modes in a multimode radio, is an abstract definition of a function; it is a description of how information flows from one module to another. The API is not necessarily a description of a software function-it could be hardware in one implementation and software in another.

The API presented allows for expansion in the same way that H.320 video teleconference protocols permit a capabilities-exchange dialog between elements. And, while it currently resembles a message passing protocol, that could change in the future.

He then gave a detailed description of a power-on sequence and choice-of-service process.

The plenary session recessed at 10:30 for committee meetings.

### **March 17, afternoon**

Mark Lewis described the GloMo radio API, which is similar to those postulated for the MMITS technical architecture, but is intended for the interface between the radio and external applications. The GloMo effort will next consider the interface between a radio and antenna.

Martin Swinburne presented a detailed discussion of the software download process included in version 1.1 of the Technical Report.

The plenary session recessed for committee meetings.

### **March 18, 1998**

The meeting opened at 8:10 AM

Chris Mangum and Mark Cummings reviewed yesterday's activities for the Markets and Technical Committees, respectively.

Dawn Szelc presented the history of the US Department of Defense's Programmable Modular Communications System (PMCS) and its evolution into the Joint Tactical Radio System (JTRS) program. She also talked about the initial study efforts as well the JTRS program offices intent to form an industry consortium to refine the planned radio architecture.

Stephen Blust provided a briefing on IMT-200 describing it as meeting the Third Generation vision of one or more radio links to a wide range of telecommunications services. The MMIT Forum activities relate to the ITU process insofar as the Forum can submit contributions, but the timeframe is short and the Forum will have to provide more detail than is currently in the technical report.

The plenary session recessed at 9:35 for committee meetings, including a breakout session on the GloMo API.

### **March 18, Afternoon 1:30**

As part of a continuing discussion of the API definition process, there were three presentations on formal definition languages:

Pete Cook described the Interface Design Language (IDL) as a formal language to describe architectures; it is the standard definition language of the CORBA Object Modeling Group, and there are cross-compilers available for other languages.

Mika Nuotio described the System Description Language (SDL) which is an ITU standard whose use is encouraged by ETSI.

And Hans Norlander described the Unified Modeling Language (UML) as a formal language to describe architectures; it has been submitted to OMG for approval. It complements IDL for interfaces and API descriptions, but it also looks at different views and types of diagrams to ensure that designs are complete and consistent and it verifies architectural integrity.

The plenary was recessed at 3:00 for committee meetings

### **March 19, 1998**

The meeting opened at 11:30 AM

The final session of the meeting was devoted to committee reports.

Larry Williams talked about the progress reconciling the GloMo and MMITS API descriptions saying that 80% of the APIs are common and the remainder can be accommodated. Craig Winters discussed the relationship of IDL/UML/SDL for API definition, then Martin Swinburne discussed seven message sets that will be necessary for software download processing, There will be a follow-on meeting to discuss the GloMo API issue on April

22-23. There will also be a Technical Committee meeting in England on May 5-8 to discuss formal languages for API definition, and there will be another meeting in June in Ft Wayne.

Chris Mangum presented a summary of the Markets Committee's progress with a description of the market demand studies being conducted by the Sloan School of MIT and by the State University of New York.

Mr. Blust announced that the next meeting will be held in San Francisco on May 19, 20, and 21, 1998.

The meeting adjourned at 12:30 PM