FIPA	97/04/15 22:27
FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS	Reston
Source: Board of Directors	fipa7402

Resolutions of Reston meeting

1. FIPA notes the report of the Board of Directors concerning

   1. the appointment of Prof. Mamdani as Technical Advisor to the Board

   2. the possibility for new members joining FIPA for the July '97 - June '98 period to attend the June '97 meeting.

   3. the public statement agreed by representatives of the FIPA and The Agent Society Boards (FIPA7418).

2. FIPA acknowledges the submissions in response to its 1st Call for Proposals and comments to the baseline draft specification produced in Torino (FIPA7403) and thanks contributors for their support to the development of FIPA 97 specification.

3. FIPA establishes 4 application oriented Technical Committees with Terms of Reference given in FIPA7408 and appoints the Chairmen as indicated below:

Title	Chairman	Affiliation	Country
Personal travel assistance	Manuel Aparicio	IBM	US
Personal assistant	Paul Kearney(*)	Sharp	UK
Audio-visual entertainment and broadcasting	Key-Sun Choi	KAIST	KR
Network management and provisioning	Jaap Mooij	KPN	NL

(*) Appointment to be confirmed after completion by employer of formalities to join FIPA.

4. Resolutions of Technical Committees

4.1 Agent management

4.1.1 Approval of FIPA7411 that takes into account

- clarifications of FIPA7111

- all comments and responses to the second call for proposals

- material on migration facilities for managing mobile agents (I)

- draft for ADL (N)

- separation of DF into ANS & DF (N)

- initial draft using ACL for domain registration (N)

4.1.2 Approval of the following workplan

- to review and incorporate existing work and standards relevant to agent management.

- to progress work in 5 key areas of agent management before next meeting. These will be championed by a TC1 member :

Agent Naming Scheme (Tianning Zhang)

ACC/ANS/Message Routing (Tetuya Hashimoto)

Agent Management Security (Paul O'Brien)

DF/Inter-domain search (Paul Kearny)

Agent Management System (Jaap Mooij)

- to incorporate the results of the working groups into a version of FIPA7411 as submission to TC1 at the Korea meeting.

- to liase with TC3 in clarifying the distinction between agent management (TC2) and software management (TC3).

- to review FIPA7413 and agree a joint proposal (via email reflector) wih TC3 by the next meeting.

4.2 Agent Communication TC

4.2.1 To confirm the technical content of FIPA7112 (interaction based on primitive communicative acts with a formal semantics) as being useful and desirable.

4.2.2 To revise the presentation of FIPA7112 in order to:

- Make clear the distinction between normative and informative, in particular between the model of agent communication and the incorporation of a given theory of agency in the agent implementation.

- Make the intended use of the primitive communicative acts more understandable to the agent developer.

- Suggest a set of composite communicative acts to be defined in ACL.

- Suggest a set of interaction protocols useful for the FIPA'97 target application areas.

- Incorporate basic requirements on a content language to be used in ACL.

- Facilitate the use of ACL by KQML-based agents, in particular, with respect to message syntax and base performatives, and by suggesting the mapping from an adapted subset of the KQML performatives to ACL.

4.2.3 Approval of FIPA7412 which incorporates these revisions as FIPA 1st Draft Specification, Revision 0.2, FIPA Document.

4.2.4 To agree that specification of FIPA compliance (in particular, specific levels of agents/agenthood) will not be treated in FIPA'97.

4.2.5 To agree that Agent/Human Interaction will not be treated in FIPA'97. However, it will be considered in future work. The FIPA ACL may provide a relevant basis for this area.

4.2.6 To approve the following program of work in order to progress towards the FIPA'97 specification:

- Formally describe the chosen composite communicative acts, interaction protocols and the KQML subset, at a separate TC meeting to be held before Cheju. Invitation and results will be sent to the e-mail reflector.

- Re-assess the (informative) formal semantics of the communicative acts.

- Consider the issue of suggesting a content language.

- Continue discussions on the e-mail reflector.

4.3 Agent/Software Interaction TC

4.3.1 Approval of FIPA7413 with

- Revision of the Agent / Software interaction scenario to broader types of interaction and also to align with the draft standards emerging from TC1 such as Agent Resource Broker (ARB).

- Elimination in FIPA'97 of the distinction between internal and external software systems. For FIPA'97 only the attachment of external software systems are considered.

- Introduction of a distinction between common software resource of an agent domain as represented by the Agent Resource Broker (ARB) and independently controlled external software systems.

- Specification that the interaction (as represented by the reference model and management, connection and wrapper sets of communicative acts) with the ARB is normative.

- Identification of the need for the ARB to support a taxonomy of software systems. To this end we have identified a mandatory minimal software description which all registered software systems must support.

- Introduction of three new communicative acts to allow agents to add, modify and remove *software type definitions*, these are in addition to the existing management-related communicative acts which allow agents to add, modify and remove *software descriptions*.

- Re-definition of the connection at the agent-boundary level to external software to the informative section of the specification in line with points 2 and 3 above. This section describes the Agent Software Interface which suggests re-using the brokering methods introduced in the normative section for the purpose of interacting with independent external software. This is merely suggestive.

4.3.2 Approval of the following program of work

- Refinement of the normative Content Language to be used by agents to register wrappers in the ARB.

- Refinement of the normative Content Language to be used by agents to access the ARB in order to locate software systems.

- Insertion of Conformance Requirements on the use of this specification, in particular the definition and use of wrappers, ARB and agents with regard to ARB interaction.

- Further alignment of the specification with TC1.

4.3.3 .Issue a Request for Information and Input on the following topics:

- Common software taxonomy and management of distributed taxonomies.

- Security issues involved in moving from agent-level security to software-level security.

- Investigation as to the possible advantages or disadvantages of registering specialised agent-domain entities, for example the ANS, as software objects in the ARB.

4.4 Personal travel assistance

4.4.1 Approval of FIPA7414

4.4.2 Approval of FIPA7404

4.4.3 Collaboration with all other Application TC on common syntax and style.

4.5 Personal assistant

4.5.1 Approval of Version 1 of informative specification of Personal Assistant application based on meeting arrangement scenario (FIPA 7415)

4.5.2 Approval of outline field trial specification (FIPA 7405)

4.5.3 Approval of the following program of work

- invite comments and questions regarding specification

- set up e-mail list to facilitate further discussion of application and specification

- corrections and minor modifications to be incorporated in specification within 2 weeks

- revise specification document at next FIPA meeting (Korea)

4.6 Audio-visual entertainment and broadcasting

4.6.1 Approval of FIPA7416

4.6.2 Approval of FIPA7406

4.7 Network management and provisioning

4.7.1 to agree to define an application in the field of Network Management and Provisioning, using the available FIPA standards. This application will be legitimate, in the sense that it will

use realistic scenarios, and will exploit the advantages of agent technology over more traditional solutions. The results of this work will be used to clarify and provide feedback on FIPA standards, and to motivate future field trials.

4.7.2 to establish a TC7 e-mail reflector, which will be used for discussion between FIPA meetings.

4.7.3 to encourage FIPA members and funding bodies to support and promote field trials in the Network Management & Provisioning domain, making use of the FIPA standards.

5. Resolution of SIG Standardisation

5.1 FIPA should track the following initiatives relevant to its activity

- OMG:
  Mobile Agent Facility
  Rule Management Facility

- Agents Society:
  Agent Interop Working Group

- ECMA/JAVA

- IETF/electronic commerce

- ISO/ODP

- JTC1/JAVA

Of these initiatives, OMG's Mobile Agent Facility and the Agents Society seem to be particularly relevant for FIPA. OMG's MAF intends to standardise mechanisms supporting mobility of agents and therefore could provide input for TC1.

The Agent Society has a similar objective to FIPA (promotion of agent technology) but has chosen an altogether different approach as shown by FIPA7418. The Society's approach is mostly to advertise agent technology and to disseminate useful information and results. In this sense the Agent Society could provide a useful tool for dissemination of FIPA's standards.

There is not enough information available about ECMA and IETF's activities in this field. More information should be collected. The other activities are not seen as important right now.

5.2 FIPA should have a proactive role in advertising its role and work, such as

- Produce a flyer for distribution at conferences etc.

- Collaborate with a good-quality conference/workshop end '97/beginning '98 to set up a session or panel to present and discuss FIPA '97 results.

- Make mention of FIPA at all relevant conferences/workshops/etc.

5.3 Tianning Zhang will track OMG Mobile Agent Facility and make public results available to TC1

5.4 Manny Aparicio will track the Agent Society and FIPA and make suggestions for when and how FIPA could be presented to the Agent Society

5.5 Hugo Velthuijsen will collect more information about the ECMA/JAVA initiative

5.6 Paul O'Brien will collect more information about the IETF/electronic commerce initiative

5.7 Leonardo Chiariglione will discuss idea of a flyer within the board of FIPA

5.8 Hugo Velthuijsen will create a list of future conferences/workshops/etc. and the who, what, and how of advertising of FIPA at these events

6. FIPA approves the draft FIPA '97 specification ver. 1.0, parts 1, to 7 (FIPA7411 to FIPA7417, respectively). The documents are for public release and will be posted on the FIPA home page. Comments to the documents are invited from members and non-members. Comments have to be received in electronic form (word or html format, the latter preferred) by 16 June 1997 and posted on the FIPA home page for access by members only. Non members making substantial comments to the documents will be invited to attend the next meeting.

7. FIPA approves the first drafts of specifications of field trials for 3 application areas (FIPA7404 FIPA7405 and FIPA7406). Field trials are expected to be carried out in mid-'98.

8. Eight ad-hoc groups are established to discuss matters related to the FIPA '97 specification parts and the SIG. Task of these groups is to produce proposals of revised drafts at the next meeting and further suggestions of initiatives in the area of standardisation:

ahg#	Chair	email address	reflector address
ahg1	P. O'Brien	obrienpd@info.bt.co.uk	fipa.man@info.bt.co.uk
ahg2	D. Steiner	Donald.Steiner@mchp.siemens.de	agent-comm@mlist.siemens.de
ahg3	Y. Kim	kimyb@strl.nhk.or.jp	fipa-tc3@kim.cselt.it
ahg4	A. Léger	alain.leger@ccett.fr	FIPA-PTA@ccett.fr
ahg5	P. Kearney	paul.kearney@sharp.co.uk	fipa-tc5@sharp.co.uk
ahg6	K. Choi	jspark@world.kaist.ac.kr	fipa-aveb@kibs.kaist.ac.kr
ahg7	J. Mooij	j.mooij@research.kpn.com	fipa-tc7@kim.cselt.it
ahg8	H. Velthuijsen	H.Velthuijsen@research.kpn.com	fipa-sig-stand@research.kpn.com

Those interested to join an ad-hoc group should send an e-mail to the relevant chairman.

9. FIPA notes its internal organisation (FIPA7408).

10. FIPA approves its workplan

Work items	Action	Year	Month	Days	Place
1st	FIPA 97 ver 1.0 produced All technical issues settled Plan for 1998 trials produced	1997	Apr	14-18	Reston

1st	FIPA 97 ver 2.0 produced	1997	Jul	23-27	Cheju Is.
1st 2nd	FIPA 97 Specification produced Call for Proposals issued	1997	Oct	06-10	Munich
2nd	Proposals received Baseline draft spec produced	1998	Jan		America
2nd	1st draft spec produced	1998	Apr		Asia
2nd	2nd draft spec produced	1998	Jul		Europe
2nd 3rd	FIPA '98 Specification produced Call for Proposals issued	1998	Oct		America

11. FIPA reminds its members of its previous call to produce and release the copyright of software implementing parts of FIPA specification. The model statement of FIPA7105 describes the conditions of release and use.

12. FIPA approves the current draft of IPR Policy and Rules (FIPA7107).

13. FIPA thanks France Telecom for releasing the copyright of the ARCOL language and for making known conditions concerning MCP, CAP and SAP cooperativity Protocols.

14. FIPA approves the Reston Press Release (FIPA7409)

15. FIPA approves its meeting plan

No.	Year	Month	Days	City	Country
5th	1997	April	14-18	Reston, VA	US
6th	1997	June	23-27	Cheju Is.	KR
7th	1997	October	06-10	Munich	DE

16. FIPA thanks BT North America for their warm hospitality in the hosting of the 5th FIPA meeting, in particular:

Jidé Odubiyi
Song Huang
Tracy Yin