ANSA PHASE III MANAGEMENT COMMITTEE

MINUTES OF THE ANSA MANAGEMENT COMMITTEE &
TECHNICAL COMMITTEE JOINT MEETING
held on
19th and 20th March 1996 at APM, Cambridge

Present: Chris Phoenix (Chairman), Michael Eyre (Programme Director), Andrew Herbert (Chief Architect), Yvonne Peat (Secretary), Rob van der Linden (APM), Bill Barr (Bellcore), Jane Cameron (Bellcore), Tim Roberts (Nortel), Bob Briscoe (BT), Steve Rudkin (BT), Jean-Bernard Stefani (CNET), John†Holmes (DRA), Tim Cook (GEC), Gavin Oddy (GEC), Malcolm Robinson (GEC) Ian Davies (GPT), Howard Green (GPT), Neil Mason (GPT), John Brenner (ICL), Juan-Carlos Garcia (Telefonica)

Apologies: Martin French (TC Chairman), Martin Chapman (BT), Robert Rankin (DRA), Richard Beck (Eurocontrol), Gerd Lauter (Eurocontrol), Peter Polkinghorne (GEC), Mitsuyuki Maruyama (Fujitsu), Ray Crispin (HP), Nigel Edwards (HP), Paul Vickers (HP), Juan-Carlos Moreno (Telefonica), Santosh Shrivistava (UNuT)

1   BUSINESS AND CONSORTIUM NEWS

The Chairman reported that Hewlett-Packard have formally given notice to withdraw from ANSA Phase III as of 30th September 1996; it was noted that this seemed in contrast to their positive reaction to the JADE presentation at Bristol the previous week. The Chairman to write to HP; DME to visit JMT.

ACTION: CJP, DME

DME reported new interest from the DoD/USAF, MITRE Corporation, Hughes Aircraft Corporation and a Japanese telecommunications company.   DME reported a commitment from Kennedy Carter to join as a small company sponsor. *(Note: Subsequent to the meeting APM indicated to the Chairman that it wished to exercise its right under the contract to join ANSA as a small company sponsor).*

The chairman commented that the positive outweighs the negative.

APM noted that its Business Unit is expanding and now has a higher turnover than the Research Unit, which has a beneficial effect on ANSA costs.

2   BUSINESS MODEL - 1997

DME reported on the action from the previous meeting.

The Futures presentation had generally gone down well, with much interest in DIMMA and Web Projects; APM apologised to BT for the ìfoul upî in the presentation at Martlesham.

There is a demand for the continuation of the ANSA programme to do the futures work and the DIMMA/real time/multimedia work. The ìmarket priceî seems to be about £45K.

There is strong demand for the OSF/Web type work and it is proposed to merge this with the Object Lab (possibly using a more Web-orientated name) as a separate programme. A market price of around £15K-

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20K seems appropriate. There is interest in the Object Lab from Hitachi, HKJC, EPFL, AT&T and about seven other companies.

It seemed appropriate to separate the consulting days element and possibly make this a separate contract, allowing ANSA (but not Object Lab) sponsors to get an advantageous rate up to a practical limit. After discussion it became clear that the most appropriate way to do this is to set the limit and allow sponsors to choose up to that limit at the start of each ANSA year.

The established technology transfer activities will continue in the ANSA programme.

The finances show that this should enable the research programme headcount to remain at the same level.

The sponsors were asked to provide initial feedback to DME. DME then to prepare a proposal and visit individual sponsors to discuss it.

ACTION: DME

3   ANSA PROGRESS REPORT

A copy of the progress report slides, presented by Rob van der Linden, is attached to the file copy of these minutes.

It was noted that the Programme is on schedule, with a very slight overspend over the three years of the project. New team members are Simon Waterhouse and Tom Jordan; Takanori Ugai will join as a secondee from FJL in June. Yigal Hoffner is leaving APM after almost ten years with the project. APM are recruiting three or four more staff.

The response to the Futures presentation was reported above. It was noted that most of the sponsors have used up their consultancy days.

AJH reported that Andre Kramer has been asked by OMG the chair the ORB/OS group. The MC agreed that this offer be made, provided it did not disrupt the Workprogramme.

AJH reported on the W3C meeting in Paris in May at which APM (MSM) will present a paper and chair certain sessions.

AJH was attending an OMG programme committee meeting during the next week.

The report was approved.

4   COMPLETED WORK

APM requested formal sign off of ANSAweb-2, completed at the end of last year. BT voiced some slight concerns that the work did not go as far as they had hoped. This is to be discussed offline. Approved.

ACTION: RvdL

APM requested formal sign off of DIMMA release 2, the material having been available to sponsors since 2nd February. Approved.

The contents of this document are subject to the confidentiality provisions of the ANSA Phase III contract.

5   WORKPLAN 1996

A series of presentations outlined the work for 1996. The Workplan is published as a set of Web Pages accessed from APMís home site (http://www.ansa.co.uk)

Real time and multi-media

Presentation by Andre Kramer - copies of the slides were circulated.

Key Issue: How to extend CORBA for advanced multi media?

Plan approved.

The presentation stimulated a discussion on JAVA and it was requested that a meeting be scheduled for a specific discussion on this.

                                                                                    ACTION: RvdL

With the new business model, this work would go into ANSA.

Internet/Web Objects

Presentation by Youcef Laribi - copies of the slides were circulated.

Plan approved.

With the new business model, this work would go into Object Lab.

6   RESULTS AND DEMONSTRATION

APM gave the following demonstrations.

AMBER - **Andre Kramer** - demonstrator streams and multi-media - copies of slides circulated

JET - **Nicola Howarth -** CORBA API for realtime multi-media

JADE - Ashley McClenaghan - JAVA into CORBA. Copies of the slides were circulated.

7   FUTURE PROJECTS - DESCRIPTIONS

Amethyst - Andre Kramer - resourcing of distributed multi-media

Jetstream - Yigal Hoffner - explicit binding and streams extensions to JET

Ruby - Dave Otway - concurrent multimedia stream processing
Quartz - Toby Speight - service distribution with email and web

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The Quartz presentation raised some comment. Bill Barr suggested an alternative demo subject, integrating customer ordering across web into own order handling system instead of customer having to phone or fax order. It was noted that the proposal was applicable to workflow applications but also electronic commerce. CJP asked for some metrics. BT were concerned it is just putting together existing ideas.

ACTION: RvdL, AJH to resolve this and propose improved demonstration.

Topaz - Mark Madsen - A structured Webserver

8 ASSOCIATED PROJECTS

APM gave presentations of the associated projects, from which sponsors gain the benefit of the work done by APM.

APM to set up web page containing list of presentations and documents. (*Subsequent to the meeting the following web page has been set up* - http://www.ansa.co.uk/ANSA/ansaplans/mctcpres.html*)*

ACTION: RvdL

E2S - Presentation by Mark Madsen. It was noted that E2S is currently realigning to allow VISA to join project. A new Technical Annex is being prepared.

ReTINA - Presentation by Ben Crawford

DCAN - Presentation by Rob van der Linden

TRENDS - Presentation by Billy Gibson- successor to MOTOS project.

9 ANY OTHER BUSINESS

There was no other business.

10 NEXT MEETING

The Chairman offered to host the next meeting which is again a joint MC/TC.

Meeting of: MC and TC
Date: 10/11 July
Place: ICL, BRA-05 building, Lovelace Road, Bracknell.

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WORKSHOP - Wednesday 20th March

1   FUTURES PRESENTATION

Mike Eyre reviewed changes made to the Futures Presentation since its inception reflecting feedback from both sponsors and other organisations such as the USAF. Key additional points included:

Who is going to install the hidden infrastructure and how will it be paid for, is this a telecoms opportunity?

Software Quality Issues - will software quality continue to decrease as margins on software products fall, or will there be a combined Internet shareware effect and reaction to negative feedback from the Internet (e.g., as in the Intel floating point fiasco) which stimulates a renewed emphasis in software quality.

Changes in telecoms infrastructure - increasing use of off-the-shelf components and a decreasing (but still significant) requirement for reliability and availability - the wider range of connectivity options available and the increasing interoperability between them reduces dependence on any one of them.

The impact of the food chain model on a classical MIS/DP organisation; their role might be reduced to that of an in-house content owner and provider, with all other functions, especially infrastructure functions outsourced to service providers.

Andrew Herbert talked through a set of more detailed technical slides - browser 2000, server 2000 and network 2000 - which presented a view of how the current Web will evolve to support cooperative working and business process automation in addition to the current client/server functionality. He looked in detail at the implications of technologies like Java and the kind of environment that would emerge for developing distributed applications, managing them and securing them.

2   FEEDBACK FROM SPONSORS

Following on from the presentation update, sponsors reported on the reaction to the presentation in their own organisations.

Bellcore - Jane Cameron

Jane Cameron remarked that the presentation threw into focus the debate within Bellcore as to whether future telecoms networks are intelligent or dumb. The current telecoms network is an artifact of a monopolistic marketplace which is increasingly being broken down by deregulation.

The issue for a telecoms operator is not so much network intelligence as the ability to make new services available, anywhere, anytime, at least cost. It is a world in which the business is driven by marketing (client needs) rather than engineering.

New businesses come from combining services in fruitful ways, but we donít yet know how to do cost benefit analysis or risk assessment for services. Understanding potential emergent behaviour is a big challenge. Emergent behaviours are not always bad, some are opportunities. Metrics of coupling could be used as predictors. Perhaps some kind of metric for coupling between services could help?

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The challenge for the telecoms industry is that everyone wants to buy open systems and the industry traditionally sells closed ones! Interestingly we are seeing in the Internet attempts to take control by building closed systems within it - however if the closed systems are too controlled or expensive, the Internet is a perfect infrastructure for a black market. In balancing these two we can expect the boundary between the closed and the open Internet to be constantly shifting with a consequent need for flexibility and openness in technology and hence standards. In Bellcoreís view there isnít a role for the traditional standards organisations in this - it is much more likely to be based around standards set by dominant industry players. However the market is now more mature about ìdominatedî standards than it was 10 or 20 years ago when ìopennessî started as a backlash against dominant, proprietary mainframe suppliers. Standards such as NFS, NSAPI and so forth are all indicators of a more enlightened industry driven approach.

BT - Bob Briscoe

Computing people saw nothing new in the presentation - it aligned with their pre-conceptions. Telecoms people disagreed and were not convinced. Bob thought the story about enterprise model fragmentation understated the case and that alternative scenarios including backlashes should be investigated if the work is taken forward.

Bobís biggest need was to find ways to convince telecoms people they need to be open - the presentation helped but was not strong enough. It also looked at a fairly near term timescale and some comments on what might lay further downstream would be valuable.

DRA - John Holmes

The presentation was good input on technology trends, but not enough on user business drivers. DRA would like to hear more on roadblocks, e.g. legislation, consumer resistance, corporate policy resistance, technology bottlenecks, skills conversion.

The impact for MoD is very clear: it has to recognise change is happening, has to gain flexibility in both technology and procurement processes so that systems can be changed in a short timescale, in short transition to flexible heterogeneous distributed systems.

The theme of ìpersonalised servicesî and ìdiversityî implies personal choice, but how to choose because the 57 varieties of quality of service are not usually advertised by vendors - how will quality be calibrated and recognised?

In discussion it was commented that users buy by the brand not the description and the difficulty of selling ìqualityî when the supporting infrastructure is made transparent and the infrastructure is not run by a single entity.   Utility of service may be a better description for some purposes. Trust in branding is going to become key; some will succeed by repeated assertion others by reputation.

DRA would like to have heard more about what some of the roadblocks will be:
    international legislation (security)
    consumer resistance
    technology bottlenecks (information servers)
    use until get to a certain level of congestion c.f. roads and commuting
    very expensive to lay down more bandwidth

fly wheel effect of lack of skills on user side of the industry, difficult to get take up of new systems lot of pressure to make IT easier, visual basic etc, banging into brick wall, cannot afford to change everything overnight. Always a question of when?

CNET - Jean-Bernard Stefani

Had very limited audience in France Telecom.
Technical ìgoodnessî is less important than ìfashionî which can be manipulated by large company marketing budgets. There is a need for enterprises to be open to ideas in order to become adaptive and thus to survive.

Standardisation is a necessary enabler for Openness and has three dimensions:
    Interworking
    Portability
    Modifiability
Software should, therefore, be inspectable, and modifiable - perhaps Java and allied developments point the way here.

Since software is immaterial it will ultimately be free - you will pay for the service which supports you in using the software..

Expectations from Users should not be underestimated, presently have with Internet two different models of user expectations, users with high bandwidth access and those with (slow) modem access. There is exciting potential for merging technical models with enterprise models via the Internet and technology like the Web This merger in turn will enable much more intelligence in the net. Merging models will mean have to trade for quality on the net, as we do in the ordinary world and by analogy we will see, fairly simple choices dominated by a ìgood enough for most purposesî, middle ground e.g. like the postal service.

The WWW has introduced new social structures, fashions and crazes which will shape the market. E.g. JAVA features in popular magazines, yet most people (indeed most programmers) have never written single line in it. This is not explainable in terms of technical suitability or user need, its simply ìfashion". Put right product in right place and right time and suddenly it takes off with very little spent promoting it. JAVA is probably first example of ìcyber-fashionî.

IT departments are doomed, because information systems and enterprise are not separable. IT management must merge with enterprise management, and IT supply and operations can be obtained via the net so there is no need for an IT department. Enterprises need to establish knowledge network which tie them together. We will find thousands of enterprises sharing, networks each too small to justify itís own private network or IT function. This creates a larger market place for experts to sell knowledge widely. In particular there will be an opportunity for people who know how to design and sell designs - they wonít necessarily build them, this will be done by others.
An interesting anecdote is the story of a Nortel design team posting a design on a notice board in the cafeteria. Engineers passing by stared at it and marked up problems with design. This kind of thing will happen with the net.

Most modern books on management practice tell enterprises to be open, This is terrifying to large hierarchical structures, especially administrations. Large companies will need to recognise that a large collection of small organisations is more effective than corporate unity. But, these fragmented organisations will need income and revenue, trading amongst one another, and money changing hands.

Between organisations all this is based on contracts, but we donít have such a structure within organisations - corporate management acts as the court but with different rules of engagement:

> no redeemable currency
> no fixed law
> parties aren't defined.

Therefore virtual corporations have to build networks based on trust and the perception of some form of equitable transfer of value. ìOpennessî is a key but has deep meaning and important consequences in terms of social structure. Standardisation is a necessary enabler. The IT industry has grown several different models of standardisation which we should see as alternative means suited to different needs, rather than as competing bodies.

Interworking has happened with Internet. Portability hasn't happened yet, JAVA is not ìportableî it is one corporation trying to impose one language. If JAVA is successful we will have skipped portability and gone straight to modifiability. Modifiability allows us to have a million different versions of a piece of software rather than reuse the same version - diversity is necessary so why prevent it.

Neil Mason argued that software design is much less understood compared to say mechanical engineering design and therefore questioned the viability of ìsoftware design housesî.

Telefonica - Juan-Carlos Garcia

Telefonica found the presentation interesting, giving good generic overview of evolution of IT. Telefonica agree with characteristics of Ethermation 2000.

However, overall the presentation had too long an introduction not many new things. It would be useful to see an adaptation to Telefonicaís core business as a telecoms operator and service provider environments (targeting marketing people and strategy managers).

How should a telco move towards future evolving from a classical network service provider to an information services provider? How will this evolution be affected by deregulation? What will be the relationship between contents providers and network operators?

Telefonica disagreed with the idea that intelligence will move to the edge of networks: a network with multimedia real-time capabilities implies complex resource management, dynamic routing, QoS control etc - i.e., it needs intelligence!

Jane Cameron commented that ìintelligence moves to the edgeî was a very catchy phrase, meaning different things to different people. What she saw as the essence was the idea of more disconnection between the functions of the system, functions being able to move around the network, even out to customer equipment: in other words freedom to define what the edges are and where they are.

Telefonica felt the time frame for evolution was too short. How will all these new technologies be digested? Are companies willing to provide investments?   Which will be the underlying network technology?

GPT - Ian Davies

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Despite efforts not many marketing people attended, which was to be regretted. Indeed would/should the managing Director have attended? Some of these people benefited from seeing the slides afterwards.

GPT - Neil Mason

A big issue for GPT technical people is how to engage marketing people/business strategists in the debate.

GPT felt some technical areas were overlooked :
> the distributed workgroup
> peer to peer protocols between agents (contrasted with client/server model)
> information itself -use /processing/context/value/market for it
> turbulence can restrict market growth - and can justify proprietary solutions (if enough people standing on sandcastle can I turn it into a rock) Can we continue in market at current rate of turbulence, can't cope with any increase in turbulence.

GEC

Similar to GPT
Unable to make much comment as did not see presentation

Nortel - Tim Roberts

Found the presentation plausible but not powerful enough to rewrite corporate strategy! Heíd like to see it presented to key players in Nortelís Canadian headquarters.

ICL - Chris Phoenix

Gill Ringlandís group are using scenario planning to look at the future and found it very helpful to compare and contrast with APMís work..

ICL has developed ìDeep Blue Seaî versus ìCoral Reefî scenario models as polarised examples to test corporate strategy.

Deep sea model
> impeded world trade due to trade barriers
> low economic growth
> increased economic strength of Asia has limited effects on West due to trade barriers
> Governments have effective social policies
> Move away from individualism to an approach of community first
> legislation to preserve nation's own cultural identity

Coral Reef model
> Strong trade amongst and within trading blocks
> high economic growth

The current IT market is ìdeep seaî:
> large mostly US vendors dominate

      many acquisitions have taken place
      business to business marketing style

Perhaps the trend with the Internet is towards Coral Reef, or even a co-existence. For example, ICL products are moving into Fujitsu to get heavyweight marketing: within ICL coral reef type businesses are being created.