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**ANSA Phase III**

## **Technical Work and Plan 1995-8**

**Andrew Herbert**

### **Abstract**

A summary of the 1995-8 ANSA Workplan to be presented to Fujitsu Laboratories, September 1995

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APM.1583.01

**Approved**

17th September 1995

Project Management (confidential to ANSA consortium for 2 years)

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**Distribution:**

**Supersedes:**

**Superseded by:**



A decorative banner with a white background and a black border, featuring a pointed left end and a pointed right end. The text 'ANSA Technical Plan 1995-8' is centered within the banner in a bold, blue, sans-serif font.

## ANSA Technical Plan 1995-8

# Presentation to Fujitsu Laboratories

**Andrew Herbert**

**September 1995**



## Contents

- **ANSA**

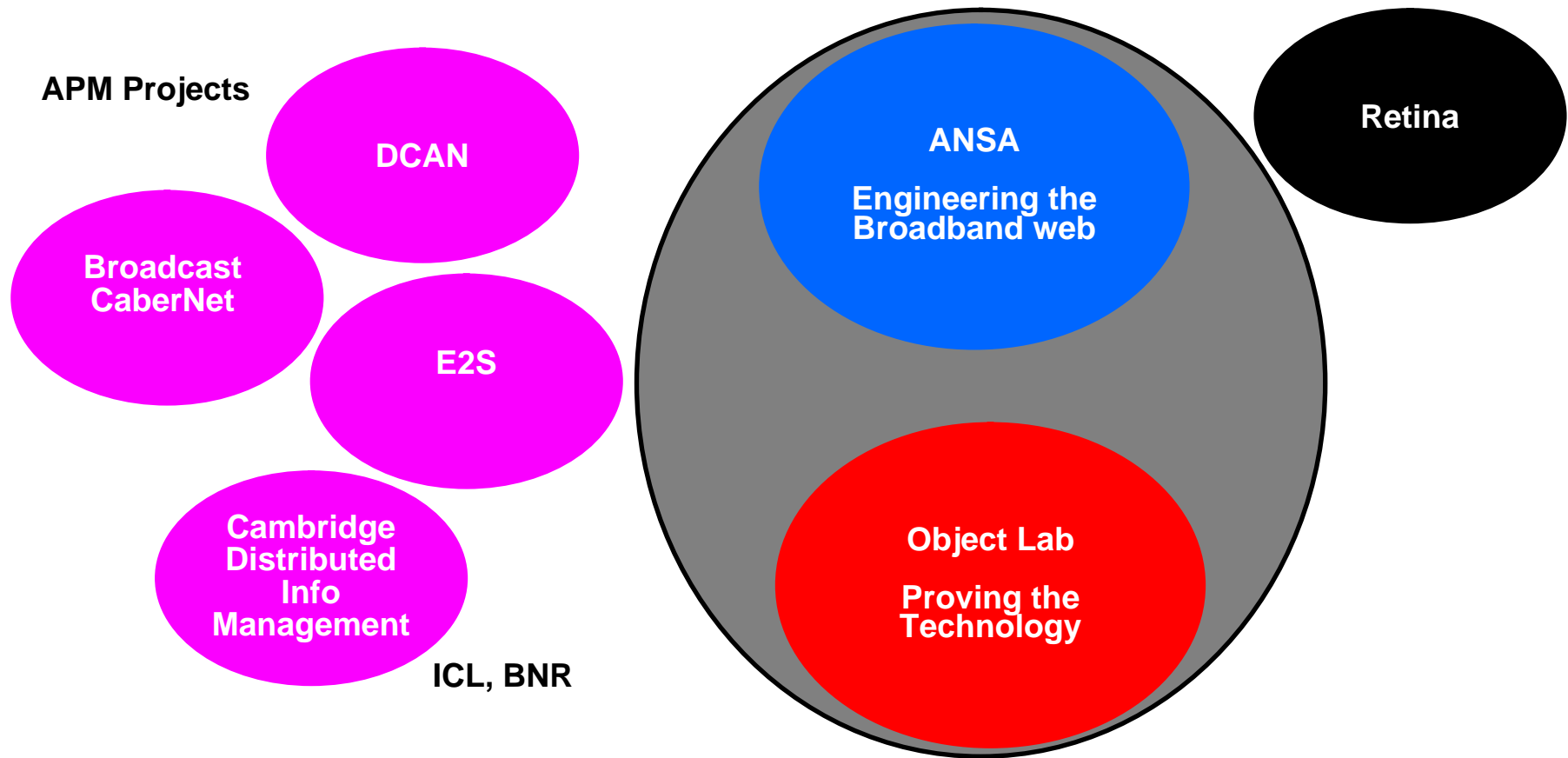
- Research new technologies and application areas
- Building on ANSA strengths
- Target innovators

- **Object Lab**

- Show benefits of Distributed Object technology
- Combine ANSA architecture and OMG interfaces
- Target users via “meta applications”



## APM Activities - The Big Picture





## Associated Projects (1)

- **Distributed Control of ATM Networks (Cambridge, Nemesys, APM)**
  - managing simple ATM devices (cameras) from workstations
  - microkernel optimized for interactive video applications
  - out of band control
  - piloting “desk area networks”
- **End-to-end Security (APM, HP, GemPlus, Swiss bank, GMD, SmartCard Forum, Octacon)**
  - understand various Internet business models
  - develop user technology (e.g. Smartcards)
  - develop server and management technology (e.g. key management)
  - fit security to business model and not vice versa



## Associated Projects (2)

- **BROADCAST**
  - **ESPRIT academic basic research into distributed systems**
  - **dependability focus**
  - **nominated ANSA Consortium as their “channel to industry”**
- **Cambridge Distributed Information Management**
  - **ICL & BNR sponsored research**
  - **distributed solutions to handling large amounts of diverse data**
  - **anticipates UK ForeSight “Distributed Information Management Programme”**



## Associated Projects (3)

- **Retina (France Telecom, BT, HP, ALcatel, Chorus, APM, ....)**
  - **build a prototype TINA Distributed Processing Environment**
  - **one version to support real-time, interactive services**
  - **one version to support operations, administration and management**
  - **interworking between the two**
  - **converge TINA, CORBA and ANSA**





## ANSA Work Programme 1995-8

- Vision
- Scenario
- Focus
- Plan



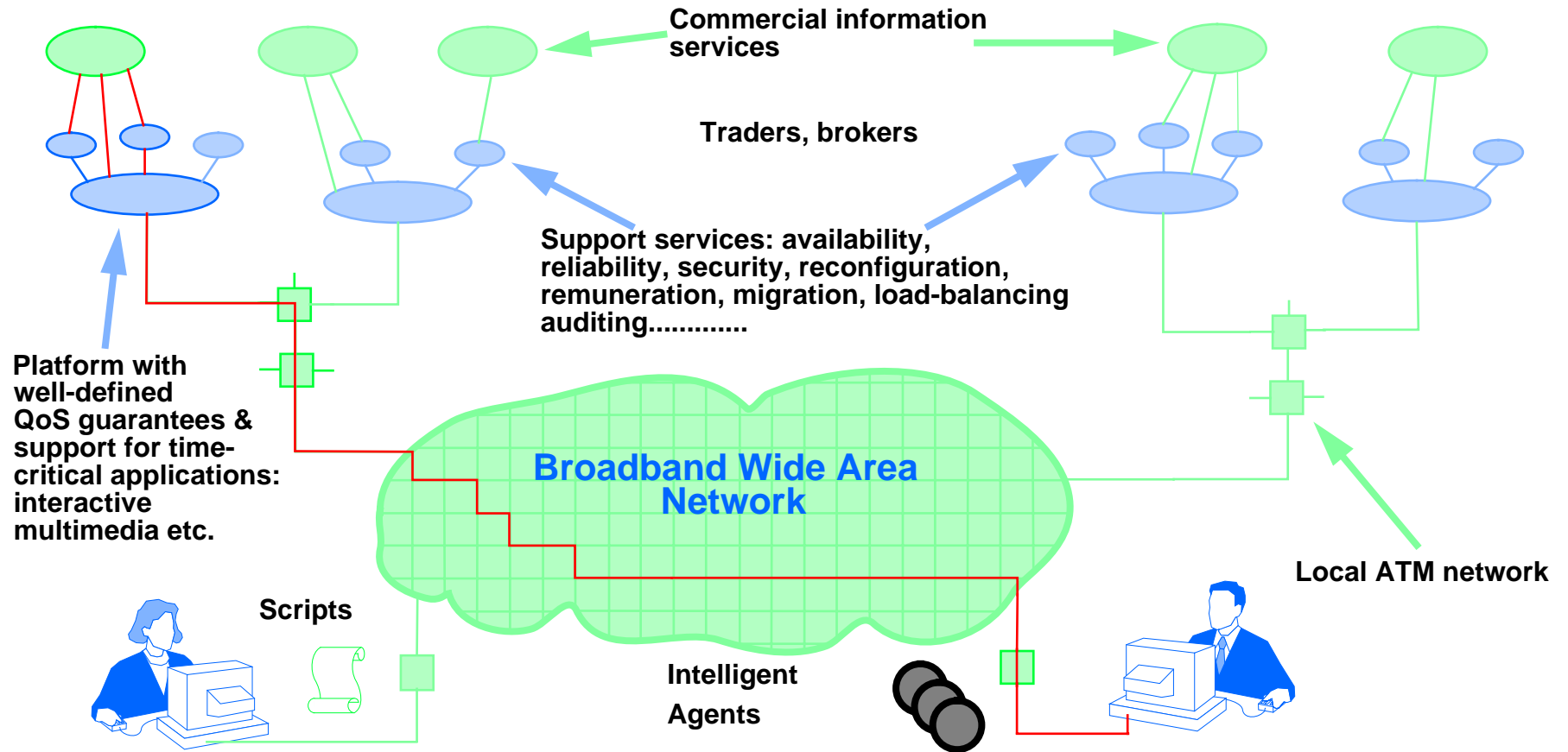
## Vision

- **Electronic commerce**
  - currently based on the Internet and WWW
  - moving towards CORBA + WWW
  - commercial ORBs do not satisfy application requirements
- **Interactive multimedia**
  - delivered with (nearly) every PC
  - mostly desktop only or LAN
- **Broadband telecommunications**
  - currently low bandwidth available to all (PC + modem)
  - ATM begins to impact applications

## Architected approach to integration of WWW + CORBA + Broadband



# ANSA Scenario 1994-5 Continues into 1995-8





## **Focus**

### **To bring together**

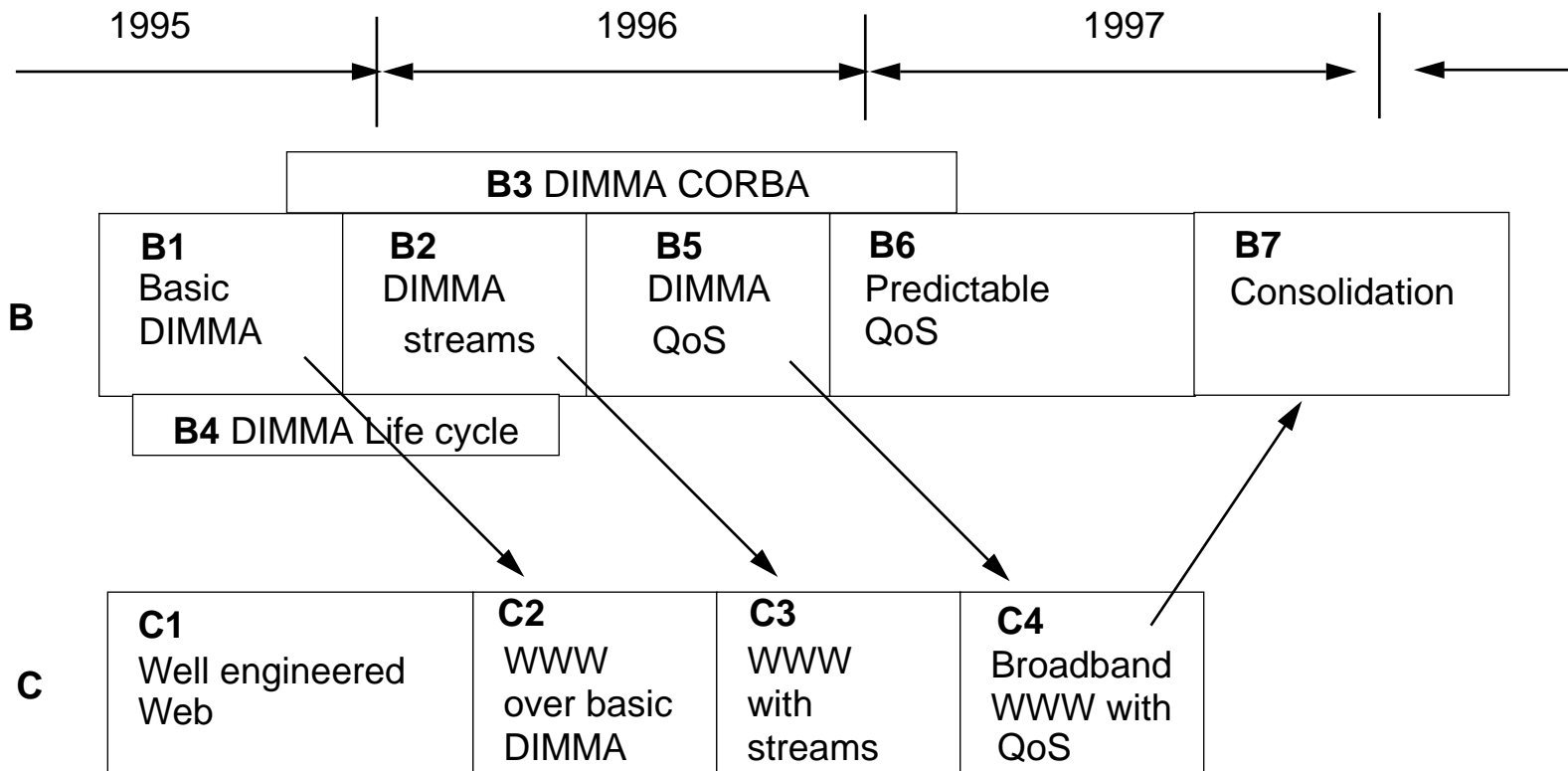
- **electronic commerce**
- **interactive multimedia**
- **broadband telecommunications**

**in an architectural framework  
and thereby enable our sponsors to**

- **bring stability to applications & services in the face of industry turbulence**
- **earn revenue from electronic services**
- **deliver and manage services effectively**
- **integrate old, existing and new systems and applications**
- **specify and construct specialised platforms (e.g. Telecomms ORB)**



# Plan

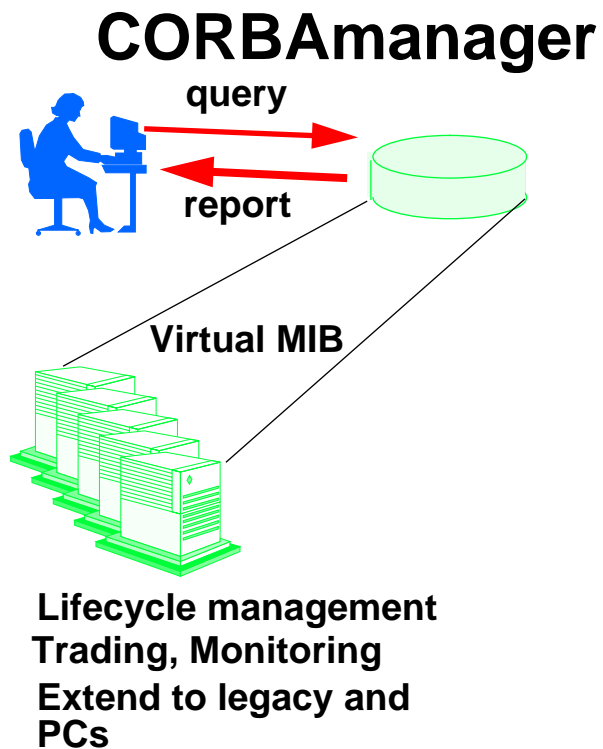




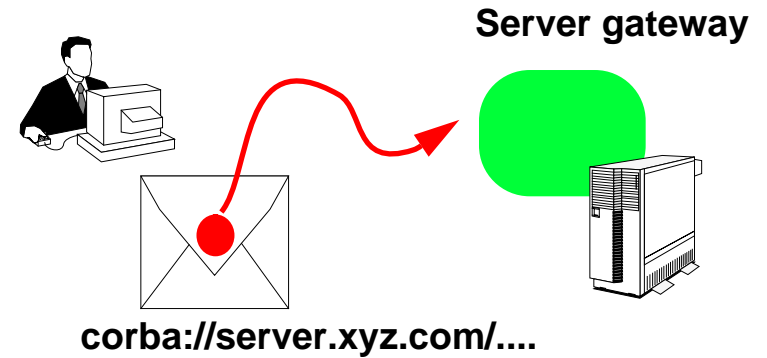
## Object Lab

- Initial proposals
- All examples of “meta applications”
  - cross-domain in nature
  - canned solutions to tough problems
- Final choice by ANSA/OMG officers, moderated by user sign up
- Rolling series of parallel 12-18 month staged projects
  - deliverables every 3-4 months
- X-Consortium style
  - Working robust examples
  - regular releases, upgrades
  - Member’s briefings, feedback sessions
  - Electronic interface to team

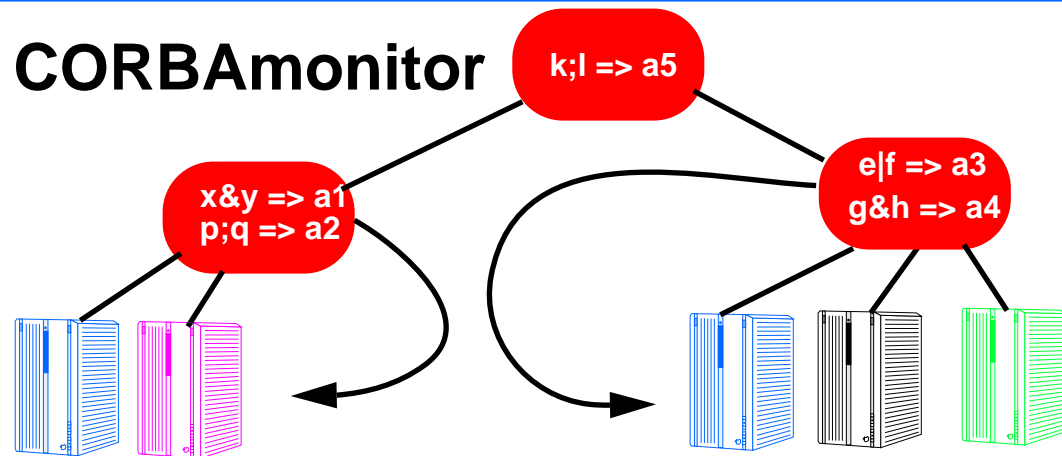
## Object Lab Projects



### CORBAmail



### CORBAmonitor





## CORBAmanager

- **Managing CORBA applications**
  - **Show how to use lifecycle and trading**
  - **Provide a distributed *Management Information Base***
  - **Extend to managing PC and legacy applications**
  - **2-3 (+2) person years**
- **Database = consistency**
    - **System management model integrity**
    - **Manage sets as well as elements**
    - **queries and reports**
  - **Single interface =  
Simple automation =  
Lower management costs**
  - **Management flexibility**
    - **add / move / replace / delete applications**

**Target financial services sector**





## CORBAmail

- Send object pointer in mail messages
  - CORBA browser to enable user to invoke service
  - CORBAmail gateway to support mailed services
  - Integrate with MIME (hence WWW), OLE, ODBMG
  - 2(+1) person years
- Electronic direct mailing of services
    - c.f. electronic “shopping”
  - Software distribution / upgrade
    - under user’s control
    - asynchronous
  - Replace document paradigm by active content paradigm
- Target office automation sector



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## CORBAmonitor

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- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Monitor events around a widespread system</li><li>• Observers trigger actions when specific conditions met</li><li>• Graphical interface for composing <i>event-condition-action rules</i></li><li>• Audit trail</li><li>• Scalable, transparent</li><li>• 1-2 person years</li></ul> | <ul style="list-style-type: none"><li>• Alarms in telecoms, manufacturing</li><li>• Fraud / integrity / exception management in business processes</li><li>• Federating disjoint databases</li><li>• Workflow automation</li></ul> |
|---|--|

- 
- Target Telecoms sector



## General Comments

- **Need to produce early deliverables**
  - leverage current ANSA CORBA-WWW interworking
- **The projects are canned applications, not “magic bullets”**
  - the projects are not a pancea for their domain - they are focussed on a specific set of requirements
  - e.g. CORBAManager is not a replacement for ONMF or associated products
  - all the examples are deliberately “meta applications” - they can be used in many domains
- **Need users to test/showcase the projects in real applications**
  - **OMG will find users as part of their marketing of Object Lab**



## Others

- **CORBAledger**
  - order entry and billing using distributed persistent C++ transactional objects accessible from COBOL, Powerbuilder etc

- **CORBALinks**
  - hyperlink database for searching, indexing and retrieving over databases, document servers and WWW

- **CORBAphone**
  - CORBA-based TAPI and shared text/image whiteboard conferencing tool

- **CORBAedi**
  - CORBA-based gateway between edi domains