



---

**Poseidon House  
Castle Park  
Cambridge CB3 0RD  
United Kingdom**

TELEPHONE:  
INTERNATIONAL:  
FAX:  
E-MAIL:

**Cambridge (01223) 515010  
+44 1223 515010  
+44 1223 359779  
apm@ansa.co.uk**

---

**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

---

APM.1583.02

**Approved**

21st September 1995

Project Management (confidential to ANSA consortium for 2 years)

---

**Distribution:**

**Supersedes:**

**Superseded by:**





## ANSA Technical Plan 1995-8

# Presentation to Fujitsu Laboratories

**Andrew Herbert**

**September 1995**



## 1995-1998

- **Carry forward the leading edge research**
  - **The ANSA Programme**
  - **for the ANSA SPONSORS**
  
- **Show how to use ANSA results**
  - **The OBJECT LAB (proposed new initiative)**
  - **Large membership**
  
- **ANSA sponsorship will include the proposed Object Lab**



## ANSA WORK PROGRAMME 1995-8

- **Vision**
- **Scenario**
- **Focus**
- **Plan**

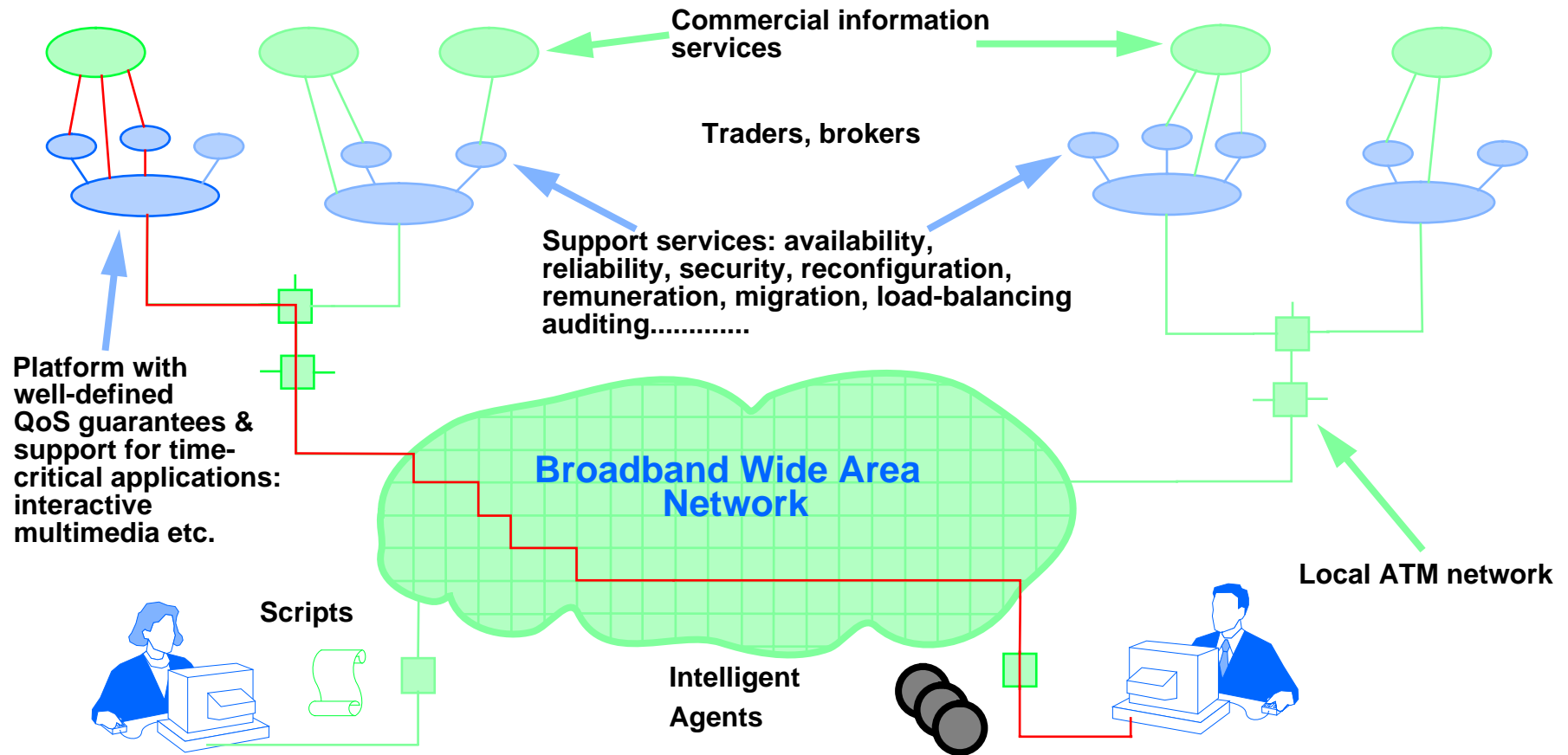


## VISION

- **Electronic commerce**
  - currently based on the Internet and Information Superhighway
  - moving towards CORBA + Information Superhighway
  - current ORBs do not satisfy the future requirements
- **Interactive multimedia services**
  - will be delivered to every desktop
- **Broadband telecommunications**
  - currently low bandwidth
  - ATM begins to impact applications

**NEED AN ARCHITECTED APPROACH TO INTEGRATION OF  
WWW + CORBA + BROADBAND**

# SCENARIO CONTINUES





## **FOCUS**

### **To bring together**

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

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

- **bring stability to applications & services in the face of market 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)**





## KEY TOPICS

- **Complete implementation of Distributed Interactive real-time Multimedia Architecture (DIMMA)**
  - Streams
  - Quality of Service
  - Predictable applications
  - Interoperate with CORBA
- **Demonstate Interactive Multimedia Information Superhighway**
  - Extend ANSAWeb to handling interactive multi-media
- **Management of services in Open Networks**
- **Security for electronic commerce**
  - Userstand security needs of different business models
  - End-to-end approach



## TASKS

- **Distributed interactive multi media service provision, evolving from CORBA and ANSA (DIMMA) (Tasks B1-B7)**
  - **prototype extend/redefine CORBA APIs + tools**
  - **how to provide manageability, performance and predictability of applications**
  - **streams**
  - **life cycle management**
  - **QoS negotiation and management**
  
- **Broadband World Wide Web (Tasks C1-C4)**
  - **performance**
  - **naming/federation**
  - **scaling**
  - **integrate with DIMMA**

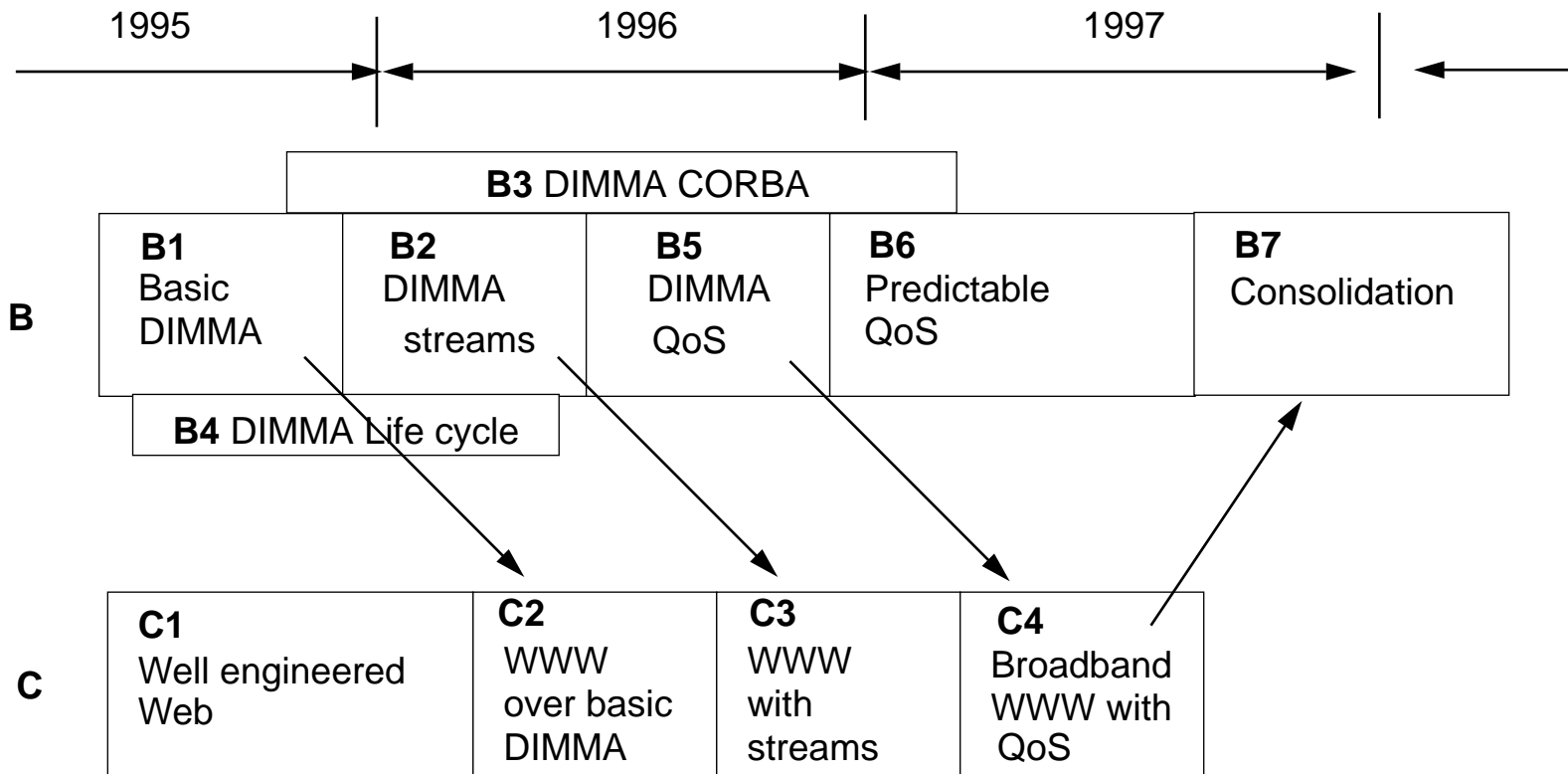


## TASKS continued

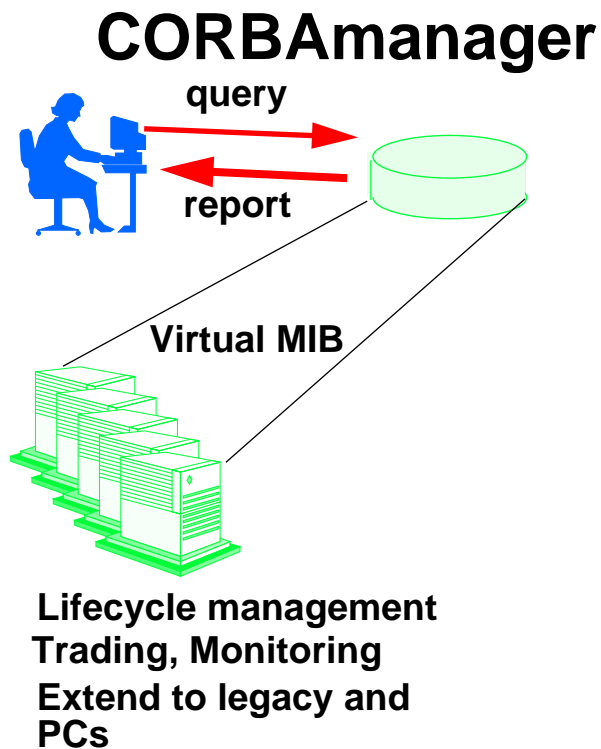
- **New requirements**
  - reserve some effort for new topics which may (will) emerge
- **Integrate results from the other APM projects**
  - security (E2S project)
  - lightweight ATM “desk area” networks (DCAN project)
  - Telecoms ORB (RETINA project)
  - Cambridge Distributed Information Management (ICL project)



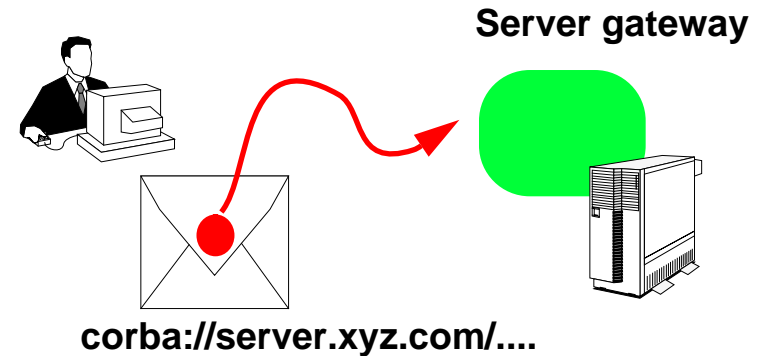
# WORK PLAN



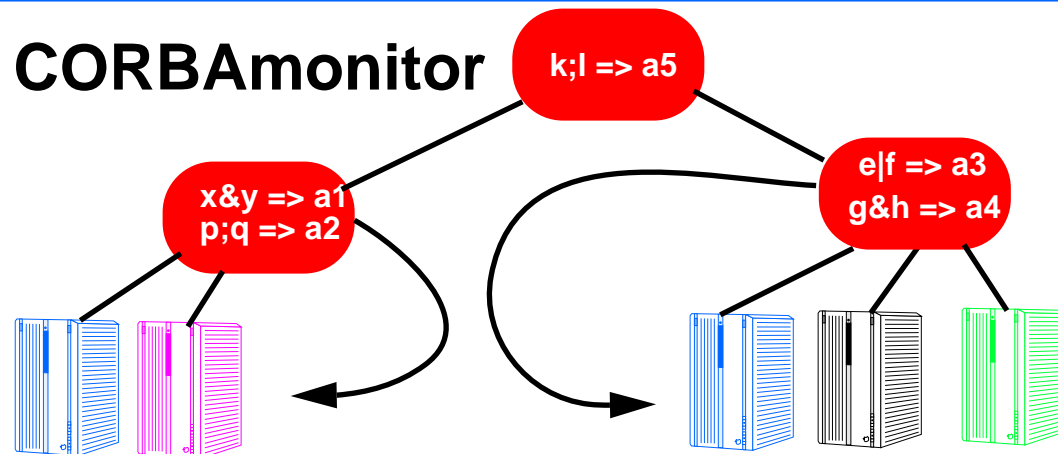
# OBJECT LAB PROJECTS



## 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



## CORBAmonitor

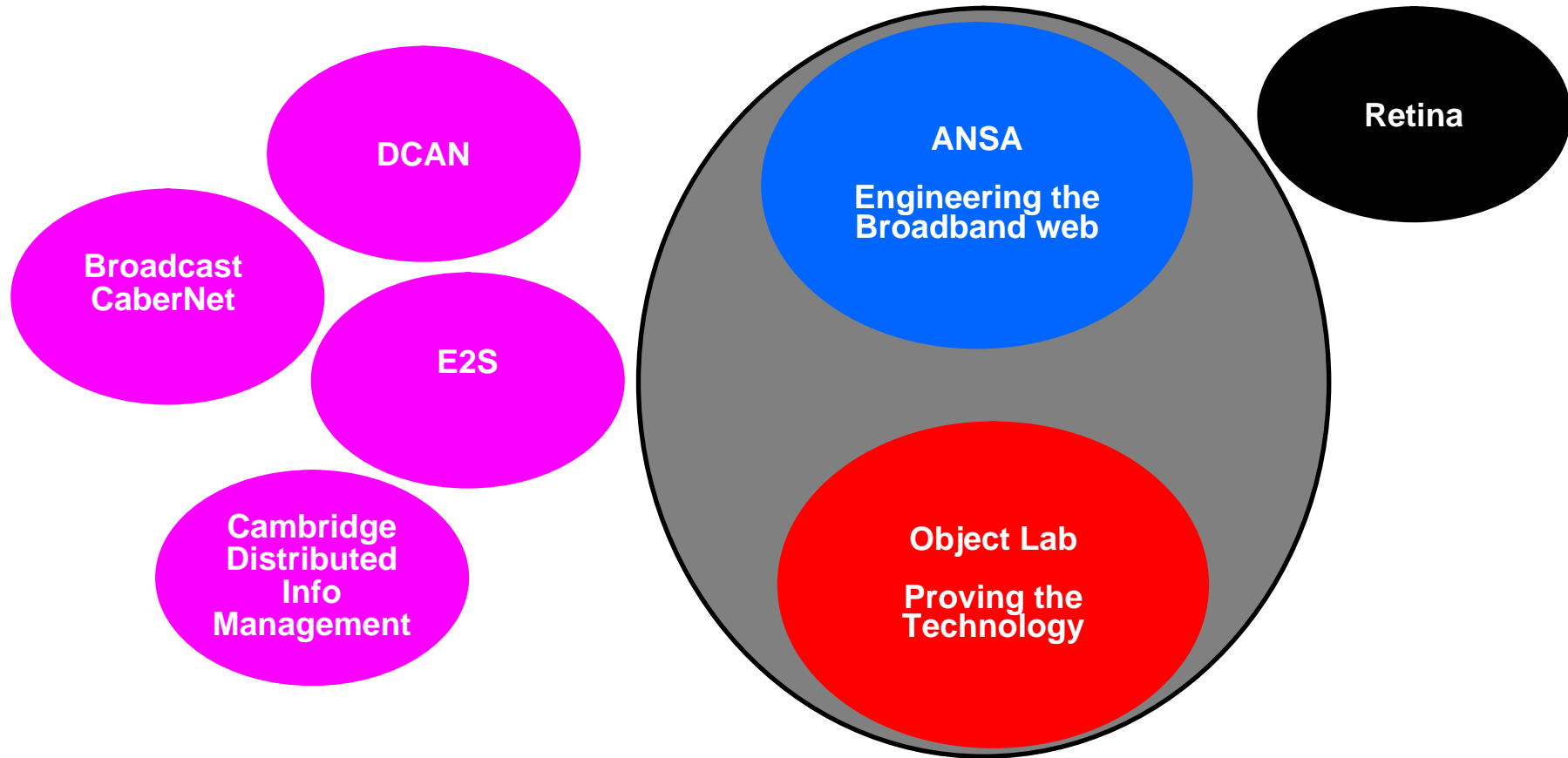
- Monitor events around a widespread system
- Observers trigger actions when specific conditions met
- Graphical interface for composing *event-condition-action rules*
- Audit trail
- Scalable, transparent
- 1-2 person years
- Alarms in telecoms, manufacturing
- Fraud / integrity / exception management in business processes
- Federating disjoint databases
- Workflow automation

- Target Telecoms sector





## ASSOCIATED PROJECTS





---

## ASSOCIATED PROJECTS (1)

- **Distributed Control of ATM Networks (Cambridge, Nemesys, APM)**
  - managing simple ATM devices 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 server and management technology
  - fit security to business model and not vice versa



## ASSOCIATED PROJECTS (2)

- **Cambridge Distributed Information Management**
  - ICL sponsored research
  - distributed solutions to handling large amounts of diverse data
  - technology to provide information to “intelligent agents”
- **RETINA (France Telecom, BT, HP, Alcatel, Chorus, APM, ....)**
  - build a prototype TINA Distributed Processing Environment
  - converge TINA, CORBA and ANSA
  - implement above Chorus microkernel