

EuroCAIRN

- Eureka Project no.1061
- Objectives:
 - organising national funding
 - promoting cooperation between national high speed activities
 - involving the IT and telecommunications industries
- 17 countries + EC
- Results available to non-participants

The New Technology

- More of the same, at higher speed?
- telnet, ftp, WWW,
- Traffic doubling every 6 - 12 months
- Limitations of IP
- Possibility of switched, constant bit rate (CBR) services
- 34/155 Mbps services already operational in 6 national networks

IP Limitations

- Lack of management/control facilities
- No differentiation/prioritisation of traffic
- Spare capacity minimises difficulties
- IPng will not provide complete solution

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Applications

- Remote control (medicine)
- Virtual reality (specialist services)
- Viewing complex images (EO)
- Distance learning
- Multicasting
- Many-many video-conferencing
- One-one video-conferencing

Technologies and Services

- Leased lines
- Satellite
- ISDN
- Frame relay
- SMDS
- ATM

ATM: Features

- Constant bit rate, variable bit rate and available bit rate
- Permanent virtual circuits and switched virtual circuits

ATM: Development Status

- Standards are incomplete
- No implementations of complex signalling
- Potential interworking difficulties
- Requirement for management tools
 - at system level
 - at user level

Implementation Issues

- Basic capacity is available, but
- 34 Mbps international lines and services are not available in Europe
- There are no published tariffs or delivery dates for such lines
- Collaboration with PNOs will probably be

Implementation Proposal

- 34 Mbps IP service as soon as possible
- Parallel ATM-based test network
- Phase 1: test managed PVCs
- Phase 2: IP over ATM + managed PVC service + test advanced ATM
- Phase 3: progressive migration of proven services from test network to service

Organisational Issues

- Lack of pan-European policy initiatives
- Lack of supply
- Will market forces work?
- Operational structures in place
- EuroCAIRN role
- User role

Summary

- High speed services are available nationally
- An implementation plan for a European service is ready
- Some funding is in place
- We need the basic building blocks (lines) from
- Users should specify their requirements

Costs and funding

- No tariffs
- $34 = 1 \times 2$ or 17×2 ?
- Target: 2 MECU for 34 Mbps
- Budget in place