



**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**

Training

Intro (Intro to ANSA)

Yigal Hoffner

Abstract

The business problem addressed is...

The technical problem created by that business problem is ...

The solution being offered is....

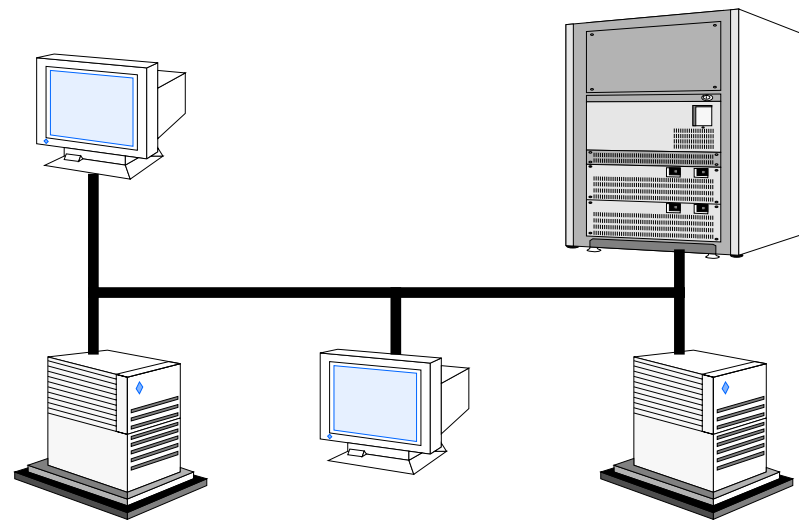
APM.1643.00.02

Draft
Briefing Note

2nd November 1995

Distribution:
Supersedes:
Superseded by:

Introduction to Distributed Systems





In this session

- *Explain the business issues surrounding distributed systems*
- *Explain in what ways distributed systems are different*
- *Examine some real applications*

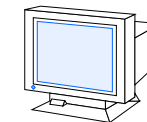


What's the real business challenge?

Coping with change

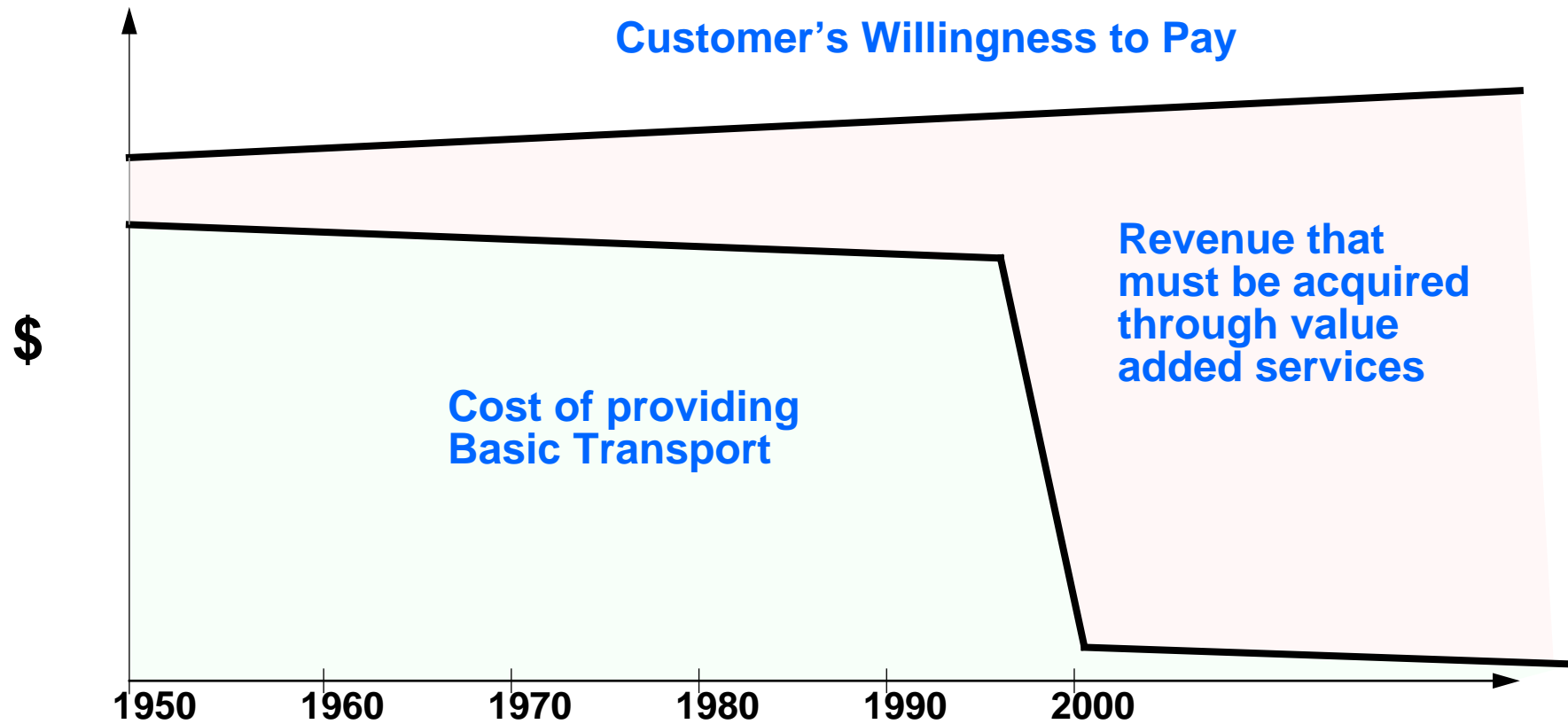
The pressures for change

- *Political, economic, social, and technological...*
 - Globalization
 - Rapid organizational change
 - Increased customer expectations
 - Inexpensive computing and telecommunications





The business challenge for telecommunications



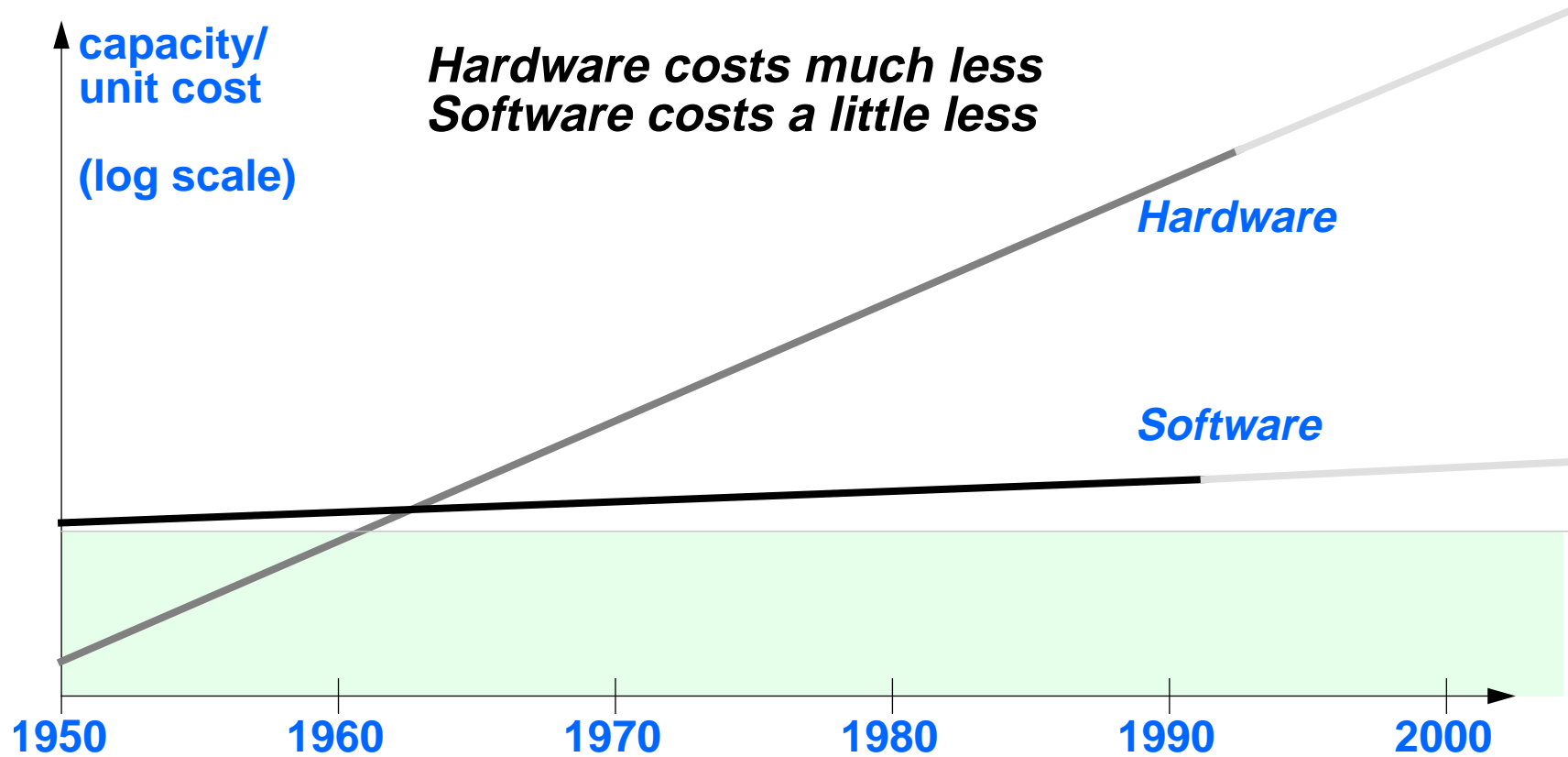


Meet the customer's service expectations...

- *timely:* *I want it immediately*
- *personalised:* *I want it to meet my needs*
- *competitive:* *I want to pay as little as necessary*
- *dependably predictable:* *I want it to be reliable*
- *integratable:* *I want it connected to my PABX, PC, ...*

.... before your competitor does

Costs of providing service





Software cost in providing services – a new problem?

- *We have already tried these solutions....*
 - Project management
 - Requirement analysis
 - Analysis and design methodologies
 - Informal and formal approaches
- *....they work, but not for complex systems*
 - they do not scale



The service provider's problem - Summary

- **Providing networked information services**
 - not simply the physical transport of data
- **Satisfying the Critical Success Factors**
 - services must be *developed rapidly*, to meet market windows
 - new services must *interwork* with existing services
 - services must be *easy to deploy*
 - services must be *easy to manage*
- **Meeting the customer's expectations**
 - before your competitors
 - at a price the customer will pay



About distributed systems

- *Distributed systems are those which consist of interconnected cooperating components*
 - there is no central machine or group of machines
- *Distributed applications are those written for a distributed system*
- *Distributed processing is the method for designing and building distributed applications*
- *Distributed computing is the technology we use in distributed systems*



Examples of distributed systems

- ***Diverse business areas***
 - Telecommunications
 - Airline reservations
 - Retail point-of-sale
 - Banking
 - Command and control
 - ... and many more
- ***Built at the limits of the technology***



Distributed systems infrastructures

- *CORBA from the Object Management Group (OMG)*
- *DCE from the Open Software Foundation (OSF)*
- *Distributed OLE from Microsoft*
- *Other specialized distributed systems technology*
 - for example, ANSAware 4.x



Summary

- *The major business challenge is coping with change*
- *Distributed object technology is here today (?)*
 - there are real applications being built with industrial-strength products
- *The inherent features of distributed systems make application programming difficult*
 - unless the infrastructure provides transparency mechanisms