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## **Training**

# **ANSAwise - The Role of Information Systems**

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### **Abstract**

The role of information systems in the organization is shifting to support business processes rather than individual functions. The focus is outwards to customers, rather than inwards to procedures. Services are as important as products. Businesses are changing more and more rapidly.

This poses a challenge to existing information systems, which are often inappropriately structured to meet these needs. It also poses a challenge to the people who design, work with, and use these systems, since they may hold outdated assumptions.

This module of the ANSAwise training programme explores the business issues for information systems in the 1990s, and explains why distributed processing is a natural fit to many organizations' needs.

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**Approved**  
Briefing Note

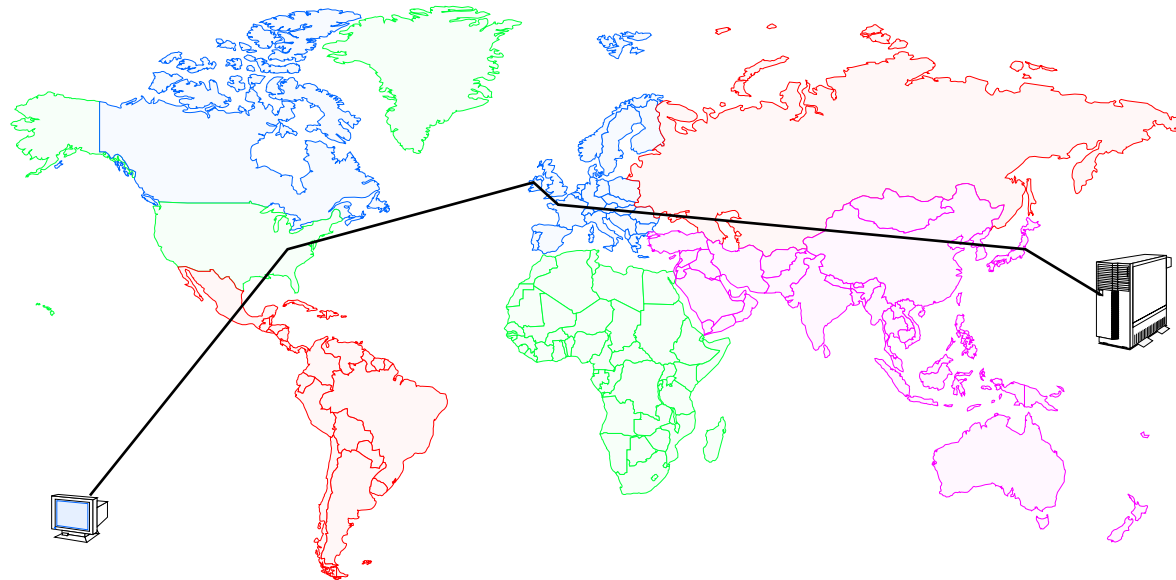
4th May 1995

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**Distribution:**  
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# The role of Information Systems





## In this session

- *Review the changes that affect enterprises*
- *Examine the evolving role of information systems in the enterprise*
  - and the expectations placed upon these systems
- *Examine the impact of distributed processing*
  - in supporting and enhancing information systems

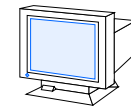


# What is the real business challenge?

## *Coping with change*

## The pressures for change

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





## Information usage

- *Operational support*
  - for business processes
  
- *Decision support*
  - for business analysis



## Information systems hierarchy

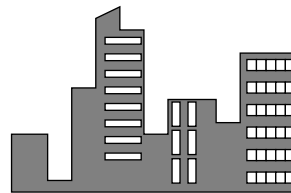
	<i>Sales</i>	<i>Manufacturing</i>	<i>Accounting</i>	<i>Finance</i>	<i>Personnel</i>
<i>Decision support</i>	Sales trend forecasting	Operating planning	Budget forecasting	Profit planning	Personnel planning
<i>Management information</i>	Sales management	Inventory control	Annual budgeting	Capital investment analysis	Relocation analysis
<i>Operational support</i>	Order processing	Material movement control	Accounting payable/receivable	Cash management	Employee records

Source: ATI





## Information exchange within the enterprise



- *Departments have their own information systems*
  - selected to match their specific activities
- *Departments may be geographically spread*
- *...there is greater benefit if information in the systems is integrated*



## Information exchange between enterprises

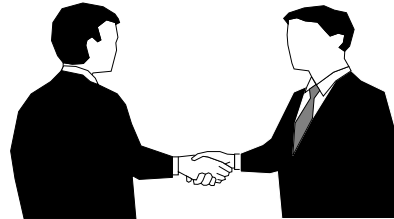


- ***Information is exchanged with***
  - **Partners**
  - **Suppliers**
  - **Customers**
- ***Information exchange between enterprises is not purely an information systems issue***



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## Information exchange with customers



- *Product and service availability*
- *Product and service status*
- *Timely and reliable delivery*
- *... supporting a relationship as preferred supplier*



## Information exchange for decision support

- *Long-term storage for trend analysis*
- *Inward flow to decision makers*
- *Outward flow to decision executors*



## Imperatives for information systems

- *Put information in the hands of those who need it*
- *Provide information, not just data*
- *Maintain the quality of information*
- *Remove duplication of effort, and activities that do not add value*



## Assuring the quality of information

- *The right information,*
- *in the right place,*
- *at the right time,*
- *in the right form*



## The right information

- ***Consistent***
  - with other information in the system
  
- ***Coherent***
  - accurately representing external facts
  
- ***Concise***
  - no extraneous information



## In the right place

- *Remote access to information*
- *Distribution of information*
- *Environment where information is delivered*





## At the right time

- *Response time*
  - how long from request to response?
  
- *Delay*
  - how up-to-date?



## In the right form

- *In the form required by the business process*
- *In an agreed format*
- *Intended for further processing, if required*
  - *by people*
  - *by other computer systems*



## Information systems assuring information quality

- ***Overcoming distance***
  - through transmission
  
- ***Overcoming time***
  - through storage
  
- ***Overcoming complexity***
  - through processing and presentation



## Distributed processing

- *Transmission can be distributed*
  - if appropriate
  
- *Storage can be distributed*
  - if appropriate
  
- *Processing and presentation can be distributed*
  - by exploiting client/server technology

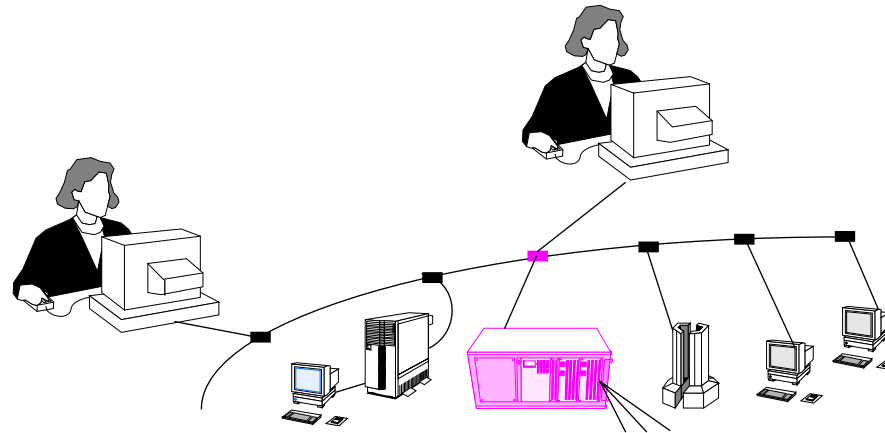


## Distributed processing in information systems

- *Keep the data and processing together*
- *Decentralize the processing of information*
- *Allow flexible presentation of information*
- *... client/server technology is a key enabler of distributed processing*

## Client/server in outline

- *'Client' machines presenting information to end-users*



- *'Server' machines storing and maintaining data*
- *Information processing is distributed between client and server via networks*



## Business issues leading to client/server computing

<b>Improving management information flow</b>	<b>23%</b>
<b>Better services for end-user departments</b>	<b>22%</b>
<b>Increasing customer focus</b>	<b>14%</b>
<b>Lowering total IT costs</b>	<b>12%</b>
<b>Managing IT costs better</b>	<b>12%</b>
<b>Freedom to choose vendors</b>	<b>9%</b>
<b>Company restructuring</b>	<b>6%</b>
<b>Other</b>	<b>2%</b>

Source: Rothwell/IDC



## Cost elements for client/server technology

- *Redesign of applications, databases, and interfaces*
- *New/extra network management systems and support*
- *New/extra system management tools*
- *Retraining of users and support staff*
- *Dual running during transition*
- *Avoiding or recovering from risk taking*

Source: Computer Finance





## Containing the cost elements

- *Take an evolutionary approach*
- *Protect existing investments*
- *Devolve administration of information systems selectively*
- *Choose client/server technology with care*



## Summary

- *Systems must react to the customer's changing requirements*
- *Information systems will span departments and organizations*
- *Client/server technology will enable information systems to adapt*