Collaboration
Technology and Market Dynamics
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Collaborative and Intranet Computing

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Topics

- What is Groupware?
- Intranet Effect
- Market Vendors and Dynamics
- Groupware Future
Groupware has been around for 8 years.

What is it?
Groupware - The Lotus View

Collaboration, communication, coordination

Notes

Domino

Notes Client

Web Client

ROW
Advanced messaging -
As long as it is part of Back Office; runs on NT; is integrated with IIS, SMS, SQL Server; and you pay us.
Threaded discussions, document management, workflow, searching, calendaring and scheduling, information sharing, etc.
Groupware - The Netscape View

What we sell (and we’re open)

- Collabra
- Mail
- NNTP
- Calendar
- ...

Communicator

Other Web Client
IDC’s Definition of Groupware

- The technology and human processes needed to create a collaborative work environment.

- Three components of groupware:
  - Collaboration
  - Workflow
  - Knowledge Base
Three Components of Work

Knowledge Base
- Ad-hoc and Structured Stores of Information

Workflow
- Administrative and Mission Critical

Collaboration
- Ad-hoc and formal
  - E-mail
  - Discussion Databases
  - White-board Technology
Workers use groupware to different degrees depending on their job requirements:

<table>
<thead>
<tr>
<th></th>
<th>Collaboration</th>
<th>Workflow</th>
<th>Knowledge Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>10%</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>Sales Force</td>
<td>85%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Marketing</td>
<td>55%</td>
<td>15%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Traditional Groupware

- Lotus Notes
- IBM OfficeVision
- Microsoft Exchange
- Novell Groupwise
- ICL TeamWare
- Mesa Conference+
- Oracle InterOffice
Network Based Groupware

• LAN based
• Replication
• High administration
• Secure
• Reliable
• Cost-to-use (1:5)
**The Intranet**

- **Intranet /n/** - The use of Internet standards and WWW Technology to create a controlled access network within an organization. Generally protected from outside intrusion by firewalls.
Web Browsers 1995 - 2000

- Worldwide Web browser use will grow from 10 million to over 180 million by the year 2000.

Source: IDC, December 1995
• Worldwide Intranet focused Web servers will grow from 100,000 to over 4.7 million by the year 2000.

Source: IDC, December 1995
Intranet Foundation to Groupware

- Web based
- Limited replication
- Moderate administration
- Secure
  - Intranet - Yes
  - Internet - Yes/No
- Network dependent
Intranet Groupware

- Netscape Collabra
- Open Text Livelink Intranet
- Radnet Webshare
- IntraActive
- Many others in development...
Intranet and Groupware

The answer is: BOTH

Knowledge Store

User

Groupware

User

Intranet
Key Technology Points:

- Use the three component view of groupware
- Match the tool to the use
- The Intranet is a foundation for a groupware application -- it is not groupware.
- All groupware will be intranet enabled
The Groupware Vendors and Market
Collaborative Application Market

- Integrated Collaborative Applications
  - Information Sharing
  - Electronic Conferencing
- Document Management
- Workflow
- Group Calendar and Scheduling
Groupware Use

- Static Publishing
- Collaboration
- Information Sharing
- Workflow
- Knowledge Management
- e-mail
- User Base
- Human Factors
# Integrated Collaborative Environments

<table>
<thead>
<tr>
<th>Technology</th>
<th>Leading</th>
<th>Open</th>
<th>Company</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Lotus/IBM</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>- Market leader</td>
</tr>
<tr>
<td>*Netscape</td>
<td>A-</td>
<td>A</td>
<td>A</td>
<td>- The internet experts</td>
</tr>
<tr>
<td>*Open Text</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>- Leading EDM/WF</td>
</tr>
<tr>
<td>Novell</td>
<td>B</td>
<td>A-</td>
<td>B-</td>
<td>- Struggling (*Novonix?)</td>
</tr>
<tr>
<td>*Microsoft</td>
<td>B+</td>
<td>B</td>
<td>A-</td>
<td>- Still clarifying message/position</td>
</tr>
<tr>
<td>SoftArc</td>
<td>B+</td>
<td>A</td>
<td>B</td>
<td>- Second tier - messaging focus</td>
</tr>
<tr>
<td>ICL TeamWare</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>- Good product outside US</td>
</tr>
<tr>
<td>Uniplex</td>
<td>B</td>
<td>B</td>
<td>B+</td>
<td>- May be interesting in future</td>
</tr>
<tr>
<td>Oracle Office</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>- Lack of sales limits future</td>
</tr>
<tr>
<td>Digital</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>- Mainframe solution OK - but</td>
</tr>
<tr>
<td>*Radnet</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>- Very interesting dev. env.</td>
</tr>
</tbody>
</table>

* potential expert panel partner
User Growth

Total ICE Installed Base of Users 1995 - 2000 (M)
ICE Revenue Growth

Total ICE Revenues 1995 - 2000 ($M)
ICE Drivers

- The migration of messaging to ICE products as the underlying infrastructure
- Recognition of human barriers
- Internet driving deployment within and outside the corporation
- Top four (Lotus/Microsoft/Netscape/Novell) squeezing second tier into niche areas.
- Competition driving ASP down and functionality up.
## Document Management

### Technology
- **Leading**
- **Open**
- **Company Strategy**

<table>
<thead>
<tr>
<th>Company</th>
<th>Leading</th>
<th>Open</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Open Text</em></td>
<td>A-</td>
<td>A-</td>
<td>A</td>
</tr>
<tr>
<td><em>Documentum</em></td>
<td>A-</td>
<td>B+/A-</td>
<td>A-</td>
</tr>
<tr>
<td><em>Novasoft</em></td>
<td>A</td>
<td>A+</td>
<td>A</td>
</tr>
<tr>
<td>PC DOCS</td>
<td>B+</td>
<td>B+</td>
<td>B+</td>
</tr>
<tr>
<td>IDI</td>
<td>B-</td>
<td>B-</td>
<td>C</td>
</tr>
<tr>
<td>Uniplex</td>
<td>B</td>
<td>A-</td>
<td>C</td>
</tr>
<tr>
<td>Interleaf</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Saros (Filenet)</td>
<td>C+</td>
<td>C+</td>
<td>C-</td>
</tr>
<tr>
<td>Novell</td>
<td>B</td>
<td>A-</td>
<td>B-</td>
</tr>
</tbody>
</table>

- Leading and partnering w/others
- Strong strategy - the one to watch
- New company and direction!
- Strong player
- Greatest number of users
- In evolution for EDM
- Re-inventing itself
- Still in transition
- Softsolutions with GroupWise

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Intranet bringing document management from specialized department to the masses.

The web is made up of documents!

EDM not trivial enough to be simply included with groupware - will remain as a distinct space.

EDM and top four partnerships

Traditional players (Documentum) may be caught on the wrong side of the ASP war.
## Workflow

<table>
<thead>
<tr>
<th>Technology</th>
<th>Leading</th>
<th>Open</th>
<th>Company Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Keyflow</em></td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>- Mid tier full functioned WF</td>
</tr>
<tr>
<td>Filenet</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>- Market leader in mid tier</td>
</tr>
<tr>
<td><em>Jetform</em></td>
<td>A-</td>
<td>A</td>
<td>A-</td>
<td>- The key player in routing space</td>
</tr>
<tr>
<td>Banyan</td>
<td>C</td>
<td>C</td>
<td>F</td>
<td>- Number 2 in users in routing</td>
</tr>
<tr>
<td>Action</td>
<td>A</td>
<td>B+</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Reach</td>
<td>B+</td>
<td>B+</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Formtek</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

* potential expert panel partner

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**Technology**
- Open
- Leading
- Strategy
Workflow Routing Drivers

- Workflow still the last area to be recognized
- Directory services key to the future
- Partnerships with ICE vendors
- Functionality being included with ICE/EDM
- A very hot area in 1998 - 2001
- Applications must be made easy to design/use
# Group Calendaring and Scheduling

<table>
<thead>
<tr>
<th>Technology Leading</th>
<th>Technology Open</th>
<th>Company Strategy</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft</td>
<td>B+</td>
<td>A</td>
<td>- Market leader</td>
</tr>
<tr>
<td><em>Lotus/IBM</em></td>
<td>A</td>
<td>A</td>
<td>- Aggressive, strong growth but #2</td>
</tr>
<tr>
<td>Franklin Quest</td>
<td>B-</td>
<td>A</td>
<td>- Range from paper to electronic</td>
</tr>
<tr>
<td>Now Software</td>
<td>B</td>
<td>A-</td>
<td>- Great second tier solution</td>
</tr>
<tr>
<td>On Technology</td>
<td>B</td>
<td>B</td>
<td>---- Second tier ----</td>
</tr>
<tr>
<td>CS+T</td>
<td>A-</td>
<td>B</td>
<td>A-</td>
</tr>
<tr>
<td>Campbell</td>
<td>A-</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Microsystems</td>
<td>A-</td>
<td>B+</td>
<td>B</td>
</tr>
<tr>
<td>CE Software</td>
<td>A-</td>
<td>A-</td>
<td>A-</td>
</tr>
<tr>
<td>Crosswind</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
</tbody>
</table>

* potential expert panel partner
Group Cal. and Sched. Drivers

- Human factors delay implementation
- Seen as part of groupware but rarely implemented
- Often free -- ASP - $5
- Second tier trying to find new areas to exploit
- Lackluster segment that will show moderate growth.
Groupware Future

- Searching (adaptive)
- Knowledge management
- Tactical solutions
- Management at the manager level
- Vertical/industry focus
- Workflow
Human factors are the key

If the employees won’t use it, the ROI will be negative
Summary

• Groupware is the primary intranet application and will show very strong growth through 2001.
• Collaboration will become a common part of the work environment.
• Limited number of key expert panel partners - but -
• competition will drive innovation and the search for new technology.