Deploying Sametime Multinationally at Lotus and IBM

ID 213 Best Practices

Mary Beth Raven, Iris Edward Conlon, Lotus Matthew Broomhall, IBM Mark S. Feinman, IBM
Agenda

- Overview of Sametime
- Deploying Sametime 1.5 and 2.0 at Lotus
- Deploying Sametime at IBM
  - deploying Connect 1.5 and 2.0
  - deploying eMeetings 1.0, 1.5, and 2.0
- Cultural and organizational issues surrounding deployment
Critical Elements of Sametime

- **Shared Objects**: Share and co-edit data, documents, programs, whiteboards, presentations.
- **Conversation**: Engage and communicate - instant message, chat.
- **Awareness**: Knowledge of virtual presence and state - buddy lists, place awareness, active names.
Sametime Connect 2.0

- Instant audio
- Instant video
- Instant collaboration
Instant Audio Call

Sametime Audio Meeting

Name
- Mary Beth Raven
- Wayne Baldwin
- Brian Pulito
- Ken Tango
- Elvis Presley
- Jimi Hendrix

You have permission to draw/share.

Mute

6 Participants 04:32:03

Applet started
Meeting Scheduler

- **Predefined meeting types**

- **Tabbed UI for defining meeting details**

## Lotus Sametime

### Meeting Center

#### New Meeting

To create a meeting, complete the information below.

- **Meeting type**: Collaboration
- **Meeting name**
- **Moderator**: Anonymous
- **Start Now**
- **Schedule**
  - **Date (mm/dd/yyyy)**: 9/21/2000
  - **Time**: 1:45 PM
  - **Duration**: 0d 1h 00m

Best meeting type for:
- small work groups and brainstorming sessions
- 2-5 participants
- Multiple presenters
- Everyone participating

## Lotus Sametime

- **New Meeting**
- **Attend Unlisted**
- **Active**
- **Scheduled**
- **Finished**
- **Today**
- **All Meetings**
- **My Meetings**
- **Calendar**
- **Test Audio / Video**
- **Help**
Mary Raven: We are really proud of our revenue this quarter.
Mary Raven: The team worked really hard.
Jose Luna: We are very happy with the results.

August 8
- IBM research develops 'watch' running Linux
- RS/6000 SP to perform oceanic research for U.S.
- IBM and Vignette develop e-business alliance

Connect now and save

IBM Corporation - Netscape

Resources for:
- Home/home office
- Small business
- Large business
- Government

IBM Online Store: Shop IBM
Support
Download

IBM

You are the meeting moderator
Mute
Mute
Mute

Speaker's Video
My Video

1 Participants 02:36:37

Y2k Marketing Plan

- Target 18-45 age groups
- Free Giveaways
- Initiate new product guidelines
- More competitive advertising
- 30 second Superbowl commercial
Sametime Server

Meeting Services
Java based
Application Sharing & Whiteboard
T.120

Community Services
Awareness, Instant Message, Chat

Real-time Infrastructure

Integration with Domino Server

A/V Services (optional)

Optional
Lotus Information Systems
Sametime Intranet Deployment

Edward Conlon
IT Architect
Early Deployment Engineering, Lotus IS
IBM Software Group, Global e-Business Transformation
Agenda

- Scope of deployment
- Our intranet community
- Our Sametime server
- User distribution
- Secrets/Tokens
- Audio/Video/Broadcast
Scope of Deployment

- **Audience**
  - 15-20k Internal Lotus/IBM users
  - Users located worldwide (APAC, EMEA, Latam, NA)

- **Provide global real-time communication**
  - Awareness
  - Instant Messaging/Chat/ AOL's Instant Messenger (AIM)
  - Spontaneous/scheduled collaboration sessions
    - App Share/Whiteboard
    - Audio/Video/Broadcasts

- **Leverage existing IT infrastructure**
  - Domino
    - Administration Policies/ACL/Security
    - Domino Directory Services
  - Other Lotus Product and services
Our Intranet Community

Mixed Sametime 1.5 and 2.0 Production Environment

- Functionality
  - Community Services (IM/Chat)
  - Meeting Services (App Share/Whiteboard)
  - Multimedia Services (Audio/Video 2.0)
  - Lotus Product Integration
    - Notes: Who is Online (WIO/Who is Here (WIH))
    - Raven: KStation Who is Here (WIH)
    - Lotus Translation Services

- Product Validation
  - Authentication/Access Control
  - Version-to-Version Compatibility
  - Client Flexibility
  - Directory Support
  - Scalable and Stability
  - Server Management
Sametime installed right *Out-of-the-Box* product

Sametime is installed on top of Domino
- 1.5 -> Domino 4.67
- 2.0 -> Domino 5.05

Sametime Services run as Domino Tasks
- Domino Directory/Directory Assistance
- Domino Administration/Security Policies
User Distribution

**Sametime Admin and Deployment Guide**
- Each Sametime Service should be factored when planning your environment
  - Community Services
  - Meeting Services
    - App Sharing/Whiteboard
  - Multimedia Services
    - A/V Broadcast
    - 2-way Audio
    - 2-way Audio/Video

**Lotus Intranet Distribution**
- Regionally Distributed Servers
  - Reduce WW Network Bandwidth
  - Isolate regional traffic
  - 5000+/- Users per server
- Leverage Domino Directory
- Infrastructure capable of
  - 25K + Concurrent IM
  - 2500 + Active Meetings
Lotus Intranet Community

- Lotus
- IBM
- Iris
- Databeam
- Ubique

Domino Infrastructure

- North America
- APAC
- EMEA

Sametime Intranet Community

= Audience
Secrets/Tokens

- **Identify a Sametime Hub-like Server**
  - The Sametime server generates *new* Secrets daily
  - Replication of Secrets will be needed if your environment contains two (2) or more server
  - Secrets should be treated with the same methodology as a Domino Directory
    - Administrator Controlled
    - ACL\Security lock down
    - Updates Distributed via replication
  - Set other Sametime Servers within community as reader
Audio

- **Hardware Used**
  - Andrea Electronics Echo-Canceling Headsets
  - Polycom SoundpointPC (PC Speaker Phone)

- **Our Experience**
  - Audio Meetings were a better experience for users
  - Switch rate from active speaker was 1-2 seconds.
  - Some cameras come with built in Non-Echoing canceling microphones
  - Foresee a large usage
Video

■ Hardware Used
  • USB Camera
    ▪ IBM PCCamera ProMax (MS '95 /'98/W2k)
    ▪ Logitech QuickCam (MS '95 /'98/W2k)

■ Our Experience
  • Users were comfortable with a short video refresh rates
  • Extended video refresh rates did effect the flow of a meeting
    ▪ Some users focused on what they were seeing vs. what they were hearing
A Sametime Broadcast meeting includes two types of users:
- "presenters" use the Sametime Meeting Room client to engage in interactive collaborative activities in a meeting.
- "audience members" watch the actions of the presenters in a special view-only Sametime Broadcast client but does not interact in the collaborative activities.

To conserve network bandwidth usage, you can configure the Broadcast Services to take advantage of the multicast functionality.

When multicast is enabled and a broadcast meeting begins:
- the Broadcast Services randomly selects a multicast address for the meeting from a predetermined range of Class D multicast addresses.

The Broadcast Services transmit the selected multicast address to the multicast-enabled routers and the Broadcast clients.
Multicast Deployment

- **Our Multicast preparation for Broadcast Meetings**
  - PIM-SM (protocol independent multicast - sparse mode) enabled on all routers
  - Created a single multicast domain
  - Enabled Cisco Routers to act as Rendevouz Points (RP)
    - Assigned Router within close proximity of the Sametime Server
    - Configured a range of addresses to both the Sametime Server and RPs
  - Enable Multicast Bootstrap (BSR) protocol
    - This propagates the mapping of RPs-to-address range through the whole multicast domain.
    - Leaf routers use information obtained via BSR to locate the RP for a particular multicast address.

*In an attempt to eliminate flooding on a Layer-2 network*
  - We enabled IGMP snooping
  - CGMP, a Cisco proprietary protocol, is another option
Sametime @ IBM

Matt Broomhall - Sr. IT Specialist
Server and Data Center Strategy
Office of the IBM CIO
Overview

- Mission
- Original Assumptions
- Solution
- Pilot
  - Lab
  - SOC
  - Findings
- Remediation
- Current status
- 2X planning
  - Arch design goals
  - Geographic placement
  - Wireless Access
- Pilot process
Team Mission

- Provide instant messaging to all IBM employees worldwide
- Position IBM as reference account
- Strengthen product by providing "enterprise" experience to product development
Original Assumptions

- Many demographic and population assumptions based on advanced technology pilot of VPBuddy
- Precursor product to Sametime Comet
- Environment would need to support 385,000 registered IBM employees worldwide
- Environment would need to support up to a maximum of 120,000 concurrent users
- Approximately 1/3 of total employee population
- East coast IBM employees starting work day
- European employees still online
Original Assumptions (Continued)

- Deployment needs to include configuration that maximized load balancing and failover
- Limited options in Sametime 1.5
- Does include capability to deploy multiple Community Servers in the same Community
- Domino R4.X NAB design would not support full IBM population
- 75 individual country and geography-specific NABs in IBM mail infrastructure could not be cascaded to support a single instant-messaging community
The Solution

- Settled on a solution that provided capability to use a single common directory
- "Custom" non-Domino version of Sametime 1.5
- LDAP access to back-end directory for authentication
- Custom software developed for authentication and name lookup
- Systems deployed co-located with directory services
- Minimize potential impact of WAN/LAN latency or outages
- As seen in Time Magazine on November 6, 2000
The Architecture

- Initial implementation - single site
- Eight MUX servers configured to provide connections to 15k end users each
- Two Community Servers - redundancy
- Round robin DNS to sequentially load connections to each MUX server
- Externalized directory services
IBM Instant Messaging Infrastructure Design

MUX - manages connection between end user and community server

CS - Community Server - maintains "who is online" and passes messages between users of system

Load balancing with round-robin DNS

Directory Service

-messaging.ibm.com
Pilot - Lab

- Initial Sametime Connect 1.5 pilot run out of SWAT (Strategic Web Application & Technology) lab in Southbury, CT
  - Product characterization
  - Function validation
  - Investigate several architecture options
  - Validated final configuration (8/2)
  - Developed custom authentication/name lookup software
**Pilot and Findings - Service Delivery Center**

- Move pilot to production environment in Boulder (7/00)
- Usage ramped by approximately 500 users per week
- Environment became unstable at 25,000 concurrent users
  - Low authentication rate throughput
  - LAN/WAN latency
- Resulted in
  - Long login times
  - Many disconnect events
Pilot and Findings - Service Delivery Center

- **Root cause analysis**
  - Found bottleneck in authentication and name lookup software
  - Found very busy LAN at delivery center campus
    - Introduced latency - disconnects
  - Coincidental anomalies discovered at other campus LANs and remedied as found
  - LAB environment was unable to duplicate heavily loaded campus/complex LAN or effect of shared environment

- Product development participated extensively in both analysis and remediation
Remediation & Deployment Readiness

- Remediation
  - Authentication and name lookup software split into two components
  - Program change to maintain persistent connection to directory
  - MUX server and TCP/IP settings changed to accommodate latency due to busy LAN segments
Current Status

- End user drop rate dramatically reduced
- Over 90,000 unique logins
- Over 45,000 concurrent users
- Server utilization 10 - 20%
- User population growth averaging 800 per week
- Production announce scheduled for third week of January, 2001

Unique user logins

11/10 - 12/5/2000
2X Planning

Planning cooperative effort between:

- Product development
- Lotus IS
- Service delivery teams

Process enhancements include:

- Product development ability to address problems quicker and with more knowledge of environment
- Product development has greater overall stake in architecture due to collaboration during architecture design
- Get greater benefit from Lotus early product experience
2X Architecture Design Goals

2X design goals include:
- Fully integrated environment
- Instant Messaging
- Notes Mail/Domino
- Online Meetings
2X Architecture Design Goals

- 2X design goals include:
  - Use of an "off the shelf" product
  - For Instant Messaging this also means ability to use full feature set
  - Awareness in mail
    - Notes "Who is Online"
    - Notes "Who is Here"
  - Server-based buddy list
  - Server-based privacy
  - Integration with existing Notes/Domino infrastructure
For Meeting Services:

- Co-locate Instant Messaging infrastructure with the Ad-Hoc application/object share infrastructure
- Run on separate server "clusters"
- Isolate impacts of one service on another due to very different service characteristics
- Provides end user more complete feature set
- Integration of scheduled meeting services
- Planned for 3Q01
2X Architecture Design Goals (Continued)

To meet these design goals:

- 2X architecture design activities started in September, 2000
- Servers readied in December, 2000
- Early pilot activity scheduled for January start
- First activity will be to configure servers to operate in current environment
- Will provide a smoother transition to new architecture using the "off the shelf" product
To accomplish integration with Notes/Mail infrastructure:

- Target infrastructure to utilize a directory common to both.
- Co-locate directory with Sametime infrastructure.
- DirCat strong possibility due to size, manageability and availability within the mail server infrastructure.
- Will provide good options to link IBM and Lotus communities.
Additional design goals included:

- Provide capability for multi-geographic deployment
- Conserve bandwidth in geographic areas where expensive
- Maximize end user experience
- Reduce load on WAN segments to Boulder SDC

Two new delivery sites to include:

- Southbury, CT and Portsmouth, UK
- Other sites also planned
Wireless Access

- 2X Pilot study to include impact of alternative client access to infrastructure
  - WAYLAN
  - Scalability
  - Wireless client access
    - PDA
    - Cell phone
    - Two-way pager
Sametime 2X - Target Architecture

*Geography based clusters
- Boulder - messaging1
- Southbury - messaging2
- Portsmouth - messaging3

messaging1.ibm.com
messaging2.ibm.com
messaging3.ibm.com

Regional Scheduled Meeting Clusters
Load balancing with IBM eNetwork Dispatcher

w3.ibm.com/team/emeeting

Regional Ad-Hoc App-Share Clusters
Load balancing with IBM eNetwork Dispatcher

"Regional" Geography Community Clusters*
Domino-based

Knowledge Awareness
IM

ST
ST

MUX MUX MUX MUX MUX MUX

CS CS

ST ST

"eMeetings"
2X Pilot Process

- Pilot process evolved to include early participation from:
  - Product development
    - Collaborate on architecture design
    - Collaborate on features
  - Lotus IS
    - Utilize early Lotus experience
      - Lotus field test IBM architecture components
  - Service Delivery (IGA/IGS)
    - Participate collaborate with Lotus IS in early phases
    - Utilize Lotus during all phases of IBM pilot
    - Pilot "enterprise" features as available
The Sametime e-meetings Center in IBM

Mark S. Feiman
IBM Global Services

Revision 2, 12/15/2000
Agenda

- Sametime 1.x meeting management
- Why did we customize Sametime meetings?
- What customization did we do?
  - the Receptionist/Room model
  - enhanced logging
- What does the solution look like? (screenshots)
- What do we plan to do in the future?
The Sametime e-meetings Center in IBM

1. The Sametime e-meet
2. Agenda
3. Sametime Meeting Management
4. Sametime Meeting Management
5. Why Did We Customize
6. e-meetings Center 1
7. e-meetings Center R
8. e-meetings Center R
9. Book Meeting Form
10. Book Meeting Form
11. Book Meeting Form
12. Acknowledgement Ex
13. Acknowledgement Ex
14. Meeting Booked Succ
15. Acknowledgement Ex
16. Change Meeting Page
17. Active Meeting List
18. e-meetings Center 1
19. Dispatcher Console
20. e-meetings Center 1
21. e-meetings Center 1
22. By Geography, November
23. By the number of atten
24. By the number of atten
25. By Date, By Mtg
26. Monthly, by hour of day
27. Daily, Meetings by Hox
28. Registered Users, by H
29. e-meetings Center 2.0
30. e-meetings Center 2.0
31. Why Regional Room
32. The End!

(got all that?)
Meetings managed by server, large user base requires multiple servers

- Some users schedule meetings on one server, others schedule meetings on another server
- Moderators need to identify on what server they placed their meeting and inform their audience
  - They may forget
  - Need to search multiple servers
  - Attending users may also need to check multiple servers if they forget
Sametime 1.x Meeting Management

- No checks on capacity at schedule time
  - Server informs administrator if threshold reached at meeting run time
  - Server overutilization imminent
  - Complex "invited server" relationships
  - Too late to do anything about it for currently active meetings

- Meeting usage statistics by Geography
  - Sametime 1.x log too generic
  - No rollup capability
Why Did We Customize Sametime Meetings?

- **Ease of use**
  - users go to one place to manage their meetings
  - remove burden of remembering meeting server

- **Scalability**
  - manage meetings on one server
  - conduct meetings on one or more Sametime servers
  - determine available capacity for meetings when scheduled, not when active
e-meetings Center Receptionist

<table>
<thead>
<tr>
<th>e-meetings Dispatcher (Java)</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-meetings Receptionist Server</td>
</tr>
<tr>
<td>Domino 4.66c</td>
</tr>
<tr>
<td>Windows NT 4.0 SP6a</td>
</tr>
</tbody>
</table>

**Preparation:**
- install "wizard"
- registration

**Meeting Management:**
- create
- modify
- cancel
- link to join meeting

**Assistance / Feedback:**
- tutorial
- discussion
- meeting survey

**Dispatcher:**
- load balancing
- activates meetings
- chooses room server
- deletes ended / canceled meetings
Meeting Management:

- User books meeting using the "Book Meeting" form
  - majority of the user experience:
    - determine number of attendees
    - attach files for whiteboard presentation
    - specify meeting start and stop times

- Upon submission, capacity checked
  - maximum number of attendees: 200
  - maximum meeting length: 8 hours
  - limits customizable
  - ensure sufficient capacity at run time
  - room server is not assigned until meeting starts
You can either schedule a meeting or start one immediately. Required information is marked by an asterisk (*):

*Meeting Name:  

*Meeting Manager:  Mark Feinman/Fishkill/IBM

The e-meeting Center:  07:30 PM New York time

*Meeting Times:  

When would you like your meeting to start:

- Start Now
- Schedule

*Start Date:  

*Start Time:  
*Start Date: 12/14/2000
(mm/dd/yyyy)

*Start Time: 7:30
(Use New York time)

*End Date: 12/14/2000
(mm/dd/yyyy)

*End Time: 8:30
(Use New York time)

Note: The meeting room will be available 15 minutes before the scheduled start time.

*Number of participants:

Attach a file to present on the Whiteboard:

**Important Whiteboard Tips**

No Attachments

Attach a File...
Discussing IBM Confidential information?

- check if "yes" and follow these steps to protect sensitive information.

List meeting:

- List this meeting in the calendar

Meeting Password:

(The password will not be displayed as you type it).

Confirm password:

Submit For Processing
Please Wait...

We are checking the server's availability for your requested time.

This should only take a moment.

Space is available.

The server can accommodate your meeting of 3 participants.

Please confirm that you would like to reserve the space.

CONFIRM  RESCHEDULE
Sorry

There is space remaining on the server to accommodate a meeting of up to 20 participants.

If possible, reduce the number of participants or select another time.

\(\text{OK}\)

Sorry

There is no space remaining on the server to accommodate your meeting.

If possible, please select another time.

\(\text{RESCHEDULE}\)
Meeting Rescheduled or Updated

Your meeting, "A Late Thursday Night", has been rescheduled / updated in the e-meetings Center. If you changed the date / time of your meeting, remember to inform your invited guests of this change.

Option:

Book an audioconference online, if you and your participants are in the U.S. or Latin America. An e-mail confirmation of the audioconference details will be sent to you automatically.
<table>
<thead>
<tr>
<th>Start Date and Time</th>
<th>Meeting Title</th>
<th>Meeting Manager</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/16/2000 11:00 AM</td>
<td>e-meetings Server 53</td>
<td>Benjamin E Maynard/Sterling Forest/IBM</td>
<td>Active</td>
</tr>
<tr>
<td>11/16/2000 11:03 AM</td>
<td>e-meetings Server 54</td>
<td>Benjamin E Maynard/Sterling Forest/IBM</td>
<td>Active</td>
</tr>
<tr>
<td>11/16/2000 11:05 AM</td>
<td>e-meetings Server 55</td>
<td>Benjamin E Maynard/Sterling Forest/IBM</td>
<td>Active</td>
</tr>
<tr>
<td>12/14/2000 07:34 AM</td>
<td>stefan2</td>
<td>Stefan Bugmann/Switzerland/IBM</td>
<td>Active</td>
</tr>
<tr>
<td>12/14/2000 12:08 PM</td>
<td>IQT Usability evaluation</td>
<td>Debby Goldberg/Gaithersburg/IBM</td>
<td>Active</td>
</tr>
<tr>
<td>12/14/2000 03:47 PM</td>
<td>Global ISM and N&amp;C Monthly Conf Call</td>
<td>Kevin Bogart/Cary/IBM</td>
<td>Active</td>
</tr>
<tr>
<td>12/14/2000 07:36 PM</td>
<td>Sue Test</td>
<td>Brian A Bayne/Los Angeles/IBM</td>
<td>Active</td>
</tr>
<tr>
<td>12/14/2000 07:45 PM</td>
<td>Brian Test</td>
<td>Sue Senescu/Los Angeles/IBM</td>
<td>Active</td>
</tr>
<tr>
<td>12/15/2000 02:00 AM</td>
<td>WR Process Review - Nov'2000</td>
<td>Yves Guillarmou/Canada/IBM</td>
<td>Scheduled</td>
</tr>
<tr>
<td>12/15/2000 03:15 AM</td>
<td>EMEA IGS SKILL MANAGEMENT TEAM</td>
<td>Dave Viney/UK/IBM</td>
<td>Scheduled</td>
</tr>
<tr>
<td>12/15/2000 03:15 AM</td>
<td>Worms Plug</td>
<td>Michel Glisse/Canada/IBM</td>
<td>Scheduled</td>
</tr>
</tbody>
</table>
This page lets you view, change and cancel your meetings. To work with a meeting, simply click on its name.

**Meeting Manager:** Mark Feinman/Fishkill/IBM.

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<tbody>
<tr>
<td>12/16/2000 07:30 PM</td>
<td>A Late Thursday Night</td>
<td>Mark Feinman/Fishkill/IBM</td>
<td>Scheduled</td>
</tr>
<tr>
<td>12/16/2000 07:45 PM</td>
<td>Overbooked</td>
<td>Mark Feinman/Fishkill/IBM</td>
<td>Scheduled</td>
</tr>
<tr>
<td>12/16/2000 07:45 PM</td>
<td>Meeting 3</td>
<td>Mark Feinman/Fishkill/IBM</td>
<td>Scheduled</td>
</tr>
<tr>
<td>12/16/2000 07:45 PM</td>
<td>Meeting 2</td>
<td>Mark Feinman/Fishkill/IBM</td>
<td>Scheduled</td>
</tr>
</tbody>
</table>
Hello and welcome to the e-meetings Center.

- Register with the e-meetings Center.
- Re-set your password.

Your computer's time: 07:24 PM

The e-meeting Center: 07:19 PM New York time

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<td>Benjamin E. Morrow/Sterling</td>
<td>Active</td>
</tr>
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</table>
e-meetings Center

Dispatcher Task

- Java Application
- Runs on Receptionist Server only
- Runs continuously like a Domino server "add-in" task
- Started on Receptionist Server startup
- Has its own console
- Performs load balancing for all scheduled meetings that are due to become active within 15 minutes
- Deletes any cancelled or finished meetings

Windows NT 4.0 SP6a

Domino 4.66c

e-meetings Receptionist Server

Dispatcher (Java)
Dispatcher Console

12/15/00 9:57 AM: Iterator(): free memory = 18532016
12/15/00 9:58 AM: Iterator(): free memory = 18395072
12/15/00 9:58 AM: Iterator(): free memory = 18185368
12/15/00 9:59 AM: Iterator(): free memory = 17911392
12/15/00 10:00 AM: Iterator(): free memory = 17701592
12/15/00 10:01 AM: Iterator(): free memory = 17564224
12/15/00 10:01 AM: Iterator(): free memory = 17426144
12/15/00 10:02 AM: Iterator(): free memory = 17217288
12/15/00 10:02 AM: Dispatched: "e-Business CoE Technical Forum <Beta>" to daelab03.fishkill.ibm.com
12/15/00 10:02 AM: Exposed: "e-Business CoE Technical Forum <Beta>" (CN=Sal Moccardi/OU=Somerset/O=IBM)
12/15/00 10:02 AM: Iterator(): free memory = 17017264
12/15/00 10:03 AM: Iterator(): free memory = 16879840
12/15/00 10:03 AM: Dispatched: "ESM Accelerator Engagement Flow" to daelab03.fishkill.ibm.com
12/15/00 10:03 AM: Exposed: "ESM Accelerator Engagement Flow" (CN=Clyde Foley/OU=CanWest/O=IBM)
12/15/00 10:03 AM: Iterator(): free memory = 16635336
12/15/00 10:04 AM: Iterator(): free memory = 16498208
12/15/00 10:04 AM: Iterator(): free memory = 16360032
12/15/00 10:05 AM: Dispatched: "EJB2.0 CMP" to daelab03.fishkill.ibm.com
12/15/00 10:05 AM: Exposed: "EJB2.0 CMP" (CN=Teresa Kan/OU=Rochester/O=IBM)

* The Dispatcher MONITOR program is running... *
* ***********************************************
A "Room" Server is a Sametime Server

Room servers run meetings

Community Services tasks disabled

As capacity grows, additional room servers can be added

Entry to a meeting is logged
On any room server:

- User enters meeting using link provided by receptionist
- Document created in log database (QueryOpen event)
- Nightly agent collates "entry" documents
  - counts users who entered each meeting
  - determines geography of meeting chairperson
- Administrator rolls up each server's stats into one database
- Manipulate usage statistics views to derive usage
  - daily, weekly, bi-weekly, monthly, yearly
  - by Geo, by hour of day, by number of attendees
  - drill-down views "simulate" spreadsheets
  - views not meant to be completely expanded
### Number of e-meetings

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of e-meetings</th>
<th>Expected Total Attendees</th>
<th>Total Attendees</th>
<th>Average ManHours</th>
<th>Total ManHours</th>
<th>Average Length (hrs)</th>
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**By Geography, November 2000**
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By the number of attendees (Daily)
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By the number of attendees (cont’d)
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<td>18735</td>
<td>2847</td>
</tr>
<tr>
<td>11/30</td>
<td>1430</td>
<td>1280</td>
<td>178</td>
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<td>1</td>
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<td>15</td>
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<td>ComputingNews vor Ort</td>
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<tr>
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<tr>
<td>Content Management: Griff &amp; Carol Prep Remote</td>
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Monthly by hour of day

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<th>Expected Attendees</th>
<th>Actual Attendees</th>
<th>Total Meetings</th>
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<tr>
<td>November</td>
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<td>18735</td>
<td>2847</td>
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<tr>
<td>12:00 AM</td>
<td>18</td>
<td>18</td>
<td>8</td>
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<tr>
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<td>51</td>
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## Daily Meetings by Hour

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<tbody>
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<td>September</td>
<td>13452</td>
<td>11803</td>
<td>2112</td>
</tr>
<tr>
<td>October</td>
<td>14753</td>
<td>12895</td>
<td>2157</td>
</tr>
<tr>
<td>November</td>
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<td>2847</td>
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<tr>
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## Registered Users, by Month

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<th>LA</th>
<th>AP</th>
<th>Unknown</th>
<th>Total</th>
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<td>86</td>
<td>146</td>
<td>11</td>
<td>3,522</td>
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</tbody>
</table>

25,000 users carried over from pilot not reflected in these numbers
IBM user

ND or ICM

Recep 1
Dispatcher (active)

Recep 2
Dispatcher (idle)

Dispatcher (active)

Regional Meeting Servers

Domino R5
Receptionist Cluster

External Meeting Servers

Ext 1

Ext 2

Ext 3

External "Receptionist"

Firewall

Data Sharing Only

EmEA

LA

AP

53 54
55 NA
55
53 54
55
53 54
55
53 54
55

Regional Meeting Servers

Audio WebCast Center (w/ Public Users)

Public A/V 1

Public A/V 2

Audio webcast with public users

Ext Recep

Ext user
For all meetings held in July:

- majority of meetings are held amongst people of the same region
- very few meetings held that contained participants across regions
- most meetings "pushed" to room servers dedicated to the geography. That is, the meeting would take place on the room server "closest" to the chairperson

- AP: 5 of 61 meetings (8%) had participants in multiple geos
- LA: 4 of 34 (11%)
- EMEA: 35 of 512 (7%)
- NA: Roughly 10 - 15%
Cultural and Organizational Issues Around Deployment

Mary Beth Raven, Lead U Designer for Sametime
Cultural and Organizational Issues Surrounding Deployment

- Deploying Connect
- Deploying the Online Meeting Center
Organizational Issues with Connect

- Make sure a "critical mass" of people get it at the same time.
  - Many users log in a few times, and if not enough other useful people are online, they stop using Connect.
  - Encourage new users to learn my "IMing" each other.
Don't Worry ...

- Volume of social chat peaks about 3 weeks after Connect is introduced
- Most users never hide (never use "who can see me")
Create Norms Before You Deploy

- Decide on and publish chat norms
- Use IM for time-critical questions
- Use IM for questions that have clear answers (where is the meeting?)
- Do NOT try to have design meetings in an IM
- BUT! IMs are often better than phone with people who are not native speakers
More Norms

- State clearly: When one person types "bfn" (bye for now), the chat is over. Don’t "goodbye" each other forever.
- Keep using E-mail for issues that can wait.
- Keep using voice (Phone, IP Audio) for issues that need discussion.
- State clearly: Do you treat IMs as urgent?
Issues with Deploying Online Meetings

- People in online meetings take longer to make decisions
- Have more difficulty achieving consensus
- Tend to perceive each other as more adversarial than people meeting face to face.

(Hilz et al, Segel et al, Sproull and Kiesler)
Online Meeting Issues

- Meeting leaders are LESS likely to emerge in an online meeting than face to face (Hilz et. al.)
- Sametime has a meeting moderator for every meeting—USE THIS ROLE!
More Online Meeting Issues

- Make these issues clear to everyone and set expectations accordingly.
  - Add 15 min to every hour of online meetings.
  - Make sure everybody knows that online meetings appear to make them look more adversarial.
  - Encourage people to be extra-reassuring or confirming.
  - Practice active listening.
What the Moderator Should Do

- Ensure that everyone can hear
  - Phone or IP audio
  - Poll and acknowledge remote participants
  - Introduce everyone; acknowledge late joiners
  - Ensure that each speaker identifies herself or himself
  - Encourage people to use the mute button
What the Moderator Should Do...

- Announce the end of a meeting before ending the online portion or hanging up.
- Use the online pointing devices (not your fingers or even your mouse).
- Remember the refresh time for new screens; slow down the speaker if necessary.
References


Questions?

30m

Lotusphere
Related Lotusphere Presentations

- **AD 101 - Adding Sametime 2.0 to Domino Collaborative Applications**
- **BP 101 - Adding Lotus Sametime to your Collaborative Commerce Website**
- **AD 109 - Web Implementations of Sametime 1.5/20**
- **KM 123 - Configuring Sametime for Global Collaboration**
- **ID 155 - Optimizing Your Network for Sametime**
Related Links

- WWW.LotusCom/Sametime
- Stdemo02.lotus.com