ABSTRACT
For many years, people have wanted to share single-user applications. The vision has been to replicate instances of a single-user application throughout the network and transmit input events from one instance to the others. Although there have been numerous attempts at building such collaboration-transparent sharing systems, many issues remain unresolved. The intent of this workshop is to review the state of the art in application sharing with the goal of identifying how application architecture can better support collaboration transparency.

1. MOTIVATION
1.1 Background
Collaborative use of replicated, single-user applications has long been a dream of CSCW practitioners. If such a system were available, then the myriad of single-user applications could be repurposed as collaborative tools. Not only would people be able to collaborate, they would be able to collaborate with the applications to which they are accustomed.

Today, despite much research in this area, the choices for synchronous sharing of applications are limited. A few applications, such as multi-user games, are developed with synchronous sharing systems, many issues remain unresolved. The intent of this workshop is to review the state of the art in application sharing with the goal of identifying how application architecture can better support collaboration transparency.

1.2 Issues
All of these systems have highlighted a number of difficult issues with application sharing:

- Collaboration-aware applications versus collaboration-transparent sharing. Is collaboration transparency achievable at a cost? What sorts of applications are amenable to collaboration-transparent sharing?
- Centralized versus replicated architectures. Centralized event dispatching keeps application state synchronized but at the cost of increased latency and poor user experience. On the other hand, replicated systems have
3. ACTIVITIES
The workshop will be run over a full day, with the majority of time spent on discussion and brainstorming. The day will be structured as follows:

- Introductions and presentations. The participants will introduce themselves, list their interests, and present their position on application sharing. Position presentations will be grouped so that similar issues are presented at one time.
- Discussion on architecture. Once a number of issues have been presented and discussed, the workshop will focus on making application sharing easy. What things work well in an application sharing system? How should future applications be architected to better support application sharing?
- Future directions. How should the workshop participants follow up on the day’s discussions?

4. ORGANIZATION

4.1 Participation
We seek to invite a maximum of 15-20 participants on the basis of position papers submitted prior to the workshop.

4.2 Submissions
Interested participants will need to submit position papers before September 1st. Each position paper should be no more than 4 pages in standard ACM CSCW formatting. Position papers must include the following sections:

1. Title, names, affiliations, and email addresses of the authors.
2. Description of recent or current work in collaboration-transparent application sharing. The section should describe the issue or problem as well as the architectural solution to the issue.
3. Suggestion(s) for architectural changes in applications which would make sharing easier.
4. Short biography of the authors’ backgrounds, areas of expertise, and motivation for participating in the workshop.

Submissions must be in PDF format, and emailed to steven_rohall@us.ibm.com. Submissions must include the name, contact, and full address of the author.

Copies of the accepted position papers will be distributed to all participants prior to the workshop.

4.3 Selection Process
The organizers will review all submissions and select participants. Depending upon the number of submissions, participation in the workshop might be limited for submissions with multiple authors. To the extent possible, submissions will be selected so as to present a range of issues and solutions. All participants are required to register to attend CSCW 2004.

4.4 Timeline
- After June 14: Call for position papers.
- September 1: Deadline for position papers
• September 1-29: Review position papers
• September 30: Notification of acceptance
• October: Preparation for workshop

The workshop preparations include preparing the informal proceedings with all of the papers, emailing out the agenda and structure of workshop presentations and discussions, and any additional logistics. If possible, a wiki will be created to allow download of position papers and discussion both before and after the workshop.

4.5 A/V REQUIREMENTS
The organizers will bring own LCD projector; screen to be provided by conference.

4.6 ORGANIZERS

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Steven Rohall is a software architect at IBM Research. He is currently working on the Zipper [9] system for replicated application sharing. Prior experience in synchronous groupware includes the VIEP [10] system while at TASC and the Rendezvous [5] system while at Bellcore (now Telcordia Technologies). Other research interests include information visualization and electronic mail.

James “Bo” Begole
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Bo is a staff scientist in Sun’s Network Communities group, where he focuses on distributed collaboration. Prior to joining Sun, Bo developed the Flexible JAMM [2] system for supporting collaboration transparency.

5. REFERENCES