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http://www.cs.rit.edu/~bdi8241/adhoc/

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Overview

- Creating an ad-hoc grid to be used for parallel or distributed computing

Problem

- How to create a framework that allows easy entry of new problems
- How to measure the performance of an ad-hoc grid

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Approach

- Lower the scope of the entered problems to fractals
- Create a framework that allows any user to create a problem, work on a problem, or view the final result of a completed problem
- Research and implement a metric for determining performance

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Software

- Interface for easy creation of a new problem
- Interface to start/stop work on one or more problems
- Display the progress or final result
- Display the speed metric for a problem

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P2P Computing

Creation of a middleware application that allows mobile devices to connect to existing grid platforms and share their resources. The middleware also tries to deal with the limitations of mobile devices, such as connectivity loss and power consumption.

Citation: Middleware services for P2P computing in wireless grid networks
Junseok Hwang; Aravamudham, P.;
Internet Computing, IEEE
Volume 8, Issue 4, July-Aug. 2004 Page(s):40 – 46
http://ieeexplore.ieee.org/iel5/4236/29152/01315562.pdf?tp=&arnumber=1315562&isnumber=29152

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Ad-hoc Distributed Resource Sharing

Explains the difficulties and challenges associated with sharing resources over an ad-hoc network. Provides an example application that is a framework for distributed audio recording and mixing.

Citation: Lee W. McKnight, James Howison, Scott Bradner, "Guest Editors' Introduction: Wireless Grids--Distributed Resource Sharing by Mobile, Nomadic, and Fixed Devices," IEEE Internet Computing, vol. 08, no. 4, pp. 24-31, Jul/Aug, 2004.
http://doi.ieeecomputersociety.org/10.1109/MIC.2004.14

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Ad-hoc Grid Environment

Extends an existing grid platform to allow it to operate in an ad-hoc network. Goal is to allow every computer in a company to form a dynamic ad-hoc grid that can also connect to a larger classic grid.

Citation: Friese, T., Smith, M., and Freisleben, B. 2004. Hot service deployment in an ad hoc grid environment. In Proceedings of the 2nd international Conference on Service Oriented Computing (New York, NY, USA, November 15 - 19, 2004). ICSOC '04. ACM Press, New York, NY, 75-83. DOI= http://doi.acm.org/10.1145/1035167.1035179

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Collaborative Problem Solving Framework

Presents a proof-of-concept framework that allows a collection of mobile devices to work together to solve a problem. It also has the ability to measure the performance of the network.

Citation: Kurkovsky, S., Bhagyavati, and Ray, A. 2004. A collaborative problem-solving framework for mobile devices. In Proceedings of the 42nd Annual Southeast Regional Conference (Huntsville, Alabama, April 02 - 03, 2004). ACM-SE 42. ACM Press, New York, NY, 5-10. DOI= http://doi.acm.org/10.1145/986537.986540

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