Shruti: Dynamically Adapting Aggregation Aggressiveness

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**SDIMS** [Yalagandula & Dahlin SIGCOMM’04]

- **Scalable Distributed Information Management System**
  - Aggregation abstraction
    - Detailed views of nearby information
    - Summarized views of global information

- Key building block for large distributed applications
  - System administration, multicast, object location, naming, ...
Choosing Aggregation Strategy

- Attributes have different read-write patterns
  - Examples: machine-load, num-processors

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<thead>
<tr>
<th>Update-none</th>
<th>Step 1</th>
<th>Step 2</th>
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<td>Write</td>
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Shruti: Dynamically adapting strategy

- A lease based mechanism
  - Lease from A to B implies
    - Any updates at A are propagated to B
    - B does not need to contact A on reads

- Set leases based on observed read and write history
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More information about SDIMS at

http://www.cs.utexas.edu/~ypraveen/sdims