

Updating XML Documents in Distributed and Cooperative Systems

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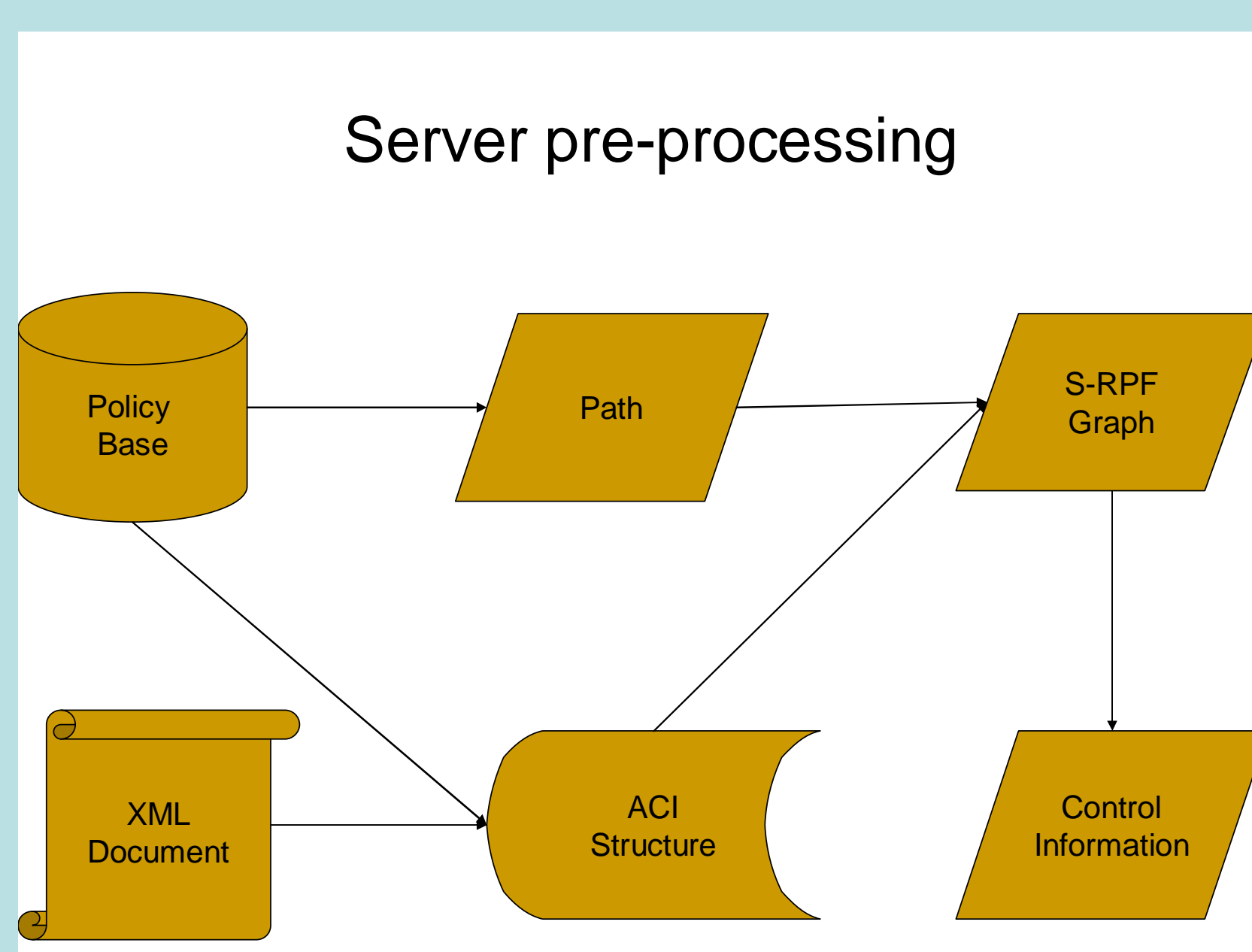
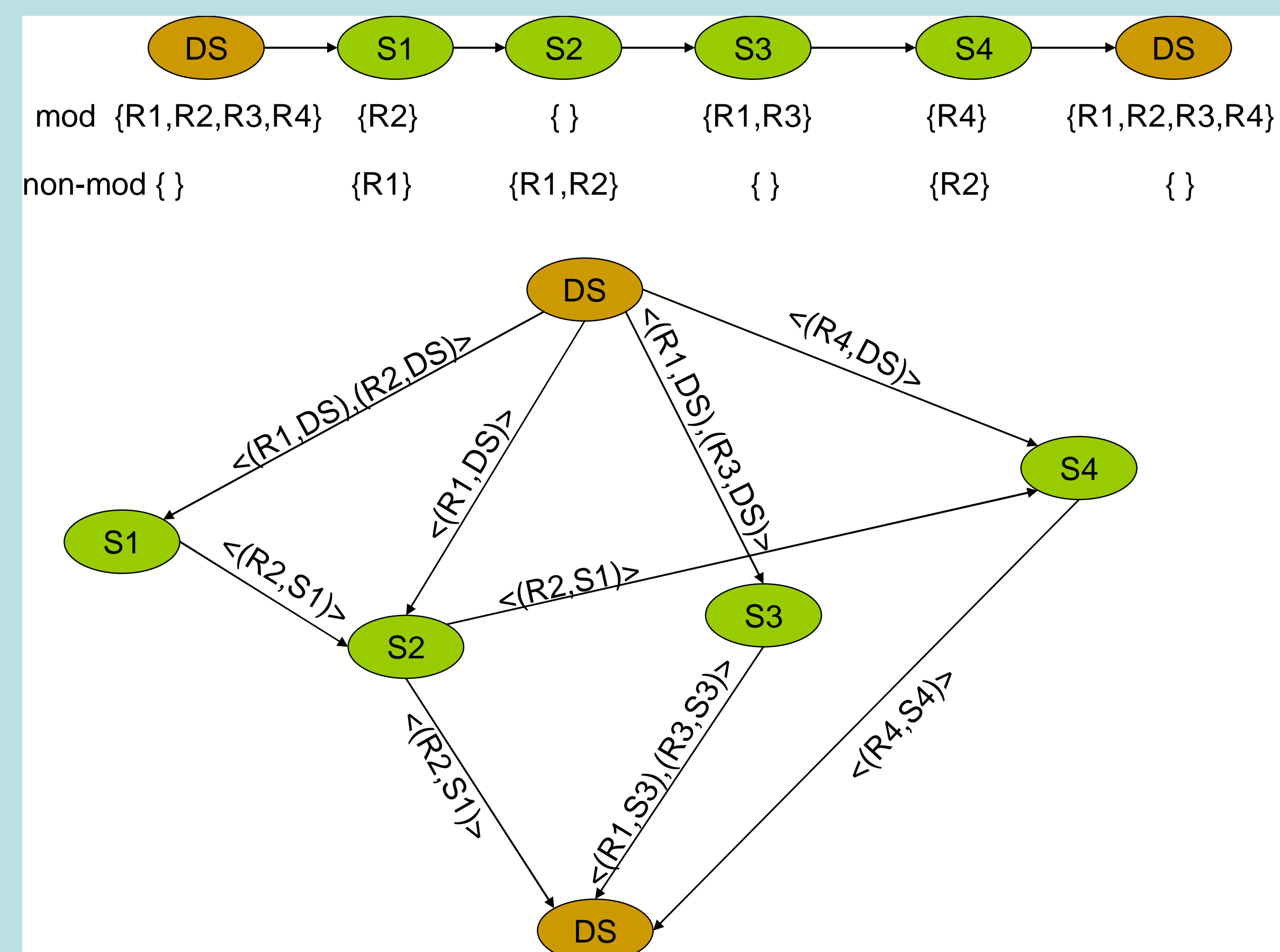
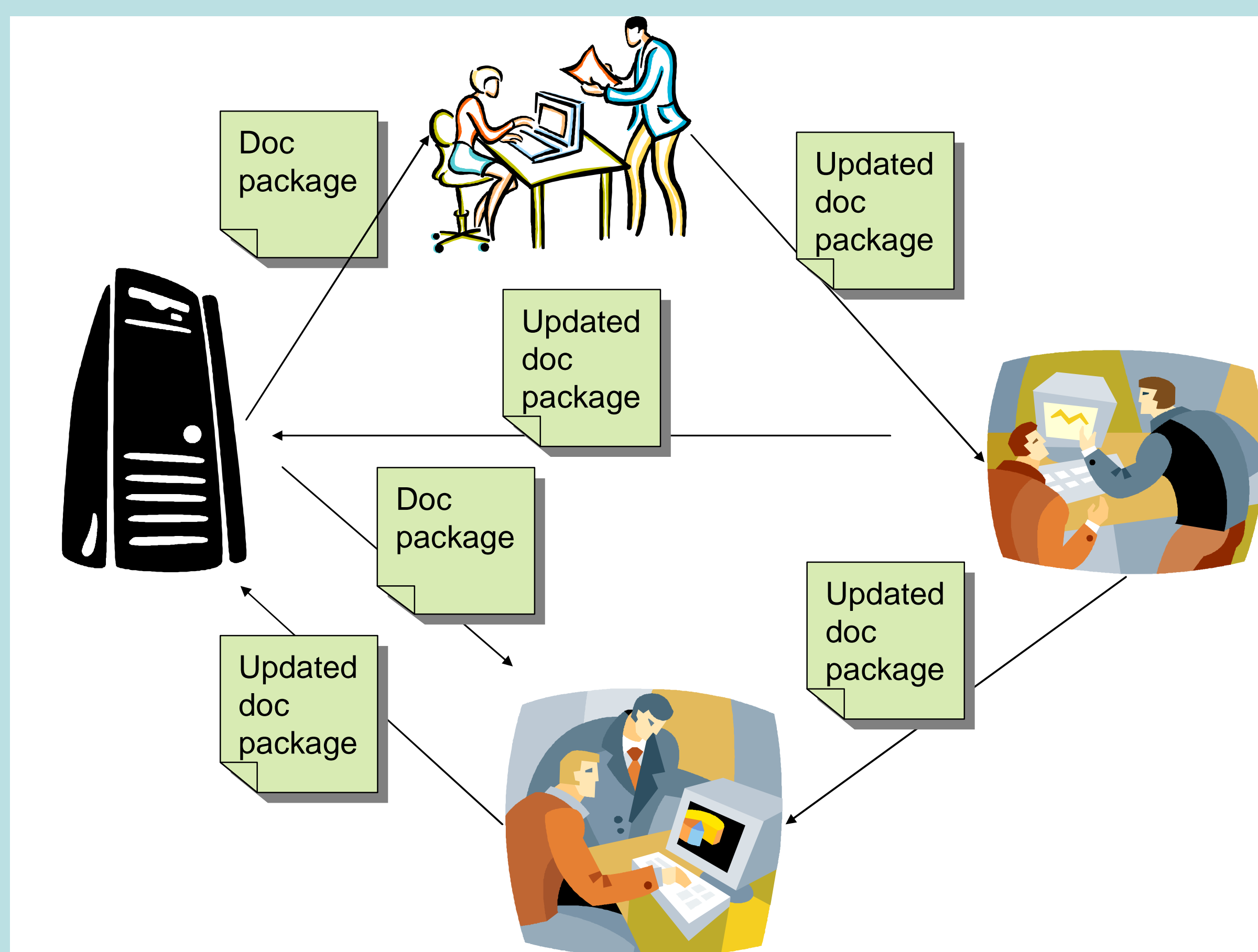
Motivations

- Widespread use of the Internet for collaborative data-intensive applications
- Data security

Challenges

- Confidentiality and Integrity
 - Flow and access policies
 - A high level language for the specifications
- Efficiency

S-RPF Protocol Overview



S-RPF rule

The flow of each region object among the subjects in the update process is acyclic

Subject Protocol

Goals

- Integrity verification
- Authorized operations

Techniques adopted

- Control information specifications
- Message digest
- Digital signature
- AES

Future work

- Dynamic flow policies and access control policies
- Conducting a performance study to verify the effectiveness of our approach

Koglin, Mella, Bertino, Ferrari, An Update Protocol for XML Documents in Distributed and Cooperative Systems

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