Raw messaging

➡ Network programming = raw messaging (socket I/O)
   programmers hand-coded messages to send requests and responses

◉ Too low-level and tiresome

  • Need to worry about message formats

  • Must wrap up information into message at source

  • Must decide what to do with message at destination

  • Have to pack and unpack data from messages

  • May need to sit and wait for multiple messages to arrive

Messages are not a very natural programming model

  • Could encapsulate messaging into a library

  • Just invoke library routines to send a message

  • Which leads us to RPC…

Procedure calls

Procedure calls are a more natural way to communicate

- Every language supports them

- Semantics are well-defined and understood

- Natural for programmers to use

➡ Idea - let servers export procedures that can be called by client programs

- Similar to module interfaces, class definitions, etc.

- Clients just do a procedure call as it they were directly linked with the server

- Under the covers, the procedure call is converted into a message exchange with the server