

## Chapter 04: Communication

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**Instructions:** Please answer the following questions:

1. In many layered protocols, each layer has its own header. Surely it would be more efficient to have a single header at the front of each message with all the control in it than all these separate headers. Why is this not done?
2. Consider a procedure `incr` with two integer parameters. The procedure adds one to each parameter. Now suppose that it is called with the same variable twice, for example, as `incr(i, i)`. If `i` is initially 0, what value will it have after- ward if call-by-reference is used? How about if copy/restore is used?
3. Despite that multicasting is technically feasible, there is very little support to deploy it in the Internet. Why is this the case (google it!)
4. Routing tables in IBM WebSphere, and in many other message-queuing systems, are configured manually. Describe a simple way to do this automati- cally.

**How to turn in:**

Turn in via GitHub. Ensure the file(s) are in your directory and then:

- `$ git add <files>`
- `$ git commit`
- `$ git push`

**Due Date:** Oct. 4, 2022 2359

**Teamwork:** No teamwork, your work must be your own.