Assignment 3 Clarifications and Q&A

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Clarifications

• What if data shows up when nobody's listening?

• Can either save it for them or junk it; this is unreliable networking after all.

Reading headers

Reading the headers should be as simple as casting the pointer to the packet to (mini_header *) and then using the -> operator.

 I think you only need to do it once. May need to do it twice for some designs -- but cost is very low.

Duplicate creates

• Suppose I create a local port. Suppose I create it again.

Can return error, or return existing port.
If you're reference counting, can either increment or leave to user.

o In all cases, document your decision.

The mysterious surrogates

The issue: minimsg_recv returns a source port, saying where the message came from.
What to do if it's a local port?

• Can't just return the local port, because the caller of recv wants to be able to close it...

Simple wrong answers

 Tempting to return a remote port; this is bad because it means two different miniports representing the same addr behave differently.

 Tempting to return the local port itself -- as before, this leads to bad code or bugs

Possible fixes

 Option one: reference counting. Recv increments count, port_destroy decrements it. Free when count is zero.

 Option two (easier?) create a "surrogate" that can be passed to send. This should probably hold a port #, not a literal ptr.

Minor skeleton issues

 Apparently the skeleton includes minisocket.h.

o An oversight on our part. Comment it out.