##### Unit 1 Activity 2 Chapter 4: Transport Layer

Activity 1a

[](http://en.wikipedia.org/wiki/File:LondonBridge_LakeHavasu.jpg)

**London Bridge** is a bridge in, Arizona, United States. This bridge until 1967 was in London, England. The bridge was bought by Robert P. McCulloch from the city of London. His idea was to move the bridge piece by piece to the United States? To move the bridge it must be segmented into small pieces and reassembled at the other side. There are;

* 50,000 blocks in the bridge.
* A container to ship the blocks will hold 10 blocks.
* A ship carrying the blocks from the USA to America can carry 100 containers.

How does this problem relate to networking?

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* There are also 50 other containers on each ship that look the exact same as your containers. How will you be able to tell your containers apart from these other containers?

How does this problem relate to networking?

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**Activity 1b**

Robert P. McCulloch is a nervous man. He will only let 10 Containers as a time be transported. When they arrive at their destination they phone the source and they can send another 10 Containers.

How does this problem relate to networking?

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**Activity 2**

Open the command prompt

Type the command below and fill in the table for 3 communications that you see.

C:\netstat –a -n

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Protocol** | **Local Address** | **Port being used** | **Forign Address** | **State** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Activity 3a**

There are two methods to ship the blocks. One method has a 10BHD fee for shipment; the fee is cheap but the chance of the blocks reaching the destination is 65% and you will receive no confirmation that the container has reached its destination.

How does this problem relate to networking?

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**Activity 3b**

Another method has a 100BHD fee for shipment; the chance of these blocks reaching the destination is 99% as they will have a courier accompany the block at each stage. They also guarantee that if they lose some blocks in the shipment they will recover the blocks for you within 24 hours. Once the containers reach the destination the sender will receive a phone call to say that the Shipment has been successful.

How does this problem relate to networking?

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**Activity 4**

What are 4 features of the UDP protocol?

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What are 3 features of the TCP protocol?

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What are 2 protocols that use TCP and 2 that use UDP?

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