Lab1Milestone2

Jump to bottom

Karan Dhareshwar edited this page 22 days ago · 3 revisions

Lab 1 Milestone 2: Error-Free Delivery

Assigned	10/14/2019
Due	10/21/2019
Points	75

Overview

OK, continuing on with our reliable layer which you guys have named "POOP" (Playground Overlay Operational Protocol).

You need to extend your protocol to transmit data during error-free conditions.

Transmission Requirements.

As you create your protocol, it must provide the following.

1. FULL DUPLEX COMMUNICATIONS

2. Confirmation that the data was received correctly and in-order (it will be, but you should *confirm* it)
3. Error handling if an unexpected packet (e.g., handshake packet) is received during data transmission

More info about packets

I forgot to tell you that when packets are imported as part of a connecgtor, they are "siloed". That means that they are not available in the general packet management. This means that `PacketType.Deserializer` cannot deserialize them.

As you are creating at least two different types of packets, here is how you create a deserializer that can deserialize all of them.

```
class PoopPacketType(PacketType):
    DEFINITION_IDENTIFIER = "poop"
    DEFINITION_VERSION = "1.0"

class PoopHandshakePacket(PoopPacketType):
    # your definition here

class PoopDataPacket(PoopPacketType):
    # your definition here
```

To deserialize either a handshake or data packet

```
deserializer = PoopPacketType.Deserializer()
```

Writing the PRFC and Standardizing by the Due Date

Each team will be taking their own approach to this. At any time you can start to propose to other teams how you think the class should do the assignment. But you will be more persuasive if you have a working prototype. As you get your lab working, you need to discuss over slack how you think the PRFC should be written and what should be the standard. Unlike the Escape Room exercise, this will involve protocol design and not just packets.

The PETF can vote, at any time, on any proposal. BUT the handshake must be standardized and the whole class conforming to it by the due date (10/21/2019).

Grading

On the due date, I will post an auto-grader on the SAFE NETWORK that conforms to the proposed PRFC. I will provide you with the auto-grade client and you will not need to write it yourself. But it will require that the connector for your network layer is installed in your own personal playground with the name assigned by the PETF.

The address and port of the autograder will be:

```
20194.0.0.19000 and port 19101
```

The auto-grader will test handshakes in both directions. You will be graded as follows

- 25 points for "small" transmissions in 1 direction
- 25 points for "large" transmissions in 1 direction
- 25 points for full duplex

▼ Pages 26

Find a Page...

Home
BackgroundOverlayNetworks
Creating an unreliable switch
Exercise10MonitorPlayground
Exercise1GettingStarted
Exercise2EscapeRoomSockets
Exercise3EscapeRoomAsyncio
Exercise4EscapeRoomAsychUserInput
Exercise5EscapeRoomPlayground
Exercise6EscapeRoomPackets
Exercise7EscapeRoomAdmission
Exercise9StandardizeEscapeRoom
Lab1Milestone1
Lab1Milestone2
Lab1Milestone3
Show 11 more pages...

Clone this wiki locally

https://github.com/CrimsonVista/20194NetworkSecurity.wiki.git