Per-Peer Message Capture

Purpose

This feature allows for message capture on a per-peer basis. It answers the simple question: "Can I see what messages my node is sending and receiving?"

Usage and Functionality

- Run bitcoind with the -capturemessages option.
- Look in the message_capture folder in your datadir.
 - Typically this will be ~/.bitcoin/message_capture .
 - See that there are many folders inside, one for each peer names with its IP address and port.
 - Inside each peer's folder there are two .dat files: one is for received messages (msgs_recv.dat) and the other is for sent messages (msgs_sent.dat).
- Run contrib/message-capture/message-capture-parser.py with the proper arguments.
 - See the -h option for help.
 - To see all messages, both sent and received, for all peers use:

```
./contrib/message-capture/message-capture-parser.py -o out.json \
~/.bitcoin/message_capture/**/*.dat
```

- Note: The messages in the given .dat files will be interleaved in chronological order. So, giving both received and sent .dat files (as above with *.dat) will result in all messages being interleaved in chronological order.
- If an output file is not provided (i.e. the -o option is not used), then the output prints to stdout .
- View the resulting output.
 - The output file is JSON formatted.
 - \circ Suggestion: use ${\rm jq}$ to view the output, with ${\rm jq}$. out.json