The BANG protocol

1 Abstract

The BANG protocol is to enable peers to share the load of a program.

2 Basic

The protocol tries to be mostly stateless, but some messages can only be sent if the connection is in a certain state. At the very least each message is an unsigned 4 byte header. Each header should signify something and possibly have some information attached to it. Lengths should also be 4 unsigned bytes, and a version should be an 8 byte double.

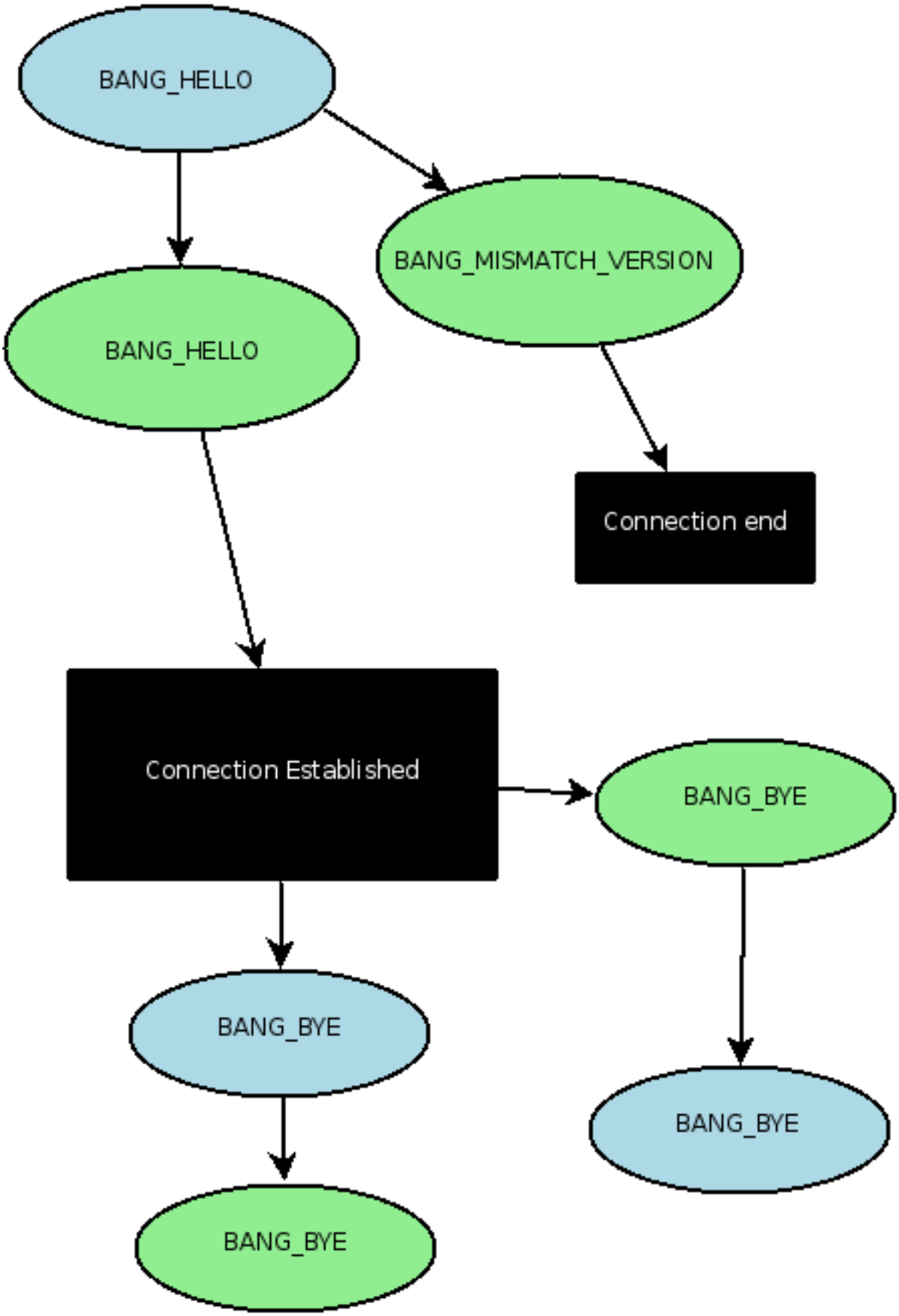
3 Headers

All headers are four unsigned bytes long. They start each message.

- **BANG_HELLO**
  Level 0 Message
  Can be responded to by a following BANG_HELLO or BANG_VERSION_MISMATCH. Second BANG_HELLO puts the protocol into a level 1 state.
- **BANG_DEBUG_MESSAGE**
  Level 1 Message
  No response needed, prints out a message on the remote end.
- **BANG_SEND_MODULE**
  Level 2 Message
  Sent after a BANG_REQUEST_MODULE
- **BANG_REQUEST_MODULE**
  Level 1 Message
  Sent after a BANG_WANT_MODULE or sent independently.
- **BANG_WANT_MODULE**
- **BANG_MISMATCH_VERSION**
- **BANG_BYE**

4 Flowcharts

Here are the flowcharts on how each message should be followed.


BANG_HELLO
BANG_MISMATCH_VERSION
BANG_HELLO
Connection end
Connection Established
BANG_BYE
BANG_BYE
BANG_BYE
BANG_BYE