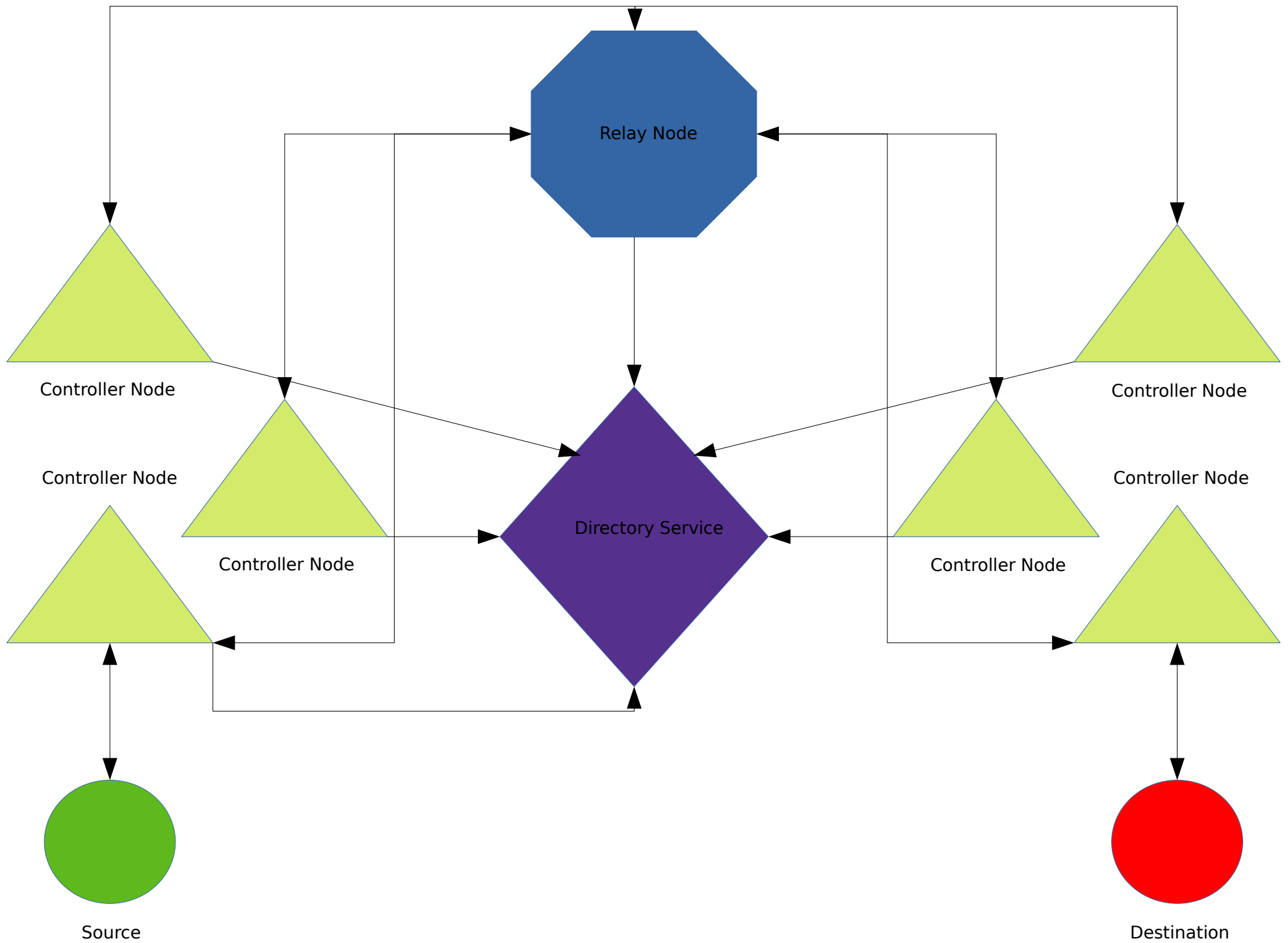
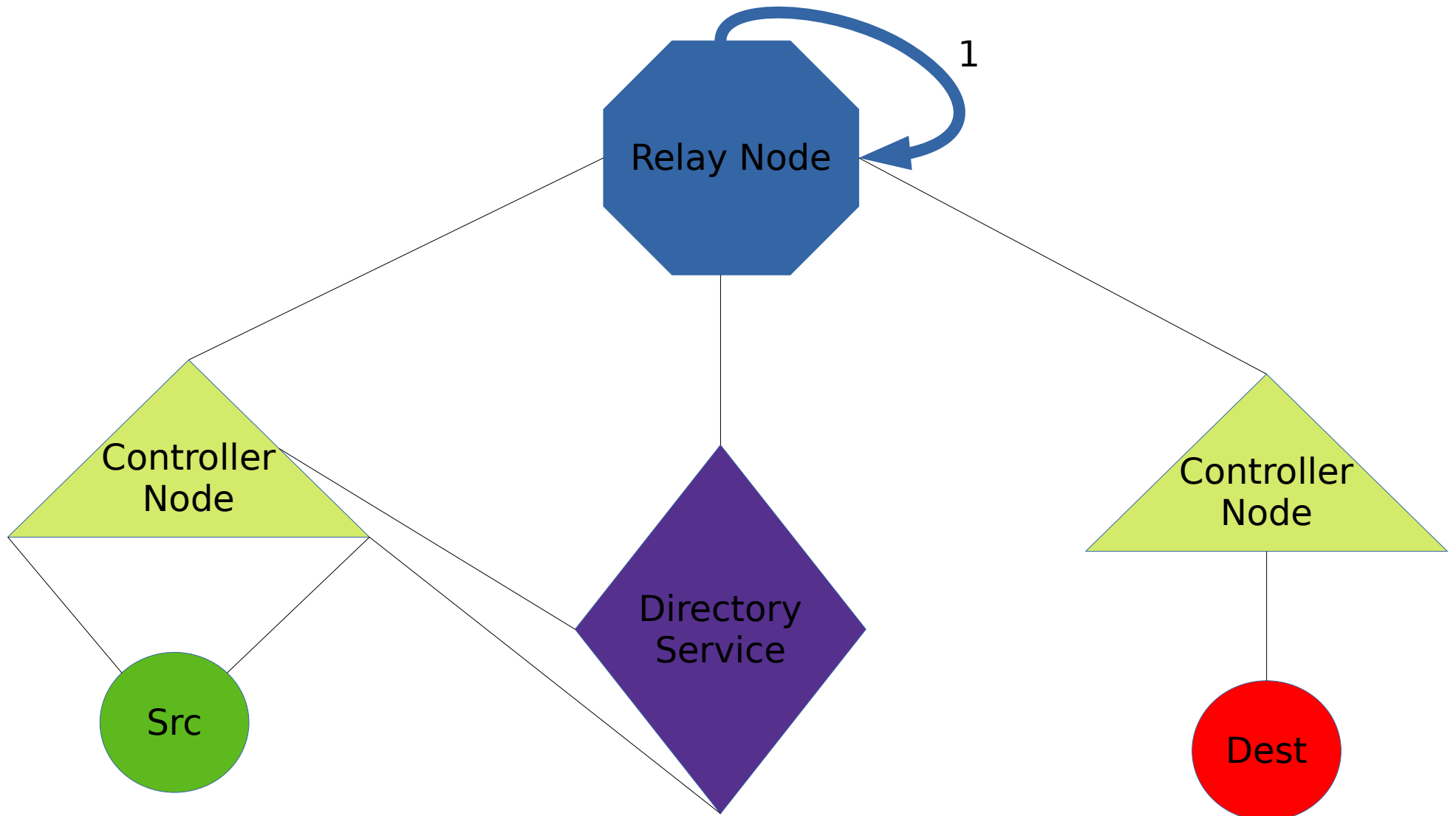


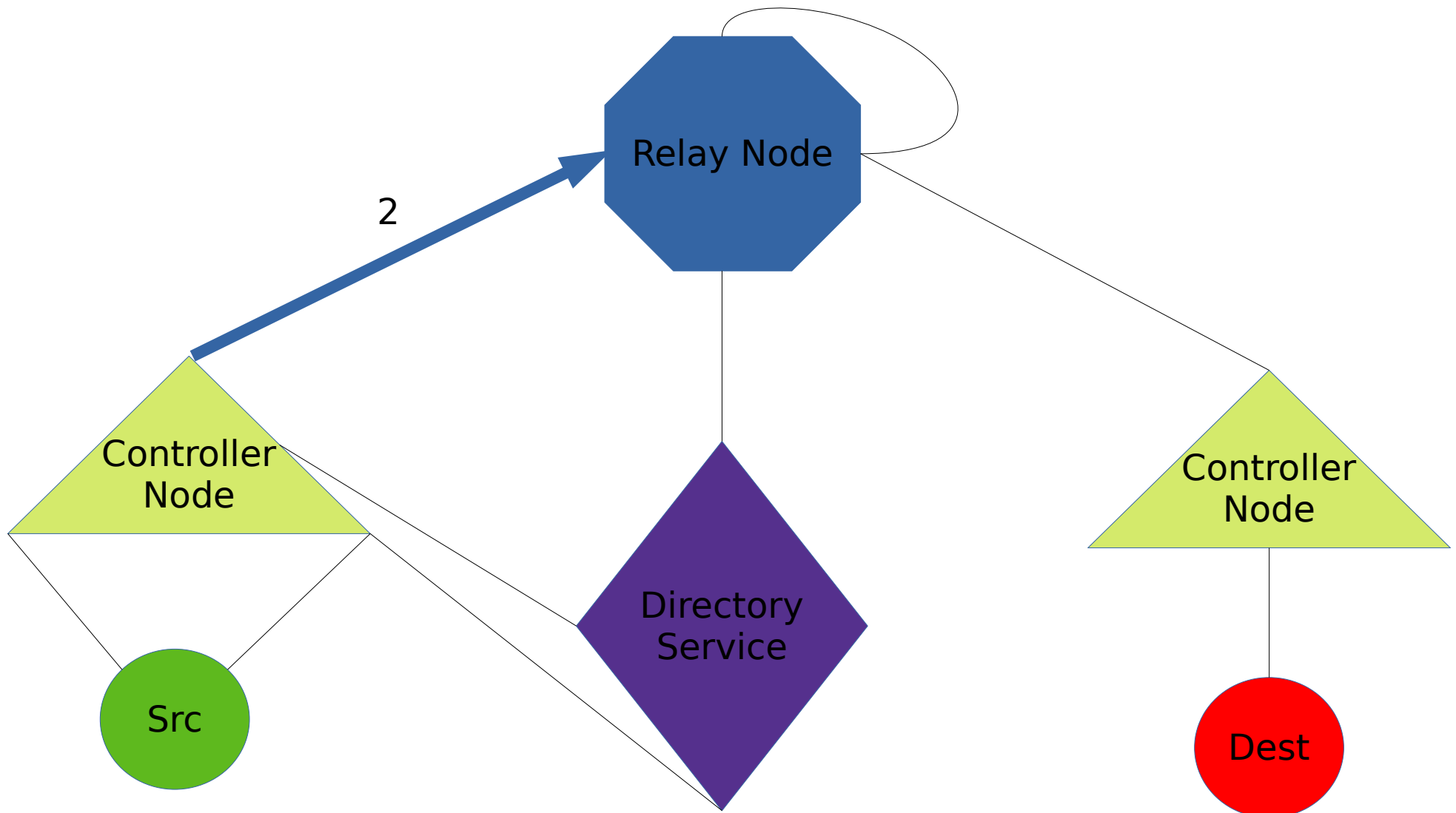
Sample Architecture



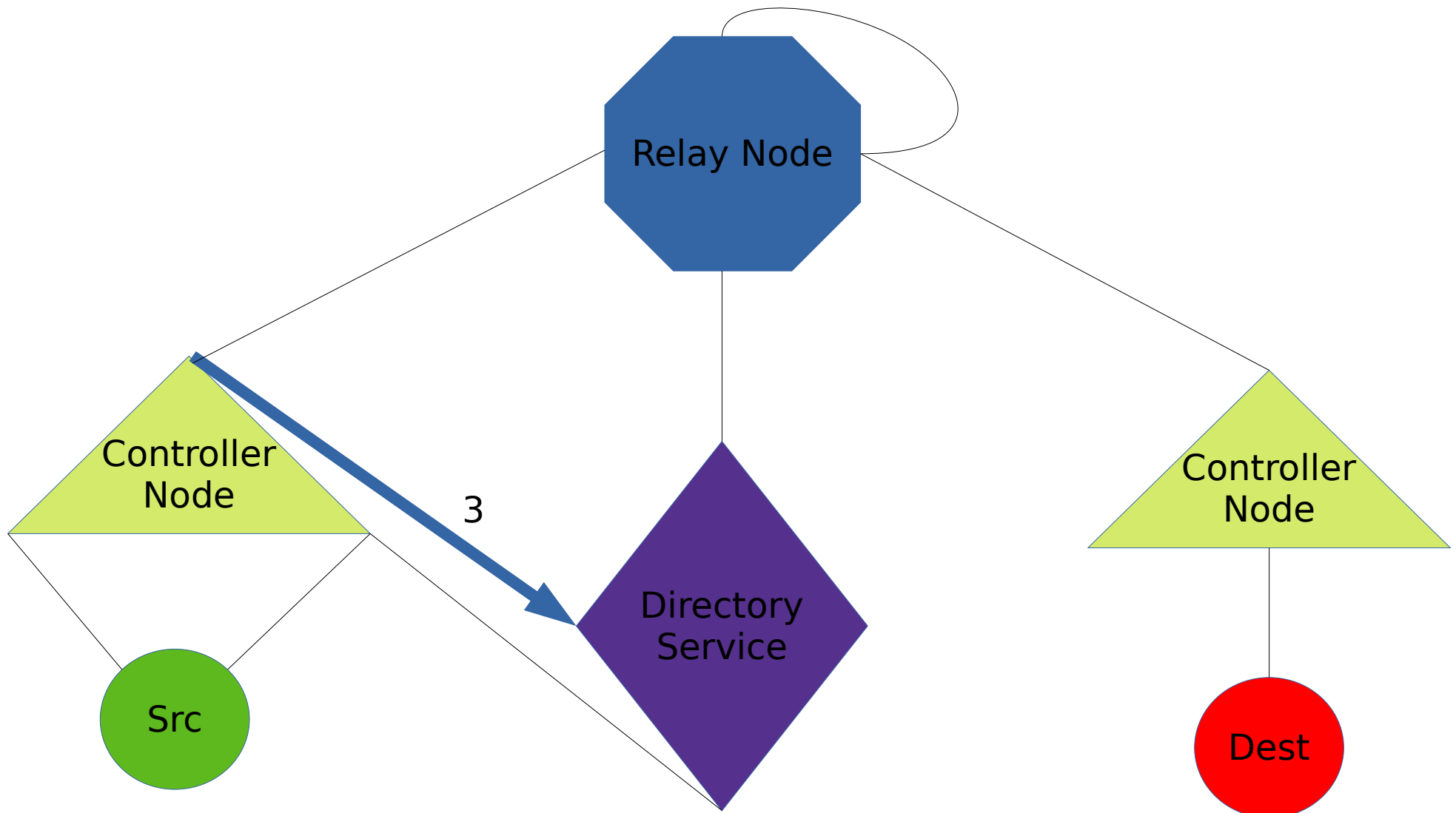
Sample Message Transfer



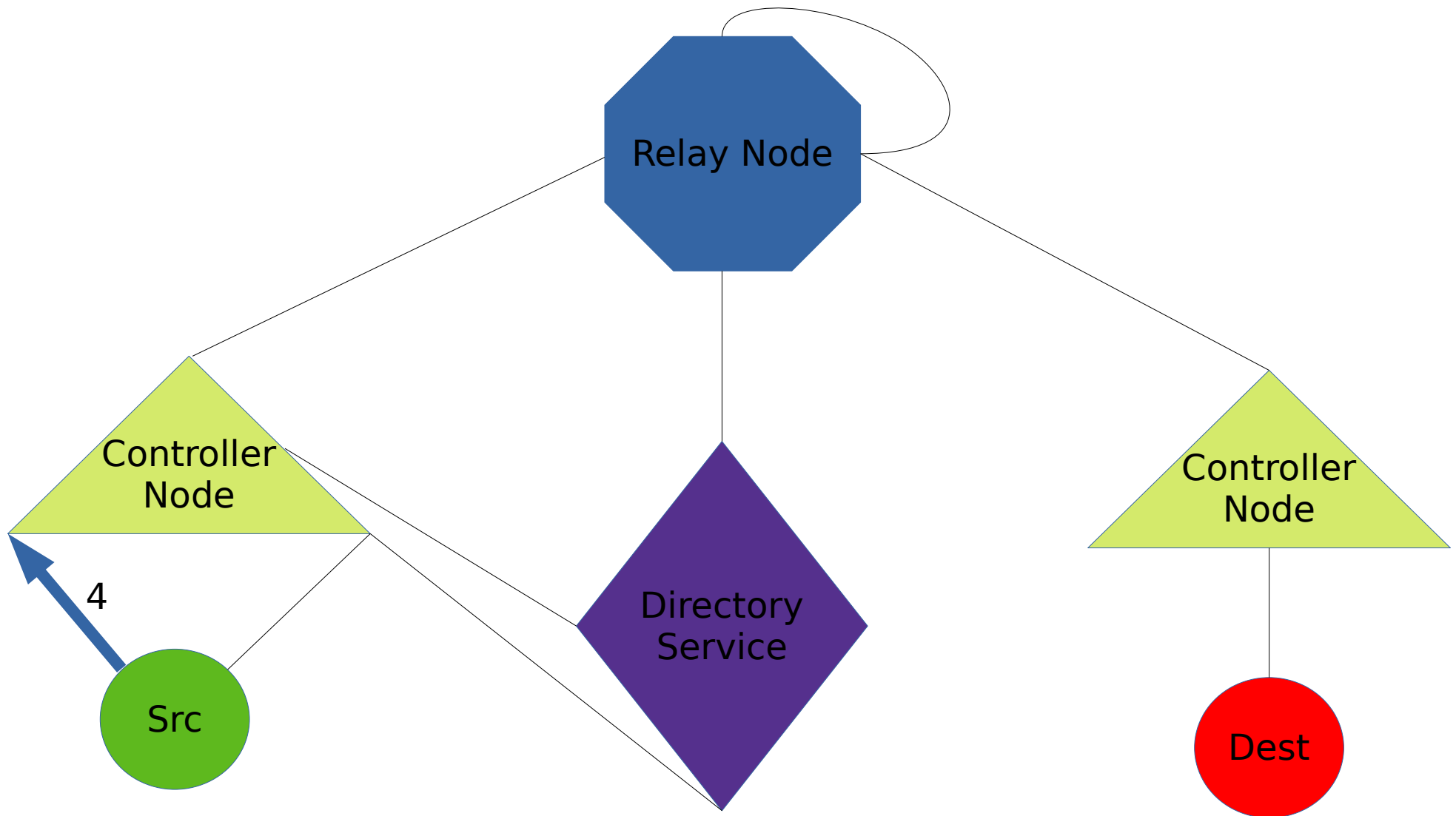
- The Relay Node boots up.



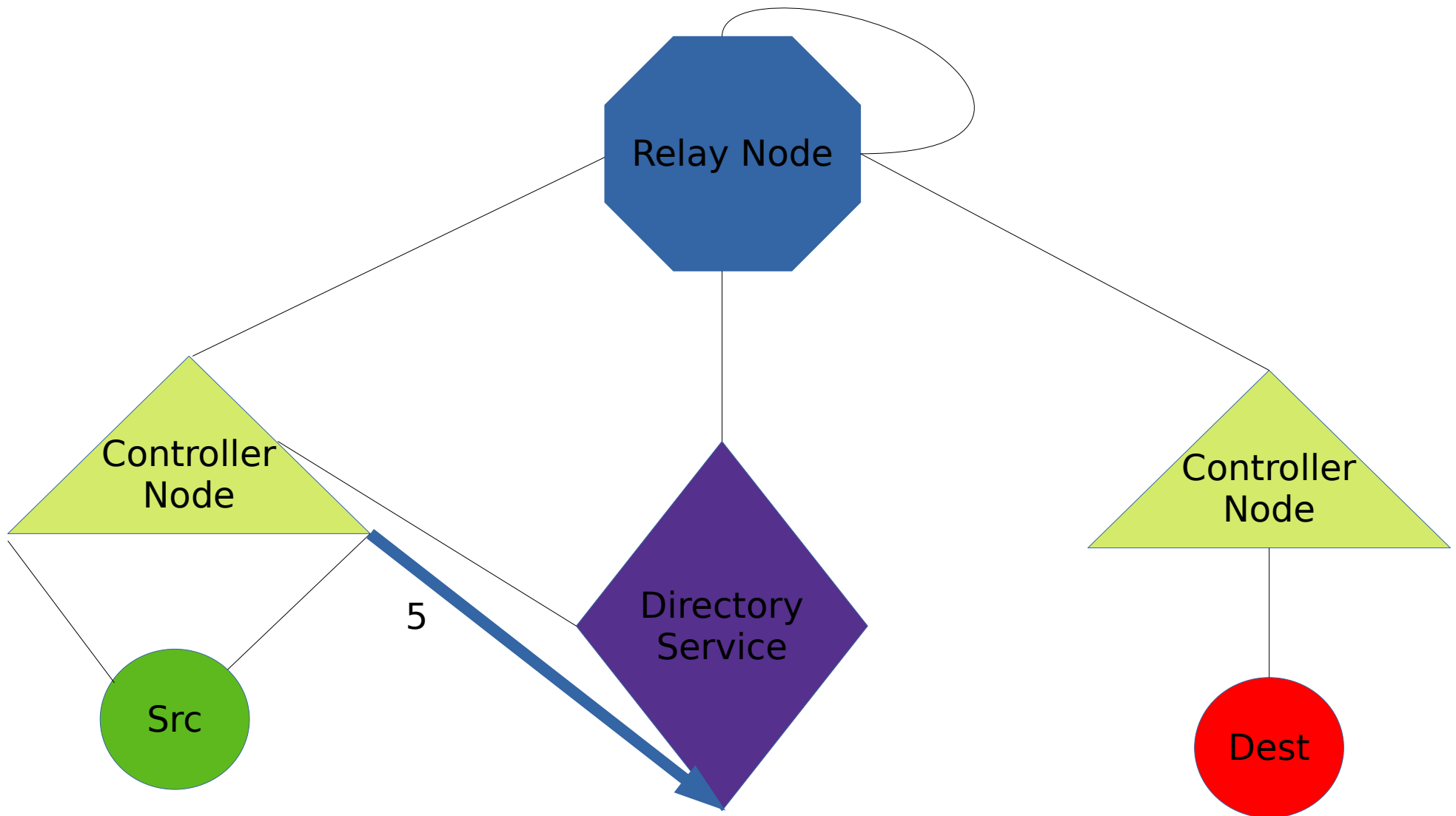
- The Controller node boots up and connects to the nearest Relay Node.



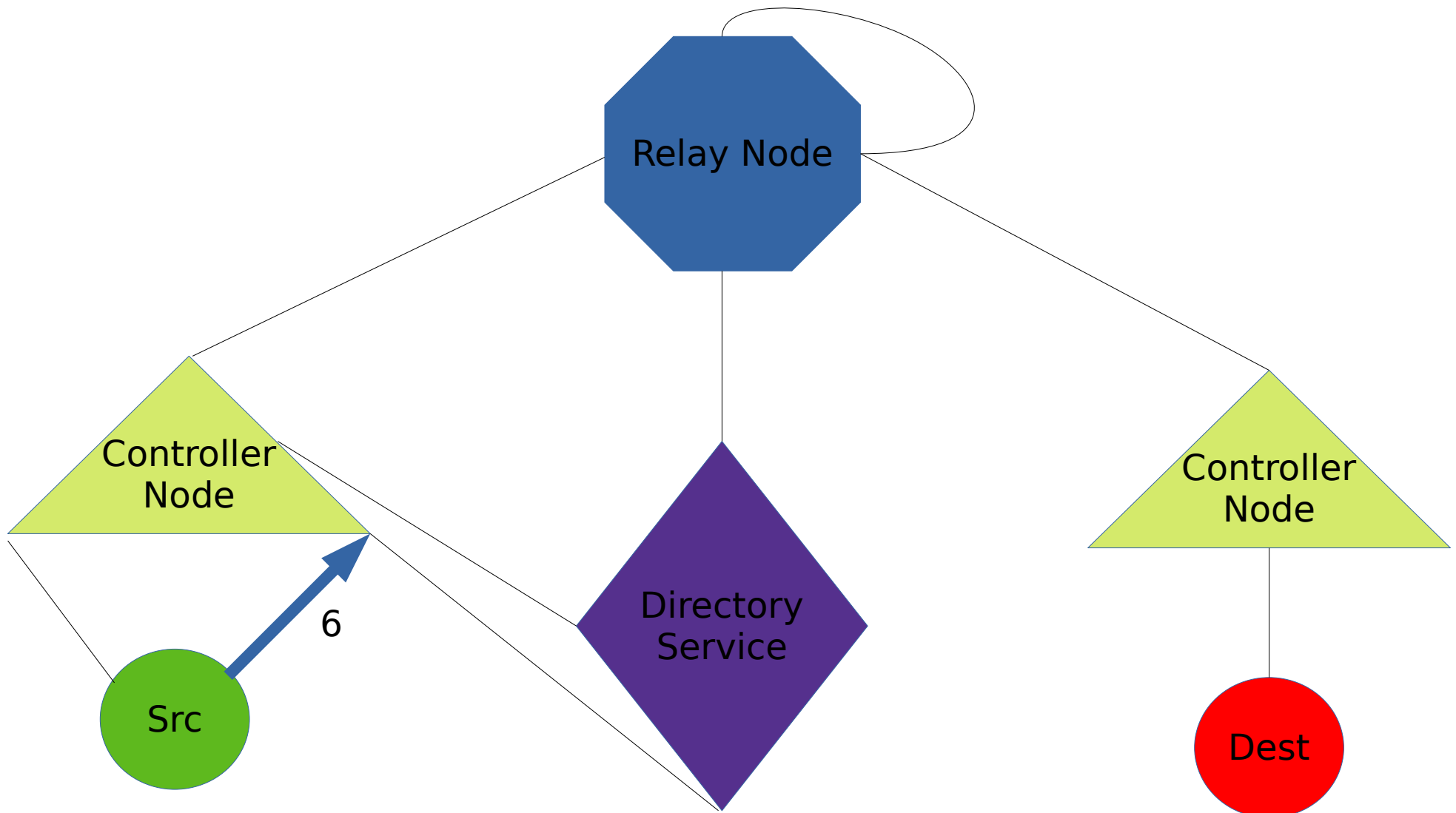
- The Controller node registers itself to the Directory Service which then assigns it a key.



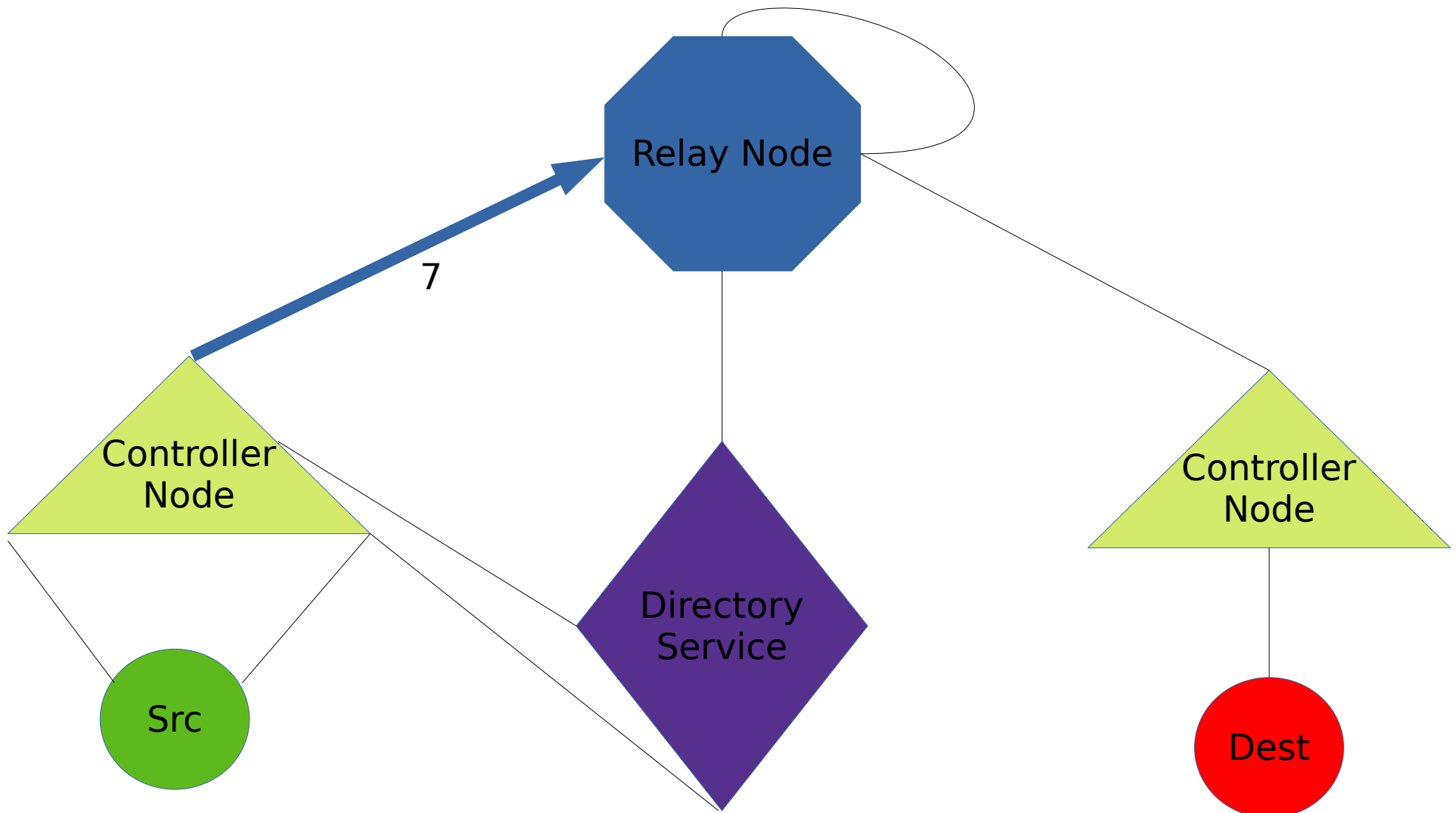
- The Source Node boots up and connects to a pre-registered Controller node.



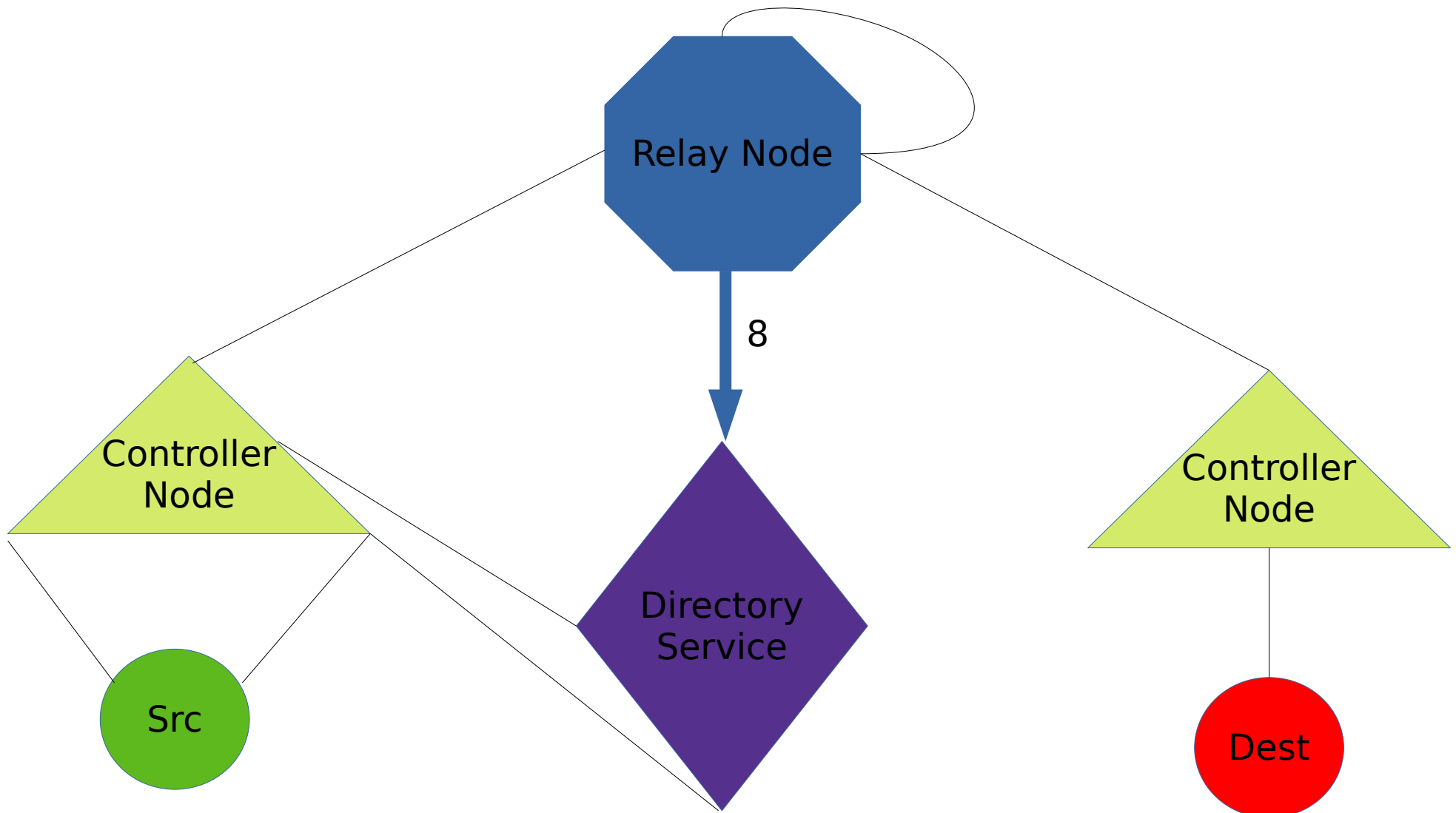
- This Controller node now registers this Source node with the directory service sending out just the internally assigned UID of the same to the directory service.
- This UID is local to every Controller node and holds meaning within that particular controller only.



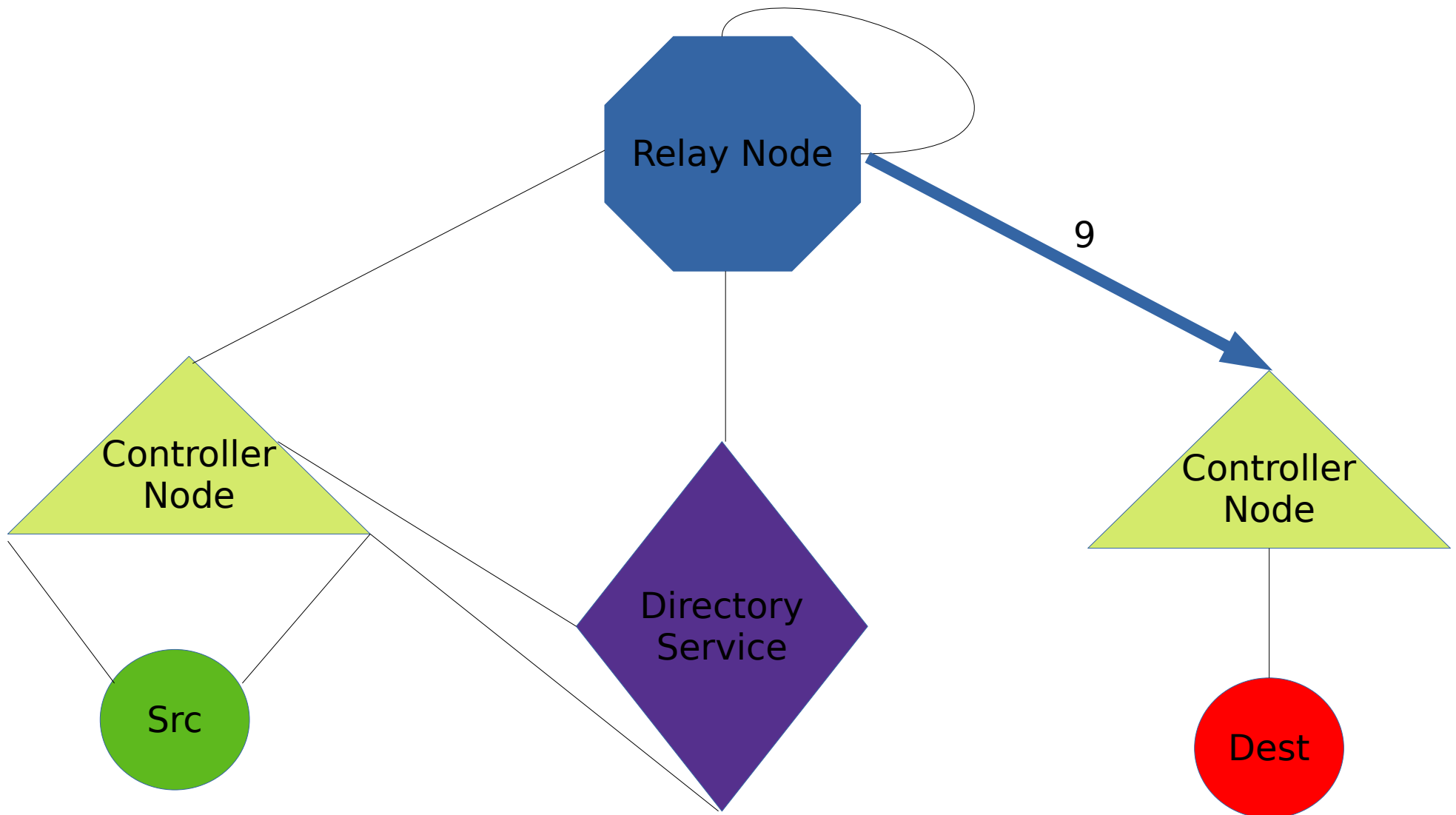
- The Source node now appends the message to be sent with a unique identifier of the Destination node, i.e. (ctrlr_key, ctrlr_assigned_uid) and sends to the Controller it is connected to.



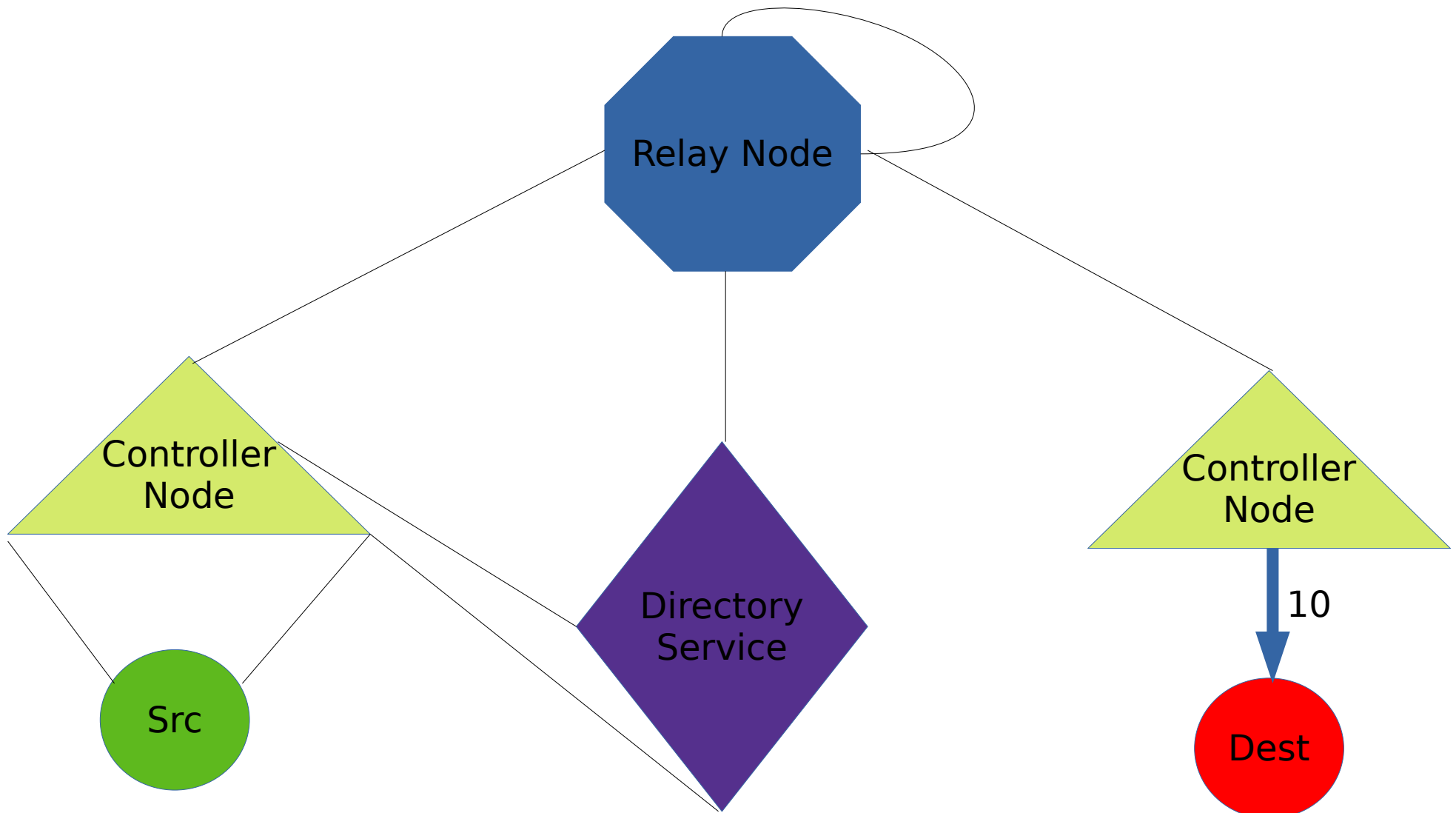
- The Controller node receives the message from Source node, assigns a session number to begin conversation, appends it to the message and sends to the relay node it is connected to.



- The Relay node now finds the IP of destination Controller node via querying the Directory service using the ctrlr_key and the ctrlr_assigned_uid.



- The relay now passes along the whole message to the destination Controller node that it has just figured out the IP of.



- The destination Relay node takes note of the session number received from the message, strips it and find the IP of the Destination node using the `ctrlr_assigned_uid` assigned by it and sends just the message to it.