Simulation of Ping Attack on GIMI

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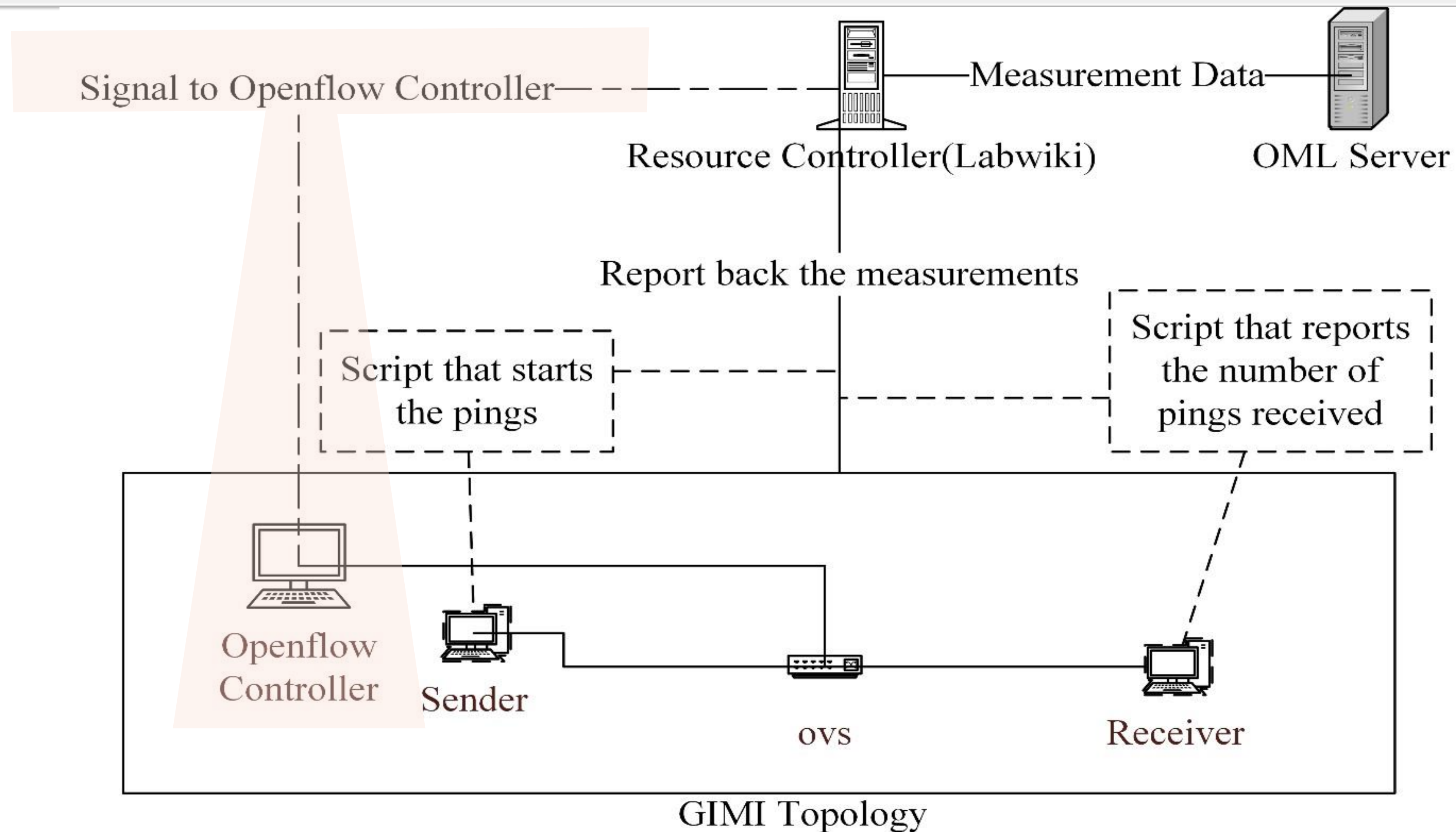
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Goal

Detecting the possibility of a ping attack using GIMI measurements and using OpenFlow to stop the flow if any such situation is encountered.
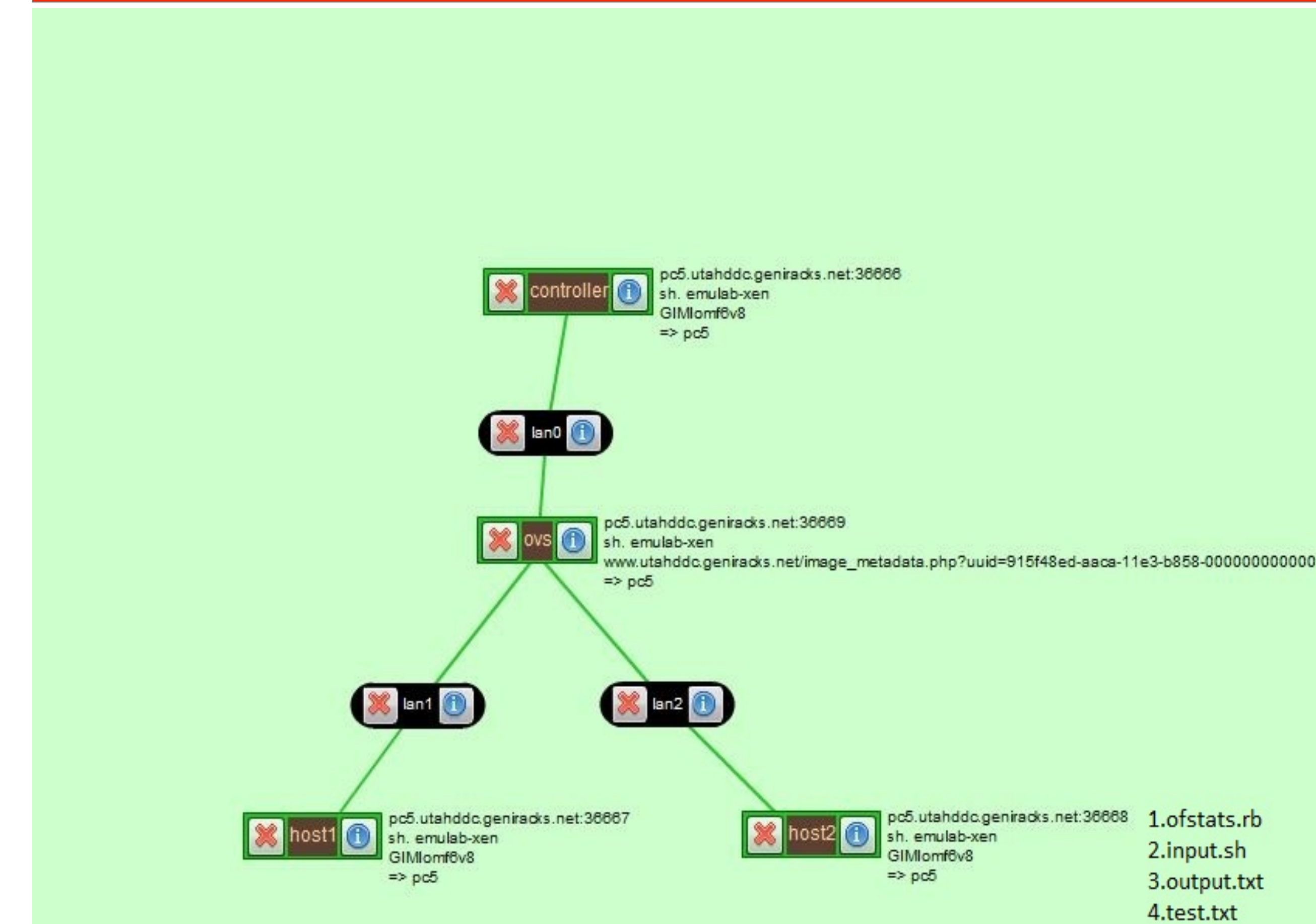

GIMI Topology

Topology

Result

Figure: Count of Pings

Experiment

- Sender node starts the pings. A third party application called by LabWiki, initiates the pings.
- OVS node has an OpenFlow controller (Controller Node) manipulating the flows.
- Receiver node receives the pings. Another application runs on this node keeping track of the number of ICMP requests coming in and reports it back to the OMF controller (LabWiki).
- LabWiki receives these measurements from the Receiver Node and if the count reaches a particular threshold, it sends a command to the OpenFlow controller so that th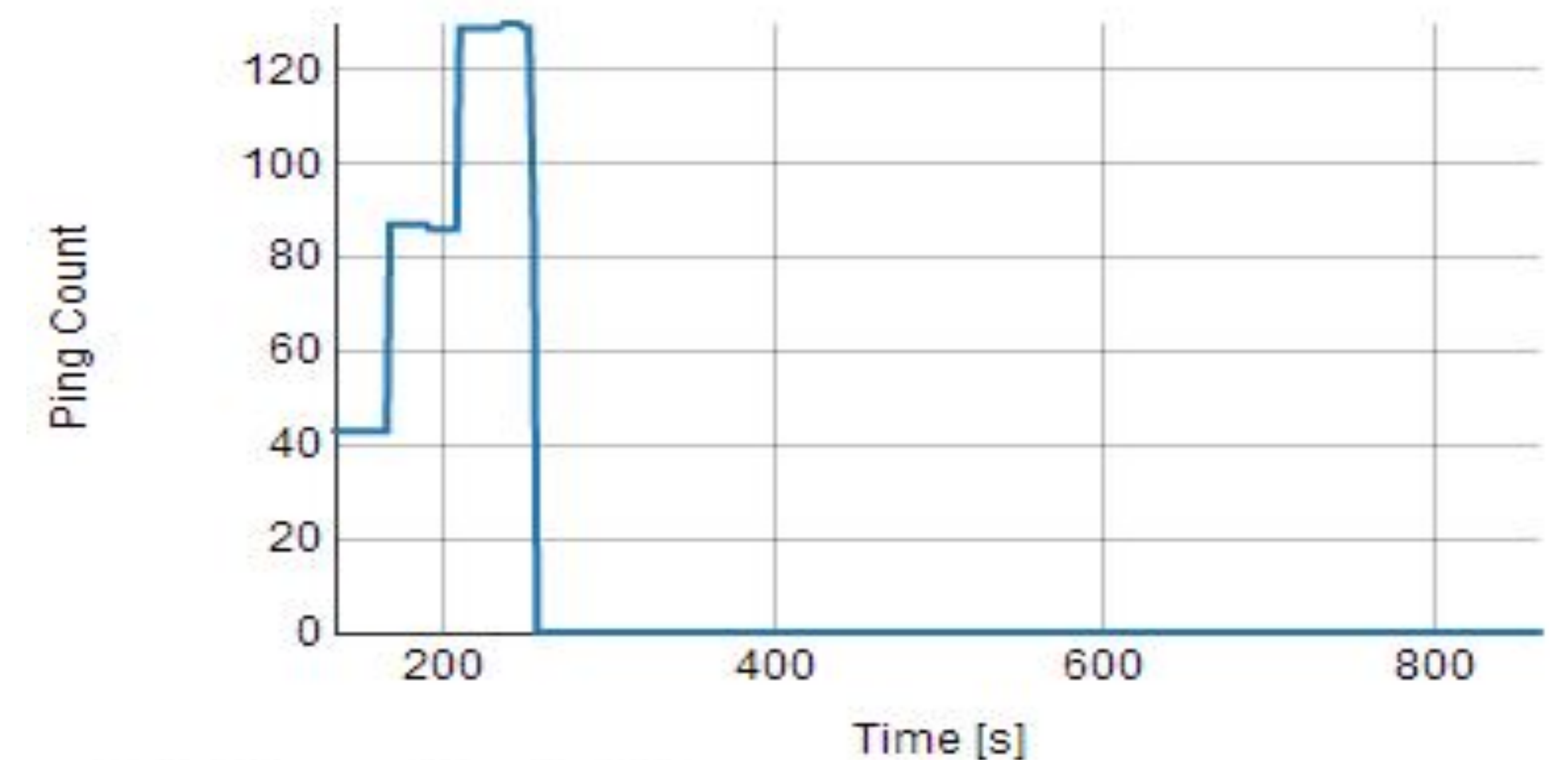e malicious flow can be stopped.