

Section 1:

One potential explanation for the website's connection timeout error message is the abundance of SYN requests incoming from the ip:203.0.113.0. The logs show that this IP has made an extremely large number of SYN requests in a short period of time, and following the start of this event the server started being unable to fulfill normal user requests. This event could be a SYN DoS attack.

Section 2:

When website visitors try to establish a connection with the webserver, a three-way handshake occurs using the TCP protocol. The three steps are 1. The normal TCP SYN connection request. 2. The acknowledgment of this request from the server, 3. The acknowledgment of this receipt from the client. When a malicious actor sends a large number of SYN packets all at once it overloads the server with traffic making it unable to process normal requests effectively stopping server operations. The logs indicate that a SYN attack is underway and that normal server functions have stopped being reliable.