Peer review group 4 – The economic loss of internet service providers due to distributed denial of service attacks.

1. **Clarity of the stated thesis**
   The stated thesis is as follows: Addressing the security issue related to the economic loss of the Owner of the Autonomous Systems (OAS) due to DDoS attacks. This is a clear stated thesis. The paper itself doesn't give more explanation about the thesis, but that is not needed, since the thesis is self-explaining.

2. **Evidence to support a solid argument**
   The paper explained an ideal metric regarding this topic: the amount of money lost because of a DDoS attack. This includes several aspects: Time lost, Direct Costs, Indirect Costs and Total Costs. The metric is well explained and should address the discussed security issue in a good manner. The result of a DDoS attack in an economic perspective is mostly money loss. This can be direct loss or indirect loss. Since both of these are addressed in the metric, the metric can be used to make valid statements about the economic loss of the OAS.
   The used metric also takes the size of each AS into consideration, which is very important, since the impact of an attack is relative to the size of an AS. This makes this metric more reliable for making statements.

   Another metric discussed is related to the average intensity of attacks in each country and their Internet infrastructure development. This is an interesting metric and can be measured using the used dataset, but it's not clear how this contribute to the stated thesis. It could be used to calculate a certain mean of the duration of an attack and use that to decide if an attack is severe or not, but since the impact of an attack is relative to the size of an AS this metric would not have much meaning. Therefore this metric is meaningless in this context.

3. **Analysis of the dataset according to the stated thesis**
   In the analysis of the dataset a lot of focus is being put upon the average duration of DDoS attacks. The measurements reveal an uptrend in that matter. Also several peaks can be noticed that happen every 3-6 months. This is discussed thoroughly. These findings are interesting, but not very interesting for the stated thesis. This because it does not address the economic loss in any matter. This could be interesting when someone wants to address the evolution of DDoS attacks or the security measurements of organizations. Some assumptions are made regarding the uptrend and peaks, but since these cannot be derived from the analysis itself and do not contribute to the stated thesis, they are not relevant.

   Another analysis point is the 10 longest DDoS attacks from the dataset. This could be an interesting point, since this can be used for comparison of other attacks. This observation is also used to confirm the uptrend observed in the previous analysis.

   Taking the stated thesis into account, the analysis is done poorly. The ideal metric addresses the stated thesis very well. However the analysis only addresses a part of the ideal metric, which by itself can't be used to make valid conclusions.