

Here is what I can see based simply based on the trace.

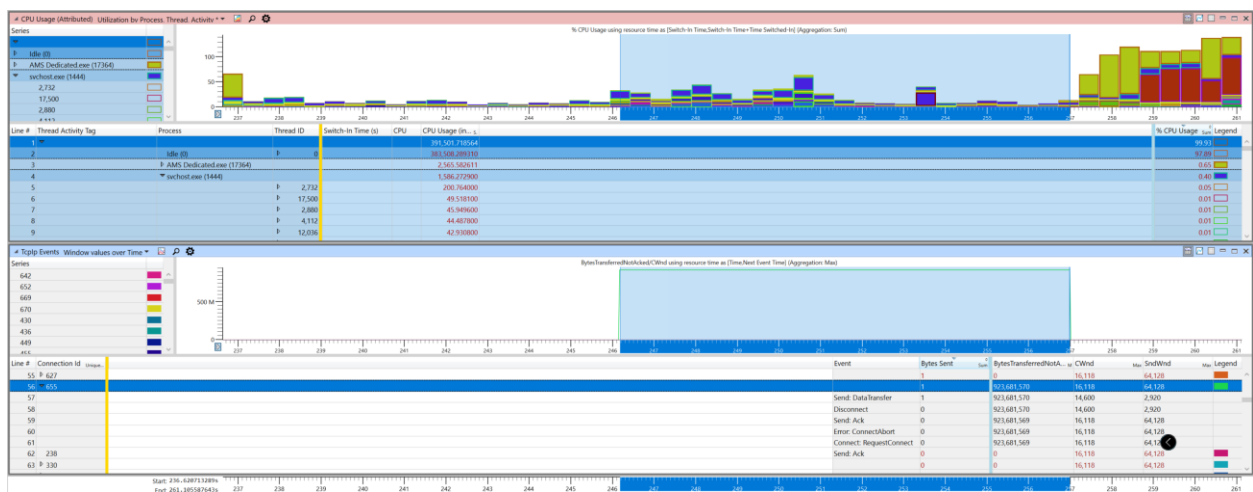
If we look at this from the highest level, we see the following:

This is your CPU Usage over the entire trace:



The green bars are the AMS process. Note how there is a significant gap where AMS did not get very much time at all. I am assuming this is the period where the problem occurred. So we need to zoom into this area.

When I do that, here is what I see:



You can see on the left the last gasp of AMS for approximately 20 seconds (from 237.09 to 257.2). Also note in the bottom graph, where that bright green line goes to the top and stays there for 10.8 seconds. During this time AMS is not getting on the processor, and the game will appear to freeze, because it is essentially frozen. Notice that when the green bar in the bottom graph goes to zero, AMS suddenly becomes active again. Apparently, until that green bar got what it needed, AMS was not going to run.

That bottom graph is your TcpIp events. Note the text just above the graph: BytesTransferredNotAcked. The value of BytesTransferredNotAcked during this time is enormous; 923,681,570; almost a gigabyte.

```
Connection Id 655
Time 256.959662972s
BytesTransferredNotAked
923,681,570
Viewport Min 0
Viewport Max 923,681,570
Selection Duration 10.796839200s
Start Time 246.168386200s
End Time 256.965225400s
Data Points 2
Table Data
Point Selection
Sum of Bytes Sent 1 1
Max of BytesTransferredNotAked
923,681,570 923,681,570
Max of CWnd 14,600 16,118
Max of SndWnd 2,920 64,128
```

Your issue appears network related in that the delayed acks got so bad that your network activity essentially stopped until the acks caught up. This can often happen due to the discrepancy between upload and download speeds. Perhaps you have 100 Mbit download speed and only 10 Mbit upload speed. In that typical configuration, there is an order of magnitude difference between how fast you download and upload. I believe your upload speed likely prevented the required Acks from being delivered at the required rate, and hence the poor performance of AMS server. Normally, this isn't too much of an issue when downloading files and such, but in real time environments, which racing simulations are, they can have a negative impact.