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(54) **DETERMINING A RESIDENCE TIME IN A PORTION OF A NETWORK**

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(57) **ABSTRACT**

Various embodiments disclosed herein include methods and systems for determining a residence time of a synchronization message according to a precision time protocol or PTP wherein the synchronization message is transmitted through a section or portion of a network. While transparent clocks are usually regarded as monolithic devices, a residence time may be determined as a time for traversing devices or nodes distributed within a network or within a portion of a network. The present embodiments may be particularly useful for 5G wireless communication network having TSN capabilities or, in other words, operating as a 5G-TSN integrated network.