

Varroa

 ${\sf MQTT\text{-}Scenario\text{-}Testing\text{-}Tool}$

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1 Vision

The Name of our MQTT-Scenario-Testing-Tool is inspired by Varroa mites. Varroa is a species of mites that infest honeybee colonies. Our MQTT-Scenario-Testing-Tool with the same name works in similar ways: it targets MQTT-brokers and tests their resilience to load. In that context load can be defined as the utilization of a MQTT-broker due to a big amount of MQTT-clients connected, that publish and subscribe to a lot of topics and show complex sequences of their interactions with the broker.

Varroa simulates the behaviour of large amounts of MQTT-clients – called scenarios – to determine the limit of the loading capacity of the targeted MQTT-Broker. As a speciality Varroa is organized as a distributed system, due to the almost impossible simulation of enough MQTT-clients on a single machine to overload a MQTT-Broker, especially if the broker is also a distributed system.

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