**MQTT topics**

[MQTT Topics, Wildcards, & Best Practices – MQTT Essentials: Part 5](https://www.hivemq.com/blog/mqtt-essentials-part-5-mqtt-topics-best-practices/)

**Good to know:**

* UTF-8 string that filters messages for a connected client
* consists of one or more levels separated by a forward slash (topic level separator)
* UTF-8 strings act as identifiers for messages
* Examples: "myhome/groundfloor/livingroom/temperature”, “USA/California/San Francisco/Silicon Valley”, “5ff4a2ce-e485-40f4-826c-b1a5d81be9b6/status”, “Germany/Bavaria/car/2382340923453/latitude”
* Case sensitive
* topics that start with a $ symbol have a distinct purpose. These topics are not included in the subscription when using the multi-level wildcard (#) as a topic. Instead, topics beginning with $ are reserved for internal statistics of the MQTT broker, providing valuable insights into its operation.
* Use specific topics, not general ones
* Keep comprehensive documentation
* Regularly review and optimize topic structure
* Ensure topic structure and naming conventions don’t inadvertently expose sensitive information.
* organize MQTT topics according to the ISA-95 equipment hierarchy model: “Enterprise/Site/Area/ProductionLine/WorkCell/Equipment/DataPoint”
* Best practices:
  + Never use a leading forward slash
  + Never use spaces
  + Use only ASCII characters, avoid non-printable characters
  + Keep the topic short and concise
  + Embed a unique identifier or the Client Id into the topic
  + Don’t subscribe to #
* UNS Topic Design Example

manufacturing/  
 plantA/  
 sensors/  
 humidity/  
 sensor001  
 sensor002  
 inventory/  
 raw\_materials/  
 current\_stock  
 finished\_goods/   
 current\_stock

quality\_control/

Inspection/

results

**TORUS UNS Topic Design**

participantHouse/

houseId/ #Gateway

wearable/

wearableId/

rasberryPis/

livingroom/

kitchen/

upstairsToilet/

downstairsToilet/

bedroom1/

bedroom2/

study/

dockingStation/

video/

disk

barometer

humanParticipantLab/

sofiaHouse/