

Performance Evaluation of IoT Protocols on HD-PLC

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High Definition Power Line Communication (HD-PLC) : a technology that carries out high-speed communication using some existing lines like power lines.

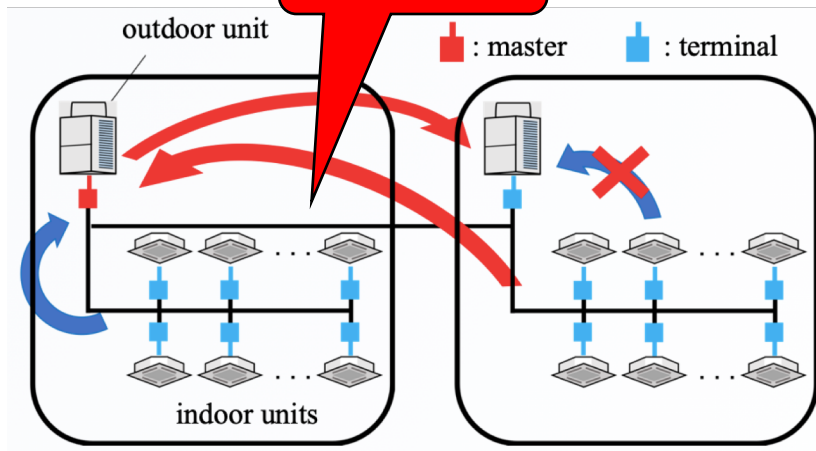
Popular IoT Application Protocols

- MQTT(Message Queuing Telemetry Transport)
- CoAP(Constrained Application Protocol)

Problem

How does the IoT protocols perform on HD-PLC ?

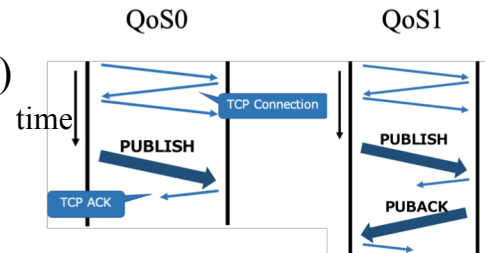
HD-PLC



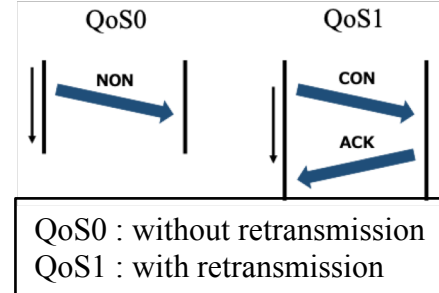
Direct communication
with the master

Communication via
master

MQTT/TCP



CoAP/UDP



Evaluation

$\rho = 0.1$

ρ : Congestion level

$\rho = 1$

