MQTT Adapters

Workshop

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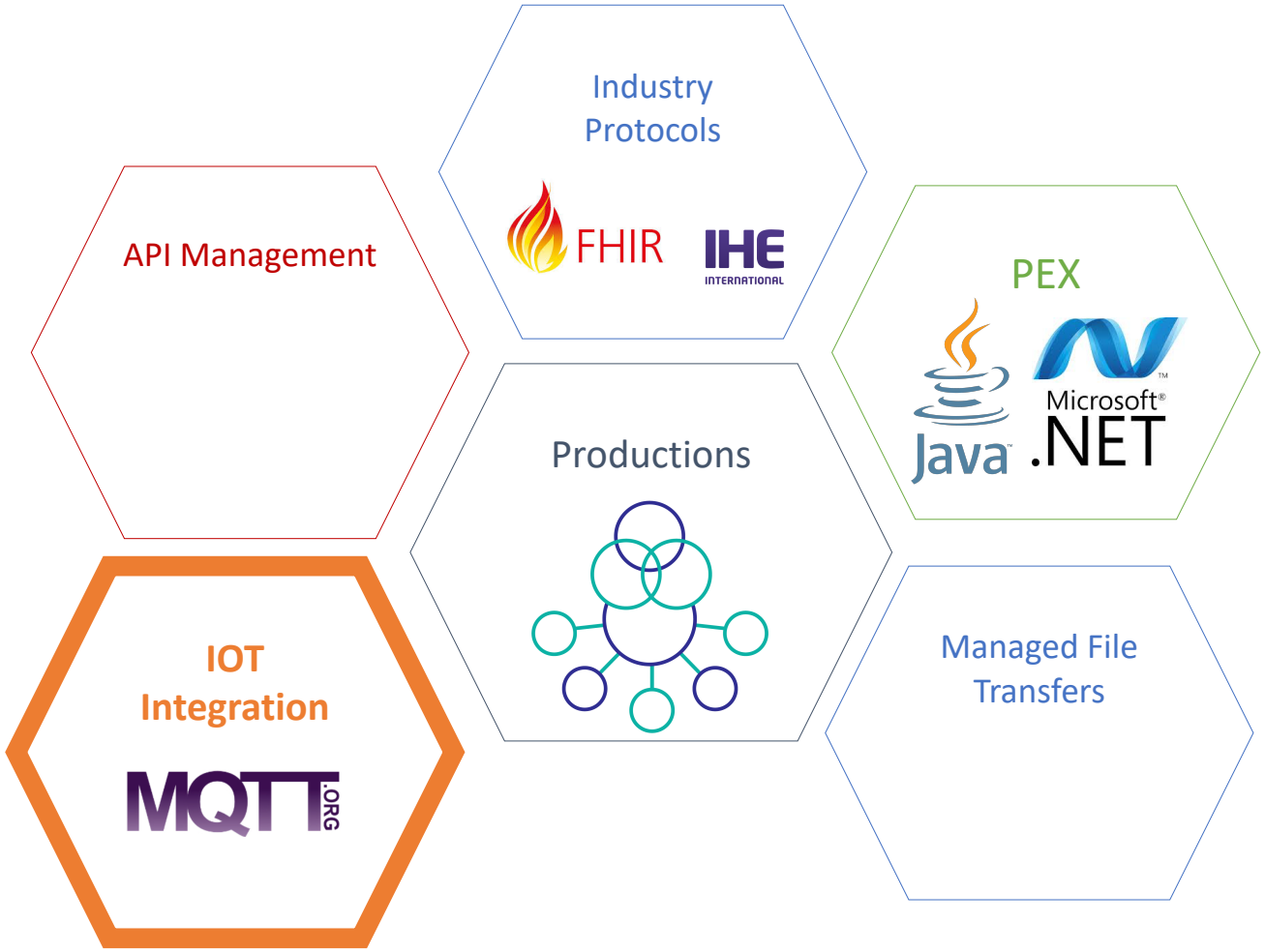


What is MQTT ?

MQTT (Message Queuing Telemetry Transport)

- Lightweight message protocol designed to allow a high message throughput even over networks with limited bandwidth.
- Publish and subscribe mechanism.
- Ideally suited to the Internet of Things.

- MQTT Client
  - Subscribe to a topic (e.g. `room/kitchen/temp`, `room/+/temp`, `room/#`)
  - Receive messages.
  - Publish messages.

- MQTT Server (Broker)
  - Receives and filter all messages.
  - Decides who is interested in them and deliver messages to subscribed clients.
  - (e.g. Mosquitto, RabbitMQ + MQTT Plugin).

MQTT Adapters

- IRIS supports MQTT 3.1. (OASIS standard).
- `EnsLib.MQTT.Adapter.Inbound` - connect, subscribe, and receive messages.
- `EnsLib.MQTT.Adapter.Outbound` - publish messages.

MQTT Pre-built BS, BO

- `EnsLib.MQTT.Service.Passthrough`
- `EnsLib.MQTT.Operation.Passthrough`

Classes

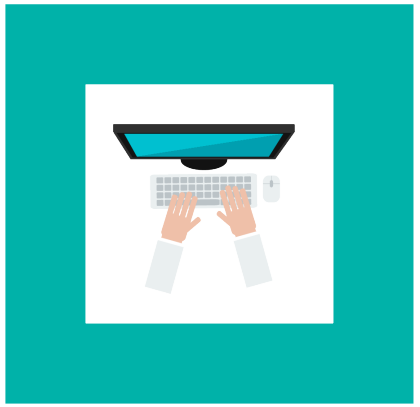
- `%Net.MQTT`

MQTT Support in IRIS

Main MQTT Settings

- **ClientID** – identifies your client to the broker.
- **KeepAlive** – seconds to keep alive connection to broker (combine with *FailureTimeOut* and *ReplyCodeActions*).
- **LWTTopic**, **LWTMessage** – Last Will and Testament message and topic (on unexpected connection).
- **QOS** – `0`=Wait for delivery, `1`=Fire and forget.
- **Trace** – Trace level `[0-6]`.
- **Url** – URL like `tcp://broker.example.com:1883`

MQTT Support in IRIS



Hands-on

https://github.com/intersystems-ib/workshop-mqtt