IoT

1. Possible IoT Protocol
   1. Data-Centric
      1. DDS (OMG)
      2. P2P publish-subscribe
   2. Message-Centric
      1. MQTT / MQTT-S
      2. Message Brokers
   3. Resource-Centric
      1. CoAP
      2. Request/Response + Observe
2. Data-Centric
   1. Data-Centric
      1. Focus on data (type/stricture)
   2. Data distribution service (DDS)
      1. Global Data Space
      2. Topics (Data types)
      3. Subscribers / Publishers
      4. Microseconds
3. Prism Tech
   1. The Data Distribution Service Tutorial
   2. Angelo Corsaro
   3. Chief Technology Officer
   4. Prism Tech
4. CoAP
   1. Restful + Observe operation
   2. Supported by Cisco
   3. Runtime discovery of resources
   4. Sharing of computational “costs”
   5. Allows web-like infrastructure
5. CoAP
   1. CoAP version
   2. Type of Message
      1. Non/Confirmable, acknowledge, Rest
   3. Token length
   4. Code
      1. 3 bit class + 5 bit detail
      2. 0.1 = GET
      3. 4.03 = forbidden
   5. Message ID
   6. Token (match request with response)
   7. Options / Headers
   8. Payload
   9. Message must fit in single packet
      1. Default MTU 1280 bytes
      2. But differs in different protocols
   10. GET PUT POST DELETE
       1. OVERSEVE
   11. URI