Lesson 6
Identity Management and Identity Establishment

Source of Message (s)

- Needs to specify an identity (Id) when

- sending the messages

- To let a receiver know that from where the messages have been received

The Id Management And Establishment

- Must, basic requirement

- Several sensors, actuators and platforms and those may be for several applications and services

- Number Of Ways Exist For Specifying Identity (Id).

MAC Address

- Specify identity of a computing device platform.

- However, the platform may connect several sensors

- Actuators

- Number of applications and services

- An URI can then be used as Universal resource identifier on Internet.

An Object Identifier (OID) In IoT

- Types of things: Streetlight, vehicle, ATM, WSN, RFID

- Class identifier: Class, type, or category of things, *make* and *model*

- Instance identifier: VIN (Vehicle identity number) for vehicles

Identity Management (IdM)

- For the devices, applications and services

- An FC of security FG

- IdM means managing the different identities, pseudo-names, hierarchies of group IDs as well as IDs for message senders and receivers

- The FC anonymously manages the IDs.

OMA-DM Model

Suggests use of a DM server

- Functions of DM server

- Assigning the device ID or address

- Activating

OMA-DM Model

- Configuring (managing device parameters and settings)
- Subscribing to device services, opting out of the device services, and configuring the device modes

RFID Reader

- Uses an RFID identity manager when reading from the RFIDs

EPCglobal Architecture Framework

- used for assignment of a unique identity

- Business processes

- Applications and services

- Uniquely identification of the physical objects, loads, locations, assets, and other entities

ONS

- Performs the lookup functions based upon the DNS

- DNS name enabling the web server Internet connectivity using HTTP, REST, WebSockets and Internet protocols

Summary

We learnt

- Communication between the device and application/services is after each one establishes identity of other securely, using authentication and authorisation and other functions

Summary

We learnt

- MAC, URI or OID can be used as Id for the things, application or service

- An OID includes type of things, class identifier and instance identifier.

- Id Management' is an FC of security FG.

- Id establishment and authentication essential elements

End of Lesson 6 on
Identity Management and Identity Establishment