# Chapter 7a: Application Layer Protocols for Cloud Connectivity

## Objective

7A + is about giving you the experience of the whole product of a cloud vendor.

We are going to show you more than just how to hook up

The plan is to finish 7c,d,e (c/http will be done soon) .. anyone willing to write 7d,7e?

## Emphasize … time: 3 ¾ Hours

### The “Cloud”

Probably a bad idea to make your own Cloud… you need to have 99.99 and that takes tons of people and money.. there is a reason why amazon.com makes all their money with Cloud services.

Takes 5 guys to do 1 job that is 24x7 … takes 6-7-8-9 jobs to run a cloud…

There are a bunch of Cloud

* Amazon
* Ibm
* Microsoft
* Hp
* Ali (alibabba)
* Samsung

vendors… and unfortunately the world didn’t pick a winner application protocol.

### Application Layer Protocols

All these protocols run on top of TCP and TLS

HTTP – most prominent… because of all the existing infrastructure…. Simple text based… open a socket… send a text based header + some bytes… a text based header + some bytes will come back…. Most commonly JSON (not HTML) … example the HTTP get from example.com

MQTT – an old protocol… explain the fundamental concepts… message, broker, subscribe, publish QOS

AMQP – not much to say

COAP – not much to say.

JSON – lingua franca… the most common format for transmitting the data between… simple… not space picky…. Show the data types.