Smart Water

ICTP-Workshop on New Frontiers in Internet of Things

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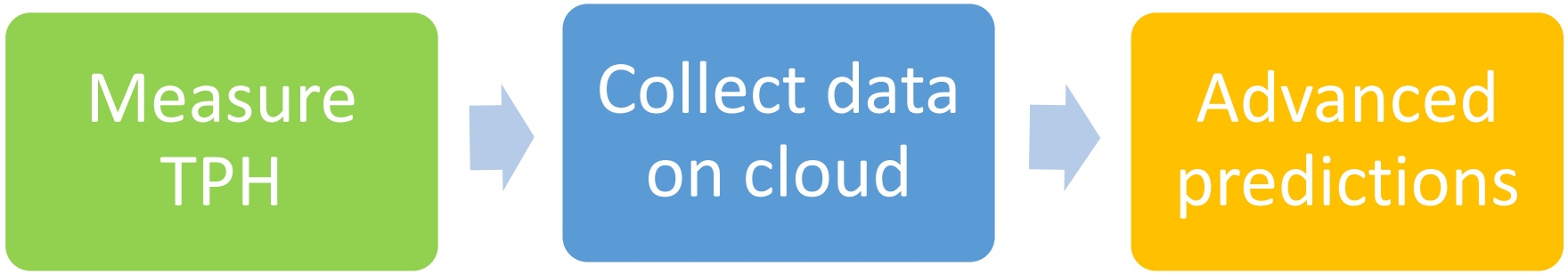
Outline

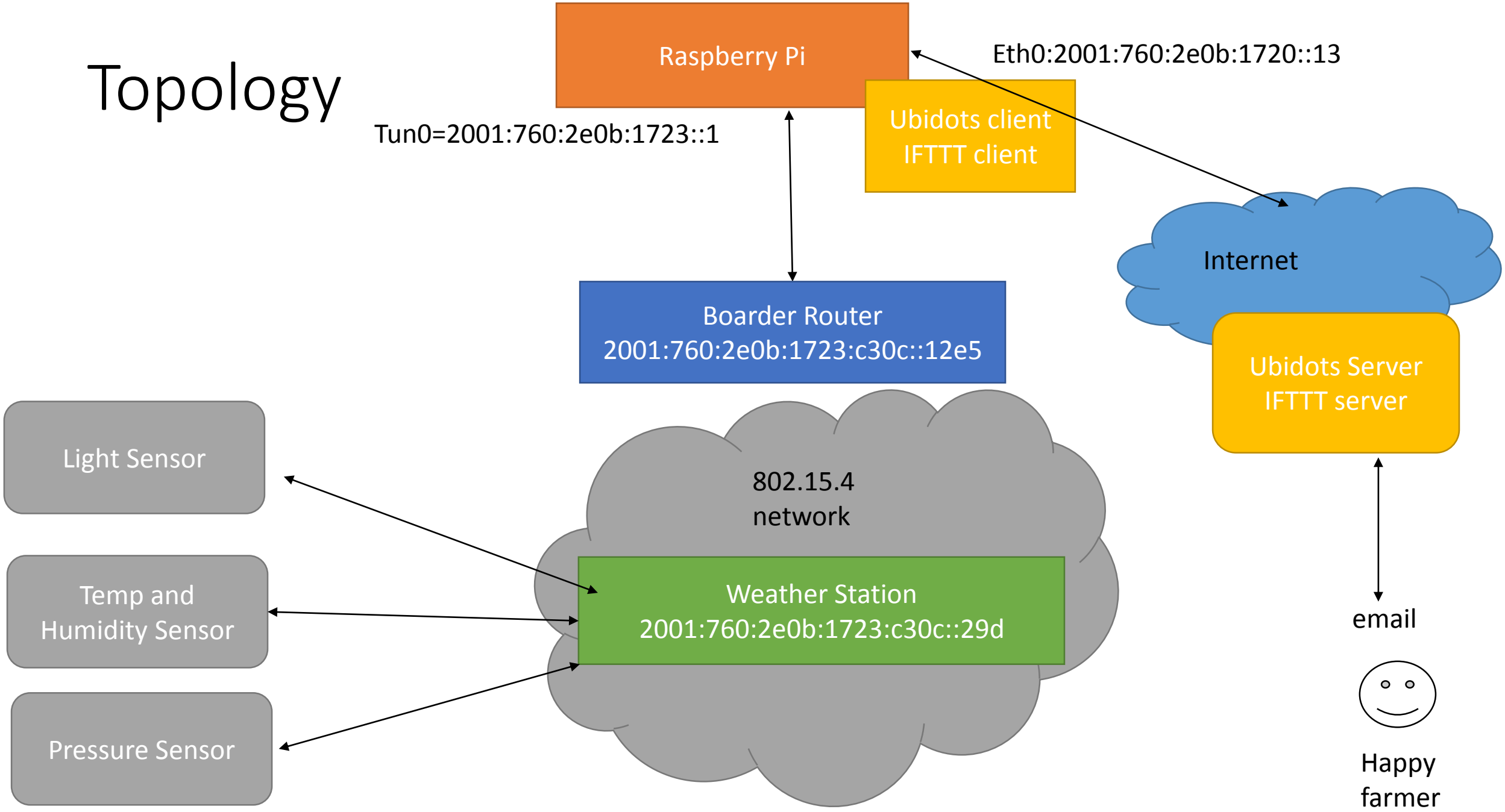
- Introduction
- Topology
- methodology
- Demo

Introduction

- Farmers in developing countries follow traditional methods to predict weather conditions for their cultivations.
- But advanced accurate measurements can help them to properly decide WHEN to plant and WHAT to plant.
- Smart water application is to predict rain and provide recommendations on cultivation.



Topology


Raspberry Pi
Eth0:2001:760:2e0b:1720::13
Tun0=2001:760:2e0b:1723::1
Ubidots client
IFTTT client
Internet
Boarder Router
2001:760:2e0b:1723:c30c::12e5
Ubidots Server
IFTTT server
Light Sensor
802.15.4
network
Temp and
Humidity Sensor
Weather Station
2001:760:2e0b:1723:c30c::29d
email
Pressure Sensor
Happy
farmer

Methodology

- ✓Weather station monitor readings from sensors for every 30 seconds.
- ✓Then it sends data to Ubidots client and IFTTT client running on host.
- ✓Host sends data to Ubidots server and IFTTT server in the cloud.
- ✓**IFTTT server** is configured to **send emails** to users who have subscribed to service.
- ✓And **Ubidots server** gives **graphical representation** of data

Pending:

- Currently we send reading from sensors.
- Instead, we can develop an application to process sensor readings and provide more meaningful predictions to users.
- User can be alerted via SMS and data can be fed to a web portal as well.

THANK YOU