# CTRL – IoT

## Introduction

System consists of these parts:

1. Base Station (**Base**) – Internet-connected hardware
2. Software Client (**Client**) – Internet-connected software: Web app, Android app…
3. Socket Server (**Server**) – Server written in NodeJS that accepts connections from many Bases and Clients (some might know it as *the Cloud*)

The idea is to connect the Base to the Server, and forward incoming message to all connected Clients associated to that Base and vice versa. There can be multiple Clients associated to one Base, but any one Client can only be associated to just one Base. Important aspect of this message forwarding is to ensure that messages which are forwarded through the Server **are delivered** to their destination.

Even though TCP sockets are used in communication, there is no “out of the box” mechanism to ensure that sending party knows that package went through and was delivered.

## Topology

*Basic idea*

**CTRL**  
Socket Server  
(NodeJS)

Hardware **Base**  
(Internet-connected hardware)

Software **Client**

*Binary data*

*JSON data*

**Internet**

## Base

a

## Client

a