There are three important cases to cover; when the Sonoff goes off, the RPi goes off and internet connection is lost.

When the raspberry pi is off, we obviously cannot control our switch and with the sample code everything becomes ok when RPi reboots.

When the internet connection is lost, we should still –theoretically- send and receive commands from Pi and then when connection is maintained the last status will be fetched by the AWSIoT. In case of internet is lost but commands taken by phone remotely, the shadow should report this to RPi when reconnected.

The problem now is manifest in who forces the other, the shadow or the sonoff.

This guy client.publish('cmnd/Buzdasonoff/backlog', 'power1'). is responsible for getting the status of the switch at the start as it results in a stat mssg gets received and therefore update to the shadow. This is helpful when the plaform and the pi are disconnected for some time and actions been taken manually. However, if the action to be taken by the remote app, and we need this action to be taken after the connection is maintained even after some time. Need to comment out the guy above so not get the stat of the switch at the start and hence not update the shadow and instead take the command from the shadow and force the device.

Need not to ack back until action is actually taken by the RPi on the Sonoff. This is done by commenting out the ack method from the thing script and instead we can update the shadow each time stat mess is triggered. So, ack should be removed from the thing script as it now updates the AWSIoT with the switch status as soon as it receives the command and before it actually takes the action. But if we wait until the action is taken (waiting for the stat mssg) that works fine.

When Sonoff goes off and we receive a command from the AWSIoT. We might still need to force be sonoff to take the action command coming from AWSIoT. However, the trouble here is that there is a stat mssg get received when the Sonoff reboots, which is probably a resuly from a cmnd command at startup as well. These two are noticed via the console.