CS 2310 Project Milestone 2

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Title:

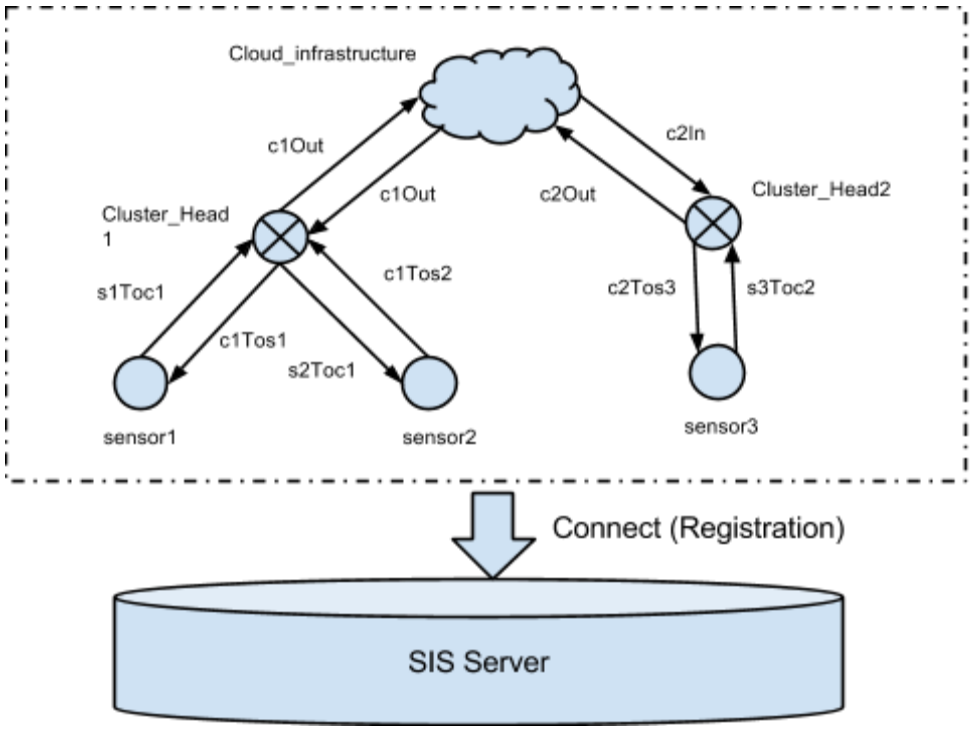
A simulation platform in SIS for sensor-cloud application.

Description:

There are some modifications of this project, instead of using petri-net to describe the behavior at the begining, we simulate the communication within sensor-network by using Slow Intelligence System (SIS). After generating components and coressponding messages, we can observe the general behavior within different sensors. Then we can develop specific application in sensor-cloud system.

Current Progress:

The prototype of simulation platform is established by SIS, the commmunication behavior with sensor-cloud can be simualted and show the result to users. A simple sensor-cloud system example is in the following.



Next Step:

Develope a specific application for current sensor-cloud system, e.g. find shortest path in sensor-cloud system with utilizing the feature for SIS.

Demo Screenshot:

Here we use a simple message passing pattern to demostrate the communication behavior of sensor-cloud system. The scenario of pattern is is the following:

1. Sensor 1 (S1) sends a message (S1ToC1) to Cluster_Head_1(C1).

2. C1 receives S1ToC1 and then sends a message (C1ToS2) to sensor 2 (S2).
3. S2 receives C1ToS2 and then sends a message (S2ToC1) back to C1.
4. C1 receives S2ToC1 and then sends a message (C1Out) to Cloud infrastructure (CI)
5. CI receives C1Out and then sends a message (C2In) to Cluster_Head_2 (C2)
6. C2 receives C2In and then sends a message (C2ToS3) to sensor 3 (S3).