# Implementation of Demo

The demo can be divided into two parts. The first part is the backend processing which involves the pub/sub middleware and some application specific modules for creating event templates. The second part is the GUI which presents the effectiveness of our Demo

## Backend

Currently our demo is supporting ITS. The architecture of the backend is as follows:



We have implemented a demo for ITS so that it returns the event when there is a change of the number of cars in an area. Currently, the demo can support subscriptions of any area within the demo space. The subscription is contained in a file which includes the description of the area. A sample file looks like follows:

4, 2, 6, 1

1, 2, 6, 4

1, 1, 4, 3

On each of the line, there are 4 numbers dedicating a road section. The first two numbers are the IDs of the starting intersection of a subscribed road. The second two are the IDs of the end intersection of a subscribed road. The whole file will contain all the subscribed road sections and hence the subscribed area.