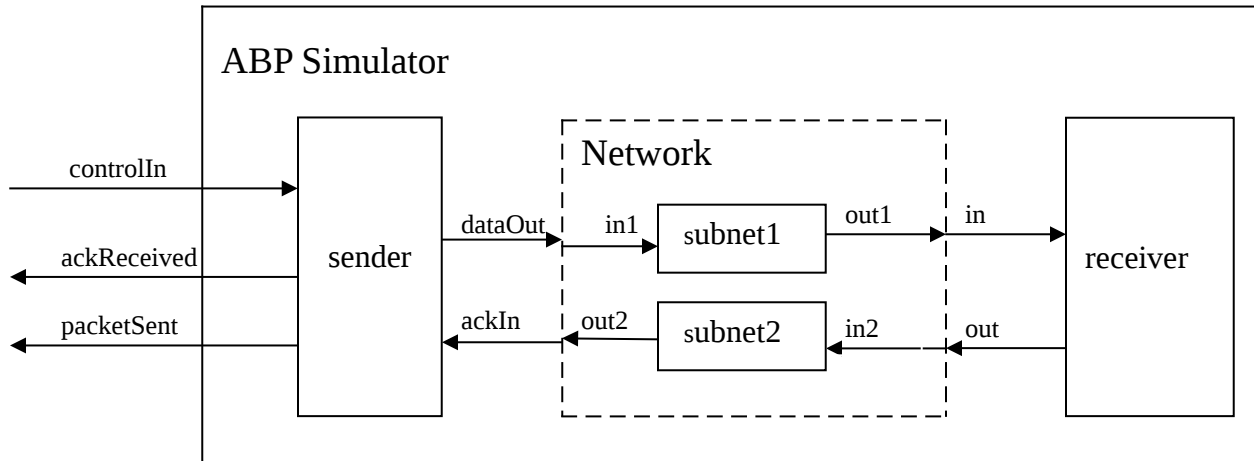# ALTERNATE BIT PROTOCOL

DEVS top model

Figure 1. ABP DEVS top model

CDBoost implementation

(Note: CDBoost does not allow the direct implementation of ports in the atomic and coupled models. We need to define the ports in the message structure and add some filters and portConversors when the model has more than one port)

Message structure:

```
struct Message_t{
     string  port; //port name
     float   value;
};
```

In this specific model, we need to add 3 filters and 1 portConversor (represented in green in figure 2) Moreover, for simplification purposes, we do not directly implement the network coupled model (represented in red in figure 2). We make this simplification to avoid introducing more filters. This simplification is fair because the simulator flattens the top model.
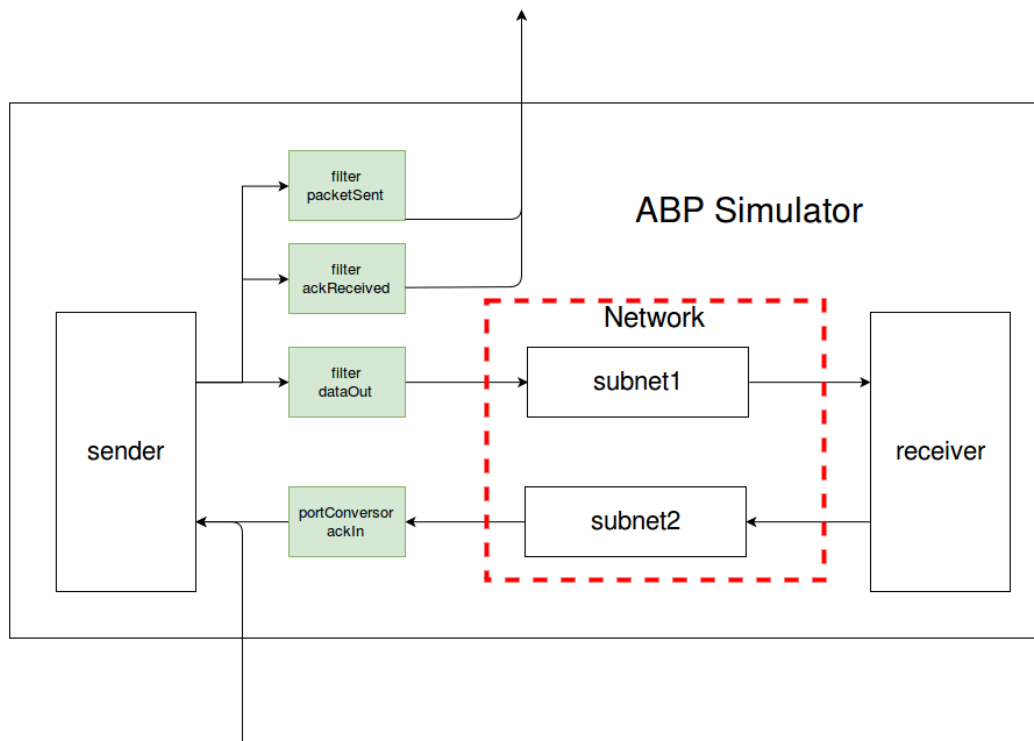
Figure 2. ABP DEVS top model. Modifications to implement the model in CDBoost