EMV2 Approach

```
pedal_out : out
propagation{NoService
};
```

```
pedal : in propagation
{NoService};
cmd : out
propagation{NoValue};
```

```
in_pressure : in
propagation {Novalue};
out_pressure : out
propagation{NoValue};
```

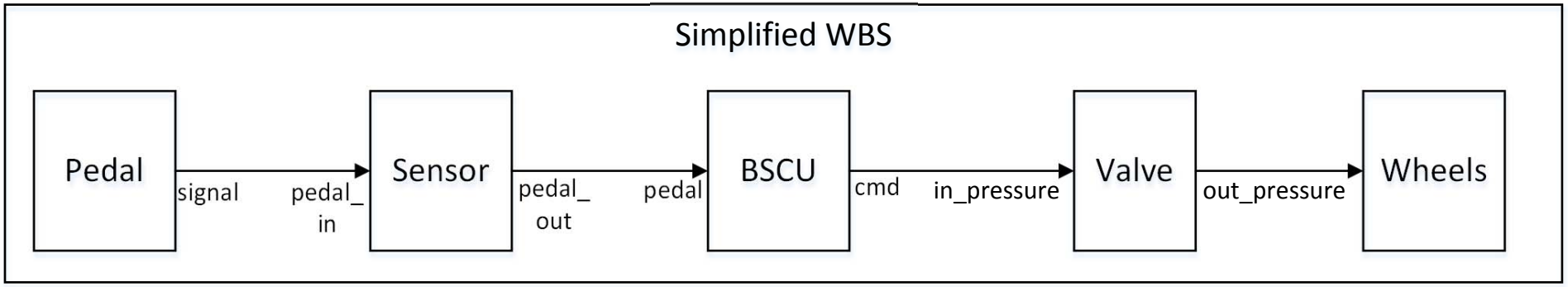
Error Propagation through Component

```
error source
signal{NoService};
```

```
error path
pedal{NoService}
-> cmd{NoValue};
```

```
error path
in_pressure{NoValue} ->
out_pressure{NoValue};
```

Error Flow




```
signal.val
>= 0.0;
```

```
pedal_out.val =
pedal_in.val;
```

```
(pedal.val > 0.0)
=> (cmd.val > 0.0)
```

```
out_pressure.val =
in_pressure.val;
```

Nominal Behavior in AGREE

```
"sensor output stuck at zero"
    pedal_out = if
    fault_trigger then
    0.0 else pedal_in;
```

Faulty Behavior in Safety Annex

Safety Annex Approach

```
"pedal pressed implies valve pressure"
  (Pedal.signal.val > 0.0) =>
  (Valve.out_pressure.val > 0.0)
```

System safety property in AGREE