

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};

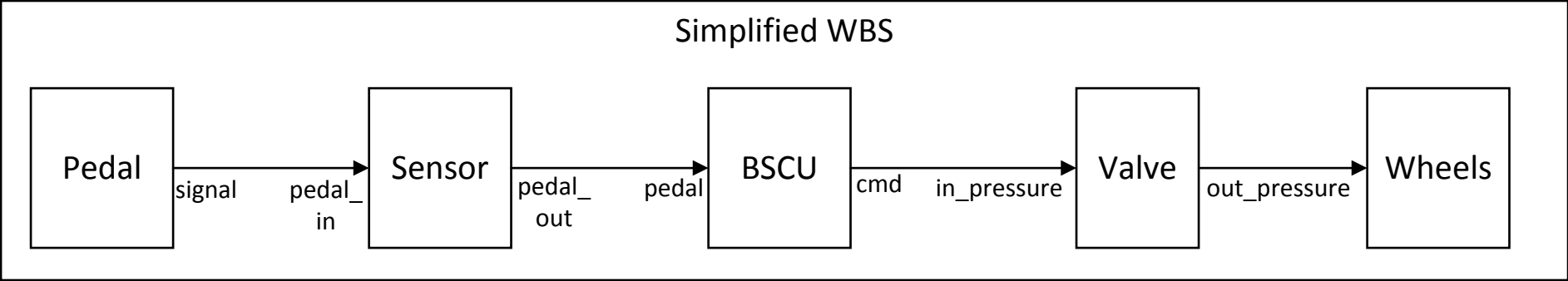
Component's
Error
Propagation

error source
signal{NoService};

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

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

Component's
Error Flow



guarantee
"signal
output
range is
>= 0.0"

guarantee
"passing
input to
output"

guarantee stuck_at_zero
"pedal_out.val stuck
at zero"

guarantee "pedal pressed (pedal signal
> 0.0) implies valve out pressure
(out_pressure > 0.0)"

guarantee "pedal pressed (> 0.0)
implies pressure
commanded (cmd >
0.0)"

guarantee
"out_pressure is
equal to
in_pressure"

Component's
Nominal Behavior in
AGREE

Component's Faulty
Behavior in Safety
Annex

System's property in
AGREE

Safety Annex Approach