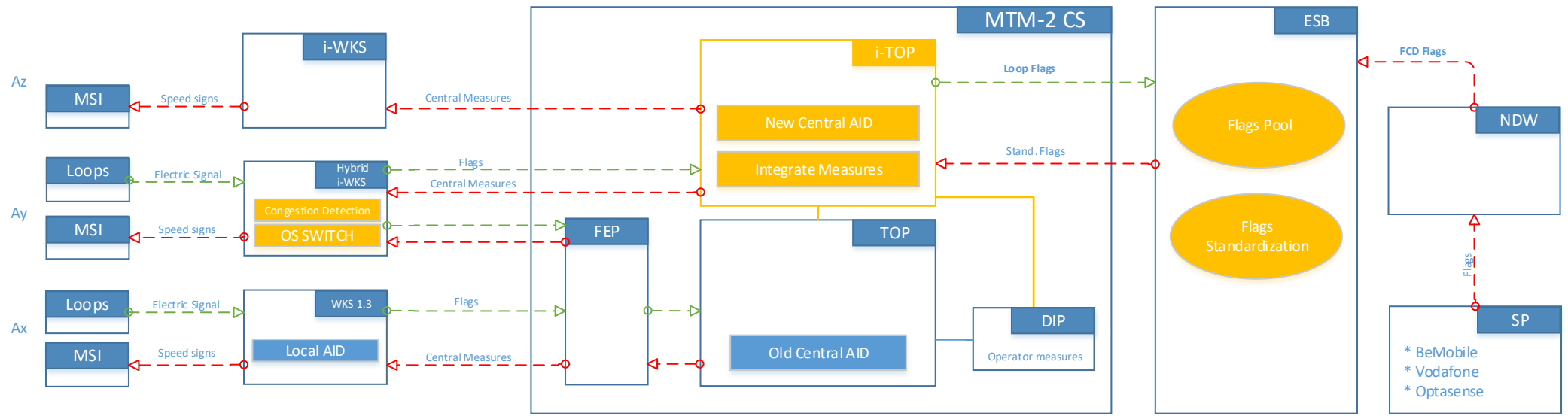
ROADSIDE SYSTEMS INTEGRATION



Congestion Detection

* Simpler AID that can eliminate some of the OS-TOP exchanges.
* Calculates congestion flags based on loops speeds.

New Central AID

* Simpler AID that can eliminate some of the OS-TOP exchanges.
* Calculates measures based on 'standard' congestion flags.
* Can be implemented as a new application or in the ESB.

i-TOP Interfaces

* Through an interface with the DIP, i-TOP can receive operator requests.

* Through an interface with the TOP (or ESB), i-TOP can receive the measures that will be sent to other OS.

OS SWITCH

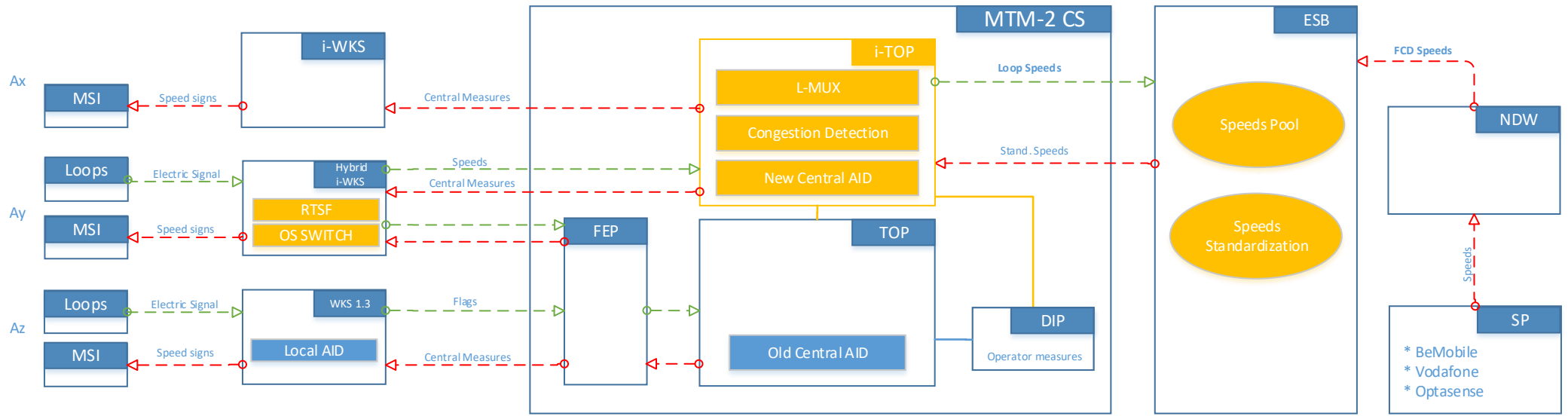
* Can switch between working with TOP or i-TOP.
* If some communication with TOP is still needed, it can "simulate" the traditional OS behavior for interoperability.

Integrate Measures

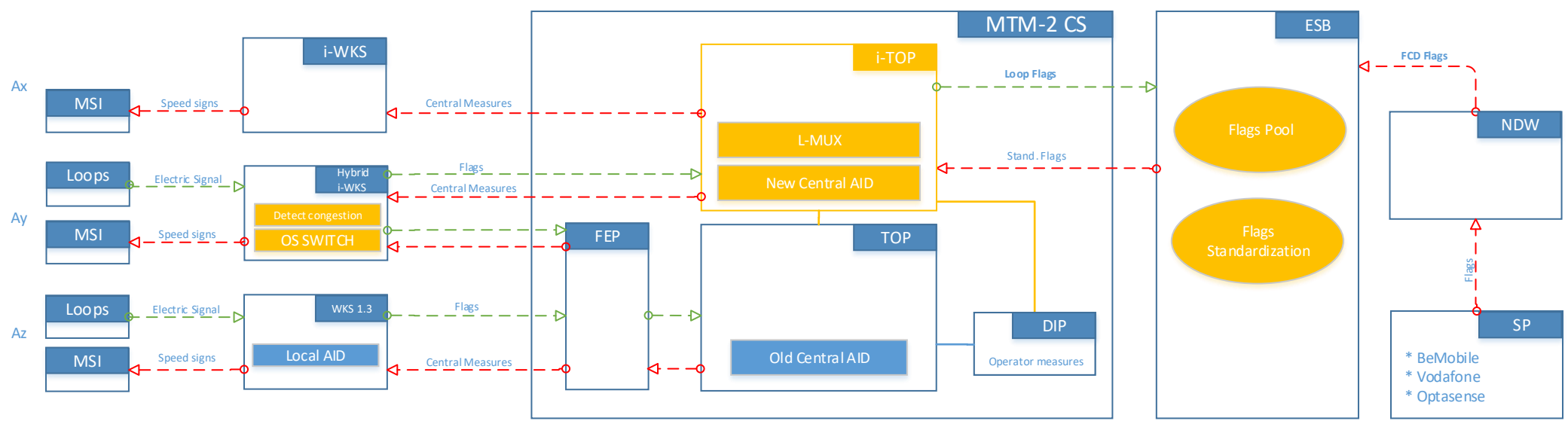
* Monitor measures sent to WKS 1.X (from the TOP) to send them to upstream i-WKS.

* This is for roads where i-WKS coexists with WKS 1.X. i-WKS would need to be placed upstream.

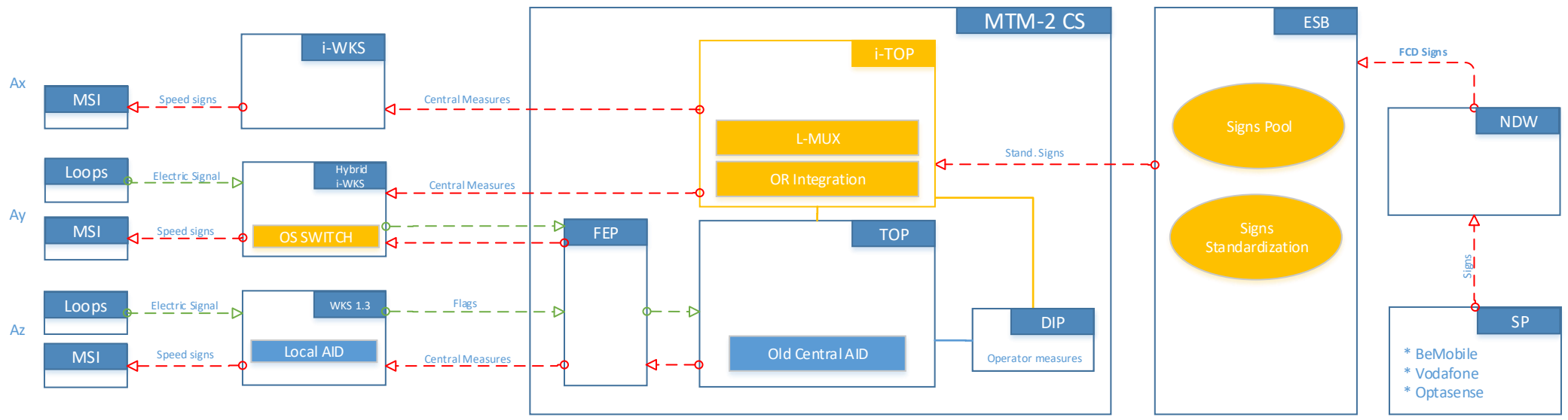
SCENARIO B1



SCENARIO B2



SCENARIO B3



RTSF (Real Time Speed Forwarding)

* Forwards speeds in real time (already possible with WKS 1.2)
* Speeds could be forwarded directly to the ESB or via the i-TOP to the ESB.

Congestion Detection

* Detects congestion based on 'standard' speeds.
* Generates 'standard' congestion flags and send them to the New Central AID.
* Can be implemented as a new application or in the ESB.

New Central AID

* Simpler AID that can eliminate some of the OS-TOP exchanges.
* Calculates measures based on 'standard' congestion flags.
* Can be implemented as a new application or in the ESB.

OR Integration

* Instead of having the full AID functionality, this module would only recalculate measures based on operator requests.

Location MUX

* Module indicating which data source to use based on pre-defined location logic (e.g. use BeMobile data for the A27).
* It takes data from the standardized pools and forwards it to the next system (e.g. new Central AID)

<> Pool

* It holds a record of all current data from all sources
* It might be kept for a pre-defined period of time (e.g. 1 minute)

<> Standardization

* It converts the data from the pool into a common standard (the pool contains data from different providers, which may have different location / time resolution or format)

i-TOP Interfaces

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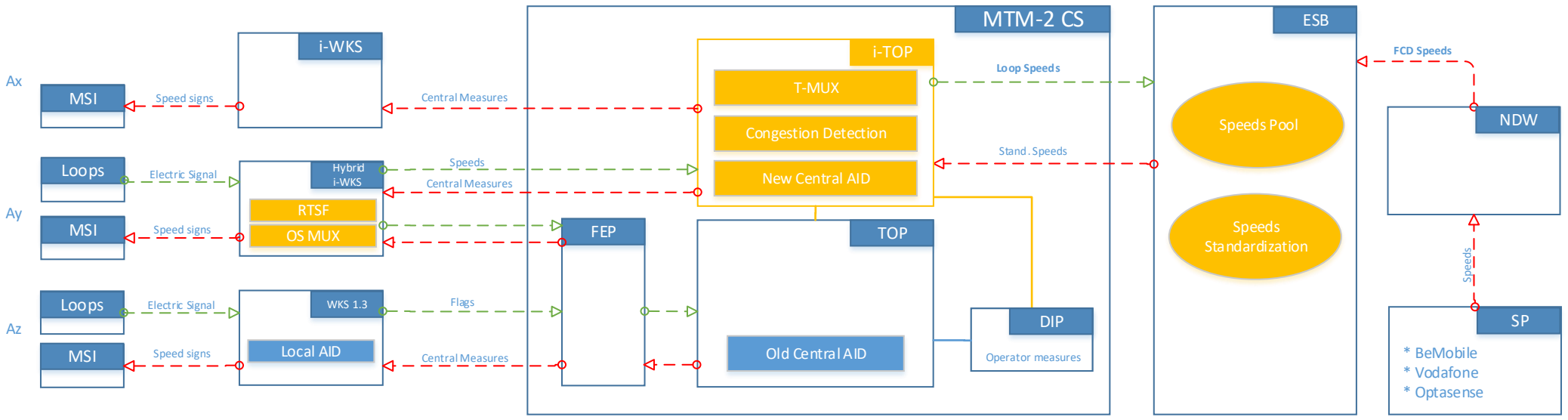
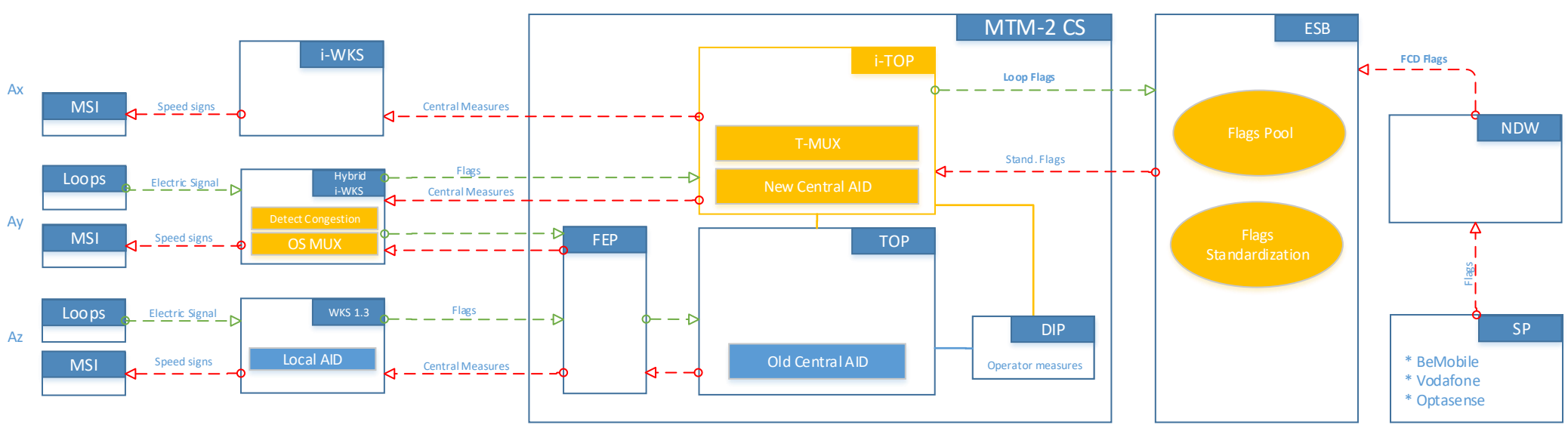
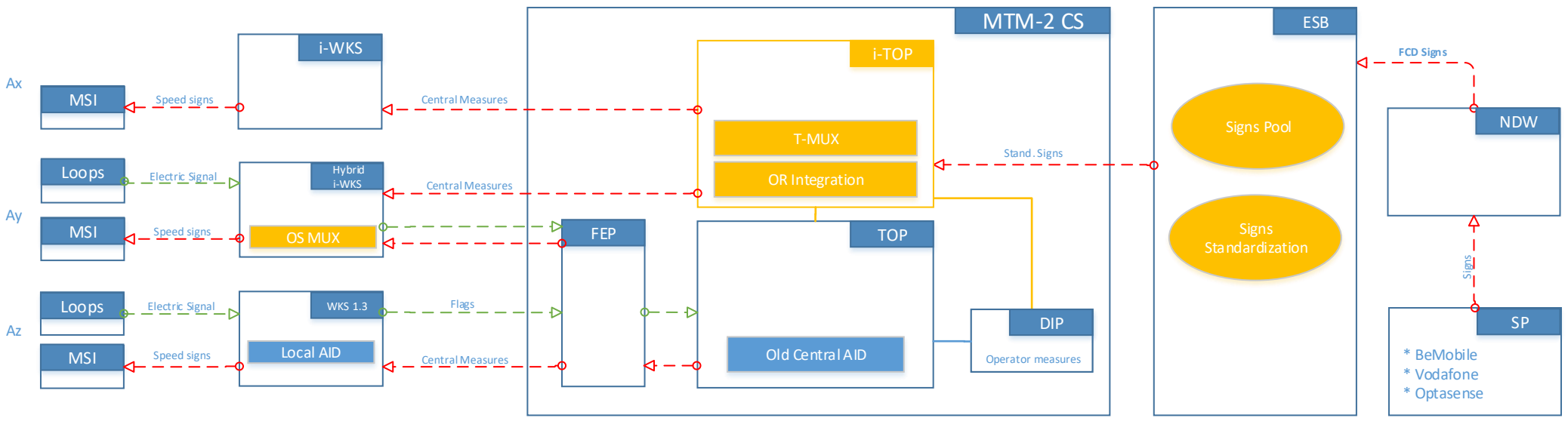
SCENARIO C1



SCENARIO C2



SCENARIO C3



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Time MUX

* Module indicating which data source to use based on pre-defined time logic (e.g. use BeMobile data between 7-9).
* It takes data from the standardized pools and forwards it to the next system (e.g. new Central AID)

<> Pool

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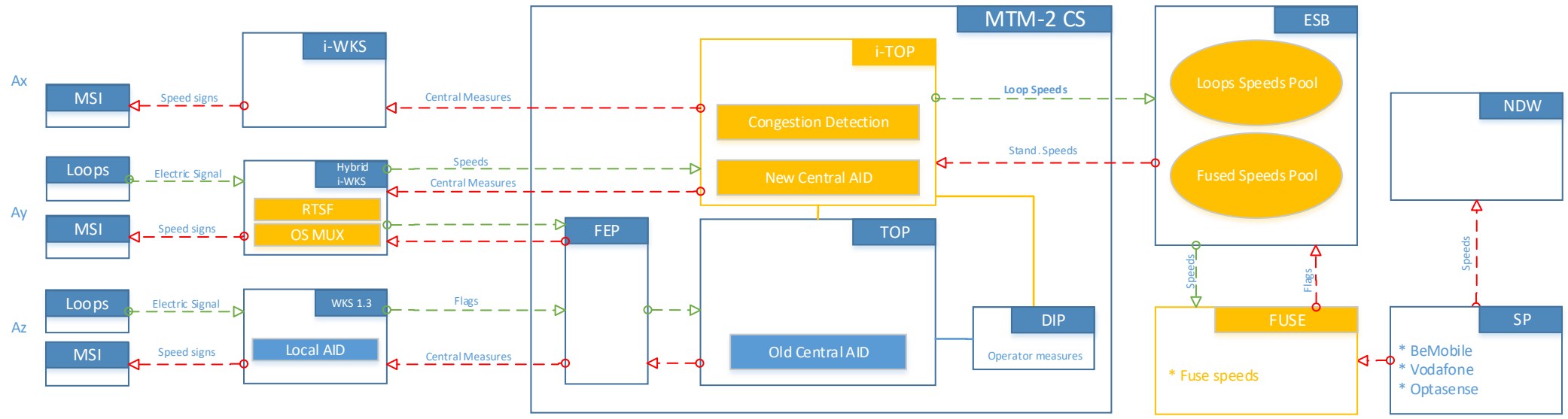
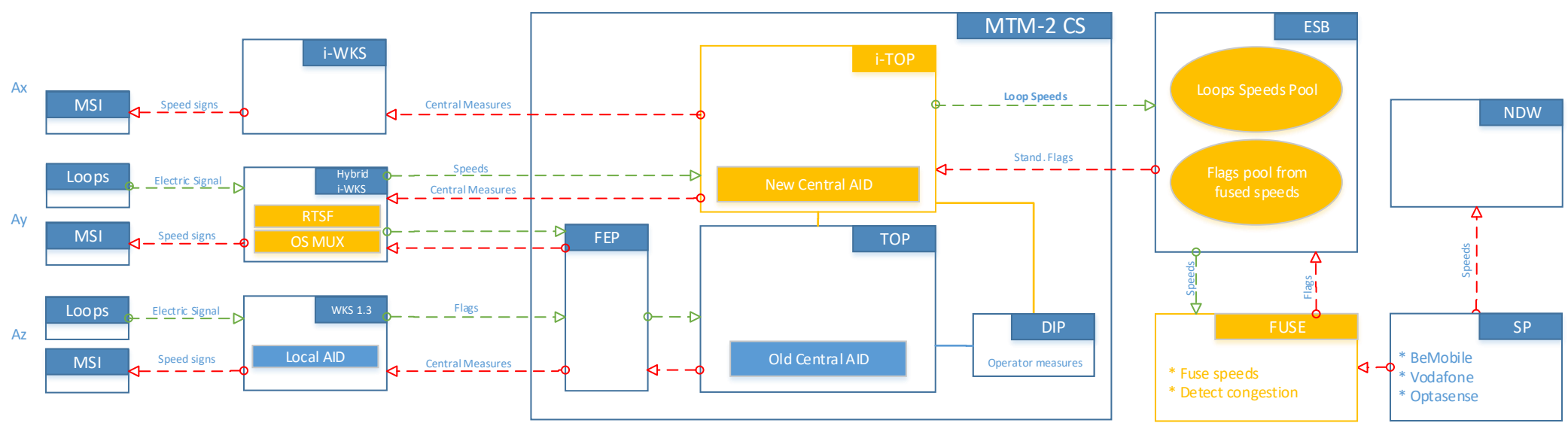
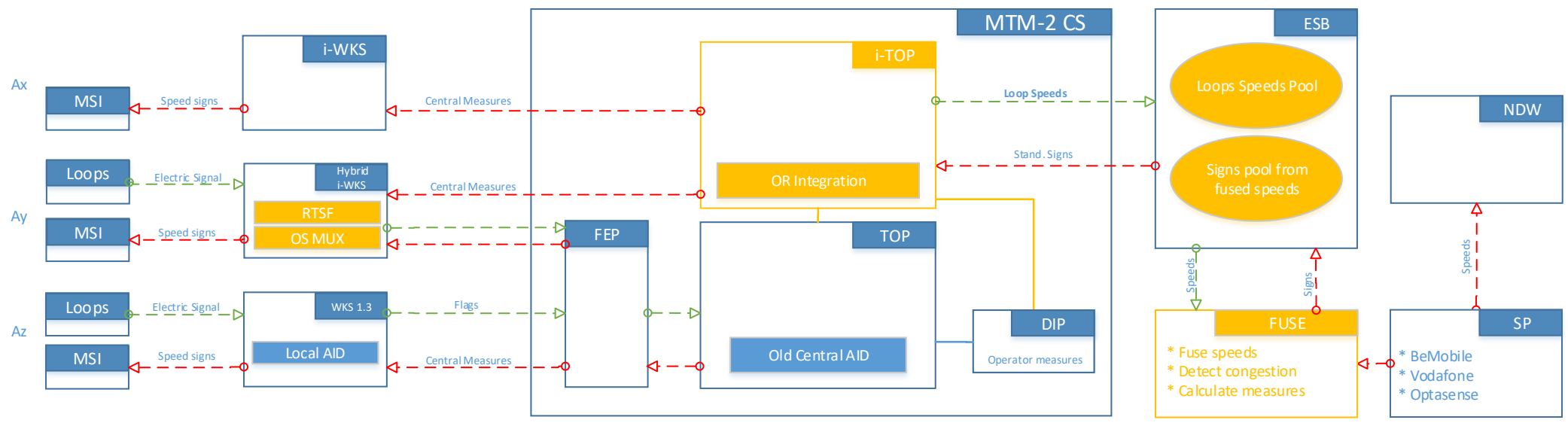
SCENARIO D1



SCENARIO D2



SCENARIO D3



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FUSE

* Module that fuses speed data from various sources. It allows to remove loops from certain locations and "fill the gaps" with FCD.

* This fused data would need to follow the CS standard.

<> Pool

* It holds a record of all current data from all sources
* It might be kept for a pre-defined period of time (e.g. 1 minute)

<> Standardization

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i-TOP Interfaces

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