

Message "SOS - Service Not Activated" in instrument cluster

Topic number	LI82.85-P-067581
Version	1
Function group	82.85 Navigation and Communication system (CNS, ICS, COMAND, FleetBoard)
Date	01-11-2018
Validity	MODEL 117, 156, 166, 172, 176, 190, 205, 207, 213, 217, 218, 222, 231, 238, 242, 246, 253, 292 with SA code 362 (HERMES LTE communication module)
Reason for change	
Reason for block	

Complaint:

"SOS - Service not activated" message in instrument cluster.

MB Apps, Internet Radio, LiveTraffic Information, iCall/S24h-Call nonfunctional.

Note: In the N112/9 control unit for telematics services (HERMES) the event code B15CE00 is active and stored.

Cause:

The vehicle's backend "over-the-air" registration (OTAR) has failed or was not completed successfully.

This complaint can have several causes.

Note: The attachment includes a simplified depiction of the OTAR process.

The basic requirements can be checked using the control unit log from the N112/9 control unit for the telematics services (HERMES).

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1.) The basic requirements are not given when:

1.a) Comparison of control unit log and Vedoc: Required SIM card values (ICCID, IMEI, IMSI, SNR HU) are not documented in VeDoc or documented incorrectly. (See attachments "SIM Card Data" and "SIM Card Data in Vedoc")

1.b) "Operating Mode" is not in "Provisioning Mode". (See attachment "SIM Card Data")

1.c) The signal strength of the mobile network is 0%. (See attachment of "GPS Data and Mobile Network Information")

1.d) No visible GPS values in control unit log (empty values for date and time). (See "GPS Data and Mobile Network Information")

1.e) Invalid/incorrect GPS values visible in control unit log (values present, for date and time, but they are incorrect). (See "GPS Data and Mobile Network Information")

1.f) Initial authorization certificate invalid. (See attachment "SIM Card Data")

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If all basic requirements are given, the cause can be further restricted by reading out the "Status of registration". (See attachment "Status of registration in XENTRY Diagnosis")

2.) Registration errors at mobile phone service provider's (DC.20- DC.27)

3.) Error when replacing certificate (CEP.30 - CEP.3C)

XENTRY TIPS

4.) Error in final registration (TOC.40 - TOC.47)

Attachments	
File	Description
SIM Card Data.JPG	SIM card data for comparison with Vedoc data
GPS Data and Mobile Network information.jpg	GPS data and mobile network information
Status of registration in XENTRY Diagnosis.jpg	Status of registration via "Actual Values"
Over the air Registration.pdf	Simplified process overview of OTAR
SIM Card Data in Vedoc.jpg	SIM card data in Vedoc

Remedy:

Note: For registration with the Backend, it must be ensured that the vehicle has adequate GSM and GPS reception.

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1.a) Perform new initial startup of N112/9 control unit for telematics services (HERMES) and head unit (A26/17 or A40/3 oder A2) using XENTRY Diagnosis.

1.b) "Transport Mode", "Supplier Mode" or "Out of Service Mode": Perform new initial startup of N112/9 control unit for telematics services (HERMES) using XENTRY Diagnosis.

Extra work for "Out of Service Mode": If the new initial startup is not productive, please contact Verizon Dealer Support and make sure that they have activated the SIM card. Following this, repeat the initial startup procedure for the N112/9 control unit for the telematics services (HERMES) using XENTRY Diagnosis to switch the "Operating Mode" into the "Provisioning Mode".

1.c) Perform a short test drive (approx. 10 min), while doing so make sure that the GSM and GPS reception level is sufficiently high.

1.d) Check the head unit (A26/17 or A40/3 or A2) for GPS antenna fault codes and process them if necessary. If there are no faults, perform a short test drive (approx. 10 min). While doing so make sure that the GSM and GPS reception level is sufficiently high.

1.e) Creation of a PTSS case. Attach a control unit log of the N112/9 control unit for the telematics services (HERMES) and the head unit (A26/17 or A40/3 or A2) to the PTSS case.

1.f) Reset the initial authorization certificate of the N112/9 control unit for the telematics services (HERMES). (See attachment "Reset initial authorization certificate of HERMES")

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2.) Please contact Verizon Dealer Support and notify them of the registration status. The following information for the control unit N112/9 in question requires: ICCID, IMEI, IMSI, IMSISDN, serial number. Support will contact Verizon Wireless to rectify the complaint.

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3.a) CEP.30, CEP.31, CEP.32, CEP.35, CEP.37, CEP.38, CEP.39, CEP.3A: Creation of a PTSS case. Attach a control unit log of the N112/9 control unit for the telematics services (HERMES) to the PTSS case.

3.b) CEP.33: Temporary backend malfunction. Wait for 24 hours then assess the complaint again.

3.c) CEP.34, CEP.36, CEP.3B, CEP.3C: Use XENTRY Diagnosis to perform a new initial startup of the N112/9 control unit for the telematics services (HERMES) and the head unit (A26/17 or A40/3 or A2). Then reset the initial authorization certificate of the N112/9 control unit for the telematics services (HERMES) (see attachment "Reset initial authorization certificate of HERMES"). A memory in the Daimler Vehicle Backend enables the registration process to be delayed by 24h. Please wait 24 hours and perform a test drive. If, after this, registration is still not successful please create a PTSS case. Attach a current quick test along with an up-to-date control unit log of the N112/9 control unit for the telematics services (HERMES) to the PTSS case.

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4.a) TOC.40 to TOC.46: Creation of a PTSS case. Attach a control unit log of the N112/9 control unit for the telematics services (HERMES) to the PTSS case.

XENTRY TIPS

4.b) TOC.47: Using XENTRY Diagnosis perform a new initial startup of the N112/9 control unit for the telematics services (HERMES). Then reset the initial authorization certificate of the N112/9 control unit for the telematics services (HERMES) (see attachment "Reset initial authorization certificate of HERMES"). A memory in the Daimler Vehicle Backend enables the registration process to be delayed by 24h. After 24h perform a brief test drive. If, after this, registration is still not successful please create a PTSS case. Attach a current quick test along with an up-to-date control unit log of the N112/9 control unit for the telematics services (HERMES) to the PTSS case.

Attachments	
File	Description
reset initial authorization certificate of HERMES.jpg	Reset of initial authorization certificate of HERMES

Symptoms
Communication/information / Communication / Telematics service / Customer hotline / MB info nonfunctional
Communication/information / Communication / Telematics service / Vehicle status and configuration / Remote door unlocking/locking / Nonfunctional
Communication/information / Communication / Telematics service / Accident and breakdown management / Cannot connect call
Communication/information / Communication / Telematics service / Customer hotline / Cannot connect call
Communication/information / Communication / Internet/email / Internet function / No connection possible
Communication/information / Communication / Internet/email / Internet services / Service unavailable
Communication/information / Communication / Internet/email / Internet services / Surfing the Internet is unavailable
Communication/information / Communication / Telematics service / Activation/deactivation / Control unit cannot be activated/deactivated
Communication/information / Communication / Telematics service / Activation/deactivation / Telematics service cannot be activated/deactivated
Communication/information / Communication / Telematics service / Activation/deactivation / SIM card disabled
Communication/information / Communication / Telematics service / Activation/deactivation / SIM card is not detected
Communication/information / Communication / Telematics service / Vehicle status and configuration / Vehicle homepage / Nonfunctional
Communication/information / Communication / Telematics service / Locating services / Vehicle position/vehicle locating / Nonfunctional
Communication/information / Communication / Telematics service / Activation/deactivation / No connection possible
Communication/information / Communication / Telematics service / Activation/deactivation / MB-App cannot be activated/deactivated
Communication/information / Communication / Telematics service / Vehicle status and configuration / Remote vehicle status query / No display/message
Communication/information / Communication / Telematics service / Vehicle status and configuration / Vehicle function programming / Programming not possible

Control unit/fault code		
Control unit	Fault code	Fault text
N112/9 - Control unit for telematics services (HERMES)	B15CE00	Registration on the server for telematics services has failed. _

XENTRY TIPS

Attachments

SIM Card Data.JPG:

N112/9 - Control unit for telematics services (HERMES)

Events

Code	B15CE00
First quick test result	A+S
Current fault status	A+S

Error codes

Events

Code	B15CE00
Last quick test result	A+S
Current fault status	CURRENT and STORED

Environment Data

Internal Voltage	14
Battery Voltage	14
Ignition State	IGN_ON
Odometer	35
Internal Temperature	25
VIN Original (VIN aus SG)	WDC0G4K [REDACTED]
VIN Current (VIN aus Fzg)	WDC0G4K [REDACTED]

Provider

EUICC	8914800003421826566
ICCID	8914800003421826566
IMEI	359536063901003
IMSI	311480994196219
MSISDN	+14706313306
Operating Mode (Betriebszustand)	Provisioning Mode
Registration Error Status (Status d. Registrierung)	Other OTAR errors/reserved
Registration Process (Prozess d. Registrierung)	Not Active
Certificate Status (Status d.Zertifikats)	Regular certificate, file valid

03.10.2017 14:51:36	07/2017	WDC0G4K [REDACTED]
Copyright 1999 Daimler AG	253.949	Page '9' of '21'

GPS Data and Mobile Network information.jpg:

GPS Data

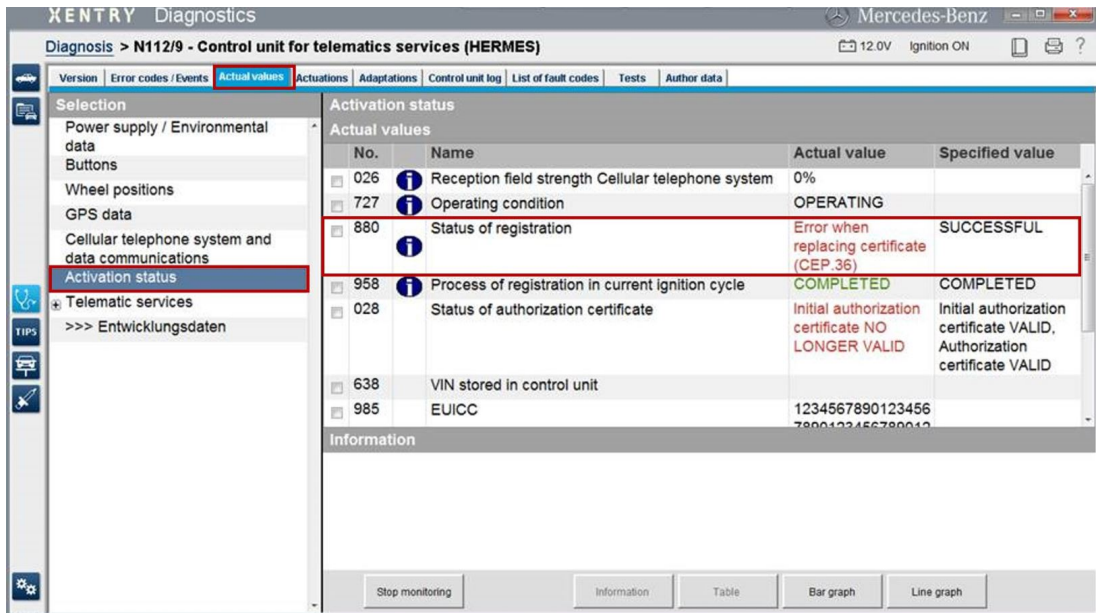
UTC Year	2017
UTC Month	October
UTC Day	3
UTC Hour	18
UTC Min	45
UTC Sec	34
Latitude Direction	North
Latitude Degrees	35
Latitude Minutes	33
Latitude Seconds	49
Longitude Direction	West
Longitude Degrees	82
Longitude Minutes	37
Longitude Seconds	53
GPS Fix	3D Fix

Mobile Network

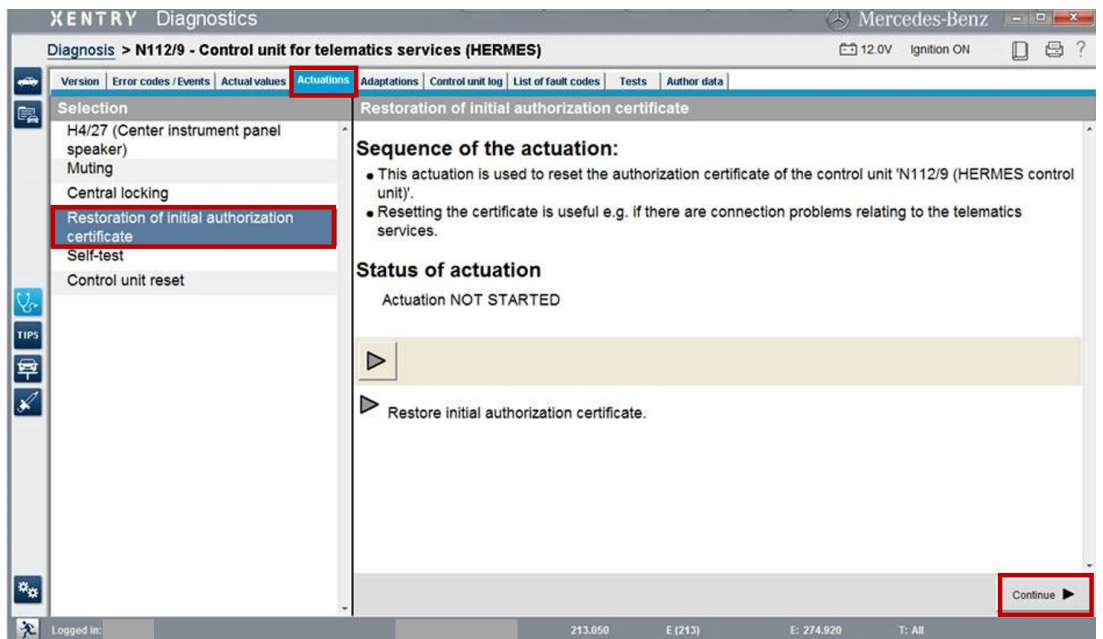
Connection Type	LTE
Signal in Bars	4
Service Status	Valid services
Roaming Status	Not Roaming
BT Connection (nur BT-Varianten)	Not Connected - Not Paired
BT-Address HERMES (nur BT-Varianten)	74 6F F7 AB 71 32
BT-Address HU (nur BT-Varianten)	00 00 00 00 00 00
WLAN Connection (nur WLAN-Varianten)	WLAN and WCC Connected
MAC-Address HERMES (nur WLAN-Varianten)	74 6F F7 AB 71 31
USB Connection (nur USB-Varianten)	

XENTRY TIPS

Status of registration in XENTRY Diagnosis.jpg:



reset initial authorization certificate of HERMES.jpg:



XENTRY TIPS

SIM Card Data in Vedoc.
jpg:

Identifikation	Aggregate	Codes	SA-Nummern	VPD-Daten	Seriennummern								
Zertifizierung	Vertriebsdaten	Ausstattung	Typschid	AO-Texte 1	Steuergeräte	Werkstoffe	Diebstahlrelevante Daten	DRT-Bestellungen	Navigation	Historie			
Benennung			Typ	Diogenes-N.	Kurz.	Ver.	Hardware-SNR	SCN	CVN	Zus.	Ser.	Seriennummer	And.
SEAT Sitzeinsteigergerät Fahrer			SEATD222	SFD			205 901 84 03	2205902810735		<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
ARWIT Automatische Rückwandlur			PTCM222	PTCM			205 901 20 08	2205902020636		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
CPC Central Powertrain Controller			CEPC	CPC			000 901 64 02	0000901640235 F733E711		<input type="checkbox"/>	<input type="checkbox"/>	0009016402400	<input checked="" type="checkbox"/>
CPF Hardware			CPF222	CPF			222 901 00 01	222902591235		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
EPS Steuergerät elektrische Lenkung			EPS205_ZF	EPS			205 901 24 04			<input type="checkbox"/>	<input type="checkbox"/>	2059012404133	<input checked="" type="checkbox"/>
ESP Elektronisches Stabilitätsprogramm			ESP205	ESP			253 901 14 00	2253902800035 84B9D59F		<input type="checkbox"/>	<input type="checkbox"/>	2539011400261	<input checked="" type="checkbox"/>
EZS Elektronischer Zündstartschalter			EIS222	EZS			205 901 31 12	222902581235		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
GSG Getriebe-Steuergerät			VGSNAG3	GSG			000 901 50 00	0000902163835 EB899738		<input type="checkbox"/>	<input type="checkbox"/>	0009015000317	<input checked="" type="checkbox"/>
GSL Gurtsraffer links			RBTMFL222	GSL			222 901 49 01	2229029390935		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
GSR Gurtsraffer rechts			RBTMFR222	GSR			222 901 50 01	2229029390935		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Herzsteuergerät			HEAD_H16	H16			205 901 06 15	2205902851815		<input checked="" type="checkbox"/>	<input type="checkbox"/>	HERM020026384	<input checked="" type="checkbox"/>
Hermes Steuergerät			HERMES	HERM	Herm		213 901 01 08	2213902711015		<input type="checkbox"/>	<input checked="" type="checkbox"/>	2139003917000	<input checked="" type="checkbox"/>
Keyless-Go			KG222	KG			222 901 82 02	222902901235		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
KI Kombiinstrument			IC222	KI			205 901 42 15	2205902431835		<input type="checkbox"/>	<input type="checkbox"/>	2059014215009	<input checked="" type="checkbox"/>
KLA-V Klimabedieneinheit vorne			HVAC222	KLA			205 901 20 04	222902561435		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
LWR-M Leuchtwertenregulierung Master			VPDPV_HJL_FR253	LRL			253 901 05 00	2253902890035		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2229004812821	<input checked="" type="checkbox"/>
LWR-S Leuchtwertenregulierung Slave			VPDPV_HJL_FR253	LRR			222 901 79 01	2253902890035		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2539007000821	<input checked="" type="checkbox"/>
MPC Multi Purpose Camera			MMPC222	MPC			222 820 09 97	222902571035		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
MSG Motor-Steuergerät			MED40	MSG			274 901 16 00	2274901160035 70039FEC		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
ORC Airbag-Steuergerät			ORC222	ORC			205 901 75 13	2205902731135		<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
PTS Paratronic-System			PARK222	PTS			000 901 75 02	0000902582535		<input type="checkbox"/>	<input type="checkbox"/>	T190X1827170	<input checked="" type="checkbox"/>
RDK Relendruckkontrolle			TPM222	TPM			000 901 45 06	0000902862435		<input type="checkbox"/>	<input type="checkbox"/>	0949018617020	<input checked="" type="checkbox"/>
RDU-S3 RDU-Sensor 3			FCW222	FCW			000 901 85 04	0000902403535		<input type="checkbox"/>	<input type="checkbox"/>	S639687900A17	<input checked="" type="checkbox"/>
RDU-S5 RDU-Sensor 5			IBSM3G205	IBSMR			000 901 88 02			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
RDU-S8 RDU-Sensor 8			IBSM3G205	IBSMR			000 901 88 02			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Sachnummer	Software-ZGS	Benennung	Identifikations- / Seriennummer
000 902 12 21		3 Mas EID2 Embedded UICC-ID Teil 2	
000 902 13 21		ICCID Integrated Circuit Card Identifier	89148000003421826566
000 902 14 21		IMEI International Mobile Equipment Identity	359536063901003
000 902 16 21		IMSI International Mobile Subscriber Identity	311480994196219

Compare this data with SIM Card Data from Control Unit Log of HERMES



„Over the air Registration“ (OTAR) Process Overview

Simplified representation of the OTAR process
MB USA/CE, Jacksonville, October 4th, 2017

Mercedes-Benz
Das Beste oder nichts.



OTAR process overview

Preconditions

Registration at
MNO

Certificate
Exchange Protocol

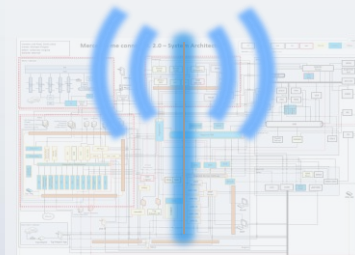
Final Registration

- There are several steps required for a successful OTAR
- The key players are the vehicle (Preconditions), the MNO (Mobile Network Operator - Verizon Wireless), DaiVB (Daimler Vehicle Backend) and VZT (Verizon Telematics)
- OTAR will start at VPC for new vehicles or after a change of HERMES
- OTAR attempts are always triggered by a key cycle (3 Retries within ~ 10 minutes)

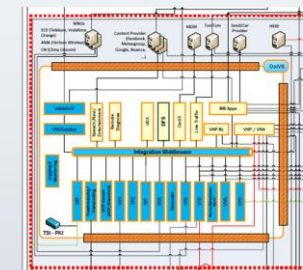
Vehicle



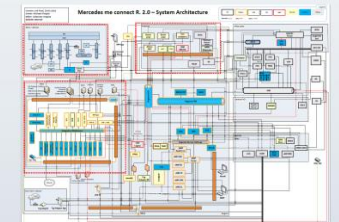
MNO



DaiVB



VZT



OTAR process overview

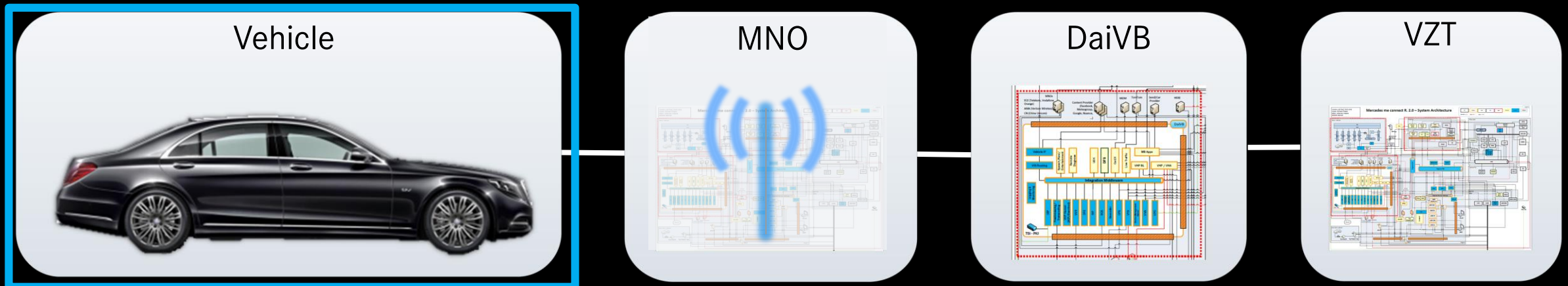
Preconditions

Registration at
MNO

Certificate
Exchange Protocol

Final Registration

- HERMES control unit is in status “provisioning mode”
- Vehicle has proper GPS reception
- Vehicle has proper 3G/4G reception



OTAR process overview

Preconditions

Registration at
MNO

Certificate
Exchange Protocol

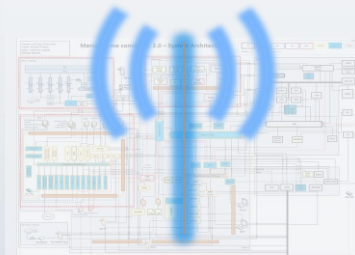
Final Registration

- Activate the internal SIM card
- Configure the right APN (Access Point Name)
- Assign and activate the MSISDN (telephone number)

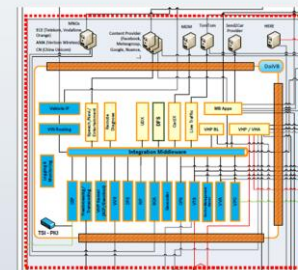
Vehicle



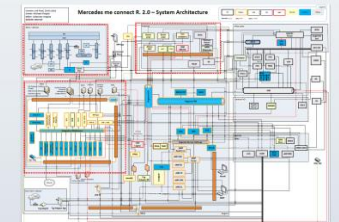
MNO



DaiVB



VZT



OTAR process overview

Preconditions

Registration at
MNO

Certificate
Exchange Protocol

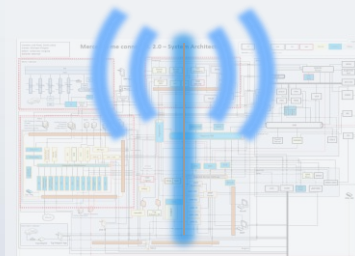
Final Registration

- Vehicle requests a valid certificate for communicating with the DaiVB
- DaiVB will check all necessary values in VeDoc (IMSI, ICCID, IMEI, Serial Number of Head-Unit)
- Only if the vehicle is known the vehicle will receive a valid authorization certificate

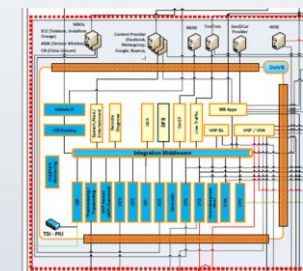
Vehicle



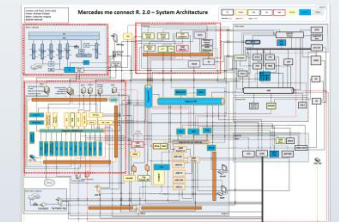
MNO



DaiVB



VZT



OTAR process overview

Preconditions

Registration at
MNO

Certificate
Exchange Protocol

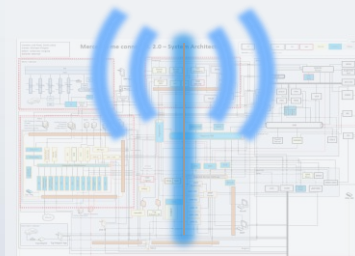
Final Registration

- Add vehicle data to Daimler backend systems
- Activate “In-Service mode” in HERMES control unit
- Configure (activate / deactivate) mbrace services

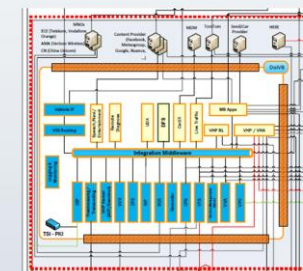
Vehicle



MNO



DaiVB



VZT

