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BasicCommunication

1. ActivateApp

!!! note

The activated application is assumed to receive access to the head unit's display, audio and control system which are:

- Supported by the head unit and
- Confirmed to be supported via responses to **IsReady** requests sent by SDL for the corresponding component

In the case of a successful HMILevel resumption, SDL will first assign a 'default_hmi' level from policies with a 3 second timeout, before resuming the application to either FULL or LIMITED.

If the HMI receives **ActivateApp** it can be assumed that the HMI has also already been provided with detailed information about the application through the **OnAppRegistered** RPC

!!!

!!! may

This request may be sent:

- After SDL restores the application's state saved during a previous ignition off

!!!

Behavior

!!! must

1. Activate the application on the HMI

```
* Display [UI.Show](../../UI/Show) related parameters associated with the
named `appID` in the case they were previously requested within ignition cycle
* Display the corresponding template in the case one was previously requested
by [UI.SetDisplayLayout](../../UI/SetDisplayLayout) for that application
* Apply [UI.SetGlobalProperties](../../UI/SetGlobalProperties) associated with
the named `appID`, if any
* Apply [UI.AddSubMenu](../../UI/AddSubMenu) associated with the named
`appID`, if any
```

2. Make VR commands accessible from previous **VR.AddCommand** for the named **appID** during the same ignition cycle
3. Apply **TTS.SetGlobalProperties** associated with the **appID** in case previously requested since application registration
4. Assign priority based on the **priority** parameter received. If the parameter is omitted, the HMI must

assign a priority of **NONE** by default

- Respond with **SUCCESS** result code after the previous requirements have been met
- Set up the application as the active audio source if it is a media or navigation type application

!!!

Request

Parameters

Name	Type	Mandatory	Additional
appID	Integer	true	
priority	Common.AppPriority	false	
level	Common.HMILevel	false	

Response

Parameters

This RPC has no additional parameter requirements

Example Request

```
{
  "id" : 47,
  "jsonrpc" : "2.0",
  "method" : "BasicCommunication.ActivateApp",
  "result" :
  {
    "appID" : 65368
  }
}
```

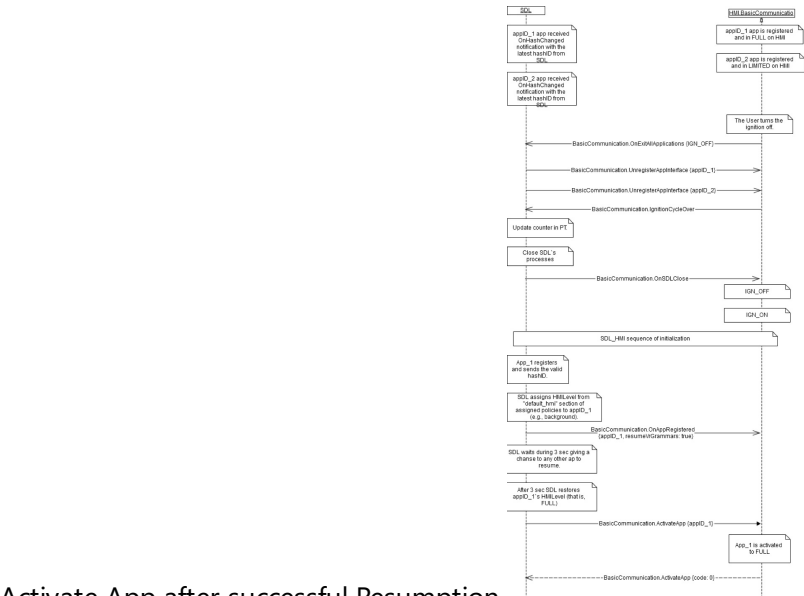
Example Response

```
{
  "id" : 47,
  "jsonrpc" : "2.0",
  "result" :
  {
    "code" : 0,
    "method" : "BasicCommunication.ActivateApp"
  }
}
```

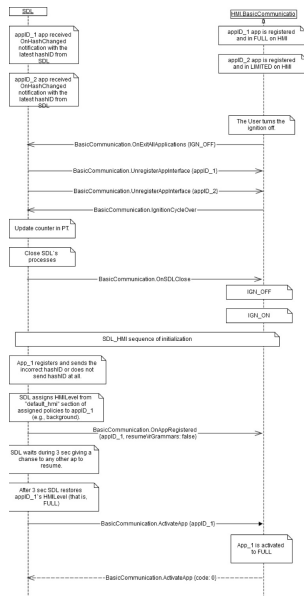
Example Error

```
{
  "id" : 47,
  "jsonrpc" : "2.0",
  "error" :
  {
    "code" : 13,
    "message" : "One of the provided IDs is not valid.",
    "data" :
    {
      "method" : "BasicCommunication.ActivateApp"
    }
  }
}
```

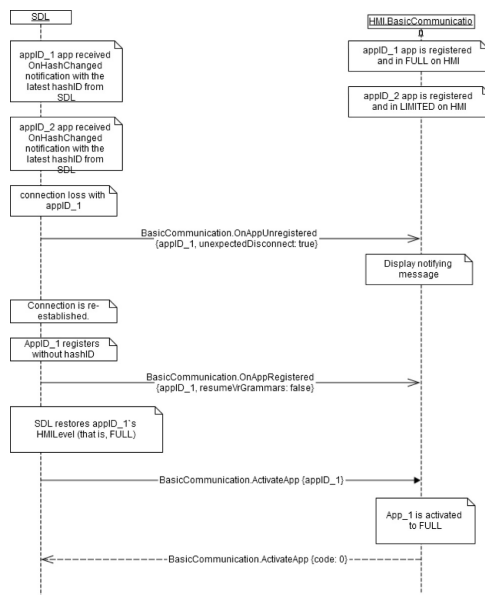
Sequence Diagrams



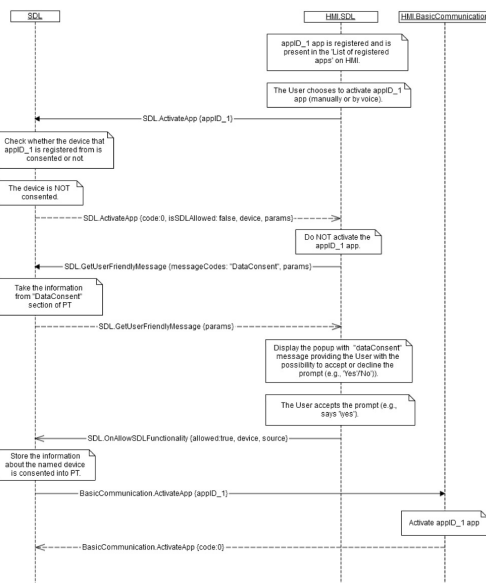
Activate App after successful Resumption



Activate App after failed Resumption



Activate App after Unexpected Disconnect



Activate App after Accepted Data Consent Prompt

Activate App after Failed Data Consent Prompt

2. AllowDeviceToConnect

- Type: Function
 - Sender: SDL
 - Purpose: Permit device to connect to head unit

Behavior

!!! must

Check whether the device is allowed to connect to the head unit and response appropriately

!!!

!!! may

1. Request the user's permission via VR, UI pop-up, etc.
2. Implement a use case in which a user's device is not allowed to connect

!!!

Request

Parameters

Name	Type	Mandatory	Additional
device	Common.DeviceInfo	true	

Response

Parameters

Name	Type	Mandatory	Additional
allow	Boolean	true	

Example Request

```
{
  "id" : 87,
  "jsonrpc" : "2.0",
  "method" : "BasicCommunication.AllowDeviceToConnect",
  "params" :
  [
    "deviceInfo" : {
      "name" : "Mary`s Phone",
```

```
        "id" : 8
    }
]
```

Example Response

```
{
  "id" : 87,
  "jsonrpc" : "2.0",
  "result" :
  {
    "allow" : true,
    "code" : 0,
    "method" : "BasicCommunication.AllowDeviceToConnect"
  }
}
```

Error Message

```
{
  "id" : 87,
  "jsonrpc" : "2.0",
  "error" :
  {
    "code" : 22,
    "message" : "An unknown error occurred",
    "data" :
    {
      "method" : "BasicCommunication.AllowDeviceToConnect"
    }
  }
}
```

Sequence Diagrams

AllowDeviceToConnect Messaging



3. DialNumber

Type : Function

Sender : SDL

Purpose : SDL initiates a call to a specific phone number.

!!! NOTE

SDL looks to see if the phone number entered is correct before passing to the HMI. The checks performed are:

1. Strip any characters except of 0-9 and * # , ; + and pass resulting number to HMI.
2. Return `INVALID_DATA` to mobile side without transferring "number" to the HMI if "number" is empty after stripping invalid characters.
3. Return `INVALID_DATA` to mobile side without transferring "number" to HMI if the characters `"/n"` , `"/t"` , or spaces are included in "number".

!!!

!!! MUST

1. Show `DialNumber` pop-up on HMI with 2 buttons, "Call" and "Cancel".
2. Send the notification `OnAppDeactivated(PHONECALL)` to SDL when the phone call is started on the HMI. The notification must be sent to all applications that have active audio sources on the HMI.
3. Send the notification `BC.OnOnPhoneCall(isActive:true)` to SDL when the phone call is started on the HMI.
4. Send the notification `BC.OnOnPhoneCall(isActive:false)` to SDL when the phone call is ended on the HMI.
5. Always respond to `BC.DialNumber` with a response code. If the HMI does not respond, the mobile application will never get a response from from SDL because default timeouts do not apply to the `DailNumber` mobile API.

!!!

The request is considered to have been executed successfully only after the user presses the "Call" button included in the `DialNumber` dialog.

Request

Parameters

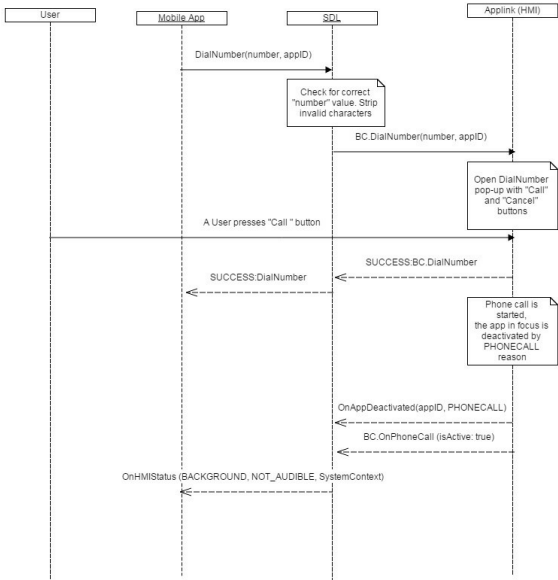
Name	Type	Mandatory	Additional
number	String		maxlength: 40
appID	Integer	true	

Response

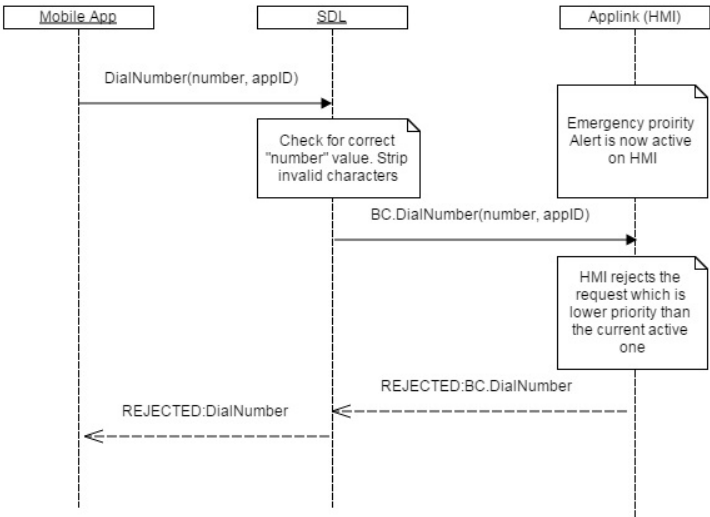
Parameters

This RPC has no additional parameter requirements

Sequence Diagrams



DialNumber Success



DialNumber Failed

Example Request

```
{
  "id" : 59,
  "jsonrpc" : "2.0",
  "method" : "BasicCommunication.DialNumber",
  "params" :
  {
    "number" : "*111#",
    "appID" : 65537
  }
}
```

Example Response

```
{
  "id" : 59,
  "jsonrpc" : "2.0",
  "result" :
  {
    "code" : 0,
    "method" : "BasicCommunication.DialNumber"
  }
}
```

Example Error

```
{
  "id" : 59,
  "jsonrpc" : "2.0",
  "error" :
  {
    "code" : 5,
    "message" : " HMI is busy with higher priority RPC ",
    "data" :
    {
      "method" : "BasicCommunication.DialNumber"
    }
  }
}
```

Common

Structs

ImageResolution

Name	Type	Mandatory	Additional	Description
resolutionWidth	Integer	true	minvalue: 1 maxvalue: 10000	
resolutionHeight	Integer	true	minvalue: 1 maxvalue: 10000	

UserFriendlyMessage

Name	Type	Mandatory	Additional	Description
messageCode	String	true		
ttsString	String	false		
label	String	false		
line1	String	false		
line2	String	false		
textBody	String	false		

HMICapabilities

Name	Type	Mandatory	Additional	Description
navigation	Boolean	false		
phoneCall	Boolean	false		

MenuParams

Name	Type	Mandatory	Additional	Description
parentID	Integer	false	minvalue: 0 maxvalue: 2000000000	
position	Integer	false	minvalue: 0 maxvalue: 1000	
menuName	String	true	maxlength: 500	

TireStatus

Name	Type	Mandatory	Additional	Description
pressureTelltale	Common.WarningLightStatus	false		
leftFront	Common.SingleTireStatus	false		

rightFront	Common.SingleTireStatus	false
leftRear	Common.SingleTireStatus	false
rightRear	Common.SingleTireStatus	false
innerLeftRear	Common.SingleTireStatus	false
innerRightRear	Common.SingleTireStatus	false

ECallInfo

Name	Type	Mandatory	Additional	Description
eCallNotificationStatus	Common.VehicleDataNotificationStatus			
auxECallNotificationStatus	Common.VehicleDataNotificationStatus			
eCallConfirmationStatus	Common.ECallConfirmationStatus			

DIDResult

Name	Type	Mandatory	Additional	Description
resultCode	Common.VehicleDataResultCode	true		
didLocation	Integer	true	minvalue: 0 maxvalue: 65535	
data	String	false	maxlength: 5000	

TTSCChunk

Name	Type	Mandatory	Additional	Description
text	String	true	maxlength: 500	
type	Common.SpeechCapabilities	true		

TextField

Name	Type	Mandatory	Additional	Description
name	Common.TextFieldName			
characterSet	Common.CharacterSet			
width	Integer		minvalue: 1 maxvalue: 500	
rows	Integer		minvalue: 1 maxvalue: 8	

TouchCoord

Name	Type	Mandatory	Additional	Description
x	Integer	true	minvalue: 0 maxvalue: 10000	
y	Integer	true	minvalue: 0 maxvalue: 10000	

AudioPassThruCapabilities

Name	Type	Mandatory	Additional	Description
samplingRate	Common.SamplingRate	true		
bitsPerSample	Common.BitsPerSample	true		
audioType	Common.AudioType	true		

ServiceInfo

Name	Type	Mandatory	Additional	Description
url	String	true		
policyAppId	String	false		

HeadLampStatus

Name	Type	Mandatory	Additional	Description
lowBeamsOn	Boolean	true		
highBeamsOn	Boolean	true		
ambientLightSensorStatus	Common.AmbientLightStatus	true		

ClusterModeStatus

Name	Type	Mandatory	Additional	Desc
powerModeActive	Boolean			
powerModeQualificationStatus	Common.PowerModeQualificationStatus			
carModeStatus	Common.CarModeStatus			
powerModeStatus	Common.PowerModeStatus			

KeyboardProperties

Name	Type	Mandatory	Additional	Description
language	Common.Language	false		
keyboardLayout	Common.KeyboardLayout	false		
keypressMode	Common.KeyPressMode	false		
limitedCharacterList	String	false	array: true minsize: 1 maxsize: 100 maxlength: 1	
autoCompleteText	String	false	maxlength: 1000	

Choice

Name	Type	Mandatory	Additional	Description
choiceID	Integer	true	minvalue: 0 maxvalue: 65535	
menuName	String	false	maxlength: 500	
image	Common.Image	false		
secondaryText	String	false	maxlength: 500	
tertiaryText	String	false	maxlength: 500	
secondaryImage	Image	false		

DeviceStatus

Name	Type	Mandatory	Additional	Description
voiceRecOn	Boolean	false		
btIconOn	Boolean	false		
callActive	Boolean	false		
phoneRoaming	Boolean	false		
textMsgAvailable	Boolean	false		
battLevelStatus	Common.DeviceLevelStatus	false		
stereoAudioOutputMuted	Boolean	false		
monoAudioOutputMuted	Boolean	false		
signalLevelStatus	Common.DeviceLevelStatus	false		
primaryAudioSource	Common.PrimaryAudioSource	false		

eCallEventActive Boolean false

GPSTData

Name	Type	Mandatory	Additional	Description
longitudeDegrees	Float	false	minvalue: -180 maxvalue: 180	
latitudeDegrees	Float	false	minvalue: -90 maxvalue: 90	
utcYear	Integer	false	minvalue: 2010 maxvalue: 2100	
utcMonth	Integer	false	minvalue: 1 maxvalue: 12	
utcDay	Integer	false	minvalue: 1 maxvalue: 31	
utcHours	Integer	false	minvalue: 0 maxvalue: 23	
utcMinutes	Integer	false	minvalue: 0 maxvalue: 59	
utcSeconds	Integer	false	minvalue: 0 maxvalue: 59	
compassDirection	Common.CompassDirection	false		
pdop	Float	false	minvalue: 0 maxvalue: 10	
hdop	Float	false	minvalue: 0 maxvalue: 10	
vdop	Float	false	minvalue: 0 maxvalue: 10	
actual	Boolean	false		
satellites	Integer	false	minvalue: 0 maxvalue: 31	
dimension	Common.Dimension	false		
altitude	Float	false	minvalue: -10000 maxvalue: 10000	
heading	Float	false	minvalue: 0 maxvalue: 359.99	

speed	Float	false	minvalue: 0 maxvalue: 500
-------	-------	-------	------------------------------

SingleTireStatus

Name	Type	Mandatory	Additional	Description
status	Common.ComponentVolumeStatus	true		

SoftButtonCapabilities

Name	Type	Mandatory	Additional	Description
shortPressAvailable	Boolean	true		
longPressAvailable	Boolean	true		
upDownAvailable	Boolean	true		
imageSupported	Boolean	true		

HMIApplication

Name	Type	Mandatory	Additional	Description
appName	String	true	maxlength: 100	
ngnMediaScreenAppName	String	false	maxlength: 100	
icon	String	false		
deviceInfo	Common.DeviceInfo	true		
policyAppID	String	true	minlength: 1 maxlength: 50	
ttsName	Common.TTSCheck	false	array: true minsize: 1 maxsize: 100	
vrSynonyms	String	false	array: true minsize: 1 maxsize: 100 maxlength: 40	
appID	Integer	true		
hmiDisplayLanguageDesired	Common.Language	false		
isMediaApplication	Boolean	false		
appType	Common.AppHMIType	false	array: true minsize: 1	

maxsize: 100

greyOut	Boolean	false	
requestType	Common.RequestType	false	array: true minsize: 0 maxsize: 100

VehicleType

Name	Type	Mandatory	Additional	Description
make	String	false	maxlength: 500	
model	String	false	maxlength: 500	
modelYear	String	false	maxlength: 500	
trim	String	false	maxlength: 500	

ButtonCapabilities

Name	Type	Mandatory	Additional	Description
name	Common.ButtonName	true		
shortPressAvailable	Boolean	true		
longPressAvailable	Boolean	true		
upDownAvailable	Boolean	true		

VrHelpItem

Name	Type	Mandatory	Additional	Description
text	String	true	maxlength: 500	
image	Common.Image	false		
position	Integer	true	minvalue: 1 maxvalue: 100	

BodyInformation

Name	Type	Mandatory	Additional	Description
parkBrakeActive	Boolean	true		
ignitionStableStatus	Common.IgnitionStableStatus	true		
ignitionStatus	Common.IgnitionStatus	true		
driverDoorAjar	Boolean	false		

passengerDoorAjar	Boolean	false
rearLeftDoorAjar	Boolean	false
rearRightDoorAjar	Boolean	false

BeltStatus

Name	Type	Mandatory	Additional	Description
driverBeltDeployed	Common.VehicleDataEventStatus	false		
passengerBeltDeployed	Common.VehicleDataEventStatus	false		
passengerBuckleBelted	Common.VehicleDataEventStatus	false		
driverBuckleBelted	Common.VehicleDataEventStatus	false		
leftRow2BuckleBelted	Common.VehicleDataEventStatus	false		
passengerChildDetected	Common.VehicleDataEventStatus	false		
rightRow2BuckleBelted	Common.VehicleDataEventStatus	false		
middleRow2BuckleBelted	Common.VehicleDataEventStatus	false		
middleRow3BuckleBelted	Common.VehicleDataEventStatus	false		
leftRow3BuckleBelted	Common.VehicleDataEventStatus	false		
rightRow3BuckleBelted	Common.VehicleDataEventStatus	false		
leftRearInflatableBelted	Common.VehicleDataEventStatus	false		
rightRearInflatableBelted	Common.VehicleDataEventStatus	false		
middleRow1BeltDeployed	Common.VehicleDataEventStatus	false		
middleRow1BuckleBelted	Common.VehicleDataEventStatus	false		

Turn

Name	Type	Mandatory	Additional	Description
navigationText	Common.TextFieldStruct	false		
turnIcon	Common.Image	false		

EmergencyEvent

Name	Type	Mandatory	Additional	Description
emergencyEventType	Common.EmergencyEventType			
fuelCutoffStatus	Common.FuelCutoffStatus			

rolloverEvent	Common.VehicleDataEventStatus
maximumChangeVelocity	Common.VehicleDataEventStatus
multipleEvents	Common.VehicleDataEventStatus

VehicleDataResult

Name	Type	Mandatory	Additional	Description
dataType	Common.VehicleDataType			
resultCode	Common.VehicleDataResultCode			

PresetBankCapabilities

Name	Type	Mandatory	Additional	Description
onScreenPresetsAvailable	Boolean	true		

TouchEvent

Name	Type	Mandatory	Additional	Description
id	Integer	true	minvalue: 0 maxvalue: 9	
ts	Integer	true	array: true minsize: 1 maxsize: 1000 minvalue: 0 maxvalue: 2147483647	
c	Common.TouchCoord	true	array: true minsize: 1 maxsize: 1000	

PermissionItem

Name	Type	Mandatory	Additional	Description
name	String	true		
id	Integer	true		
allowed	Boolean	false		

TouchEventCapabilities

Name	Type	Mandatory	Additional	Description
------	------	-----------	------------	-------------

pressAvailable	Boolean	true
multiTouchAvailable	Boolean	true
doublePressAvailable	Boolean	true

ScreenParams

Name	Type	Mandatory	Additional	Description
resolution	Common.ImageResolution	true		
touchEventAvailable	Common.TouchEventCapabilities	false		

TextFieldStruct

Name	Type	Mandatory	Additional	Description
fieldName	Common.TextFieldName	true		
fieldText	String	true	maxlength: 500	

DeviceInfo

Name	Type	Mandatory	Additional	Description
name	String	true		
id	String	true		
transportType	Common.TransportType	false		
isSDLAllowed	Boolean	false		

SoftButton

Name	Type	Mandatory	Additional	Description
type	Common.SoftButtonType	true		
text	String	false	maxlength: 500	
image	Common.Image	false		
isHighlighted	Boolean	false		
softButtonID	Integer	true	minvalue: 0 maxvalue: 65535	
systemAction	Common.SystemAction	true		

AirbagStatus

Name	Type	Mandatory	Additional	Descript
driverAirbagDeployed	Common.VehicleDataEventStatus			
driverSideAirbagDeployed	Common.VehicleDataEventStatus			
driverCurtainAirbagDeployed	Common.VehicleDataEventStatus			
passengerAirbagDeployed	Common.VehicleDataEventStatus			
passengerCurtainAirbagDeployed	Common.VehicleDataEventStatus			
driverKneeAirbagDeployed	Common.VehicleDataEventStatus			
passengerSideAirbagDeployed	Common.VehicleDataEventStatus			
passengerKneeAirbagDeployed	Common.VehicleDataEventStatus			

DisplayCapabilities

Name	Type	Mandatory	Additional	Description
displayType	Common.DisplayType	true		
textFields	Common.TextField	true	array: true minsize: 0 maxsize: 100	
imageFields	Common.ImageField	false	array: true minsize: 1 maxsize: 100	
mediaClockFormats	Common.MediaClockFormat	true	array: true minsize: 0 maxsize: 100	
imageCapabilities	Common.ImageType	false	array: true minsize: 0 maxsize: 2	
graphicSupported	Boolean	true		
templatesAvailable	String	true	array: true minsize: 0 maxsize: 100 maxlength: 100	
screenParams	Common.ScreenParams	false		
numCustomPresetsAvailable	Integer	false	minvalue: 1 maxvalue: 100	

TimeFormat

Name	Type	Mandatory	Additional	Description
hours	Integer	true	minvalue: 0 maxvalue: 59	
minutes	Integer	true	minvalue: 0 maxvalue: 59	
seconds	Integer	true	minvalue: 0 maxvalue: 59	

Image

Name	Type	Mandatory	Additional	Description
value	String	true	maxlength: 65535	
imageType	Common.ImageType	true		

MyKey

Name	Type	Mandatory	Additional	Description
e911Override	Common.VehicleDataStatus	true		

ImageField

Name	Type	Mandatory	Additional	Description
name	Common.ImageFieldName	true		
imageTypeSupported	Common.FileType	false	array: true minsize: 1 maxsize: 100	
imageResolution	Common.ImageResolution	false		

Enumerations

KeyboardEvent

Name	Value	Description
KEYPRESS	0	
ENTRY_SUBMITTED	1	
ENTRY_VOICE	2	
ENTRY_CANCELLED	3	

ENTRY_ABORTED	4
---------------	---

FuelCutoffStatus

Name	Value	Description
TERMINATE_FUEL	0	
NORMAL_OPERATION	1	
FAULT	2	

TransportType

Name	Value	Description
BLUETOOTH	0	
USB	1	
WIFI	2	

ButtonPressMode

Name	Value	Description
LONG	0	
SHORT	1	

VRCommandType

Name	Value	Description
Choice	0	
Command	1	

AppHMIType

Name	Value	Description
DEFAULT	0	
COMMUNICATION	1	
MEDIA	2	
MESSAGING	3	
NAVIGATION	4	
INFORMATION	5	

SOCIAL	6
BACKGROUND_PROCESS	7
TESTING	8
SYSTEM	9

SpeechCapabilities

Name	Value	Description
TEXT	0	
SAPI_PHONEMES	1	
LHPLUS_PHONEMES	2	
PRE_RECORDED	3	
SILENCE	4	

TextFieldName

Name	Value	Description
mainField1	0	
mainField2	1	
mainField3	2	
mainField4	3	
statusBar	4	
mediaClock	5	
mediaTrack	6	
alertText1	7	
alertText2	8	
alertText3	9	
scrollableMessageBody	10	
initialInteractionText	11	
navigationText1	12	
navigationText2	13	
ETA	14	
totalDistance	15	

audioPassThruDisplayText1	16
audioPassThruDisplayText2	17
sliderHeader	18
sliderFooter	19
menuName	20
secondaryText	21
tertiaryText	22
menuTitle	23
navigationText	24
notificationText	25
locationName	26
locationDescription	27
addressLines	28
phoneNumber	29
timeToDestination	30
turnText	31

AmbientLightStatus

Name	Value	Description
NIGHT	0	
TWILIGHT_1	1	
TWILIGHT_2	2	
TWILIGHT_3	3	
TWILIGHT_4	4	
DAY	5	
UNKNOWN	6	
INVALID	7	

StatisticsType

Name	Value	Description
iAPP_BUFFER_FULL	0	

VehicleDataEventStatus

Name	Value	Description
NO_EVENT	0	
NO	1	
YES	2	
NOT_SUPPORTED	3	
FAULT	4	

KeyboardLayout

Name	Value	Description
QWERTY	0	
QWERTZ	1	
AZERTY	2	

ButtonEventMode

Name	Value	Description
BUTTONUP	0	
BUTTONDOWN	1	

VrCapabilities

Name	Value	Description
TEXT	0	

TextAlignment

Name	Value	Description
LEFT_ALIGNED	0	
RIGHT_ALIGNED	1	
CENTERED	2	

DeviceState

Name	Value	Description
------	-------	-------------

UNKNOWN	0
UNPAIRED	1

SystemContext

Name	Value	Description
MAIN	0	
VRSESSION	1	
MENU	2	
HMI_OBSCURED	3	
ALERT	4	

SoftButtonType

Name	Value	Description
TEXT	0	
IMAGE	1	
BOTH	2	

DriverDistractionState

Name	Value	Description
DD_ON	0	
DD_OFF	1	

MethodName

Name	Value	Description
ALERT	0	
SPEAK	1	
AUDIO_PASS_THRU	2	
ALERT_MANEUVER	3	

CharacterSet

Name	Value	Description
TYPE2SET	0	

TYPE5SET	1
CID1SET	2
CID2SET	3

DeactivateReason

Name	Value	Description
AUDIO	0	
PHONECALL	1	
NAVIGATIONMAP	2	
PHONEMENU	3	
SYNCSETTINGS	4	
GENERAL	5	

SamplingRate

Name	Value	Description
8KHZ	0	
16KHZ	1	
22KHZ	2	
44KHZ	3	

PrerecordedSpeech

Name	Value	Description
HELP_JINGLE	0	
INITIAL_JINGLE	1	
LISTEN_JINGLE	2	
POSITIVE_JINGLE	3	
NEGATIVE_JINGLE	4	

MediaClockFormat

Name	Value	Description
CLOCK1	0	
CLOCK2	1	

CLOCK3	2
CLOCKTEXT1	3
CLOCKTEXT2	4
CLOCKTEXT3	5
CLOCKTEXT4	6

TouchType

Name	Value	Description
BEGIN	0	
MOVE	1	
END	2	

HmiZoneCapabilities

Name	Value	Description
FRONT	0	
BACK	1	

AlertType

Name	Value	Description
UI	0	
BOTH	1	

ECallConfirmationStatus

Name	Value	Description
NORMAL	0	
CALL_IN_PROGRESS	1	
CALL_CANCELLED	2	
CALL_COMPLETED	3	
CALL_UNSUCCESSFUL	4	
ECALL_CONFIGURED_OFF	5	
CALL_COMPLETE_DTMF_TIMEOUT	6	

ClockUpdateMode

Name	Value	Description
COUNTUP	0	
COUNTDOWN	1	
PAUSE	2	
RESUME	3	
CLEAR	4	

DeviceLevelStatus

Name	Value	Description
ZERO_LEVEL_BARS	0	
ONE_LEVEL_BARS	1	
TWO_LEVEL_BARS	2	
THREE_LEVEL_BARS	3	
FOUR_LEVEL_BARS	4	
NOT_PROVIDED	5	

SystemAction

Name	Value	Description
DEFAULT_ACTION	0	
STEAL_FOCUS	1	
KEEP_CONTEXT	2	

ButtonName

Name	Value	Description
OK	0	
SEEKLEFT	1	
SEEKRIGHT	2	
TUNEUP	3	
TUNEDOWN	4	
PRESET_0	5	

PRESET_1	6
PRESET_2	7
PRESET_3	8
PRESET_4	9
PRESET_5	10
PRESET_6	11
PRESET_7	12
PRESET_8	13
PRESET_9	14
CUSTOM_BUTTON	15
SEARCH	16

KeypressMode

Name	Value	Description
SINGLE_KEYPRESS	0	
QUEUE_KEYPRESSES	1	
RESEND_CURRENT_ENTRY	2	

WiperStatus

Name	Value	Description
OFF	0	
AUTO_OFF	1	
OFF_MOVING	2	
MAN_INT_OFF	3	
MAN_INT_ON	4	
MAN_LOW	5	
MAN_HIGH	6	
MAN_FLICK	7	
WASH	8	
AUTO_LOW	9	
AUTO_HIGH	10	

COURTESYWIPE	11
AUTO_ADJUST	12
STALLED	13
NO_DATA_EXISTS	14

LayoutMode

Name	Value	Description
ICON_ONLY	0	
ICON_WITH_SEARCH	1	
LIST_ONLY	2	
LIST_WITH_SEARCH	3	
KEYBOARD	4	

Language

Name	Value	Description
EN-US	0	
ES-MX	1	
FR-CA	2	
DE-DE	3	
ES-ES	4	
EN-GB	5	
RU-RU	6	
TR-TR	7	
PL-PL	8	
FR-FR	9	
IT-IT	10	
SV-SE	11	
PT-PT	12	
NL-NL	13	
EN-AU	14	
ZH-CN	15	

ZH-TW	16
JA-JP	17
AR-SA	18
KO-KR	19
PT-BR	20
CS-CZ	21
DA-DK	22
NO-NO	23

FileType

Name	Value	Description
GRAPHIC_BMP	0	
GRAPHIC_JPEG	1	
GRAPHIC_PNG	2	
AUDIO_WAVE	3	
AUDIO_MP3	4	
AUDIO_AAC	5	
BINARY	6	
JSON	7	

AudioType

Name	Value	Description
PCM	0	

TBTState

Name	Value	Description
ROUTE_UPDATE_REQUEST	0	
ROUTE_ACCEPTED	1	
ROUTE_REFUSED	2	
ROUTE_CANCELLED	3	
ETA_REQUEST	4	

NEXT_TURN_REQUEST	5
ROUTE_STATUS_REQUEST	6
ROUTE_SUMMARY_REQUEST	7
TRIP_STATUS_REQUEST	8
ROUTE_UPDATE_REQUEST_TIMEOUT	9

VehicleDataResultCode

Name	Value	Description
SUCCESS	0	
TRUNCATED_DATA	1	
DISALLOWED	2	
USER_DISALLOWED	3	
INVALID_ID	4	
VEHICLE_DATA_NOT_AVAILABLE	5	
DATA_ALREADY_SUBSCRIBED	6	
DATA_NOT_SUBSCRIBED	7	
IGNORED	8	

DisplayType

Name	Value	Description
CID	0	
TYPE2	1	
TYPE5	2	
NGN	3	
GEN2_8_DMA	4	
GEN2_6_DMA	5	
MFD3	6	
MFD4	7	
MFD5	8	
GEN3_8_INCH	9	

ApplicationToNONEReason

Name	Value	Description
DRIVER_DISTRACTION_VIOLATION	0	
USER_EXIT	1	

IgnitionStatus

Name	Value	Description
UNKNOWN	0	
OFF	1	
ACCESSORY	2	
RUN	3	
START	4	
INVALID	5	

EmergencyEventType

Name	Value	Description
NO_EVENT	0	
FRONTAL	1	
SIDE	2	
REAR	3	
ROLLOVER	4	
NOT_SUPPORTED	5	
FAULT	6	

HMILevel

Name	Value	Description
FULL	0	
LIMITED	1	
BACKGROUND	2	
NONE	3	

AppPriority

Name	Value	Description
EMERGENCY	0	
NAVIGATION	1	
VOICE_COMMUNICATION	2	
COMMUNICATION	3	
NORMAL	4	
NONE	5	

PowerModeQualificationStatus

Name	Value	Description
POWER_MODE_UNDEFINED	0	
POWER_MODE_EVALUATION_IN_PROGRESS	1	
NOT_DEFINED	2	
POWER_MODE_OK	3	

ApplicationsCloseReason

Name	Value	Description
IGNITION_OFF	0	
MASTER_RESET	1	
FACTORY_DEFAULTS	2	
SUSPEND	3	

Dimension

Name	Value	Description
NO_FIX	0	
2D	1	
3D	2	

ImageType

Name	Value	Description
STATIC	0	

DYNAMIC 1

IgnitionStableStatus

Name	Value	Description
IGNITION_SWITCH_NOT_STABLE	0	
IGNITION_SWITCH_STABLE	1	
MISSING_FROM_TRANSMITTER	2	

WarningLightStatus

Name	Value	Description
OFF	0	
ON	1	
FLASH	2	
NOT_USED	3	

VehicleDataNotificationStatus

Name	Value	Description
NOT_SUPPORTED	0	
NORMAL	1	
ACTIVE	2	
NOT_USED	3	

SystemError

Name	Value	Description
SYNC_REBOOTED	0	
SYNC_OUT_OF_MEMMORY	1	

PowerModeStatus

Name	Value	Description
KEY_OUT	0	
KEY_RECENTLY_OUT	1	
KEY_APPROVED_0	2	

POST_ACCESORY_0	3
ACCESORY_1	4
POST_IGNITION_1	5
IGNITION_ON_2	6
RUNNING_2	7
CRANK_3	8

ComponentVolumeStatus

Name	Value	Description
UNKNOWN	0	
NORMAL	1	
LOW	2	
FAULT	3	
ALERT	4	
NOT_SUPPORTED	5	

PrimaryAudioSource

Name	Value	Description
NO_SOURCE_SELECTED	0	
USB	1	
USB2	2	
BLUETOOTH_STEREO_BTST	3	
LINE_IN	4	
IPOD	5	
MOBILE_APP	6	

RequestType

Name	Value	Description
HTTP	0	
FILE_RESUME	1	
AUTH_REQUEST	2	

AUTH_CHALLENGE	3
AUTH_ACK	4
PROPRIETARY	5
QUERY_APPS	6
LAUNCH_APP	7
LOCK_SCREEN_ICON_URL	8
TRAFFIC_MESSAGE_CHANNEL	9
DRIVER_PROFILE	10
VOICE_SEARCH	11
NAVIGATION	12
PHONE	13
CLIMATE	14
SETTINGS	15
VEHICLE_DIAGNOSTICS	16
EMERGENCY	17
MEDIA	18
FOTA	19

ConsentSource

Name	Value	Description
GUI	0	
VUI	1	

CompassDirection

Name	Value	Description
NORTH	0	
NORTHWEST	1	
WEST	2	
SOUTHWEST	3	
SOUTH	4	
SOUTHEAST	5	

EAST	6
NORTHEAST	7

BitsPerSample

Name	Value	Description
8_BIT	0	
16_BIT	1	

EmergencyState

Name	Value	Description
EMERGENCY_ON	0	
EMERGENCY_OFF	1	

Result

Name	Value	Description
SUCCESS	0	
UNSUPPORTED_REQUEST	1	
UNSUPPORTED_RESOURCE	2	
DISALLOWED	3	
REJECTED	4	
ABORTED	5	
IGNORED	6	
RETRY	7	
IN_USE	8	
DATA_NOT_AVAILABLE	9	
TIMED_OUT	10	
INVALID_DATA	11	
CHAR_LIMIT_EXCEEDED	12	
INVALID_ID	13	
DUPLICATE_NAME	14	
APPLICATION_NOT_REGISTERED	15	

WRONG_LANGUAGE	16
OUT_OF_MEMORY	17
TOO_MANY_PENDING_REQUESTS	18
NO_APPS_REGISTERED	19
NO_DEVICES_CONNECTED	20
WARNINGS	21
GENERIC_ERROR	22
USER_DISALLOWED	23
TRUNCATED_DATA	24

CarModeStatus

Name	Value	Description
NORMAL	0	
FACTORY	1	
TRANSPORT	2	
CRASH	3	

ImageFieldName

Name	Value	Description
softButtonImage	0	
choiceImage	1	
choiceSecondaryImage	2	
vrHelpItem	3	
turnIcon	4	
menuIcon	5	
cmdIcon	6	
appIcon	7	
graphic	8	
showConstantTBTIcon	9	
showConstantTBTNextTurnIcon	10	
locationImage	11	

VehicleDataType

Name	Value	Description
VEHICLEDATA_GPS	0	
VEHICLEDATA_SPEED	1	
VEHICLEDATA_RPM	2	
VEHICLEDATA_FUELLEVEL	3	
VEHICLEDATA_FUELLEVEL_STATE	4	
VEHICLEDATA_FUELCONSUMPTION	5	
VEHICLEDATA_EXTERNTMP	6	
VEHICLEDATA_VIN	7	
VEHICLEDATA_PRNDL	8	
VEHICLEDATA_TIREPRESSURE	9	
VEHICLEDATA_ODOMETER	10	
VEHICLEDATA_BELTSTATUS	11	
VEHICLEDATA_BODYINFO	12	
VEHICLEDATA_DEVICESTATUS	13	
VEHICLEDATA_ECALLINFO	14	
VEHICLEDATA_AIRBAGSTATUS	15	
VEHICLEDATA_EMERGENCYEVENT	16	
VEHICLEDATA_CLUSTERMODESTATUS	17	
VEHICLEDATA_MYKEY	18	
VEHICLEDATA_BRAKING	19	
VEHICLEDATA_WIPERSTATUS	20	
VEHICLEDATA_HEADLAMPSTATUS	21	
VEHICLEDATA_BATTVOLTAGE	22	
VEHICLEDATA_ENGINETORQUE	23	
VEHICLEDATA_ACCPEDAL	24	
VEHICLEDATA_STEERINGWHEEL	25	

UpdateResult

Name	Value	Description
UP_TO_DATE	0	
UPDATING	1	
UPDATE_NEEDED	2	

PRNDL

Name	Value	Description
PARK	0	
REVERSE	1	
NEUTRAL	2	
DRIVE	3	
SPORT	4	
LOWGEAR	5	
FIRST	6	
SECOND	7	
THIRD	8	
FOURTH	9	
FIFTH	10	
SIXTH	11	
SEVENTH	12	
EIGHTH	13	
FAULT	14	

VehicleDataStatus

Name	Value	Description
NO_DATA_EXISTS	0	
OFF	1	
ON	2	

SDL's configuration file structure (ini-file)

To configure some specific SDL rules or to define the filepaths and other SDL settings, smartDeviceLink.ini file is used. The file is divided into a sections, each section relates to the configuration of some functional area.

Some of the settings have no reference to HMI behavior, anyway they are described for information purposes to understand particular properties.

HMI

Parameter	Type	Example	Description
ServerAddress	String	ServerAddress = 127.0.0.1	Address to connect HMI (web-socket only); See also WebSocket Transport
ServerPort	Integer	ServerPort = 8087	ServerPort (web-socket only); See also WebSocket Transport
VideoStreamingPort	Integer	VideoStreamingPort = 5050	Port number for streaming video (in case of socket type); See also Configuring audio/video streaming parameters in smartDeviceLink.ini file
AudioStreamingPort	Integer	AudioStreamingPort = 5080	Port number for streaming audio (in case of socket type); See also Configuring audio/video streaming parameters in smartDeviceLink.ini file
LaunchHMI	Boolean	LaunchHMI = false	Parameter defines whether SDL should wait for launching HMI; Open the \$LinkToWebHMI in chromium browser
LinkToWebHMI	String	LinkToWebHMI = HMI//index.html	Link to index HTML page

MAIN

Parameter	Type	Example
SDLVersion	String	SDLVersion = {GIT_COMMIT}
LogsEnabled	Boolean	LogsEnabled = true
AppConfigFolder	String	AppConfigFolder =
AppStorageFolder	String	AppStorageFolder = /fs/rwdata/storage/sdl

AppResourceFolder	String	AppResourceFolder = audio8bit.wav
ThreadStackSize	Integer	ThreadStackSize = 20480
MixingAudioSupported	Boolean	MixingAudioSupported = true
HMICapabilities	String	HMICapabilities = hmi_capabilities.json
MaxCmdID	Int64	MaxCmdID = 2000000000
DefaultTimeout	Integer	DefaultTimeout = 10000
AppDirectoryQuota	Int64	AppDirectoryQuota = 104857600
AppHMILevelNoneTimeScaleMaxRequests	Integer	AppHMILevelNoneTimeScaleMaxRequests = 100
AppHMILevelNoneRequestsTimeScale	Integer	AppHMILevelNoneRequestsTimeScale = 10
AppTimeScaleMaxRequests	Integer	AppTimeScaleMaxRequests = 1000

AppRequestsTimeScale	Integer	AppRequestsTimeScale = 10
PendingRequestsAmount	Integer	PendingRequestsAmount = 5000
HeartBeatTimeout	Integer	HeartBeatTimeout = 7000
SupportedDiagModes	String Array=true	SupportedDiagModes = 0x01, 0x02, 0x03, 0x05, 0x06, 0x07, 0x09, 0x0A, 0x18, 0x19, 0x22, 0x3E
SystemFilePath	String	SystemFilePath = /fs/images/ivsu_cache
UseLastState	Boolean	UseLastState = true
TimeTestingPort	Integer	TimeTestingPort = 8090
ReadDIDRequest	Integer,Array[2]=true	ReadDIDRequest = 5, 1
GetVehicleDataRequest	Integer, Array[2]=true	GetVehicleDataRequest = 5, 1

MEDIA MANAGER

Parameter	Type	Example	Description
StartStreamRetry	Integer, Array[2]=true	StartStreamRetry = 3, 1000	Where the 1st one of the values is a number of retries and the 2nd number is a timeout in seconds for request frequency
EnableRedecoding	Boolean	EnableRedecoding = false	If decoding on HMI is required?APTHR
VideoStreamConsumer	String	VideoStreamConsumer = socket	Pipe/file or socket type of data streaming
AudioStreamConsumer	String	AudioStreamConsumer = socket	Pipe/file or socket type of data streaming
NamedVideoPipePath	String	NamedVideoPipePath = video_stream_pipe	<p>Named pipe will be defined as:</p> <ol style="list-style-type: none"> 1. <fileName> file in AppStorageFolder if the format of the parameter matchs the template: NamedVideoPipePath = <fileName> 2. <fileName> file in <path> folder if the format of the parameter matchs the template: NamedVideoPipePath = <path/fileName> 3. "video_stream_pipe" file in AppStorageFolder if NamedVideoPipePath has an empty value 4. "video_stream_pipe" file in AppStorageFolder if SDL has no permissions to write to <path/fileName> defined in NamedVideoPipePath
			<p>Named pipe will be defined as:</p> <ol style="list-style-type: none"> 1. <fileName> file in AppStorageFolder if the format of the parameter matchs the template: NamedAudioPipePath = <fileName> 2. <fileName> file in <path>

NamedAudioPipePath	String	NamedAudioPipePath = audio_stream_pipe	<p>folder if the format of the parameter matches the template: NamedAudioPipePath = <path/fileName></p> <p>3. "audio_stream_pipe" file in AppStorageFolder if NamedAudioPipePath has an empty value</p> <p>4. "audio_stream_pipe" file in AppStorageFolder if SDL has no permissions to write to <path/fileName> defined in NamedAudioPipePath</p>
VideoStreamFile	String	VideoStreamFile = video_stream_file	File path will be constructed using AppStorageFolder + VideoStreamFile
AudioStreamFile	String	AudioStreamFile = audio_stream_file	File path will be constructed using AppStorageFolder + name
RecordingFileSource	String	RecordingFileSource = audio.8bit.wav	The "RecordingFileSource" parameter defines the recording file source which used for emulation PerformAudioPassThru
RecordingFileName	String	RecordingFileName = audio.wav	The "RecordingFileName" parameter defines the name and format of audio file for PerformAudioPassThru_request
StopStreamingTimeout	Integer	StopStreamingTimeout = 1000	The timeout in milliseconds for mobile to stop streaming or end up session
AudioDataStoppedTimeout	Integer	AudioDataStoppedTimeout = 1000	Defines time in milliseconds for SDL to wait for the next package of raw data over audio service
VideoDataStoppedTimeout	Integer	VideoDataStoppedTimeout = 1000	Defines time in milliseconds for SDL to wait for the next package of raw data over video service

GLOBAL PROPERTIES

Parameter	Type	Example	Description
TTSDelimiter	Char	TTSDelimiter = ,	Defines the delimiter, which will be appended to each TTS chunk, e.g. helpPrompt/timeoutPrompt
HelpPrompt	String	HelpPrompt = Please speak one of the following commands, Please say a command	Default prompt items, separated by comma. The value is set up in case ResetGlobalProperties request from the application or SDL (in case of TTSGlobalPropertiesTimeout)
TimeoutPrompt	String	TimeoutPrompt = Please speak one of the following commands, Please say a command	Default prompt to be spoken by VR-engine timeout (when system expects some action by user and the time for this action is going to be out)
HelpTitle	String	HelpTitle = Available Vr Commands List	Text to be set-up for default value of the title of help list
TTSGlobalPropertiesTimeout	Integer	TTSGlobalPropertiesTimeout = 20	In case mobile app didn't send global properties request, then default global properties will be sent defined timeout in seconds Max value TTSGlobalPropertiesTimeout 64K

FILESYSTEM RESTRICTIONS

Parameter	Type	Example	Description
PutFileRequest	Integer	PutFileRequest = 5	Max allowed number of PutFile requests for one application in NONE. The application will be unregistered in case the number of requests exceeded the limitation
DeleteFileRequest	Integer	DeleteFileRequest = 5	Max allowed number of DeleteFile requests for one application in NONE. The application will be unregistered in case the number of requests exceeded the limitation
ListFilesRequest	Integer	ListFilesRequest = 5	Max allowed number of ListFiles requests for one application in NONE. The application will be unregistered in case the number of requests exceeded the limitation

VR COMMANDS

Parameter	Type	Example	Description
HelpCommand	String	HelpCommand = Help	Default command which initiates VR Help of the application

AppInfo

Parameter	Type	Example	Description
AppInfoStorage	String	AppInfoStorage = app_info.dat	The path for applications information storage (for resumption purposes)

Security Manager

Parameter	Type	Example	Description
Protocol	String	Protocol = TLSv1.2	Supported protocol version
KeyPath	String	KeyPath = mykey.pem	Certificate and key path to pem file
CertificatePath	String	CertificatePath = mycert.pem	Certificate and key path to pem file
SSLMode	String	SSLMode = CLIENT	SSL mode could be SERVER or CLIENT
CipherList	String	CipherList = ALL	Could be "ALL" ciphers or a list of chosen
VerifyPeer	Boolean	VerifyPeer = true	Defines if Mobile app certificate must be verified or not(could be used in both SSLMode Server and Client)
CACertificatePath	String	CACertificatePath = .	Preloaded CA certificates directory
ForceProtectedService	String	ForceProtectedService = Non	Force protected services (could be id's from 0x01 to 0xFF or "Non" value)
ForceUnprotectedService	String	ForceUnprotectedService = Non	Force unprotected services (could be id's from 0x01 to 0xFF or "Non" value)
UpdateBeforeHours	Integer	UpdateBeforeHours = 24	The "UpdateBeforeHours" parameter defines the amount of time in hours for certificate expiration AND after expiration PTU sequence will be triggered

Policy

Parameter	Type	Example	Description
EnablePolicy	Boolean	EnablePolicy = true	Turn on/off policies
PreloadedPT	String	PreloadedPT = sdl_preloaded_pt.json	The filename of the preloaded policy table
PathToSnapshot	String	PathToSnapshot = sdl_snapshot.json	The filename of the policy table snapshot
AttemptsToOpenPolicyDB	Integer	AttemptsToOpenPolicyDB = 5	Number of attempts to open policy DB
OpenAttemptTimeoutMs	Integer	OpenAttemptTimeoutMs = 500	Timeout between attempts during opening DB in milliseconds

TransportManager

Parameter	Type	Example	Description
TCPAdapterPort	Integer	TCPAdapterPort = 12345	Listening port form incoming mobile connection

ProtocolHandler

Parameter	Type	Example	Description
			Packet with a payload k than # MaximumPayloa will be marked as a mal Parameter must be use protocol v3 or higher. 1)In case of emty value uses the default value c bytes for validating MT (maximum transferring size. 2) If the value defined i MaximumPayloadSize parameter is less than 1488,the default value bytes must be used by
MaximumPayloadSize	Integer	MaximumPayloadSize = 1488	
			Application shall send r more than #FrequencyCount mes: per #FrequencyTime m Frequency check could disabled by setting #FrequencyTime or
FrequencyCount	Integer	FrequencyCount = 1000	

			#FrequencyCount to "C"
FrequencyTime	Integer	FrequencyTime = 1000	The limitation in ms for sending number of the requests not more than #FrequencyCount
MalformedMessageFiltering	Integer	MalformedMessageFiltering = true	Enable filtering transposition stream; On #MalformedMessageFiltering disabling, SDL will close connection with the first malformed message detected
MalformedFrequencyCount	Integer	MalformedFrequencyCount = 10	Boundary value of malformed message detection for connection closure Can be disabled by setting #MalformedFrequencyCount to "0"
MalformedFrequencyTime	Integer	MalformedFrequencyTime = 1000	Boundary value of malformed message detection for connection closure. In case of frequency of malformed requests will be more than per #MalformedFrequencyTime SDL will close the connection
ExpectedConsecutiveFramesTimeout	Integer	ExpectedConsecutiveFramesTimeout = 10000	Timeout for waiting CONSECUTIVE frames in multiframe

ApplicationManager

Parameter	Type	Example	Description
ApplicationListUpdateTimeout	Integer	ApplicationListUpdateTimeout = 2000	Application list update timeout ms
ThreadPoolSize	Integer	ThreadPoolSize = 1	Max allowed threads for handling mobile requests. Currently max allowed is 2
HashStringSize	Integer	HashStringSize = 32	The max size of hash which is used by OnHashUpdated()

SDL4

Parameter	Type	Example	Description
EnableProtocol4	Boolean	EnableProtocol4 = true	Enables SDL 4.0 support. Parameter allows to switch SDL4 functionality on SDL
AppIconsFolder	String	AppIconsFolder = storage	The path where apps' icons must be stored. Upon each start SDL must check whether the folder 'AppIconsFolder' exists and read/write permissions. In case folder doesn't exist, SDL creates it and uses it as assigned
AppIconsFolderMaxSize	Integer	AppIconsFolderMaxSize = 104857600	Max size of the folder in bytes. Parameter defines the allowed size in bytes of the folder for SDL to store the applications icons.
AppIconsAmountToRemove	Integer	AppIconsAmountToRemove = 1	Amount of the oldest icons to remove from "AppIconsFolder" in case of max folder size was reached. In case the value 'AppIconsAmountToRemove' is equal zero SDL internally logs error and continues working without storing the icon.

Resumption

Parameter	Type	Example	Description
ApplicationResumingTimeout	Integer	ApplicationResumingTimeout = 3000	# Timeout in ms for resumption HMI_Level and i conflicts in case applications ini resumption
AppSavePersistentDataTimeout	Integer	AppSavePersistentDataTimeout = 10000	Timeout in milliseconds for periodic saving resumption per
ResumptionDelayBeforeIgn	Integer	ResumptionDelayBeforeIgn = 30	Timeout in seconds hmi_level for m

			before ign_off
ResumptionDelayAfterIgn	Integer	ResumptionDelayAfterIgn = 30	Timeout in seconds restore hmi_level app after sdl run
UseDBForResumption	Boolean	UseDBForResumption = false	Resumption controller if UseDBForResumption for store data controller uses DB
AttemptsToOpenResumptionDB	Integer	AttemptsToOpenResumptionDB = 5	Number of attempts open resumptionDB
OpenAttemptTimeoutMsResumptionDB	Integer	OpenAttemptTimeoutMsResumptionDB = 500	Timeout between during opening milliseconds

AppLaunch

Parameter	Type	Example	Description
AppLaunchWaitTime	Integer	AppLaunchWaitTime = 5000	Time in milliseconds started from device connection - after expiring SDL remotely launches all known not-yet-registered apps from this device
AppLaunchMaxRetryAttempt	Integer	AppLaunchMaxRetryAttempt = 3	The number of times SDL attempts to launch an application after device connection - applied separately to each application from the given device
AppLaunchRetryWaitTime	Integer	AppLaunchRetryWaitTime = 15000	Time in milliseconds started by SDL after app launch request. if expired and app did not register, SDL sends new launch request. applied separately
RemoveBundleIDattempts	Integer	RemoveBundleIDattempts = 3	The number of the given device connections that the requested application failed to register after SDL's launch attempts - SDL removes app's bundleID
		MaxNumberOfIOSDevice =	The maximum number of iOS

MaxNumberOfIOSDevice	Integer	10	devices for which entries can be remembered by SDL
WaitTimeBetweenApps	Integer	WaitTimeBetweenApps = 4000	Time in milliseconds started after request to launch the first app. after either expires or the first app registers SDL requests to launch
EnableAppLaunchIOS	Boolean	EnableAppLaunchIOS = true	App Launch on iOS devices SDL feature enabler/disabler

GetSystemInfo

- Type: Function
- Sender: SDL
- Purpose: Get head unit system information

!!! must

The HMI must respond to GetSystemInfo and provide the current head unit software version, language, and country code.

!!!

!!! note

When SDL starts, it sends GetSystemInfo to update the policies database with the latest system data. SDL Stores the ccpu_version when responding to RegisterAppInterfaceRequests.

!!!

Request

Parameters

Name	Type	Mandatory	Additional
------	------	-----------	------------

Response

Parameters

Name	Type	Mandatory	Additional
ccpu_version	String	true	maxlength: 500
language	Common.Language	true	
wersCountryCode	String	true	maxlength: 500

Example Request

```
{
  "id" : 47,
  "jsonrpc" : "2.0",
  "method" : "BasicCommunication.GetSystemInfo"
}
```

Example Response

```

{
  "id" : 47,
  "jsonrpc" : "2.0",
  "result" : {
    "code" : 0,
    "method" : "BasicCommunication.GetSystemInfo",
    "params" : {
      "ccpu_version" : "12.1.3",
      "language" : "EN-US",
      "wersCountryCode" : "WAEGB"
    }
  }
}

```

Example Error

```

{
  "id" : 47,
  "jsonrpc" : "2.0",
  "error" :
  {
    "code" : 9,
    "message" : " Error in fetching system information ",
    "data" :
    {
      "method" : "BasicCommunication.GetSystemInfo"
    }
  }
}

```

Sequence Diagrams

GetSystemInfo

