

CcspDmCli

Overview

DmCli is a CCSP component that provides the Command Line Interface to the device. It helps to interact with data objects in the RDKB setup and query their values or set/change them.

Dmcli is used to send and receive DBUS messages via CLI (Command Line Interface) over Telnet and SSH protocols.

Its primary role is to allow an individual to perform Data base related operations on the Data Model.

Some of the primary functionalities supported by it are:

- Get the value of a parameter
- Set the value of a parameter
- Add an entry to the table
- Delete an entry to the table

One very crucial and important functionality is that it extends the operations of parameters in common library through command line. It is very useful for developing a new component and debugging purpose.

A sample dmcli command looks as follows with the expected output. In the output , the component name will be displayed based on the parameter queried .

```
root@RaspberryPi-Gateway:~# dmcli eRT getv Device.WiFi.RadioNumberOfEntries
CR component name is: eRT.com.cisco.spvtg.ccsp.CR
subsystem_prefix eRT.
getv from/to component(eRT.com.cisco.spvtg.ccsp.wifi): Device.WiFi.RadioNumberOfEntries
Execution succeed.
Parameter      1 name: Device.WiFi.RadioNumberOfEntries
                type:      uint,      value: 2
```

```
root@RaspberryPi-Gateway:~# dmcli eRT getv Device.WiFi.X_RDKCENTRAL-COM_PreferPrivate
CR component name is: eRT.com.cisco.spvtg.ccsp.CR
subsystem_prefix eRT.
getv from/to component(eRT.com.cisco.spvtg.ccsp.wifi): Device.WiFi.X_RDKCENTRAL-COM_PreferPrivate
Execution succeed.
Parameter      1 name: Device.WiFi.X_RDKCENTRAL-COM_PreferPrivate
                type:      bool,      value: true
```

DmCli usage

- Invoking Multiple DMs from single dmcli command

```
~ # dmcli eRT getv Device.WiFi.SSID.1.Status Device.WiFi.SSID.9.Enable
CR component name is: eRT.com.cisco.spvtg.ccsp.CR
subsystem_prefix eRT.
getv from/to component(eRT.com.cisco.spvtg.ccsp.wifi): Device.WiFi.SSID.1.Status
Execution succeed.
Parameter      1 name: Device.WiFi.SSID.1.Status
                type:      string,     value: Up
Parameter      2 name: Device.WiFi.SSID.9.Enable
                type:      bool,       value: false
```

- getn command to retrieve the access permission of the parameter

```

~ # dmcli eRT getn Device.WiFi.SSID.1.Status
CR component name is: eRT.com.cisco.spvtg.ccsp.CR
subsystem_prefix eRT.
getn from/to component(eRT.com.cisco.spvtg.ccsp.wifi): Device.WiFi.SSID.1.Status
Execution succeed.
Parameter      1 name: Device.WiFi.SSID.1.Status
                writable:ReadOnly.

```

```

~ # dmcli eRT getn Device.WiFi.SSID.1.Enable
CR component name is: eRT.com.cisco.spvtg.ccsp.CR
subsystem_prefix eRT.
getn from/to component(eRT.com.cisco.spvtg.ccsp.wifi): Device.WiFi.SSID.1.Enable
Execution succeed.
Parameter      1 name: Device.WiFi.SSID.1.Enable
                writable:Writable.

```

- Command to list all corresponding parameters and the respective values

```

~ # dmcli eRT getv Device.WiFi.SSID.9.
CR component name is: eRT.com.cisco.spvtg.ccsp.CR
subsystem_prefix eRT.
getv from/to component(eRT.com.cisco.spvtg.ccsp.wifi): Device.WiFi.SSID.9.
Execution succeed.
Parameter      1 name: Device.WiFi.SSID.9.Enable
                type:      bool,      value: false
Parameter      2 name: Device.WiFi.SSID.9.Status
                type:      string,     value: Down
Parameter      3 name: Device.WiFi.SSID.9.Alias
                type:      string,     value: ath8
Parameter      4 name: Device.WiFi.SSID.9.Name
                type:      string,     value: ath8
Parameter      5 name: Device.WiFi.SSID.9.LastChange
                type:      uint,       value: 910
Parameter      6 name: Device.WiFi.SSID.9.LowerLayers
                type:      string,     value: Device.WiFi.Radio.1.
Parameter      7 name: Device.WiFi.SSID.9.BSSID
                type:      string,     value:
Parameter      8 name: Device.WiFi.SSID.9.MACAddress
                type:      string,     value:
Parameter      9 name: Device.WiFi.SSID.9.SSID
                type:      string,     value: OutOfService
Parameter     10 name: Device.WiFi.SSID.9.X_COMCAST-COM_DefaultSSID
                type:      string,     value: OutOfService
Parameter     11 name: Device.WiFi.SSID.9.X_CISCO_COM_EnableOnline
                type:      bool,       value: false
Parameter     12 name: Device.WiFi.SSID.9.X_CISCO_COM_RouterEnabled
                type:      bool,       value: false
Parameter     13 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResultNumberOfEntries
                type:      uint,       value: 3
Parameter     14 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.1.X_TCH_COM_Result
                type:      string,     value: Invalid
Parameter     15 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.1.X_TCH_COM_CreationTime
                type:      dateTime,   value: 0000-00-00 00:00:00
Parameter     16 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.1.X_TCH_COM_PAOffAvgChannel
                type:      string,     value:
Parameter     17 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.1.X_TCH_COM_PAOnAvgChannel
                type:      string,     value:
Parameter     18 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.1.X_TCH_COM_PAOffMaxChannel
                type:      string,     value:
Parameter     19 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.1.X_TCH_COM_PAOnMaxChannel
                type:      string,     value:
Parameter     20 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.1.X_TCH_COM_ResultsInfo
                type:      string,     value:
Parameter     21 name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.2.X_TCH_COM_Result
                type:      string,     value: Invalid

```

Parameter	22	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.2.X_TCH_COM_CreationTime
		type: dateTime, value: 0000-00-00 00:00:00
Parameter	23	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.2.X_TCH_COM_PAOffAvgChannel
		type: string, value:
Parameter	24	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.2.X_TCH_COM_PAOnAvgChannel
		type: string, value:
Parameter	25	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.2.X_TCH_COM_PAOffMaxChannel
		type: string, value:
Parameter	26	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.2.X_TCH_COM_PAOnMaxChannel
		type: string, value:
Parameter	27	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.2.X_TCH_COM_ResultsInfo
		type: string, value:
Parameter	28	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.3.X_TCH_COM_Result
		type: string, value: Invalid
Parameter	29	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.3.X_TCH_COM_CreationTime
		type: dateTime, value: 0000-00-00 00:00:00
Parameter	30	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.3.X_TCH_COM_PAOffAvgChannel
		type: string, value:
Parameter	31	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.3.X_TCH_COM_PAOnAvgChannel
		type: string, value:
Parameter	32	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.3.X_TCH_COM_PAOffMaxChannel
		type: string, value:
Parameter	33	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.3.X_TCH_COM_PAOnMaxChannel
		type: string, value:
Parameter	34	name: Device.WiFi.SSID.9.X_TCH_COM_11nCalcResult.3.X_TCH_COM_ResultsInfo
		type: string, value:
Parameter	35	name: Device.WiFi.SSID.9.Stats.BytesSent
		type: uint, value: 0
Parameter	36	name: Device.WiFi.SSID.9.Stats.BytesReceived
		type: uint, value: 0
Parameter	37	name: Device.WiFi.SSID.9.Stats.PacketsSent
		type: uint, value: 0
Parameter	38	name: Device.WiFi.SSID.9.Stats.PacketsReceived
		type: uint, value: 0
Parameter	39	name: Device.WiFi.SSID.9.Stats.ErrorsSent
		type: uint, value: 0
Parameter	40	name: Device.WiFi.SSID.9.Stats.ErrorsReceived
		type: uint, value: 0
Parameter	41	name: Device.WiFi.SSID.9.Stats.UnicastPacketsSent
		type: uint, value: 0
Parameter	42	name: Device.WiFi.SSID.9.Stats.UnicastPacketsReceived
		type: uint, value: 0
Parameter	43	name: Device.WiFi.SSID.9.Stats.DiscardPacketsSent
		type: uint, value: 0
Parameter	44	name: Device.WiFi.SSID.9.Stats.DiscardPacketsReceived
		type: uint, value: 0
Parameter	45	name: Device.WiFi.SSID.9.Stats.MulticastPacketsSent
		type: uint, value: 0
Parameter	46	name: Device.WiFi.SSID.9.Stats.MulticastPacketsReceived
		type: uint, value: 0
Parameter	47	name: Device.WiFi.SSID.9.Stats.BroadcastPacketsSent
		type: uint, value: 0
Parameter	48	name: Device.WiFi.SSID.9.Stats.BroadcastPacketsReceived
		type: uint, value: 0
Parameter	49	name: Device.WiFi.SSID.9.Stats.UnknownProtoPacketsReceived
		type: uint, value: 0
Parameter	50	name: Device.WiFi.SSID.9.Stats.RetransCount
		type: uint, value: 0
Parameter	51	name: Device.WiFi.SSID.9.Stats.FailedRetransCount
		type: uint, value: 0
Parameter	52	name: Device.WiFi.SSID.9.Stats.RetryCount
		type: uint, value: 0
Parameter	53	name: Device.WiFi.SSID.9.Stats.MultipleRetryCount
		type: uint, value: 0
Parameter	54	name: Device.WiFi.SSID.9.Stats.ACKFailureCount
		type: uint, value: 0
Parameter	55	name: Device.WiFi.SSID.9.Stats.AggregatedPacketCount
		type: uint, value: 0

