This document describes the suite of tests for this specific service.

As the opcodes are available to any service, the test cases for the opcodes used in this test are described in their own test case documents, to avoid duplication across services

Starting assumption

The Minimum node service is always expected to be present, and always a singular instance. This service is tested before any other service

The unit under test has a valid node number, and is in normal running mode

# Check expected node number

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| Test\_QNN | 0x0D | Expected node number |

# Read number of node parameters

Read the number of node parameters supported, using the parameter index 0

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RQNPN | 0x73 | Node number and node parameter number 0 |

# Read all node parameters

Read all the node parameters supported, as indicated by the value returned in the previous test above

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RQNPN | 0x73 | Node number and node parameter number |

# Test invalid node parameter

Boundary error test using the node parameter count + 1 as the node parameter index to read

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RQNPN\_INVALID\_INDEX | 0x73 | Node number and node parameter number |

# Test RQNPN short message

Test for GRSP error returned when sending short message (node parameter index removed)

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RQNPN\_SHORT | 0x73 | Node number and node parameter number |

# Request all services

Read all the services supported, using service index number 0

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RQSD | 0x78 | Node number and service index number = 0 |

# Request invalid service

Boundary error test using the number of services + 1 as the service index number to read

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| --- | --- | --- |
| **Test case** | **Opcode** | **Parameters** |
| test\_RQSD\_INVALID\_SERVIC | 0x78 | Node number and service index number |

# Test RQSD short message

Test for GRSP error returned when sending short message (service index removed)

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| --- | --- | --- |
| **Test case** | **Opcode** | **Parameters** |
| test\_RQSD\_SHORT | 0x78 | Node number and service index number |

# Request all diagnostics

Read all the diagnostics, for all services supported, using service index number 0, and diagnostic number 0

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **Parameters** |
| test\_RDGN | 0x87 | Node number, service index number = 0 and diagnostic number = 0 |

# Test RDGN invalid service

Boundary error test using the number of services + 1 as the service index number to read

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| **Test case** | **Opcode** | **Parameters** |
| test\_RDGN\_INVALID\_SERVICE | 0x87 | Node number, service index number and diagnostic number |

# Test RDGN short message

Test for GRSP error returned when sending short message

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| --- | --- | --- |
| **Test case** | **Opcode** | **Parameters** |
| test\_RDGN\_SHORT | 0x87 | Node number, service index number and diagnostic number |

# Request extended data for this service

Read the extended data for this service, using service index number of this service

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RQSD | 0x78 | Node number and service index number |

# Request diagnostics for this service

Read the all diagnostic data just for this service, using service index number of this service, and diagnostic number 0

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RDGN | 0x87 | Node number, service index number and diagnostic number 0 |

# Request first diagnostic for this service

Read the first diagnostic data for this service, using service index number of this service, and diagnostic number 1

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RDGN | 0x87 | Node number, service index number and diagnostic number 1 |

# Request last diagnostic for this service

Read the last diagnostic data for this service, using service index number of this service, and diagnostic number MaxDiagnostic

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RDGN | 0x87 | Node number, service index number and diagnostic number MaxDiagnostic |

# Test invalid diagnostic number for this service

Try to read last diagnostic + 1 for this service, using service index number of this service, and MaxDiagnostic + 1, expecting a GRSP response back

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_RDGN\_INVALID\_DIAGNOSTIC | 0x87 | Node number, service index number and diagnostic number MaxDiagnostic+1 |

# Test node reset

Reset the node – retains settings, but should clear diagnostic data

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_NNRST | 0x5E | Node number |

# Test node reset to manufacturer settings

**\*\*\*\* CURRENTLY NOT INCLUDED \*\*\*\***

Reset the node to manufacturer settings, but should retain node number and stay in FLiM mode

|  |  |  |
| --- | --- | --- |
| **Test case** | **Opcode** | **parameters** |
| test\_NNRSM | 0x4F | Node number |