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|  | OMNI Summit Microservice V1.X Test Results | Doc. Number | Rev. |
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1 Document Purpose

The purpose of this Test Results document is to collect the output of each test defined in OMNI-11-TestProtocols and whether each test has been performed and passed acceptance criteria.

2 Document Scope

This document contains a list of software requirements

Each requirement defined in OMNI-SM-002 Software Requirements Specification is listed in the Software Verification Plan. Requirements are listed in numerical order by requirement number.

The Software Verification Plan includes the following information:

- Software requirement identification number
- Text of the requirement
- Method(s) for verification: Inspection (I), Analysis (A), Demonstration (D), Test (T)


3 Responsibilities

| Function | Responsible For |
|---------------------|--|
| Software Developers | <ul style="list-style-type: none"> • Develops and executes verification protocols • Writes protocol-specific reports |
| Lead Developer | <ul style="list-style-type: none"> • Writes the verification summary report |


4 Automated Test Results

| Req # | Associated Unit Tests | Test Result | Initials of Tester and Date Tested |
|-------|---|---------------|------------------------------------|
| 4.3 | <i>SummitServerTest.Startup_CreatesWindow</i> confirms that the microservice creates a window allowing for graceful shutdown. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |


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| 5.1.1 | <i>SummitServerTest.Startup_PrintsToConsole</i> confirms that the console is written with the current version number and supported devices. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>Info_Service_InspectRepository</i> confirms that an info service has been created. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConnectedBridges_WithBridges_ReturnsBridges</i> confirms that a bridge service has been created. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>DeviceStatus_WithSuccessfulRead_ReturnsBatteryStatus</i> confirms that a device service has been created. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 5.1.2 | <i>DeviceStatus_WithSuccessfulRead_ReturnsBatteryStatus</i> confirms that a connected client can request a function to be called on a device instance. This also tests that the function call is forwarded on to the Summit DLL, which after completion of execution returns the response to the client. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>DeviceStatus_DeviceDoesNotExist_ReturnsError</i> confirms that if the device does not exist, the request is denied. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>DescribeBridge_DoesNotExist_ReturnsError</i> confirms that if the bridge does not exist, the request will be denied. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>DescribeBridge_NoErrorFromAPI_ReturnsDetails</i> confirms that a connected client can request a function to be called on a bridge instance. This also tests that the function call is forwarded on to the Summit DLL, which after completion of execution returns the response to the client. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 5.1.3 | <i>SummitServerTest.Startup_CreatesWindow</i> confirms that the microservice creates a window that is shut down by asserting that the process has exited. | <i>Passed</i> | <i>AO 11/4/22</i> |

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| | <i>Shutdown_DisposesManager</i> confirms that device and bridge connections are disposed when the Server is shut down. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |
| | <i>Startup_CreatesWindow_qToShutdown</i> confirms that the server is shut down when 'q' is entered into the command console. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |
| 5.2.1 | <i>Info_Service_VersionNumber</i> confirms that the microservice shall return the major, minor, and patch version numbers. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |
| | <i>Info_Service_SupportedDevices</i> confirms that the microservice shall return the list of supported implantable neurostimulators. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |
| | <i>Info_Service_InspectRepository</i> confirms that the microservice shall return all cached device and bridge connections. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |
| 5.2.2 | <i>ListBridges_WithDuplicateBridges_ReturnsUnique, ListBridges_WithQuery_ReturnsFiltered, and ListBridges_WithNoBridges_ReturnsNoBridges</i> confirm that listBridges will return a list of known bridges. Discovery of known bridges is Summit API functionality that is handled through same interface and does not need testing. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |
| | <i>ConnectedBridges_WithBridges_ReturnsBridges, ConnectedBridges_WithQuery_ReturnsFiltered, and ConnectedBridges_WithNoBridges_ReturnsNoBridges</i> confirm that the microservice shall return a list of bridges currently connected to by the microservice. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |
| | <i>DescribeBridge_ErrorFromAPI_ReturnsErrorEmptyDetails</i> and <i>DescribeBridge_NoErrorFromAPI_ReturnsDetails</i> confirm that the microservice shall return telemetry information for a specified bridge | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |
| 5.2.3 | <i>ConnectToBridge_CachedConnectionIsDisposed_ReturnSuccess</i> confirms that when the Summit is in the repo and disposed that the connection call still proceeds. | <i>Passed</i> | <i>AO</i> <i>11/4/22</i> |

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| | <i>ConnectToBridge_CachedConnectionNotDisposed_ReturnsSuccess</i> confirms that when the Summit is in the repo but not disposed that the connection call is aborted but success is still returned. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConnectToBridge_NoCachedConnectionConnectFails_ReturnsError</i> confirms that Summit connection failures are returned to the application. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConnectToBridge_NoCachedConnection_ReturnsSuccess_ReturnsSuccess</i> confirms that Summit connection success are returned to the application. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConnectToBridge_NoDiscoveredBridgeRequest_ReturnsError</i> confirms that an error is returned if an invalid bridge is requested to connect to. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>DisconnectFromBridge_DisposesSummit</i> confirms that the DisposeSummit function is called using the mock verify function. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 5.2.4 | <i>ConfigureBeep_ValidRequestParameter_ReturnsSuccess</i> confirms that the microservice can configure the telemetry beep using API commands. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConfigureBeep_InvalidRequest_ReturnsError</i> confirms that the microservice returns an error when an invalid parameter is provided to configure the telemetry beep. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConfigureBeep_ErrorEncountered_ReturnsFailure</i> confirms that the microservice returns an error when the microservice receives an error from the Summit API. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 5.2.5 | <i>ConnectionStatusStream_NoCachedConnection_ReturnsEmpty</i> confirms that an empty (ended) stream is returned if there is no active connection to monitor. | <i>Passed</i> | <i>AO 11/4/22</i> |

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| | <i>ConnectionStatusStream_AlreadyConnected_ReturnsEmpty</i> confirms that an empty (ended) stream is returned if there is no active connection to monitor. | Passed | AO 11/4/22 |
| | <i>ConnectionStatusStream_EnableStreamRequest_ReturnsStream</i> confirms that a stream is returned if a request is made while there is a connection and there is no preexisting connection stream. | Passed | AO 11/4/22 |
| | <i>ConnectionStatusStream_ConnectedDisableStream_EndsStream</i> confirms that a stream can be ended by the client requesting to disable the stream. | Passed | AO 11/4/22 |
| | <i>ConnectionMonitoring_DisconnectionEventReceivedSummitNotDisposed_Notify</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when a disconnect occurs when the Summit is not disposed. | Passed | AO 11/4/22 |
| | <i>ConnectionMonitoring_DisconnectionEventReceivedSummitDisposed_Notify</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when a disconnect occurs when the Summit is disposed. | Passed | AO 11/4/22 |
| | <i>ConnectionMonitoring_DisconnectionEventReceived_ReconnectionCTMAttemptsExceeded</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when a CTM reconnection attempt fails. | Passed | AO 11/4/22 |
| | <i>ConnectionMonitoring_DisconnectionEventReceived_ReconnectionINSAttemptsExceeded</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when an INS reconnection attempt fails. | Passed | AO 11/4/22 |
| | <i>ConnectionMonitoring_DisconnectionEventReceived_ReconnectionSucceeded</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when a reconnection succeeds. | Passed | AO 11/4/22 |

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| 5.2.6 | ListDevices_WithNoDevices_ReturnsNoDevices confirms that if no devices are discovered by CTM that no devices are returned to the client. | Passed | AO 11/4/22 |
| | ListDevices_WithSameDeviceConnectedAlready_ReturnsMedtronicError confirms that if a device is already connected to, that the expected Medtronic error code is returned to the client. | Passed | AO 11/4/22 |
| | ListDevices_WithDeviceSuccess_ReturnsDeviceList confirms that if a device is discovered that it is returned to the client. | Passed | AO 11/4/22 |
| | DeviceStatus_WithSuccessfulRead_ReturnsBatteryStatus confirms that on a successful device status call, that battery status information is returned to the client. | Passed | AO 11/4/22 |
| | DeviceStatus_DeviceDoesNotExist_ReturnsError confirms that if the device does not exist that an error is returned to the client. | Passed | AO 11/4/22 |
| | DeviceStatus_WithUnsuccessfulRead_ReturnsNullBatteryLevels confirms that if an error is encountered during the device status request that an error is returned to the client. | Passed | AO 11/4/22 |
| | LeadIntegrityTest_NoError_ReturnsLeadList confirms that the lead integrity test returns impedances if successful. | Passed | AO 11/4/22 |
| | LeadIntegrityTest_SameLeadValues_ReturnsZero confirms that the lead integrity test returns 0 if a selected lead pair contains two of the same electrode. | Passed | AO 11/4/22 |
| | LeadIntegrityTest_OutofRangeLeadValues_ReturnsError confirms that the lead integrity test returns out of range error if invalid lead indexes are provided. | Passed | AO 11/4/22 |

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| 5.2.7 | ConnectToDevice_RequestedDeviceNotCached_ReturnsError confirms that when the requested device is not in the device repo, that the Summit connection is aborted are returned to the application. | Passed | AO 11/4/22 |
| | ConnectToDevice_NoDeviceSpecified_NullConnectSuccess confirms that if no device is specified in the request, that a null device parameter is provided to the Summit StartInsSession command to initiate a null-connect. | Passed | AO 11/4/22 |
| | ConnectToDevice_CachedDeviceConnect_ReturnsConnectStatus confirms that the Summit connection StartInsSession command status is returned to the application | Passed | AO 11/4/22 |
| | ConnectToDevice_NoConnectedBridge_ReturnsError confirms that an error is returned if GetConnectionByName returns null. | Passed | AO 11/4/22 |
| | DisconnectFromDevice_DisposesSummit confirms that the DisposeSummit function is called using the mock verify function. | Passed | AO 11/4/22 |
| 5.2.8 | ConfigureSense_NullRequestParameter_ReturnsFailure confirms that the microservice returns an error if there is a null parameter provided for part of the sensing configuration. | Passed | AO 11/4/22 |
| | ConfigureSense_PowerBandEnablesCountIncorrect_ReturnsFailure confirms that an error is returned if the power channel list is too long. | Passed | AO 11/4/22 |
| | ConfigureSense_NullRequestParametersObject_ReturnsFailure confirms that if an entire sensing configuration object (FFT) is null that an error is returned. | Passed | AO 11/4/22 |
| | ConfigureSense_WriteSensingFftSettingsReject_ReturnsFailure that if a command is rejected as part of the sense configuration transaction that the expected summit API reject is returned to the client. | Passed | AO 11/4/22 |

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| | ConfigureSense_DisabledTimeDomainStream_SetsSampleRateToDisabled confirms that if a time domain stream is indicated to be disabled that the correct enumeration for disabled channels is transmitted to the Summit API. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | ConfigureSense_ValidConfiguration_Success confirms that the microservice returns success when no error is encountered in the sense configuration transaction. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 5.2.9 | ConfigureSense_NullRequestParameter_ReturnsFailure confirms that the microservice returns an error if there is a null parameter provided for part of the sensing configuration. | <i>Passed</i> | <i>AO 11/11/22</i> |
| | ConfigureSense_PowerBandEnablesCountIncorrect_ReturnsFailure confirms that an error is returned if the power channel list is too long. | <i>Passed</i> | <i>AO 11/11/22</i> |
| | ConfigureSense_NullRequestParametersObject_ReturnsFailure confirms that if an entire sensing configuration object (FFT) is null that an error is returned. | <i>Passed</i> | <i>AO 11/11/22</i> |
| | ConfigureSense_WriteSensingFftSettingsReject_ReturnsFailure that if a command is rejected as part of the sense configuration transaction that the expected summit API reject is returned to the client. | <i>Passed</i> | <i>AO 11/11/22</i> |
| | ConfigureSense_DisabledTimeDomainStream_SetsSampleRateToDisabled confirms that if a time domain stream is indicated to be disabled that the correct enumeration for disabled channels is transmitted to the Summit API. | <i>Passed</i> | <i>AO 11/11/22</i> |
| | ConfigureSense_ValidConfiguration_Success confirms that the microservice returns success when no error is encountered in the sense configuration transaction. | <i>Passed</i> | <i>AO 11/11/22</i> |

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| 5.3.1 | <i>ConnectionMonitoring_DisconnectionEventReceivedSummitNotDisposed_Notify</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when a disconnect occurs when the Summit is not disposed. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConnectionMonitoring_DisconnectionEventReceivedSummitDisposed_Notify</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when a disconnect occurs when the Summit is disposed. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConnectionMonitoring_DisconnectionEventReceived_ReconnectionCTMAttemptsExceeded</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when a CTM reconnection attempt fails. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConnectionMonitoring_DisconnectionEventReceived_ReconnectionINSAttemptsExceeded</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when an INS reconnection attempt fails. | <i>Passed</i> | <i>AO 11/4/22</i> |
| | <i>ConnectionMonitoring_DisconnectionEventReceived_ReconnectionSucceeded</i> confirms that the microservice provides an interface for streaming bridge related status that notifies an application when a reconnection succeeds. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 6.1.1 | <i>MultipleConnections_TwoClientOneDevice_ConnectionRequestsSuccess</i> and <i>MultipleConnections_TwoClientTwoDevices_ConnectionRequestsSuccess</i> confirm that multiple clients can successfully communicate with microservice-connected devices. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 6.1.2 | <i>Create<DataType>StreamStream_AlreadyConnected_ReturnsEmpty</i> confirms that an error is returned to the client if the specific data type stream is already active. | <i>Passed</i> | <i>AO 11/4/22</i> |

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| 6.2.1 | <i>MultipleConnections_TwoClientTwoDevices_ConnectionRequestsSuccess</i> and <i>MultipleConnections_OneClientTwoDevices_ConnectionRequestsSuccess</i> confirm that the microservice allows for two simultaneous connections to Summit devices. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 8.4.1 | <i>ListBridges_WithDuplicateBridges_ReturnsUnique()</i> confirms that without any configuration, localhost is used to host the microservice. | <i>Passed</i> | <i>AO 11/4/22</i> |
| 10.4 | Generation of signed interface control document (ICD) demonstrates completion of this requirement. | <i>Passed</i> | <i>AO 11/4/22</i> |

5 Demonstration Test Results

| Req # | Associated Demonstration Protocol | Test Result | Initials of Tester and Date Tested |
|-------|---|--|------------------------------------|
| ex.1 | Example 1 – take screenshot of system running | Passed See screenshot in Appendix 1 CTM: NKWXXXXX INS: NPCXXXXX | DAB 2022-11-02 |
| 4.2 | 1) A tester will run the microservice connected to a Medtronic Summit System and verify that they are connected. | Passed See screenshot in Appendix 1 CTM: NKW021653N INS: NPC700365H | AO 2022-11-03 |
| 7.1 | 1) A tester will download the microservice executable and run it on a Windows 10 64 bit PC. 2) The tester will take a screenshot of the console window running on the PC and upload to the test report document. | Passed See screenshot in Appendix 1 CTM: NKW021653N INS: NPC700365H | AO 2022-11-03 |

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| 7.2 | 1) A tester will run the microservice using gRPC version 1.0.0 or greater and verify that after following all of the setup steps above that the application runs successfully and connects to the CTM and Summit. 2) The tester will document in the test report what version of gRPC the client application utilized when the demonstration was executed. This version has to be greater than 1.0 for the test to be considered a success. | Passed gRPC version: 2.36.0 See screenshot in Appendix 1 CTM: NKW021653N INS: NPC700365H | AO 2022-11-03 |
| 7.3 | 1) A tester will verify that messages are serialized using protobuf version 3. The tester can verify this by checking the version of protobuf 2) The tester will document in the test report what version of protobuf the client application utilized when the demonstration was executed. This version has to be greater than 3.0 for the test to be considered a success. | Passed Protobuf version: 3.15.0 CTM: NKW021653N INS: NPC700365H | AO 2022-11-03 |
| 9.1 | 1) A tester will verify that the provided installer creates the OmniSummitMicroservice binary. Running the binary verifies that the Medtronic Summit DLLs are in the correct location. | Passed CTM: NKW021653N INS: NPC700365H | AO 2022-11-03 |
| 10.1 | 1) A tester will look over the version history and verify that it follows proper semantic versioning | Passed CTM: NKW021653N INS: NPC700365H | AO 2022-11-03 |

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| 10.2 | 1) A tester will verify that the installer's version reflects the version of the microservice | Passed CTM: NKW021653N INS: NPC700365H | AO 2022-11-03 |
| 10.3 | 1) A tester will verify that there is a github action in place to update and automatically deploy documentation for each new release | Passed CTM: NKW021653N INS: NPC700365H | AO 2022-11-03 |


6 Inspection

6.1 Test procedure





There are no requirements that are tested via inspection.

7 References

| Document Identifier | Title |
|---------------------|---|
| OMNI-SM-002 | Software Requirements Specification, OMNI Summit Microservice |

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8 Approvals


| Approver Role | Signature and Date |
|----------------|---|
| Project Lead | DocuSigned by:  11/30/2022 1:54 PM EST |
| Quality | DocuSigned by:  12/03/2022 6:15 AM EST |
| Lead Developer | DocuSigned by:  11/30/2022 11:08 AM PST |
| Author | DocuSigned by:  11/30/2022 9:58 PM EST |

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Appendix 1: Evidence of Automated Unit Test Results

Below is the direct output of the console for all unit tests.

| Req # | Evidence |
|-------|--|
| | <pre>Test run for D:\a\OmniSummitDeviceService\OmniSummitDeviceService\OmniSummitDeviceService.UnitTests\bin\Debug\n et472\OmniSummitDeviceService.UnitTests.dll (.NETFramework,Version=v4.7.2) Microsoft (R) Test Execution Command Line Tool Version 16.11.0 Copyright (c) Microsoft Corporation. All rights reserved. Starting test execution, please wait... A total of 1 test files matched the specified pattern. NUnit Adapter 4.0.0.0: Test execution started Running all tests in D:\a\OmniSummitDeviceService\OmniSummitDeviceService\OmniSummitDeviceService.UnitTests\bin\Debug\n et472\OmniSummitDeviceService.UnitTests.dll NUnit3TestExecutor discovered 92 of 92 NUnit test cases using Current Discovery mode, Non-Explicit run 721360</pre> |


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| <p> Passed Startup_CreatesWindow [4 s] Passed Startup_CreatesWindow_qToShutdown [5 s] OpenMindServer started on port localhost:50051 Version: 1.10.2.0 Supported devices: Medtronic Summit RC+S Press 'q' key to stop server... </p> <p> OpenMindServer started on port localhost:50051 Version: 1.10.2.0 Supported devices: Medtronic Summit RC+S Press 'q' key to stop server... </p> <p> Passed Startup_PrintsToConsole [1 s] Passed ConfigureBeep_ErrorEncountered_ReturnsError [5 s] { "name": "//summit/bridge/foo/device/foo", "error": { "errorType": "API_ERROR", "message": "NoError", "txTime": "2022-11-17T18:57:12.573098800Z", "rxTime": "2022-11-17T18:57:12.573098800Z", "linkStatus": "AA==" } } </p> <p> Passed ConfigureBeep_InvalidRequest_ReturnsError [83 ms] Passed ConfigureBeep_ValidRequestParameter_ReturnsSuccess [29 ms] Passed ConfigureSense_DisabledTimeDomainStream_SetsSampleRateToDisabled [338 ms] Passed ConfigureSense_NullRequestParameter_ReturnsFailure [20 ms] Passed ConfigureSense_NullRequestParametersObject_ReturnsFailure [25 ms] </p> |
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| <p> Passed ConfigureSense_PowerBandConfigurationCountIncorrect_ReturnsFailure [18 ms] Passed ConfigureSense_PowerBandEnablesCountIncorrect_ReturnsFailure [51 ms] Passed ConfigureSense_ValidConfiguration_Success [639 ms] Passed ConfigureSense_WriteSensingFftSettingsReject_ReturnsFailure [25 ms] Passed ConnectedBridges_WithBridges_ReturnsBridges [25 ms] Passed ConnectedBridges_WithNoBridges_ReturnsNoBridges [22 ms] Passed ConnectedBridges_WithQuery_ReturnsFiltered [14 ms] Passed ConnectToDevice_NoDeviceSpecified_NullConnectSuccess [67 ms] Passed ConnectionMonitoring_DisconnectionEventReceived_ReconnectionCTMAttemptsExceeded [20 s] Passed ConnectionMonitoring_DisconnectionEventReceived_ReconnectionINSAttemptsExceeded [15 s] Passed ConnectionMonitoring_DisconnectionEventReceived_ReconnectionSucceeded [5 s] Passed ConnectionMonitoring_DisconnectionEventReceivedSummitDisposed_Notify [137 ms] Passed ConnectionMonitoring_DisconnectionEventReceivedSummitNotDisposed_Notify [162 ms] Passed ConnectionStatusStream_AlreadyConnected_ReturnsEmpty [119 ms] Passed ConnectionStatusStream_ConnectedDisableStream_EndsStream [132 ms] Passed ConnectionStatusStream_EnableStreamRequest_ReturnsStream [132 ms] Passed ConnectionStatusStream_NoCachedConnection_ReturnsEmpty [28 ms] Passed ConnectToBridge_CachedConnectionIsDisposed_ReturnsSuccess [23 ms] Passed ConnectToBridge_CachedConnectionNotDisposed_ReturnsSuccess [24 ms] Passed ConnectToBridge_NoCachedConnectionConnectFails_ReturnsError [19 ms] Passed ConnectToBridge_NoCachedConnectionRepoSuccess_ReturnsSuccess [28 ms] Passed ConnectToBridge_NoDiscoveredBridgeRequest_ReturnsError [19 ms] Passed ConnectToDevice_CachedDeviceConnect_ReturnsConnectStatus [21 ms] </p> |
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| <p> Passed ConnectToDevice_NoConnectedBridge_ReturnsError [21 ms] Passed ConnectToDevice_RequestedDeviceNotCached_ReturnsError [20 ms] Passed CreateAdaptiveDataStream_AlreadyConnected_ReturnsEmpty [119 ms] Passed CreateAdaptiveDataStream_ConnectedDisableStream_EndsStream [124 ms] Passed CreateAdaptiveDataStream_EnableStreamRequestData_ReturnsStream [173 ms] Passed CreateAdaptiveDataStream_NoCachedConnection_ReturnsEmpty [26 ms] Passed CreateBandPowerDataStream_AlreadyConnected_ReturnsEmpty [123 ms] Passed CreateBandPowerDataStream_ConnectedDisableStream_EndsStream [131 ms] Passed CreateBandPowerDataStream_EnableStreamRequestData_ReturnsStream [145 ms] Passed CreateBandPowerDataStream_NoCachedConnection_ReturnsEmpty [27 ms] Passed CreateEchoDataStream_AlreadyConnected_ReturnsEmpty [119 ms] Passed CreateEchoDataStream_ConnectedDisableStream_EndsStream [129 ms] Passed CreateEchoDataStream_EnableStreamRequestData_ReturnsStream [138 ms] Passed CreateEchoDataStream_NoCachedConnection_ReturnsEmpty [19 ms] Passed CreateFourierDataStream_AlreadyConnected_ReturnsEmpty [123 ms] Passed CreateFourierDataStream_ConnectedDisableStream_EndsStream [128 ms] Passed CreateFourierDataStream_EnableStreamRequestData_ReturnsStream [147 ms] Passed CreateFourierDataStream_NoCachedConnection_ReturnsEmpty [26 ms] Passed CreateInertialDataStream_AlreadyConnected_ReturnsEmpty [117 ms] Passed CreateInertialDataStream_ConnectedDisableStream_EndsStream [127 ms] Passed CreateInertialDataStream_EnableStreamRequestData_ReturnsStream [180 ms] Passed CreateInertialDataStream_NoCachedConnection_ReturnsEmpty [22 ms] Passed CreateLoopDataStream_AlreadyConnected_ReturnsEmpty [121 ms] </p> |
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| <p> Passed CreateLoopDataStream_ConnectedDisableStream_EndsStream [132 ms] Passed CreateLoopDataStream_EnableStreamRequestData_ReturnsStream [125 ms] Passed CreateLoopDataStream_NoCachedConnection_ReturnsEmpty [24 ms] Passed CreateTimeDomainDataStream_AlreadyConnected_ReturnsEmpty [125 ms] Passed CreateTimeDomainDataStream_ConnectedDisableStream_EndsStream [130 ms] Passed CreateTimeDomainDataStream_EnableStreamRequest_ReturnsStream [143 ms] Passed CreateTimeDomainDataStream_NoCachedConnection_ReturnsEmpty [21 ms] Passed DescribeBridge_DoesNotExist_ReturnsError [22 ms] Passed DescribeBridge_ErrorFromAPI_ReturnsErrorEmptyDetails [24 ms] Passed DescribeBridge_NoErrorFromAPI_ReturnsDetails [19 ms] Passed DeviceStatus_DeviceDoesNotExist_ReturnsError [23 ms] Passed DeviceStatus_WithSuccessfulRead_ReturnsBatteryStatus [24 ms] Passed DeviceStatus_WithUnsuccessfulRead_ReturnsNullBatteryLevels [22 ms] Passed DisconnectFromBridge_DisposesSummit [23 ms] Passed DisconnectFromDevice_DisposesSummit [22 ms] Passed Info_Service_InspectRepository [21 ms] Passed Info_Service_SupportedDevices [22 ms] Passed Info_Service_VersionNumber [18 ms] Passed LeadIntegrityTest_NoError_ReturnsLeadList [27 ms] Passed LeadIntegrityTest_OutofRangeLeadValues_ReturnsError [20 ms] Passed LeadIntegrityTest_SameLeadValues_ReturnsZero [24 ms] Passed ListBridges_WithDuplicateBridges_ReturnsUnique [19 ms] Passed ListBridges_WithNoBridges_ReturnsNoBridges [21 ms] </p> |
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| <p> Passed ListBridges_WithQuery_ReturnsFiltered [18 ms] Passed ListDevices_WithDeviceSuccess_ReturnsDeviceList [30 ms] Passed ListDevices_WithNoDevices_ReturnsNoDevices [19 ms] Passed ListDevices_WithSameDeviceConnectedAlready_ReturnsMedtronicError [21 ms] Passed MultipleConnections_OneClientTwoDevices_ConnectionRequestsSuccess [21 ms] NUnit Adapter 4.0.0.0: Test execution complete Passed MultipleConnections_TwoClientOneDevice_ConnectionRequestsSuccess [23 ms] Passed MultipleConnections_TwoClientTwoDevices_ConnectionRequestsSuccess [20 ms] Passed Shutdown_DisposesManager [1 ms] Passed StreamDisable_ErrorEncountered_ReturnsFailure [27 ms] Passed StreamDisable_InvalidRequestParameter_ReturnsUnknown [17 ms] Passed StreamDisable_ValidRequestParameter_ReturnsSuccess [23 ms] Passed StreamEnable_ErrorEncountered_ReturnsFailure [20 ms] Passed StreamEnable_InvalidRequestParameter_ReturnsUnknown [20 ms] Passed StreamEnable_ValidRequestParameter_ReturnsSuccess [19 ms] </p> <p> Test Run Successful. Total tests: 92 Passed: 92 Total time: 1.3951 Minutes 1>Done Building Project "D:\a\OmniSummitDeviceService\OmniSummitDeviceService\OmniSummitDeviceService.sln" (VSTest target(s)). </p> |
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| | <pre>3>Done Building Project "D:\a\OmniSummitDeviceService\OmniSummitDeviceService\OmniSummitDeviceService.UnitTests\OmniSummit DeviceService.UnitTests.csproj" (VSTest target(s)). Build succeeded. 0 Warning(s) 0 Error(s) Time Elapsed 00:01:28.04</pre> |
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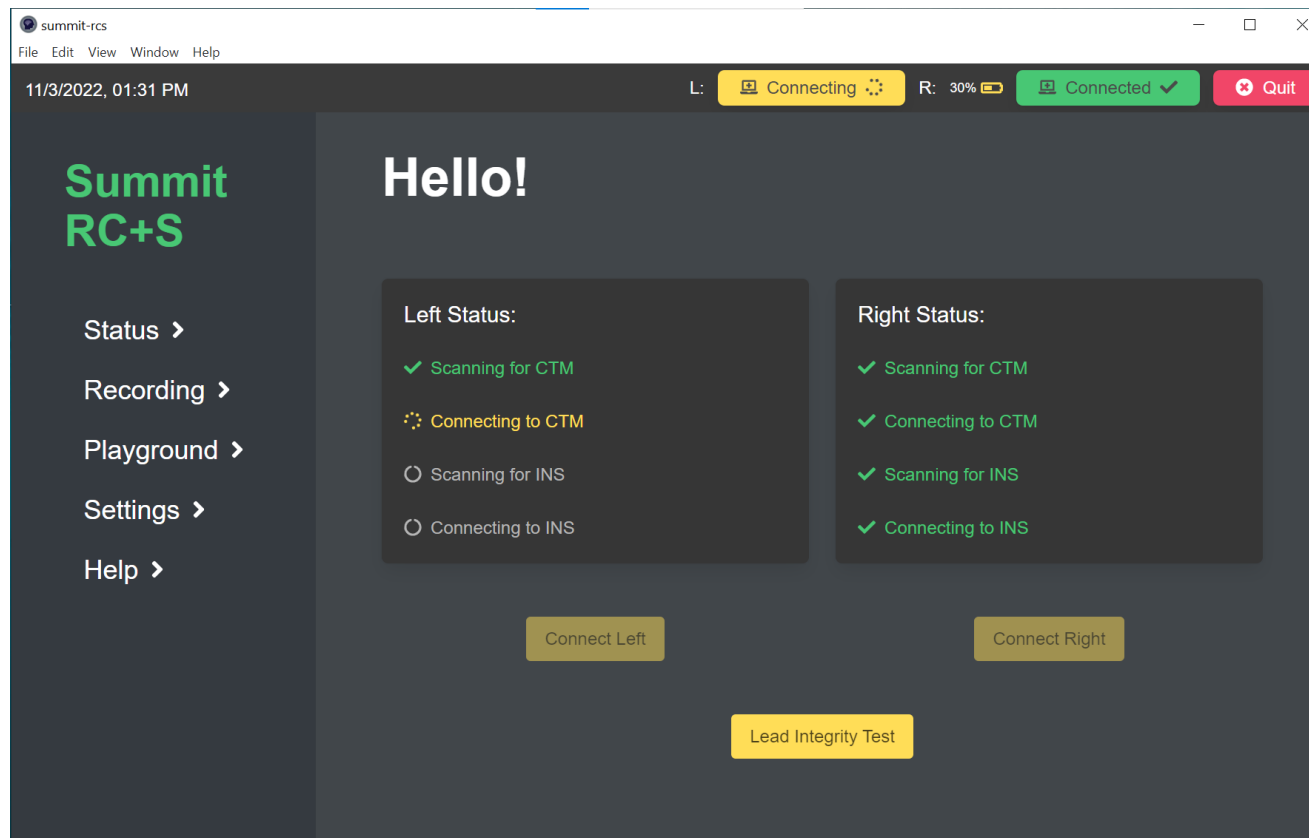
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Appendix 2: Evidence of Demonstration Test Results

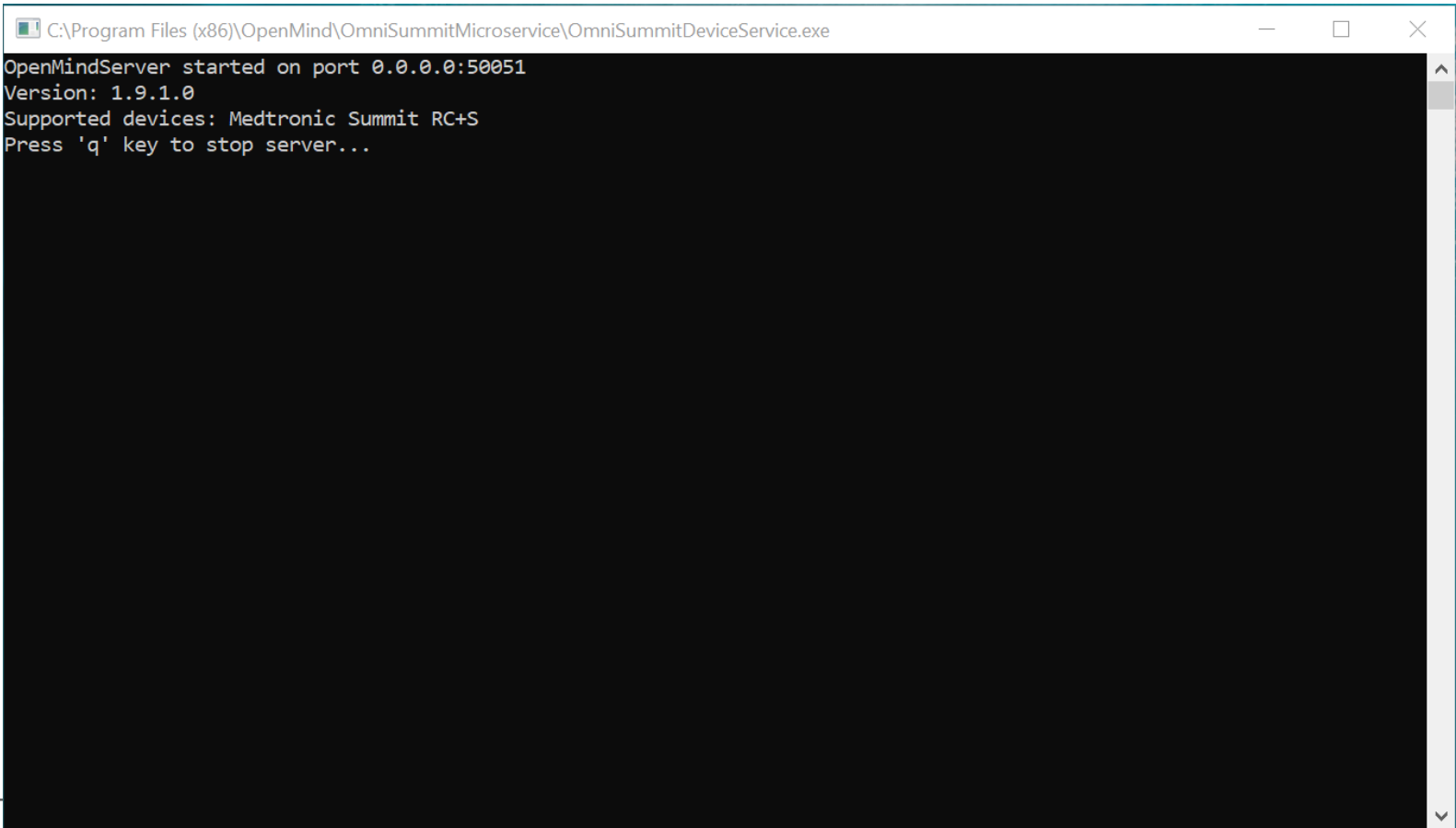
| Req # | Evidence |
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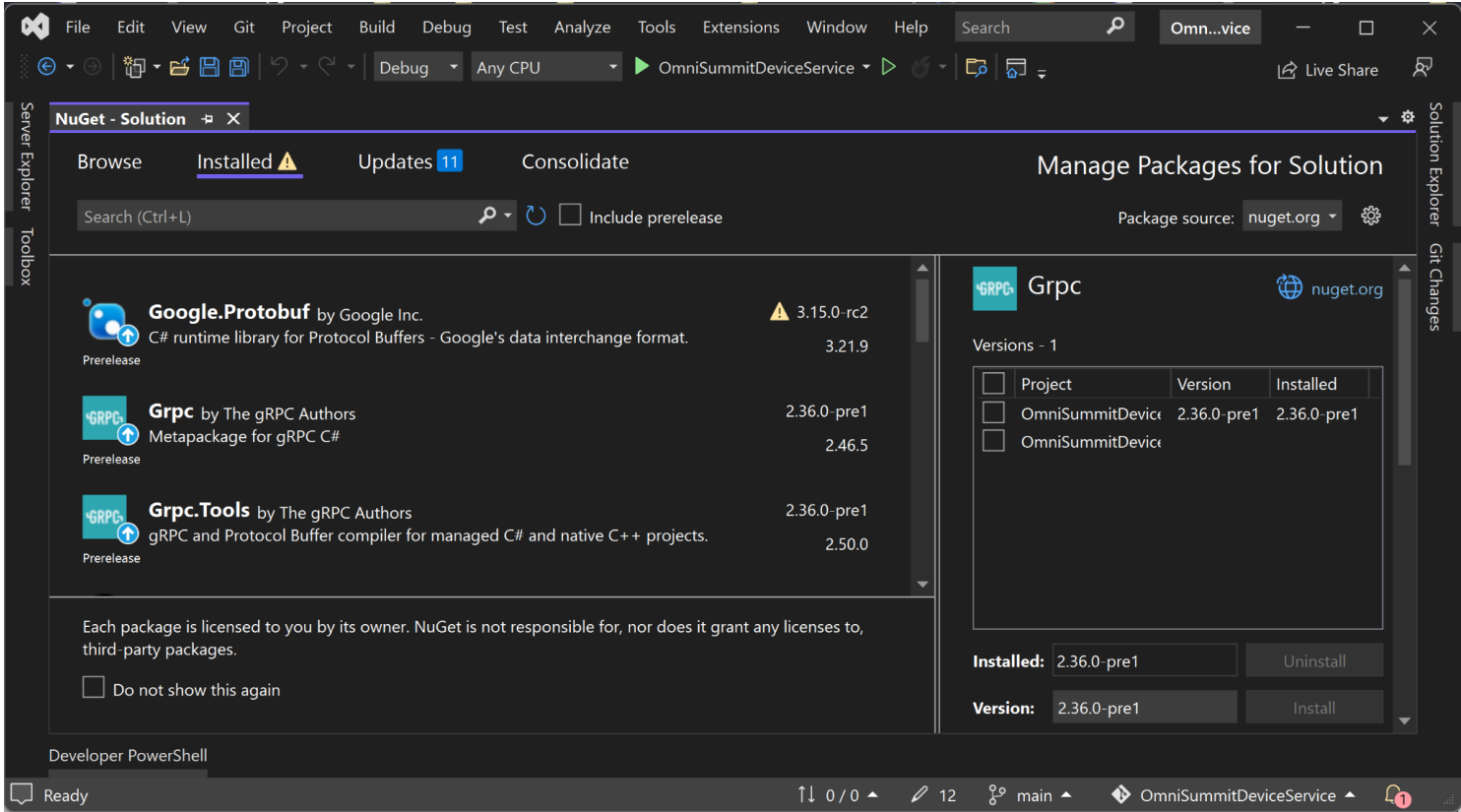


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| 7.1 |  <pre>C:\Program Files (x86)\OpenMind\OmniSummitMicroservice\OmniSummitDeviceService.exe OpenMindServer started on port 0.0.0.0:50051 Version: 1.9.1.0 Supported devices: Medtronic Summit RC+S Press 'q' key to stop server...</pre> |
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