ODU High Status

Updated: 17 Nov 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-357 - Done
  - Study for creation of multiple bearers
- https://jira.o-ran-sc.org/browse/ODUHIGH-365 - Done
  - Study and Design for Requirements [3gpp functionality for slicing support]
- https://jira.o-ran-sc.org/browse/ODUHIGH-366 - Done
  - Support for more than one DRB in UE context Setup Request
- https://jira.o-ran-sc.org/browse/ODUHIGH-358 - In Progress
  - Study and Design for Requirements for 3gpp functionality for slicing support
- https://jira.o-ran-sc.org/browse/ODUHIGH-359 - Done
  - Support to add and modify more than one DRB in UE context Mod Request
- https://jira.o-ran-sc.org/browse/ODUHIGH-362 - Done
  - Feature study and design for HARQ
- https://jira.o-ran-sc.org/browse/ODUHIGH-369 - Done
  - Support for multiple UE
- https://jira.o-ran-sc.org/browse/ODUHIGH-377 - Done
  - As an O-DU L2 developer, I want to understand the RRM policy application in Scheduler to support RAN Slicing
- https://jira.o-ran-sc.org/browse/ODUHIGH-368 - Done
  - Support to implement O-DU Scheduler algorithm for scheduling DL packet as per RRM policy
- https://jira.o-ran-sc.org/browse/ODUHIGH-371 - Done
  - As an O-DU L2 developer, I want to implement slice Information/Mapping to RLC DB
- https://jira.o-ran-sc.org/browse/ODUHIGH-375 - to be started
  - As an O-DU L2 developer, I want to implement automatic PRB allocation per UL slot using Bitmap
- https://jira.o-ran-sc.org/browse/ODUHIGH-379 - to be started
  - As an O-DU L2 developer, I want to implement SMO/O1 sends REconfiguration with Optimized RRM Policy
- https://jira.o-ran-sc.org/browse/ODUHIGH-376 - Done
  - As an O-DU L2 developer, I want to implement application of slice configuration received over O1 interface
- https://jira.o-ran-sc.org/browse/ODUHIGH-370 - Done
  - As an O-DU L2 developer, I want to implement automatic PRB allocation per DL slot using Bitmap
- https://jira.o-ran-sc.org/browse/ODUHIGH-380 - Done
  - As an O-DU L2 developer, I want to implement slice Information/Mapping to RLC DB
- https://jira.o-ran-sc.org/browse/ODUHIGH-381 - Done
  - As an O-DU L2 developer, I want to add and modify more than one DRB in UE context
- https://jira.o-ran-sc.org/browse/ODUHIGH-383 - In Progress
  - Cell and Network slicing configuration over O1
- https://jira.o-ran-sc.org/browse/ODUHIGH-384 - In Progress
  - VES PM data for slicing use case

Updates from HCL:

- https://jira.o-ran-sc.org/browse/ODUHIGH-362
  - Finalizing cell configuration parameters - In Progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-376
  - Cell and Network slicing configuration over O1 - In Progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-384
  - VES PM data for slicing use case - In Progress

Dependency/Blockers:

Blocked for PTP grandmaster at OSC lab to start the end to end integration activities

Updated: 20 Oct 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-357 - Done
  - Study for creation of multiple bearers
- https://jira.o-ran-sc.org/browse/ODUHIGH-365 - Done
- Study and Design for Requirements for 3gpp functionality for slicing support
  - https://jira.o-ran-sc.org/browse/ODUHIGH-366 - Done
- Study and Design for Requirements [3gpp functionality for slicing support]
  - https://jira.o-ran-sc.org/browse/ODUHIGH-358 - Done
- Support for more than one DRB in UE context Setup Request
  - https://jira.o-ran-sc.org/browse/ODUHIGH-369 - In Progress
- Support for Slice Configuration (3gpp functionalities)
  - https://jira.o-ran-sc.org/browse/ODUHIGH-356 - In Progress
- Feature study and design for HARQ
  - https://jira.o-ran-sc.org/browse/ODUHIGH-359 - In Progress
- Support to add and modify more than one DRB in UE context Mod Request
  - https://jira.o-ran-sc.org/browse/ODUHIGH-377 - Done
  - As an O-DU L2 developer, I want to understand the RRM policy application in Scheduler to support RAN Slicing
  - https://jira.o-ran-sc.org/browse/ODUHIGH-368 - Done
- Slice information associated during PDU session establishment procedure
  - As an O-DU L2 developer, I want to support Slice related Configuration
  - https://jira.o-ran-sc.org/browse/ODUHIGH-381 - WIP
  - As an O-DU L2 developer, I want to implement O-DU Scheduler algorithm for scheduling DL packet as per RRM policy
  - https://jira.o-ran-sc.org/browse/ODUHIGH-371 - WIP
  - As an O-DU L2 developer, I want to implement slice Information/Mapping to RLC DB
  - https://jira.o-ran-sc.org/browse/ODUHIGH-380 - WIP
  - As an O-DU L2 developer, I want to implement automatic PRB allocation per DL slot using Bitmap
  - https://jira.o-ran-sc.org/browse/ODUHIGH-385 - WIP
  - As an O-DU L2 developer, I want to implement automatic PRB allocation per UL slot using Bitmap
  - https://jira.o-ran-sc.org/browse/ODUHIGH-375 - to be started
  - As an O-DU L2 developer, I want to implement application of slice configuration received over O1 interface
  - https://jira.o-ran-sc.org/browse/ODUHIGH-378 - to be started
  - As an O-DU L2 developer, I want to implement UL/DL Throughput calculation Per Slice
  - https://jira.o-ran-sc.org/browse/ODUHIGH-379 - to be started
  - As an O-DU L2 developer, I want to implement SMO/O1 sends REconfiguration with Optimized RRM Policy

Updates from HCL:

- https://jira.o-ran-sc.org/browse/ODUHIGH-362
  - Finalizing cell configuration parameters - In Progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-383
  - Cell and Network slicing configuration over O1 - In Progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-384
  - VES PM data for slicing use case - In Progress

Dependency/Blockers:

Blocked for PTP grandmaster at OSC lab to start the end to end integration activities

Updated: 15th Sept 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-357 - Done
  - Study for creation of multiple bearers
  - https://jira.o-ran-sc.org/browse/ODUHIGH-365 - Done
  - Study and Design for Requirements for 3gpp functionality for slicing support
  - https://jira.o-ran-sc.org/browse/ODUHIGH-366 - Done
  - Study and Design for Requirements [3gpp functionality for slicing support]
  - https://jira.o-ran-sc.org/browse/ODUHIGH-358 - Done
  - Support for more than one DRB in UE context Setup Request
  - https://jira.o-ran-sc.org/browse/ODUHIGH-369 - In Progress
  - Support for Slice Configuration (3gpp functionalities)
  - https://jira.o-ran-sc.org/browse/ODUHIGH-356 - In Progress
  - Feature study and design for HARQ
  - https://jira.o-ran-sc.org/browse/ODUHIGH-359 - In Progress
  - Support to add and modify more than one DRB in UE context Mod Request
  - https://jira.o-ran-sc.org/browse/ODUHIGH-377 - Done
  - As an O-DU L2 developer, I want to understand the RRM policy application in Scheduler to support RAN Slicing
  - https://jira.o-ran-sc.org/browse/ODUHIGH-368 - Done
  - Slice information associated during PDU session establishment procedure

Updates from HCL:
Finalizing cell configuration parameters - In Progress
Cell and Network slicing configuration over O1 - In Progress
VES PM data for slicing use case - In Progress

Dependency/Blockers:
Blocked for PTP grandmaster at OSC lab to start the end to end integration activities

Updated: 7th July 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Basic code changes complete. Testing in progress for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-284 - Done
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-285 - Done
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress will be continued in E release
- https://jira.o-ran-sc.org/browse/ODUHIGH-286 - Done
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress will be continued in E release (Irrespective of FDD or TDD stack)
- https://jira.o-ran-sc.org/browse/ODUHIGH-299 - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress. Basic configuration is agreed to support CLA use case.
    - Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified. Call flow updated at
      https://wiki.o-ran-sc.org/display/RSAC/Closed+Loop+Automation+Call+Flow+-+O-DU+High+APIs.
    - UE delete functionality complete
    - Cell delete functionality complete
    - Issue with mis-coordination between cell delete and DL RRC message, resolved.
    - Code changes for CU Interaction is completed
    - Code changes for Config update over F1 interface is completed
    - O1 Integration for O-DU for CLA is completed ( Cell stop and Cell restart)
  - Blocker : code segmentation is observed, analysis is going on (code optimization is required to be scoped in E release)
- https://jira.o-ran-sc.org/browse/ODUHIGH-267 - Done
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
    - SSB transmission successful
    - Debugging issue with Sib1 transmission, PDCCH is received but no PDSCH seen at O-DU low.
    - PDSCH for SIB1 is detected at L1 but L1 does not process it. Pointer is to check the PDSCH PDU parameters
    - Further debug sessions needed to close the ongoing issues.
    - There is no breakthrough even after several debug sessions with O-DU Low
    - SIB1 detection at L1 is successful. PHY.XML is updated with removing the hardware accelerator (<dpdkBasebandFecMode> from 1 to 0 to force the SW encoder)
    - For the CLA usecase, Cell stop request is received from O-DU high to low but O-DU low sends stop indication multiple times. This issue is fixed in L1 later binary 20.08. This binary update will happen in D-maintenance phase.
- https://jira.o-ran-sc.org/browse/ODUHIGH-268 - Done
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU
    - Using Radisys commercial CU as a test fixture
    - New VM configured as per H/W and S/W requirements of Radisys CU
    - The Network interfaces and CentOS version needs to be revisited for the CU machine. This is achieved with limited OSC lab setup.
- https://jira.o-ran-sc.org/browse/ODUHIGH-269 - Done
  - As an O-DU L2 developer, I want to support End to End testing scenarios
    - Testing of broadcast messages at O-RU emulator set to begin
    - Viavi confirmed receiving at O-RU. Needs verification from UE sim.
• Debug session is planned on 23rd June to achieve SSB and SIB1 transmission till UE simulator and then follow with RACH procedure.
• Latest issue: the eCPRI packets differentiation between control plane and user plane through vlan id is supported by Intel, however O-RU support the packet differentiation based on eCPRI packet type. hence the fronthaul transmission validation is blocked.
• Intel shall update the L1 package supporting C/U plane differentiation using eCPRI packet type in the D-release maintainance phase.

Updates from HCL:

- https://jira.o-ran-sc.org/browse/ODUHIGH-247 - Done
  - As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
- https://jira.o-ran-sc.org/browse/ODUHIGH-297 - Done
  - As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
- https://jira.o-ran-sc.org/browse/ODUHIGH-322 - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-327 - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-328 - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-347 - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

  Tested locally with SMO both with IPv4 and IPv6. Able to mount and connect ODU.
  - Integration with SMO in working fine with IPv4 but with IPv6 could not tested as it is not enabled in OSC lab
  - Edit-config testing from SMO to ODU for cell down/up is in completed in OSC lab
- https://jira.o-ran-sc.org/browse/ODUHIGH-349 - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
- Server(VM) configuration (H/W and S/W) to mount Radisys CU as a test fixture.
- Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
- Intel/Viavi to confirm successful decoding of SSB/SIB1 at UE sim (TM500).

Updated: 30th June 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    - Basic code changes complete. Testing in progress for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-264 - Done
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-265 - Done
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress will be continued in E release
- https://jira.o-ran-sc.org/browse/ODUHIGH-266 - Done
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress will be continued in E release (Irrespective of FDD or TDD stack)
- https://jira.o-ran-sc.org/browse/ODUHIGH-299 - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case “Closed loop” is in progress.
    - Basic configuration is agreed to support CLA use case.
    - Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified. Call flow updated at
      https://wiki.o-ran-sc.org/display/RSAC/Closed+Loop+Automation+Call+Flow+---+O-DU+High+APIs.
    - UE delete functionality complete
- Cell delete functionality complete
- Issue with mis-coordination between cell delete and DL RRC message, resolved.
- Code changes for CU Interaction is completed
- Code changes for Config update over F1 interface is completed
- Blocker : code segmentation is observed, analysis is going on (code optimization is required to be scoped in E release)
- As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
  - SSB transmission successful
  - Debugging issue with Sib1 transmission, PDCCH is received but no PDSCH seen at O-DU low.
  - PDSCH for SIB1 is detected at L1 but L1 does not process it. Pointer is to check the PDSCH PDU parameters
  - Further debug sessions needed to close the ongoing issues.
  - There is no breakthrough even after several debug sessions with O-DU Low
  - SIB1 detection at L1 is successful. PHY.XML is updated with removing the hardware accelerator (<cpdkBasebandFecMode> from 1 to 0 to force the SW encoder)
  - For the CLA usecase. Cell stop request is received from O-DU high to low but O-DU low sends stop indication multiple times.
    This issue is fixed in L1 later binary 20.08. This binary update will happen in D-maintenance phase.
- As an O-DU L2 developer, I want to integrate O-DU High with O-CU
  - Using Radosys commercial CU as a test fixture
  - New VM configured as per H/W and S/W requirements of Radosys CU
  - The Network interfaces and CentOS version needs to be revisited for the CU machine.
- SIB1 detection at L1 is successful. PHY.XML is updated with removing the hardware accelerator (<cpdkBasebandFecMode> from 1 to 0 to force the SW encoder)
- As an O-DU L2 developer, I want to add support for Mu-1
  - Code changes at DU APP completed.

Updates from HCL:

- https://jira.o-ran-sc.org/browse/ODUHIGH-50 - Done
- As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
- As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
- As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Basic code changes complete. Testing in progress for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
- As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
- As an O-DU L2 developer, I want to add support for Mu
  - Code changes at DU APP completed.

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
- Server(VM) configuration (H/W and S/W) to mount Radosys CU as a test fixture.
- Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
- Viavi to confirm successful decoding of SSB/SIB1 at UE sim (TM500).

Updated: 23rd June 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
- As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
- As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
- As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Basic code changes complete. Testing in progress for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
- As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-264 - Done
- As an O-DU L2 developer, I want to add support for Mu
• Resource allocation for SSB to msg5 completed
• Code changes for UE registration flow in progress
• Updates to k0, k1, k2 in progress

https://jira.o-ran-sc.org/browse/ODUHIGH-265 - Done
• As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
• Code changes at DU APP completed.
• Resource allocation for SSB to msg5 completed
• Code changes for UE registration flow in progress
• Updates to k0, k1, k2 in progress will be continued in E release

https://jira.o-ran-sc.org/browse/ODUHIGH-266 - Done
• As an O-DU L2 developer, I want to add support for TDD mode
• Code changes at DU APP completed.
• Resource allocation for SSB to msg5 completed
• Code changes for UE registration flow in progress
• Updates to k0, k1, k2 in progress will be continued in E release (Irrespective of FDD or TDD stack)

https://jira.o-ran-sc.org/browse/ODUHIGH-299 - Done
• As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
  - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
  - Basic configuration is agreed to support CLA use case.
  - Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified. Call flow updated at
    https://wiki.o-ran-sc.org/display/RSAC/Closed+Loop+Automation+Call+++-+O-DU+High+APIs.
• UE delete functionality complete
• Cell delete functionality complete
• Issue with mis-coordination between cell delete and DL RRC message, resolved.
• Code changes for CU Interaction is completed
• Code changes for Config update over F1 interface is completed
• O1 Integration for O-DU for CLA is completed (Cell stop and Cell restart)
• Blocker : code segmentation is observed, analysis is going on (code optimization is required to be scoped in E release)

https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
• As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
  - SSB transmission successful
  - Debugging issue with Sib1 transmission, PDCCH is received but no PDSCH seen at O-DU low.
  - PDSCH for SIB1 is detected at L1 but L1 does not process it. Pointer is to check the PDSCH PDU parameters
  - Further debug sessions needed to close the ongoing issues.
  - There is no breakthrough even after several debug sessions with O-DU Low
  - SIB1 detection at L1 is successful. PHY.XML is updated with removing the hardware accelerator (<dpdkBasebandFecMode>
  - from 1 to 0 to force the SW encoder)

https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
• As an O-DU L2 developer, I want to support End to End testing scenarios
  - Testing of broadcast messages at O-RU emulator set to begin
  - Viavi confirmed receiving at O-RU. Needs verification from UE sim.
  - Debug session is planned on 23rd June to achieve SSB and SIB1 transmission till UE simulator and then follow with RACH
    procedure.

https://jira.o-ran-sc.org/browse/ODUHIGH-269 - WIP
• As an O-DU L2 developer, I want to support End to End testing scenarios
  - Testing of broadcast messages at O-RU emulator set to begin
  - Viavi confirmed receiving at O-RU. Needs verification from UE sim.
  - Debug session is planned on 23rd June to achieve SSB and SIB1 transmission till UE simulator and then follow with RACH
    procedure.

Updates from HCL:

https://jira.o-ran-sc.org/browse/ODUHIGH-247 - Done
• As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM

https://jira.o-ran-sc.org/browse/ODUHIGH-297 - Done
• As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM

https://jira.o-ran-sc.org/browse/ODUHIGH-322 - Done
• As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

https://jira.o-ran-sc.org/browse/ODUHIGH-327 - Done
• As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

https://jira.o-ran-sc.org/browse/ODUHIGH-328 - Done
• As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

https://jira.o-ran-sc.org/browse/ODUHIGH-347 - WIP
• As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
  - Tested locally with SMO both with IPv4 and IPv6. Able to mount and connect ODU.
  - Integration with SMO in working fine with IPv4 but with IPv6 could not tested as it is not enabled in OSC lab
  - Integration with O-DU code for cell down and up scenario is completed, validation is completed
  - Edit-config testing from SMO to ODU for cell down/up is in progress in OSC lab

Dependency/Blockers:

• O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state
  shall be supported initially. Use admin state as unlocked to validate the RU link failure.
• Server(VM) configuration (H/W and S/W) to mount Radisys CU as a test fixture.
• Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
• Viavi to confirm successful decoding of SSB/SIB1 at UE sim (TM500).
Updated: 16th June 2021

JIRA: Epics Status below:

- **https://jira.o-ran-sc.org/browse/ODUHIGH-184** - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- **https://jira.o-ran-sc.org/browse/ODUHIGH-185** - Done
  - As an O-DU L2 developer, I want to implement single UE data path and bench-marking
- **https://jira.o-ran-sc.org/browse/ODUHIGH-186** - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    - Basic code changes complete. Testing in progress for data path
- **https://jira.o-ran-sc.org/browse/ODUHIGH-187** - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    - Basic code changes complete. Testing to be done for data path
- **https://jira.o-ran-sc.org/browse/ODUHIGH-264** - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Resource allocation for SSBL to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress
- **https://jira.o-ran-sc.org/browse/ODUHIGH-265** - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Resource allocation for SSBL to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress
- **https://jira.o-ran-sc.org/browse/ODUHIGH-266** - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Resource allocation for SSBL to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress
- **https://jira.o-ran-sc.org/browse/ODUHIGH-299** - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
    - Basic configuration is agreed to support CLA use case.
    - Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified. Call flow updated at
      https://wiki.o-ran-sc.org/display/RSAC/Closed+Loop+Automation+Call+Flow+-+O-DU+High+APIs.
    - UE delete functionality complete
    - Cell delete functionality complete
    - Issue with mis-coordination between cell delete and DL RRC message, resolved.
    - Code changes for CU Interaction is completed
    - Code changes for Config update over F1 interface is completed
- **https://jira.o-ran-sc.org/browse/ODUHIGH-267** - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
    - SSB transmission successful
    - Debugging issue with Sib1 transmission , PDCCH is received but no PDSCH seen at O-DU low.
    - PDSCH for SIB1 is detected at L1 but L1 does not process it. Pointer is to check the PDSCH PDU parameters
    - Further debug sessions needed to close the ongoing issues.
    - There is no breakthrough even after several debug sessions with O-DU Low
- **https://jira.o-ran-sc.org/browse/ODUHIGH-268** - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU
    - Using Radisys commercial CU as a test fixture
    - New VM configured as per H/W and S/W requirements of Radisys CU
    - The Network interfaces and CentOS version needs to be revisited for the CU machine.
- **https://jira.o-ran-sc.org/browse/ODUHIGH-269** - WIP
  - As an O-DU L2 developer, I want to support End to End testing scenarios
    - Testing of broadcast messages at O-RU emulator set to begin
    - Viavi confirmed receiving at O-RU. Needs verification from UE sim.

Updates from HCL:

- **https://jira.o-ran-sc.org/browse/ODUHIGH-247** - Done
  - As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
- **https://jira.o-ran-sc.org/browse/ODUHIGH-297** - Done
  - As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
- **https://jira.o-ran-sc.org/browse/ODUHIGH-322** - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- **https://jira.o-ran-sc.org/browse/ODUHIGH-327** - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- **https://jira.o-ran-sc.org/browse/ODUHIGH-328** - Done
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- **https://jira.o-ran-sc.org/browse/ODUHIGH-347** - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Testing locally with SMO is in progress
    - Looking into IPv6 related configuration issue
    - Integration with O-DU code for cell down and up scenario is completed, validation in progress
Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
- Server(VM) configuration (H/W and S/W) to mount Radisys CU as a test fixture.
- Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
- SIB1 PDSCH is detected at L1 but cannot be processed at L1. Debug sessions to be continued to address this. This is blocker to achieve radio mode integration.
- Viavi to confirm successful decoding of SSB at UE sim (TM500).

Updated: 9th June 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    - Basic code changes complete. Testing in progress for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in UL
    - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Resource allocation for SSB to msg5 completed
    - Code changes for UE registration flow in progress
    - Updates to k0, k1, k2 in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
    - Basic configuration is agreed to support CLA use case.
    - Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified. Call flow updated at
      https://wiki.o-ran-sc.org/display/RSAC/Closed+Loop+Automation+Call+Flow+---+O-DU+High+APIs.
    - UE delete functionality complete
    - Cell delete functionality complete
    - Issue with mis-coordination between cell delete and DL RRC message, resolved.
    - Code changes for CU Interaction under review
    - Code changes for Config update over F1 interface is completed
- https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
    - SSB transmission successful
    - Debugging issue with Sib1 transmission , PDCCH is received but no PDSCH seen at O-DU low.
    - PDSCH for SIB1 is detected at L1 but L1 does not process it. Pointer is to check the PDSCH PDU parameters
    - Further debug sessions needed to close the ongoing issues.
- https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU
    - Using Radisys commercial CU as a test fixture
    - New VM configured as per H/W and S/W requirements of Radisys CU
    - The Network interfaces and CentOS version needs to be revisited for the CU machine.
- https://jira.o-ran-sc.org/browse/ODUHIGH-269 - WIP
  - As an O-DU L2 developer, I want to support End to End testing scenarios
    - Testing of broadcast messages at O-RU emulator set to begin
    - Viavi confirmed receiving at O-RU. Needs verification from UE sim.

Updates from HCL:

- https://jira.o-ran-sc.org/browse/ODUHIGH-247 - Done
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
- https://jira.o-ran-sc.org/browse/ODUHIGH-297 - Done
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
- https://jira.o-ran-sc.org/browse/ODUHIGH-322 - Done
As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

- https://jira.o-ran-sc.org/browse/ODUHIGH-327 - Done

As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

- https://jira.o-ran-sc.org/browse/ODUHIGH-328 - WIP

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
- Server(VM) configuration (H/W and S/W) to mount Radisys CU as a test fixture.
- Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
- SIB1 PDSCH is detected at L1 but cannot be processed at L1. Debug sessions to be continued to address this.
- Viavi to confirm successful decoding of SSB at UE sim (TM500).

Updated: 2nd June 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking

- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking

- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Basic code changes complete. Testing in progress for data path

- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - Basic code changes complete. Testing to be done for data path

- https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
  - Code changes at DU APP completed.
  - Resource allocation for SSB to msg5 completed
  - Code changes for UE registration flow in progress
  - Updates to k0, k1, k2 in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
  - Code changes at DU APP completed.
  - Resource allocation for SSB to msg5 completed
  - Code changes for UE registration flow in progress
  - Updates to k0, k1, k2 in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
  - Code changes at DU APP completed.
  - Resource allocation for SSB to msg5 completed
  - Code changes for UE registration flow in progress
  - Updates to k0, k1, k2 in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
  - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
  - Basic configuration is agreed to support CLA use case.
  - Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified. Call flow updated at
    https://wiki.o-ran-sc.org/display/RSAC/Closed+Loop+Automation+Call+Flow++O-DU+High+APIs.
  - UE delete functionality complete
  - Cell delete functionality complete
  - Issue with mis-coordination between cell delete and DL RRC message, resolved.
  - Code changes for CU Interaction under review

- https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
  - SSB transmission successful
  - Debugging issue with Sib1 transmission , PDCCH is received but no PDSCH seen at O-DU low.
  - Awaiting inputs from Intel

- https://jira.o-ran-sc.org/browse/ODUHIGH-269 - WIP
  - As an O-DU L2 developer, I want to support End to End testing scenarios
  - Testing of broadcast messages at O-RU emulator set to begin
  - Viavi confirmed receiving at O-RU. Needs verification from UE sim.

Updates from HCL:

- https://jira.o-ran-sc.org/browse/ODUHIGH-247 - Done
  - As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM

As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

Edit-config implementation for o-ran-sc-du-hello-world YANG (admin state changes), in review
Integration with O-DU code for cell down and up scenario in progress
Integration testing with OAM in progress

O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
SIB1 PDSCH reached L1 but cannot be observed in logs. Awaiting response from Intel.
Viavi to confirm successful decoding of SSB at UE sim (TM500).

Updated: 26th May 2021

JIRA: Epics Status below:

As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
As an O-DU L2 developer, I want to add support for 4QAM modulation scheme in DL
Basic code changes complete. Testing in progress for data path
As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
Basic code changes complete. Testing to be done for data path
As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
Code changes at DU APP completed.
Resource allocation for SSB and SIB1 completed
Msg1 to msg4 changes completed.
Resource table optimization in process
Reviewing other layers for relevant changes
Code changes for UE registration flow in progress
As an O-DU L2 developer, I want to add support for TDD mode
Code changes at DU APP completed.
Resource allocation for SSB and SIB1 completed
Msg1 to msg4 changes completed.
Resource table optimization in process
Reviewing other layers for relevant changes
Code changes for UE registration flow in progress
As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress. Basic configuration is agreed to support CLA use case.
Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified.
UE delete functionality complete
Cell delete functionality complete
Issue with mis-coordination between cell delete and DL RRC message, resolved.
Code changes for CU Interaction under review
As an O-DU L2 developer, I want to integrate O-DU High with O-CU
Using Radisys commercial CU as a test fixture
New VM to be configured as per H/W and S/W requirements of Radisys CU

JIRA: Features Status below:

Discussions on the O-DU PNF Registration and Activation process is ongoing.
As an O-DU L2 developer, I want to support End to End testing scenarios
  • Testing of broadcast messages at O-RU emulator set to begin
  • Awaiting input from Viavi

Updates from HCL:

- https://jira.o-ran-sc.org/browse/ODUHIGH-247 - Done
  • As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
- https://jira.o-ran-sc.org/browse/ODUHIGH-297 - Done
  • As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
- https://jira.o-ran-sc.org/browse/ODUHIGH-322 - Done
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-327 - Done
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-328 - WIP
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    • Edit-config implementation for o-ran-sc-du-hello-world YANG (admin state changes), is done.
    • Integration with O-DU code for cell down and up scenario in progress
    • Integration testing with OAM in progress

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
- Server(VM) configuration (H/W and S/W) to mount Radisys CU as a test fixture.
- Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
- SIB1 PDSCH reached L1 but cannot be observed in logs. Awaiting response from Intel.
- SSB reached O-RU. awaiting analysis from Viavi.

Updated: 19th May 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  • As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  • As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
- https://jira.o-ran-sc.org/browse/ODUHIGH-247 - Done
  • As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
- https://jira.o-ran-sc.org/browse/ODUHIGH-322 - Done
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-327 - Done
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-328 - WIP
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    • Basic code changes complete. Testing in progress for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  • As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    • Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-248 - WIP
  • As an O-DU L2 developer, I want to add support for Mu1
    • Code changes at DU APP completed.
    • Resource allocation for SSB and SIB1 completed.
    • Msg1 to msg4 changes completed.
    • Resource table optimization in process
    • Reviewing other layers for relevant changes
- https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP
  • As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    • Code changes at DU APP completed.
    • Resource allocation for SSB and SIB1 completed.
    • Msg1 to msg4 changes completed.
    • Resource table optimization in process
    • Reviewing other layers for relevant changes
- https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  • As an O-DU L2 developer, I want to add support for TDD mode
    • Code changes at DU APP completed.
    • Resource allocation for SSB and SIB1 completed.
    • Msg1 to msg4 changes completed.
    • Resource table optimization in process
    • Reviewing other layers for relevant changes
- https://jira.o-ran-sc.org/browse/ODUHIGH-299 - WIP
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    • Discussions on the O-DU PNF Registration and Activation process is ongoing
    • Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
    • Basic configuration is agreed to support CLA use case.
    • Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified.
    • UE delete functionality complete
Cell delete functionality complete
Code changes for CU Interaction under review
https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
  SSB transmission successful
  Debugging issue with Sib1 transmission, PDCH is received but no PDSCH seen at O-DU low.
  Awaiting inputs from Intel

https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
  As an O-DU L2 developer, I want to integrate O-DU High with O-CU
  Using Radisys commercial CU as a test fixture
  New VM to be configured as per H/W and S/W requirements of Radisys CU
  Awaiting inputs from Intel

https://jira.o-ran-sc.org/browse/ODUHIGH-327 - In review
  As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

https://jira.o-ran-sc.org/browse/ODUHIGH-269 - WIP
  As an O-DU L2 developer, I want to support End to End testing scenarios
  Testing of broadcast messages at O-RU emulator set to begin
  Awaiting input from Viavi

https://jira.o-ran-sc.org/browse/ODUHIGH-328 - WIP
  As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
- Server (VM) configuration (H/W and S/W) to mount Radisys CU as a test fixture.
- Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
- SIB1 PDSCH reached L1 but cannot be observed in logs. Awaiting response from Intel.
- SSB reached O-RU, awaiting analysis from Viavi.

Updated: 12th May 2021

JIRA: Epics Status below:

https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking

https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking

https://jira.o-ran-sc.org/browse/ODUHIGH-247 - Done
  As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM

https://jira.o-ran-sc.org/browse/ODUHIGH-297 - Done
  As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM

https://jira.o-ran-sc.org/browse/ODUHIGH-322 - Done
  As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  Basic code changes complete. Testing in progress for data path

https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  Basic code changes complete. Testing to be done for data path

https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP
  As an O-DU L2 developer, I want to add support for Mu1
  Code changes at DU APP completed.
  Resource allocation for SSB and SIB1 completed.
  Tracking RACH allocation in review
  Msg 2 to Msg 4 allocation in review

https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP
  As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
  Code changes at DU APP completed.
  Resource allocation for SSB and SIB1 completed.
  Tracking RACH allocation in review
  Msg 2 to Msg 4 allocation in review

https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  As an O-DU L2 developer, I want to add support for TDD mode
  Code changes at DU APP completed.
  Resource allocation for SSB and SIB1 completed.
  Tracking RACH allocation in review
  Msg 2 to Msg 4 allocation in review

https://jira.o-ran-sc.org/browse/ODUHIGH-299 - WIP
  As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
  Discussions on the O-DU PNF Registration and Activation process is ongoing
  Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
  Basic configuration is agreed to support CLA use case.
  Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified.
  UE delete functionality complete
  Cell delete functionality complete
  Code changes for CU Interaction under review

https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
SSB transmission successful
Debugging issue with Sib1 transmission, PDCCH is received but no PDSCH seen at O-DU low.

https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
  • As an O-DU L2 developer, I want to integrate O-DU High with O-CU
    • Using Radisys commercial CU as a test fixture
    • Awaiting server allocation

https://jira.o-ran-sc.org/browse/ODUHIGH-327 - In review
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

https://jira.o-ran-sc.org/browse/ODUHIGH-269 - WIP
  • As an O-DU L2 developer, I want to support End to End testing scenarios
    • Testing of broadcast messages at O-RU emulator set to begin

https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case

Dependency/Blockers:

• O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
• Server allocation to mount Radisys CU as a test fixture. Bare metal server preferred.
• Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
• SIB1 PDSCH reached L1 but cannot be observed in logs. Awaiting response from Intel.

Updated: 28th April 2021

JIRA: Epics Status below:

https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  • As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking

https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  • As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking

https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  • As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    • Basic code changes complete. Testing in progress for data path

https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  • As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    • Basic code changes complete. Testing to be done for data path

https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP
  • As an O-DU L2 developer, I want to add support for Mu1
    • Code changes at DU APP completed.
    • Resource allocation for SSB and SIB1 completed.
    • RACH allocation in progress

https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP
  • As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    • Code changes at DU APP completed.
    • Resource allocation for SSB and SIB1 completed.
    • RACH allocation in progress

https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  • As an O-DU L2 developer, I want to add support for TDD mode
    • Code changes at DU APP completed.
    • Resource allocation for SSB and SIB1 completed.
    • RACH allocation in progress

https://jira.o-ran-sc.org/browse/ODUHIGH-269 - WIP
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    • Discussions on the O-DU PNF Registration and Activation process is ongoing
    • Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case “Closed loop” is in progress.
    • Basic configuration is agreed to support CLA use case.
    • Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified.
    • UE delete functionality complete
    • Cell delete functionality under review
    • Code changes for CU Interaction under review

https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  • As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
    • SSB transmission successful
    • Debugging issue with Sib1 transmission w.r.t error observed at O-DU Low

https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
  • As an O-DU L2 developer, I want to integrate O-DU High with O-CU
    • Using Radisys commercial CU as a test fixture
    • Awaiting server allocation

https://jira.o-ran-sc.org/browse/ODUHIGH-269 - TODO
  • As an O-DU L2 developer, I want to support End to End testing scenarios

Dependency/Blockers:

• O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
• Server allocation to mount Radisys CU as a test fixture. Bare metal server preferred.
• Unable to use valgrind with Intel libraries. Debugging must be carried out with Alternate methods.
Updated: 21st April 2021

JIRA: Epics Status below:

• [https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done](https://jira.o-ran-sc.org/browse/ODUHIGH-184)
  As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking

• [https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done](https://jira.o-ran-sc.org/browse/ODUHIGH-185)
  As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking

• [https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-186)
  As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  * Basic code changes complete. Testing in progress for data path

• [https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-187)
  As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  * Basic code changes complete. Testing to be done for data path

• [https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-264)
  As an O-DU L2 developer, I want to add support for Mu1
  * Code changes at DU APP completed.
  * Code changes and testing completed for SSB.
  * Resource allocation for SIB1 under review

• [https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-265)
  As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
  * Code changes at DU APP completed.
  * Code changes and testing completed for SSB.
  * Resource allocation for SIB1 under review

• [https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-266)
  As an O-DU L2 developer, I want to add support for TDD mode
  * Code changes at DU APP completed.
  * Code changes and testing completed for SSB.
  * Resource allocation for SIB1 under review

• [https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-267)
  As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
  * Discussions on the O-DU FNF Registration and Activation process is ongoing
  * Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
  * Basic configuration is agreed to support CLA use case.
  * Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified.
  * UE delete functionality under review
  * Cell delete functionality under review
  * Code changes for CU Interaction in progress

• [https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-268)
  As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
  * SSB transmission successful
  * Debugging issue with Sib1 transmission w.r.t symbol allocation/overlapping

• [https://jira.o-ran-sc.org/browse/ODUHIGH-269 - TODO](https://jira.o-ran-sc.org/browse/ODUHIGH-269)
  As an O-DU L2 developer, I want to support End to End testing scenarios

Dependency/Blockers:

• O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially. Use admin state as unlocked to validate the RU link failure.
• Server allocation to mount Radisys CU as a test fixture. Bare metal servers preferred.
• Unable to use valgrind with Intel libraries. Debugging issue with seg fault using Brute Force method.

Updated: 14th April 2021

JIRA: Epics Status below:

• [https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done](https://jira.o-ran-sc.org/browse/ODUHIGH-184)
  As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking

• [https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done](https://jira.o-ran-sc.org/browse/ODUHIGH-185)
  As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking

• [https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-186)
  As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  * Basic code changes complete. Testing in progress for data path

• [https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-187)
  As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  * Basic code changes complete. Testing to be done for data path

• [https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-264)
  As an O-DU L2 developer, I want to add support for Mu1
  * Code changes at DU APP completed.
  * Code changes and testing completed for SSB.
  * Resource allocation for SIB1 under review

• [https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP](https://jira.o-ran-sc.org/browse/ODUHIGH-265)
  As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
  * Code changes at DU APP completed.
  * Code changes and testing completed for SSB.
  * Resource allocation for SIB1 under review
- https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Code changes and testing completed for SSB.
    - Resource allocation for SIB1 under review

- https://jira.o-ran-sc.org/browse/ODUHIGH-299 - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Discussions on the O-DU PNF Registration and Activation process is ongoing
    - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
    - Basic configuration is agreed to support CLA use case.
    - Internal call flow/message sequence between O-CU and O-DU for cell activation and deactivation is clarified.
    - UE delete functionality under review
    - Cell delete functionality under review
    - Code changes for CU Interaction in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
    - SSB transmission successful
    - Debugging issue with Sib1 transmission

- https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU
    - Using Radisys commercial CU as a test fixture
    - Awaiting server allocation

- https://jira.o-ran-sc.org/browse/ODUHIGH-269 - TODO
  - As an O-DU L2 developer, I want to support End to End testing scenarios

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA. However basic configuration e.g. cell state/operational state/admin state shall be supported initially.
- Server allocation to mount Radisys CU as a test fixture. Bare metal server preferred.
- Unable to use valgrind with Intel libraries. Debugging issue with seg fault using Brute Force method.

Updated: 7th April 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking

- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking

- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Basic code changes complete. Testing in progress for data path

- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - Basic code changes complete. Testing to be done for data path

- https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Code changes and testing completed for SSB.
    - Brainstorming for SIB1 in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Code changes and testing completed for SSB.
    - Resource allocation design for SIB1 in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Code changes and testing completed for SSB.
    - Resource allocation design for SIB1 in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-299 - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Discussions on the O-DU PNF Registration and Activation process is ongoing
    - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
    - UE delete functionality under review
    - Cell delete functionality coding in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
    - SSB transmission successful
    - Debugging issue with Sib1 transmission

- https://jira.o-ran-sc.org/browse/ODUHIGH-268 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU
    - Using Radisys commercial CU as a test fixture
    - Awaiting server allocation

- https://jira.o-ran-sc.org/browse/ODUHIGH-269 - TODO
  - As an O-DU L2 developer, I want to support End to End testing scenarios

Dependency/Blockers:
- O1 configuration for day-1 shall need to be completed to start with CLA.
- Server allocation to mount Radisys CU as a test fixture. Bare metal server preferred.
- Unable to use valgrind with Intel libraries. Debugging issue with seg fault using Brute Force method.

Updated: 31st March 2021

JIRA: Epics Status below:

- [https://jira.o-ran-sc.org/browse/ODUHIGH-184](https://jira.o-ran-sc.org/browse/ODUHIGH-184) - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking
- [https://jira.o-ran-sc.org/browse/ODUHIGH-185](https://jira.o-ran-sc.org/browse/ODUHIGH-185) - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking
- [https://jira.o-ran-sc.org/browse/ODUHIGH-186](https://jira.o-ran-sc.org/browse/ODUHIGH-186) - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    - Basic code changes complete. Testing in progress for data path
- [https://jira.o-ran-sc.org/browse/ODUHIGH-187](https://jira.o-ran-sc.org/browse/ODUHIGH-187) - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    - Basic code changes complete. Testing to be done for data path
- [https://jira.o-ran-sc.org/browse/ODUHIGH-264](https://jira.o-ran-sc.org/browse/ODUHIGH-264) - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Code changes and testing completed for SSB.
    - Brainstorming for SIB1 in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-265](https://jira.o-ran-sc.org/browse/ODUHIGH-265) - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Code changes and testing completed for SSB.
    - Resource allocation design for SIB1 in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-266](https://jira.o-ran-sc.org/browse/ODUHIGH-266) - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Code changes and testing completed for SSB.
    - Brainstorming for SIB1 in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-267](https://jira.o-ran-sc.org/browse/ODUHIGH-267) - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Discussions on the O-DU PNF Registration and Activation process is ongoing
    - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
    - UE delete functionality under review
    - Cell delete functionality coding in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-268](https://jira.o-ran-sc.org/browse/ODUHIGH-268) - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
    - SSB transmission successful
    - Debugging issue with Sib1 transmission
- [https://jira.o-ran-sc.org/browse/ODUHIGH-269](https://jira.o-ran-sc.org/browse/ODUHIGH-269) - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU
    - Using Radisys commercial CU as a test fixture
    - Awaiting server allocation

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA.
- Server allocation to mount Radisys CU as a test fixture. Bare metal server preferred.

Updated: 24th March 2021

JIRA: Epics Status below:

- [https://jira.o-ran-sc.org/browse/ODUHIGH-184](https://jira.o-ran-sc.org/browse/ODUHIGH-184) - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking
- [https://jira.o-ran-sc.org/browse/ODUHIGH-185](https://jira.o-ran-sc.org/browse/ODUHIGH-185) - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking
- [https://jira.o-ran-sc.org/browse/ODUHIGH-186](https://jira.o-ran-sc.org/browse/ODUHIGH-186) - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    - Basic code changes complete. Testing in progress for data path
- [https://jira.o-ran-sc.org/browse/ODUHIGH-187](https://jira.o-ran-sc.org/browse/ODUHIGH-187) - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    - Basic code changes complete. Testing to be done for data path
- [https://jira.o-ran-sc.org/browse/ODUHIGH-264](https://jira.o-ran-sc.org/browse/ODUHIGH-264) - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Code changes completed for SSB.
    - Brainstorming for SIB1 in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-265](https://jira.o-ran-sc.org/browse/ODUHIGH-265) - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Code changes completed for SSB.
    - Brainstorming for SIB1 in progress
Code changes at DU APP completed.
Code changes completed for SSB.
Brainstorming for SIB1 in progress

https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  • As an O-DU L2 developer, I want to add support for TDD mode
  • Code changes at DU APP completed.
  • Code changes completed for SSB.
  • Brainstorming for SIB1 in progress

https://jira.o-ran-sc.org/browse/ODUHIGH-299 - WIP
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    • Discussions on the O-DU PNF Registration and Activation process is ongoing
    • Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
    • Coding changes in progress for UE delete from DU APP to RLC
    • UE delete functionality from DU APP to MAC under review

https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  • As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
  • SSB testing blocked. Awaiting debug session with Intel

https://jira.o-ran-sc.org/browse/ODUHIGH-268 - TODO
  • As an O-DU L2 developer, I want to integrate O-DU High with O-CU

https://jira.o-ran-sc.org/browse/ODUHIGH-269 - TODO
  • As an O-DU L2 developer, I want to support End to End testing scenarios

Dependency/Blockers:

• O1 configuration for day-1 shall need to be completed to start with CLA.
• SSB integration testing with O-DU Low in Radio mode. Awaiting debug session with Intel.

Updated: 17th March 2021

JIRA: Epics Status below:

• https://jira.o-ran-sc.org/browse/ODUHIGH-184 - Done
  • As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking

• https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  • As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking

• https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  • As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    • Basic code changes complete. Testing to be done for data path

• https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  • As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    • Basic code changes complete. Testing to be done for data path

• https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP
  • As an O-DU L2 developer, I want to add support for Mu1
    • Code changes at DU APP completed.
    • Code changes completed for SSB.
    • Resource allocation at SCH in progress.

• https://jira.o-ran-sc.org/browse/ODUHIGH-265 - WIP
  • As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    • Code changes at DU APP completed.
    • Code changes completed for SSB.
    • Resource allocation at SCH in progress.

• https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  • As an O-DU L2 developer, I want to add support for TDD mode
    • Code changes at DU APP completed.
    • Resource allocation at SCH in progress for time domain.

• https://jira.o-ran-sc.org/browse/ODUHIGH-299 - WIP
  • As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    • Discussions on the O-DU PNF Registration and Activation process is ongoing
    • Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.
    • Coding changes in progress for UE delete from DU APP to RLC

• https://jira.o-ran-sc.org/browse/ODUHIGH-267 - WIP
  • As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
    • Received slot indications
    • Fixed config issues
    • SSB testing in progress

• https://jira.o-ran-sc.org/browse/ODUHIGH-268 - TODO
  • As an O-DU L2 developer, I want to integrate O-DU High with O-CU

• https://jira.o-ran-sc.org/browse/ODUHIGH-269 - TODO
  • As an O-DU L2 developer, I want to support End to End testing scenarios

Dependency/Blockers:

• O1 configuration for day-1 shall need to be completed to start with CLA.

Updated: 10th March 2021
JIRA: Epics Status below:

- [https://jira.o-ran-sc.org/browse/ODUHIGH-184](https://jira.o-ran-sc.org/browse/ODUHIGH-184) - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
    - Code changes have been completed for AM and UM modes
    - Testing in progress with a debugging issue of number of packets not being received at DU app.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-185](https://jira.o-ran-sc.org/browse/ODUHIGH-185) - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
    - Code changes have been completed for AM and UM mode

- [https://jira.o-ran-sc.org/browse/ODUHIGH-186](https://jira.o-ran-sc.org/browse/ODUHIGH-186) - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    - Basic code changes complete. Testing to be done for data path

- [https://jira.o-ran-sc.org/browse/ODUHIGH-187](https://jira.o-ran-sc.org/browse/ODUHIGH-187) - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    - Basic code changes complete. Testing to be done for data path

- [https://jira.o-ran-sc.org/browse/ODUHIGH-264](https://jira.o-ran-sc.org/browse/ODUHIGH-264) - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Code changes completed for SSB.
    - Resource allocation at SCH in progress.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-265](https://jira.o-ran-sc.org/browse/ODUHIGH-265) - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Code changes completed for SSB.
    - Resource allocation at SCH in progress.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-266](https://jira.o-ran-sc.org/browse/ODUHIGH-266) - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Resource allocation at SCH in progress for time domain.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-267](https://jira.o-ran-sc.org/browse/ODUHIGH-267) - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Discussions on the O-DU PNF Registration and Activation process is ongoing
    - Yang modules to be supported by O-DU to ensure the end-to-end functionality of the use case "Closed loop" is in progress.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-268](https://jira.o-ran-sc.org/browse/ODUHIGH-268) - TODO
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Received slot indications
    - SSB testing in progress

- [https://jira.o-ran-sc.org/browse/ODUHIGH-269](https://jira.o-ran-sc.org/browse/ODUHIGH-269) - TODO
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU

- [https://jira.o-ran-sc.org/browse/ODUHIGH-299](https://jira.o-ran-sc.org/browse/ODUHIGH-299) - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Resource allocation at SCH in progress.

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA.

Updated: 03 March 2021

JIRA: Epics Status below:

- [https://jira.o-ran-sc.org/browse/ODUHIGH-184](https://jira.o-ran-sc.org/browse/ODUHIGH-184) - Done
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
    - Code changes have been completed for AM and UM modes
    - Testing in progress with a debugging issue of number of packets not being received at DU app.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-185](https://jira.o-ran-sc.org/browse/ODUHIGH-185) - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
    - Code changes have been completed for AM and UM mode

- [https://jira.o-ran-sc.org/browse/ODUHIGH-186](https://jira.o-ran-sc.org/browse/ODUHIGH-186) - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    - Basic code changes complete. Testing to be done for data path

- [https://jira.o-ran-sc.org/browse/ODUHIGH-187](https://jira.o-ran-sc.org/browse/ODUHIGH-187) - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    - Basic code changes complete. Testing to be done for data path

- [https://jira.o-ran-sc.org/browse/ODUHIGH-264](https://jira.o-ran-sc.org/browse/ODUHIGH-264) - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
    - Code changes at DU APP completed.
    - Resource allocation at SCH in progress.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-265](https://jira.o-ran-sc.org/browse/ODUHIGH-265) - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Resource allocation at SCH in progress.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-266](https://jira.o-ran-sc.org/browse/ODUHIGH-266) - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
    - Code changes at DU APP completed.
    - Resource allocation at SCH in progress.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-267](https://jira.o-ran-sc.org/browse/ODUHIGH-267) - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Discussions on the O-DU PNF Registration and Activation process is ongoing

- [https://jira.o-ran-sc.org/browse/ODUHIGH-268](https://jira.o-ran-sc.org/browse/ODUHIGH-268) - TODO
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Received slot indications
    - SSB testing in progress

- [https://jira.o-ran-sc.org/browse/ODUHIGH-269](https://jira.o-ran-sc.org/browse/ODUHIGH-269) - TODO
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU

- [https://jira.o-ran-sc.org/browse/ODUHIGH-299](https://jira.o-ran-sc.org/browse/ODUHIGH-299) - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
    - Code changes at DU APP completed.
    - Resource allocation at SCH in progress.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-267](https://jira.o-ran-sc.org/browse/ODUHIGH-267) - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
    - Discussions on the O-DU PNF Registration and Activation process is ongoing

- [https://jira.o-ran-sc.org/browse/ODUHIGH-268](https://jira.o-ran-sc.org/browse/ODUHIGH-268) - TODO
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
As an O-DU L2 developer, I want to integrate O-DU High with O-CU

As an O-DU L2 developer, I want to support End to End testing scenarios.

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA.

Updated: 24 February 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - WIP
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking
  - Code changes have been completed for AM and UM modes
  - Testing in progress with a debugging issue of number of packets not being received at DU app.
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - Done
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking
  - Code changes have been completed for AM and UM mode
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
  - Code changes at DU APP completed.
  - Resource allocation at SCH in progress.
- https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
  - Code changes at DU APP completed.
  - Resource allocation at SCH in progress.
- https://jira.o-ran-sc.org/browse/ODUHIGH-299 - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
  - Code changes at DU APP completed.
  - Resource allocation at SCH in progress.
- https://jira.o-ran-sc.org/browse/ODUHIGH-267 - TODO
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
  - Discussions on the O-DU PNF Registration and Activation process is ongoing
- https://jira.o-ran-sc.org/browse/ODUHIGH-268 - TODO
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode
- https://jira.o-ran-sc.org/browse/ODUHIGH-269 - TODO
  - As an O-DU L2 developer, I want to support End to End testing scenarios.

Dependency/Blockers:

- O1 configuration for day-1 shall need to be completed to start with CLA.

Updated: 17 February 2021

JIRA: Epics Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - WIP
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking
  - Code changes have been completed for AM and UM modes
  - Testing in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - WIP
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking
  - Code changes have been completed for AM and UM modes
  - Testing in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - Basic code changes complete. Testing to be done for data path
- https://jira.o-ran-sc.org/browse/ODUHIGH-264 - WIP
  - As an O-DU L2 developer, I want to add support for Mu1
  - Code changes at DU APP completed.
  - Resource allocation at SCH in progress.
- https://jira.o-ran-sc.org/browse/ODUHIGH-266 - WIP
  - As an O-DU L2 developer, I want to add support for 100 MHz Bandwidth
  - Code changes at DU APP completed.
  - Resource allocation at SCH in progress.
- https://jira.o-ran-sc.org/browse/ODUHIGH-299 - WIP
  - As an O-DU L2 developer, I want to add support for TDD mode
- Code changes at DU APP completed.
- Resource allocation at SCH in progress.

**https://jira.o-ran-sc.org/browse/ODUHIGH-299** - WIP
  - As an O-DU L2 developer, I want to develop O-DU High Layers to support Closed Loop Automation Use-case
  - Discussions in progress

**https://jira.o-ran-sc.org/browse/ODUHIGH-267** - TODO
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low in Radio Mode

**https://jira.o-ran-sc.org/browse/ODUHIGH-268** - TODO
  - As an O-DU L2 developer, I want to integrate O-DU High with O-CU

**https://jira.o-ran-sc.org/browse/ODUHIGH-269** - TODO
  - As an O-DU L2 developer, I want to support End to End testing scenarios

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**Updated: 16 December 2020**

Documentation and release related activities for Cherry release have been completed.

Jira: EPICS Status below:

- **https://jira.o-ran-sc.org/browse/ODUHIGH-10** - Done
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling

- **https://jira.o-ran-sc.org/browse/ODUHIGH-188** - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats

- **https://jira.o-ran-sc.org/browse/ODUHIGH-191** - Done
  - As an O-DU L2 developer, I want to explore O1 interface
    - Made certain exploration and begun work on CM and health check use-case

- **https://jira.o-ran-sc.org/browse/ODUHIGH-196** - WIP
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
    - CM supported limited to IP and port configs for F1 and E2 interface using custom yang files
    - Code yet to be merged

- **https://jira.o-ran-sc.org/browse/ODUHIGH-214** - Done
  - As an O-DU L2 developer, I want to support Health Check use-case
    - get-alarm list to be supported i.e., Health Status Retrieval
    - Code merged into master branch.

- **https://jira.o-ran-sc.org/browse/ODUHIGH-189** - Done
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
    - O-DU High successfully integrated with O-DU Low in timer mode
    - O-DU High completed aligning with latest FAPI files from Intel for Radio mode
    - Radio mode testing to be begin once O-RU integration is complete

- **https://jira.o-ran-sc.org/browse/ODUHIGH-184** - WIP
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
    - Design in progress.

- **https://jira.o-ran-sc.org/browse/ODUHIGH-185** - WIP
  - As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
    - Design in progress
    - PUCCH code changes in progress

- **https://jira.o-ran-sc.org/browse/ODUHIGH-186** - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
    - Code under review for signalling

- **https://jira.o-ran-sc.org/browse/ODUHIGH-187** - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
    - Code under review for signalling

- **https://jira.o-ran-sc.org/browse/ODUHIGH-190** - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
    - Integration plan discussion begun.

Dependency/Blockers:

- Custom Yang files will be used for Dev activity.
- FAPI files being used provided by INTEL, which is not completely in-line with the latest released version from SCF.

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**Updated: 9 December 2020**

Jira: EPICS Status below:
- As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
  - CM supported limited to IP and port configs for F1 and E2 interface using custom yang files
  - Code yet to be merged
  - https://jira.o-ran-sc.org/browse/ODUHIGH-214 - Done
- As an O-DU L2 developer, I want to support Health Check use-case
  - get-alarm list to be supported i.e., Health Status Retrieval
  - Code merged into master branch.
  - https://jira.o-ran-sc.org/browse/ODUHIGH-189 - Done
- As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
  - O-DU High successfully integrated with O-DU Low in timer mode
  - O-DU High completed aligning with latest FAPI files from Intel for Radio mode
  - Radio mode testing to begin once O-RU integration is complete
  - https://jira.o-ran-sc.org/browse/ODUHIGH-184 - WIP
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
  - Design in progress.
  - https://jira.o-ran-sc.org/browse/ODUHIGH-185 - WIP
  - As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
  - Design in progress
  - PUCCH code changes in progress
  - https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Code under review for signalling
  - https://jira.o-ran-sc.org/browse/ODUHIGH-187 - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - https://jira.o-ran-sc.org/browse/ODUHIGH-190 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
  - integration plan discussion begun.

Dependency/Blockers:
- Custom Yang files will be used for Dev activity.
- FAPI files being used provided by INTEL, which is not completely in-line with the latest released version from SCF.

Updated: 2 December 2020

Jira: EPICS Status below:
- https://jira.o-ran-sc.org/browse/ODUHIGH-10 - Done
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
- https://jira.o-ran-sc.org/browse/ODUHIGH-188 - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
- https://jira.o-ran-sc.org/browse/ODUHIGH-191 - Done
  - As an O-DU L2 developer, I want to explore O1 interface
  - Made certain exploration and begun work on CM and health check use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP
  - As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
  - CM supported limited to IP and port configs for F1 and E2 interface using custom yang files
  - Code yet to be merged
- https://jira.o-ran-sc.org/browse/ODUHIGH-214 - Done
  - As an O-DU L2 developer, I want to support Health Check use-case
  - get-alarm list to be supported i.e., Health Status Retrieval
  - Code merged into master branch.
- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
  - O-DU High successfully integrated with O-DU Low in timer mode
  - O-DU High completed aligning with latest FAPI files from Intel for Radio mode
  - Radio mode testing to begin once O-RU integration is complete
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - WIP
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
  - Design in progress.
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - WIP
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - Code changes have been identified
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - https://jira.o-ran-sc.org/browse/ODUHIGH-190 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
  - integration plan discussion begun.

Dependency/Blockers:
- Custom Yang files will be used for Dev activity.
• FAPI files being used provided by INTEL, which is not completely in-line with the latest released version from SCF.

Updated: 25 November 2020

Jira: EPICS Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-10 - Done
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
- https://jira.o-ran-sc.org/browse/ODUHIGH-188 - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
- https://jira.o-ran-sc.org/browse/ODUHIGH-191 - Done
  - As an O-DU L2 developer, I want to explore O1 interface
    - Made certain exploration and begun work on CM and health check use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
    - CM supported limited to IP and port configs for F1 and E2 interface using custom yang files
    - Code yet to be merged
- https://jira.o-ran-sc.org/browse/ODUHIGH-199 - WIP
  - As an O-DU L2 developer, I want to support Health Check use-case
    - get-alarm list to be supported i.e., Health Status Retrieval
    - Code merged into master branch.
- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - WIP
  - As an O-DU L2 developer, I want to implement single O-DU High with O-DU Low
    - O-DU High successfully integrated with O-DU Low in timer mode
    - O-DU High to completed aligning with latest FAPI files from Intel for Radio mode
    - Radio mode testing to be planned
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - TODO
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking
    - Design in progress.
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - TODO
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - TODO
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
- https://jira.o-ran-sc.org/browse/ODUHIGH-190 - WIP
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
- https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
    - integration plan discussion begun.

Dependency/Blockers:

- Custom Yang files will be used for Dev activity.
- FAPI files being used provided by INTEL, which is not completely in-line with the latest released version from SCF.

Updated: 18 November 2020

Jira: EPICS Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-10 - Done
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
- https://jira.o-ran-sc.org/browse/ODUHIGH-188 - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
- https://jira.o-ran-sc.org/browse/ODUHIGH-191 - Done
  - As an O-DU L2 developer, I want to explore O1 interface
    - Made certain exploration and begun work on CM and health check use-case
- https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
    - CM supported limited to IP and port configs for F1 and E2 interface using custom yang files
    - Code merged into dev branch, facing issues with merging into master branch
- https://jira.o-ran-sc.org/browse/ODUHIGH-199 - WIP
  - As an O-DU L2 developer, I want to support Health Check use-case
    - get-alarm list to be supported i.e., Health Status Retrieval
    - Code merged into dev branch, facing issues with merging into master branch
- https://jira.o-ran-sc.org/browse/ODUHIGH-189 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
    - O-DU High successfully integrated with O-DU Low in timer mode
    - O-DU High to completed aligning with latest FAPI files from Intel for Radio mode
    - Radio mode testing to be planned
- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - WIP
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking
    - Design in progress.
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - TODO
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - TODO
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking
• As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - TODO
  - https://jira.o-ran-sc.org/browse/ODUHIGH-187

• As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - WIP
  - https://jira.o-ran-sc.org/browse/ODUHIGH-190

• As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
  - integration plan discussion begun.

Dependency/Blockers:

• HCL unable to merge O1 code into master branch.
• Custom Yang files will be used for Dev activity.
• FAPI files being used provided by INTEL, which is not completely in-line with the latest released version from SCF.

Updated: 11 November 2020

Jira: EPICS Status below:

• https://jira.o-ran-sc.org/browse/ODUHIGH-10 - Done
• https://jira.o-ran-sc.org/browse/ODUHIGH-188 - Done
• https://jira.o-ran-sc.org/browse/ODUHIGH-191 - Done

• As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
• As an O-DU L2 developer, I want to support all short PRACH formats

• https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP
• https://jira.o-ran-sc.org/browse/ODUHIGH-214 - WIP

• As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
  - Design in progress.

• https://jira.o-ran-sc.org/browse/ODUHIGH-185 - TODO
• https://jira.o-ran-sc.org/browse/ODUHIGH-189 - WIP
• https://jira.o-ran-sc.org/browse/ODUHIGH-190 - WIP

Dependency/Blockers:

• Custom Yang files will be used for Dev activity.
• FAPI files being used provided by INTEL, which is not completely in-line with the latest released version from SCF.

Updated: 4 November 2020

Jira: EPICS Status below:

• https://jira.o-ran-sc.org/browse/ODUHIGH-10 - Done
• https://jira.o-ran-sc.org/browse/ODUHIGH-188 - Done
• https://jira.o-ran-sc.org/browse/ODUHIGH-191 - Done

• As an O-DU L2 developer, I want to explore O1 interface
  - Made certain exploration and begun work on CM and health check use-case

• https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP

• As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking

• https://jira.o-ran-sc.org/browse/ODUHIGH-185 - TODO
• https://jira.o-ran-sc.org/browse/ODUHIGH-188 - TODO
• https://jira.o-ran-sc.org/browse/ODUHIGH-190 - TODO

• As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
  - CM supported limited to IP and port configs for F1 and E2 interface using custom yang files
  - get-config implementation in O1 code to write into a file for ODU to read at startup.
  - Code completed, check-in pending

• https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP
• https://jira.o-ran-sc.org/browse/ODUHIGH-214 - WIP

• As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
  - O-DU High successfully integrated with O-DU Low in timer mode
  - O-DU High to start aligning with latest FAPI files from Intel for Radio mode
  - Radio mode testing to be planned

• https://jira.o-ran-sc.org/browse/ODUHIGH-184 - WIP

• As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
  - Design in progress.

• https://jira.o-ran-sc.org/browse/ODUHIGH-185 - TODO
• https://jira.o-ran-sc.org/browse/ODUHIGH-188 - TODO
• https://jira.o-ran-sc.org/browse/ODUHIGH-190 - TODO

• As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL

• https://jira.o-ran-sc.org/browse/ODUHIGH-187 - TODO
• https://jira.o-ran-sc.org/browse/ODUHIGH-190 - WIP

• As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
  - integration plan discussion begun.

• https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP

• As an O-DU L2 developer, I want to support Health Check use-case
**Dependency/Blockers:**
- Custom Yang files will be used for Dev activity but will not be checked-in to public repo.

Updated: 28 October 2020

**Jira: EPICS Status below:**

- **https://jira.o-ran-sc.org/browse/ODUHIGH-10** - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
    - Coding complete
    - Fixing issues found during testing
    - Designing data path
- **https://jira.o-ran-sc.org/browse/ODUHIGH-188** - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
- **https://jira.o-ran-sc.org/browse/ODUHIGH-191** - Done
  - As an O-DU L2 developer, I want to explore O1 interface
  - Made certain exploration and begun work on CM and health check use-case
- **https://jira.o-ran-sc.org/browse/ODUHIGH-196** - WIP
  - As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
    - Basic scripts ready
    - System design in progress
    - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.
    - CM support limited to IP/port on F1, E2 interface.
- **https://jira.o-ran-sc.org/browse/ODUHIGH-214** - WIP
  - As an O-DU L2 developer, I want to support Health Check use-case
    - get-alarm list to be supported i.e., Health Status Retrieval
    - Code under review post basic unit testing
    - Internal Demo completed
- **https://jira.o-ran-sc.org/browse/ODUHIGH-189** - WIP
  - As an O-DU L2 developer, I want to implement O-DU High with O-DU Low
    - O-DU High integration with O-DU Low completed dev of non FAPI msg UL IQ SAMPLE REQ.
    - UL IQ SAMPLE REQ has reached O-DU Low FT. Testing response in progress.
    - O-DU High binaries have been tested till msg-5 with test stub on ATT servers.
    - O-DU High binaries have been test with docker containers
- **https://jira.o-ran-sc.org/browse/ODUHIGH-185** - TODO
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
  - Design in progress.
- **https://jira.o-ran-sc.org/browse/ODUHIGH-186** - TODO
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
- **https://jira.o-ran-sc.org/browse/ODUHIGH-187** - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
- **https://jira.o-ran-sc.org/browse/ODUHIGH-190** - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
    - integration plan discussion begun.

**Dependency/Blockers:**
- 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.
Updated: 14 October 2020

Jira: EPICS Status below:

- [https://jira.o-ran-sc.org/browse/ODUHIGH-10](https://jira.o-ran-sc.org/browse/ODUHIGH-10) - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
    - Coding complete
    - Testing in progress
    - Designing data path

- [https://jira.o-ran-sc.org/browse/ODUHIGH-188](https://jira.o-ran-sc.org/browse/ODUHIGH-188) - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats

- [https://jira.o-ran-sc.org/browse/ODUHIGH-191](https://jira.o-ran-sc.org/browse/ODUHIGH-191) - Done
  - As an O-DU L2 developer, I want to explore O1 interface
    - Made certain exploration and begun work on CM and health check use-case

- [https://jira.o-ran-sc.org/browse/ODUHIGH-196](https://jira.o-ran-sc.org/browse/ODUHIGH-196) - WIP
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
    - Basic scripts ready
    - System design in progress
    - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-189](https://jira.o-ran-sc.org/browse/ODUHIGH-189) - WIP
  - As an O-DU L2 developer, I want to implement O-DU High with O-DU Low

- [https://jira.o-ran-sc.org/browse/ODUHIGH-184](https://jira.o-ran-sc.org/browse/ODUHIGH-184) - TODO
  - As an O-DU L2 developer, I want to implement single DL data path and bench-marking

- [https://jira.o-ran-sc.org/browse/ODUHIGH-185](https://jira.o-ran-sc.org/browse/ODUHIGH-185) - TODO
  - As an O-DU L2 developer, I want to implement single UL data path and bench-marking

- [https://jira.o-ran-sc.org/browse/ODUHIGH-186](https://jira.o-ran-sc.org/browse/ODUHIGH-186) - TODO
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL

- [https://jira.o-ran-sc.org/browse/ODUHIGH-187](https://jira.o-ran-sc.org/browse/ODUHIGH-187) - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL

- [https://jira.o-ran-sc.org/browse/ODUHIGH-190](https://jira.o-ran-sc.org/browse/ODUHIGH-190) - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
    - Integration plan discussion begun.

Dependency/Blockers:

- in timer mode, Intel expects another prelim msg to be sent from O-DU High before config.REQ. This must be added to O-DU High referring to Intel's test stub(testMac).
- 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

Updated: 7 October 2020

Jira: EPICS Status below:

- [https://jira.o-ran-sc.org/browse/ODUHIGH-10](https://jira.o-ran-sc.org/browse/ODUHIGH-10) - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
    - Coding complete
    - Testing in progress
    - Designing data path

- [https://jira.o-ran-sc.org/browse/ODUHIGH-188](https://jira.o-ran-sc.org/browse/ODUHIGH-188) - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats

- [https://jira.o-ran-sc.org/browse/ODUHIGH-191](https://jira.o-ran-sc.org/browse/ODUHIGH-191) - Done
  - As an O-DU L2 developer, I want to explore O1 interface
    - Made certain exploration and begun work on CM and health check use-case

- [https://jira.o-ran-sc.org/browse/ODUHIGH-196](https://jira.o-ran-sc.org/browse/ODUHIGH-196) - WIP
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
    - Basic scripts ready
    - System design in progress
    - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

- [https://jira.o-ran-sc.org/browse/ODUHIGH-189](https://jira.o-ran-sc.org/browse/ODUHIGH-189) - WIP
  - As an O-DU L2 developer, I want to implement single DL data path and bench-marking

- [https://jira.o-ran-sc.org/browse/ODUHIGH-184](https://jira.o-ran-sc.org/browse/ODUHIGH-184) - TODO
  - As an O-DU L2 developer, I want to implement single UL data path and bench-marking

- [https://jira.o-ran-sc.org/browse/ODUHIGH-185](https://jira.o-ran-sc.org/browse/ODUHIGH-185) - TODO
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL

- [https://jira.o-ran-sc.org/browse/ODUHIGH-186](https://jira.o-ran-sc.org/browse/ODUHIGH-186) - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL

- [https://jira.o-ran-sc.org/browse/ODUHIGH-190](https://jira.o-ran-sc.org/browse/ODUHIGH-190) - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
    - Integration plan discussion begun.
As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low

- O-DU High binaries have been tested till msg-5 with test stub on ATT servers.
- O-DU High binaries have been test with docker containers
- O-DU High has begun integration with O-DU Low and resolving memory issues.

As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking

- As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking

As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL

As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL

As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares

- integration plan discussion begun.

Dependency/Blockers:
- Code committer privileges not enabled for new committers yet.
- Memory issues on enabling WLS
- 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

Updated: 30 September 2020

Jira: EPICS Status below:

- As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
  - DL/UL RRC messages complete
  - UE/RB reconfig/config in review
  - planning data path

As an O-DU L2 developer, I want to add support for all short PRACH formats

As an O-DU L2 developer, I want to explore O1 interface
  - Made certain exploration and begun work on CM and health check use-case

As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
  - Basic scripts ready
  - System design in progress
  - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

As an O-DU L2 developer, I want to support Health Check use-case
  - get-alarm list to be supported i.e., Health Status Retrieval
  - scripts to install libraries are done.
  - dev activity completed. Unable to raise for review

As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
  - O-DU High binaries have been tested till msg-5 with test stub on ATT servers.
  - O-DU High binaries have been test with docker containers
  - O-DU High has begun integration with O-DU Low but facing difficulties with linking WLS and DPDK libraries.

As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking

As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking

As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL

As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL

As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares

- integration plan discussion begun.

Dependency/Blockers:
- Code committer privileges not enabled for new committers yet.
- Issues with linking O-DU high with O-DU low WLS and DPDK libraries.
- 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

Updated: 23 September 2020

Jira: EPICS Status below:

- As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
  - DL/UL RRC messages complete
  - UE/RB reconfig/config in review
  - planning data path
As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
  - DL/UL RRC messages complete
  - UE/RB reconfig/config in progress
  - https://jira.o-ran-sc.org/browse/ODUHIGH-188 - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
  - https://jira.o-ran-sc.org/browse/ODUHIGH-191 - Done

As an O-DU L2 developer, I want to explore O1 interface
  - Made certain exploration and begun work on CM and health check use-case
  - https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP

As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
  - Basic scripts ready
  - System design in progress
  - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.
  - https://jira.o-ran-sc.org/browse/ODUHIGH-214 - WIP

As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
  - O-DU High binaries have been tested till msg-5 with test stub on ATT servers.
  - https://jira.o-ran-sc.org/browse/ODUHIGH-184 - TODO

As an O-DU L2 developer, I want to support Health Check use-case
  - get-alarm list to be supported i.e., Health Status Retrieval
  - scripts to install libraries are done.
  - dev activity in progress
  - https://jira.o-ran-sc.org/browse/ODUHIGH-189 - WIP

As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
  - integration plan discussion begun.

Dependency:
  - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

Updated: 16 September 2020

Jira: EPICS Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-10 - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
    - msg-5 complete
    - DL/UL RRC message processing in progress
  - https://jira.o-ran-sc.org/browse/ODUHIGH-188 - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
  - https://jira.o-ran-sc.org/browse/ODUHIGH-191 - Done

- As an O-DU L2 developer, I want to explore O1 interface
  - Made certain exploration and begun work on CM and health check use-case
  - https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP

- As an O-DU L2 developer, I want to Establish Netconf session for O1 interface for CM
  - Basic scripts ready
  - System design in progress
  - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.
  - https://jira.o-ran-sc.org/browse/ODUHIGH-214 - WIP

- As an O-DU L2 developer, I want to support Health Check use-case
  - get-alarm list to be supported i.e., Health Status Retrieval
  - scripts to install libraries are done.
  - dev activity in progress
  - https://jira.o-ran-sc.org/browse/ODUHIGH-189 - WIP

- As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
  - ATT Server accessible now
  - Ported binaries on the servers and successfully executed until msg-5.
  - https://jira.o-ran-sc.org/browse/ODUHIGH-184 - TODO

- As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
  - https://jira.o-ran-sc.org/browse/ODUHIGH-185 - TODO

- As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
  - https://jira.o-ran-sc.org/browse/ODUHIGH-186 - TODO

- As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
  - https://jira.o-ran-sc.org/browse/ODUHIGH-187 - TODO

- As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
  - https://jira.o-ran-sc.org/browse/ODUHIGH-190 - WIP

- As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
  - integration plan discussion begun.
Dependency:

- Unable to install lib-sctp on Intel server to proceed with compilation.
- 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

Updated: 9 September 2020

Jira: EPICS Status below:

- [https://jira.o-ran-sc.org/browse/ODUHIGH-10](https://jira.o-ran-sc.org/browse/ODUHIGH-10) - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
  - msg-5 testing in progress
  - security mode command processing dev in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-188](https://jira.o-ran-sc.org/browse/ODUHIGH-188) - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
- [https://jira.o-ran-sc.org/browse/ODUHIGH-191](https://jira.o-ran-sc.org/browse/ODUHIGH-191) - WIP
  - As an O-DU L2 developer, I want to explore O1 interface
  - O1 interface to be a separate binary since it is being developed independently.
  - [https://jira.o-ran-sc.org/browse/ODUHIGH-196](https://jira.o-ran-sc.org/browse/ODUHIGH-196) - WIP
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
  - Brainstorming and usage of netopeer2, sysrepo in progress
  - System design in progress
  - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.
- [https://jira.o-ran-sc.org/browse/ODUHIGH-214](https://jira.o-ran-sc.org/browse/ODUHIGH-214) - WIP
  - As an O-DU L2 developer, I want to support Health Check use-case
  - get-alarm list to be supported i.e., Health Status Retrieval
  - scripts to install libraries are done.
  - dev activity in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-189](https://jira.o-ran-sc.org/browse/ODUHIGH-189) - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
  - Aligned O-DU High with FAPI files provided by Intel as part of Bronze release
  - Awaiting server access from ATT Lab
  - Discussed integration plan in RSAC
- [https://jira.o-ran-sc.org/browse/ODUHIGH-184](https://jira.o-ran-sc.org/browse/ODUHIGH-184) - TODO
  - As an O-DU L2 developer, I want to implement single UE DL data path and bench-marking
- [https://jira.o-ran-sc.org/browse/ODUHIGH-185](https://jira.o-ran-sc.org/browse/ODUHIGH-185) - TODO
  - As an O-DU L2 developer, I want to implement single UE UL data path and bench-marking
- [https://jira.o-ran-sc.org/browse/ODUHIGH-186](https://jira.o-ran-sc.org/browse/ODUHIGH-186) - TODO
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL
- [https://jira.o-ran-sc.org/browse/ODUHIGH-187](https://jira.o-ran-sc.org/browse/ODUHIGH-187) - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
- [https://jira.o-ran-sc.org/browse/ODUHIGH-190](https://jira.o-ran-sc.org/browse/ODUHIGH-190) - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares
  - integration plan discussion begun.

Dependency:

- Integration with O-DU Low not started since ATT servers are not accessible.
- 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

Updated: 2 September 2020

Jira: EPICS Status below:

- [https://jira.o-ran-sc.org/browse/ODUHIGH-10](https://jira.o-ran-sc.org/browse/ODUHIGH-10) - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
  - msg-5 processing in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-188](https://jira.o-ran-sc.org/browse/ODUHIGH-188) - Done
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
- [https://jira.o-ran-sc.org/browse/ODUHIGH-191](https://jira.o-ran-sc.org/browse/ODUHIGH-191) - WIP
  - As an O-DU L2 developer, I want to explore O1 interface
  - Analysis of CM yang files in progress
- [https://jira.o-ran-sc.org/browse/ODUHIGH-196](https://jira.o-ran-sc.org/browse/ODUHIGH-196) - WIP
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
  - Brainstorming and usage of netopeer2, sysrepo in progress
  - System design in progress
  - 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.
- [https://jira.o-ran-sc.org/browse/ODUHIGH-214](https://jira.o-ran-sc.org/browse/ODUHIGH-214) - WIP
  - As an O-DU L2 developer, I want to support Health Check use-case
  - get-alarm list to be supported i.e., Health Status Retrieval
- [https://jira.o-ran-sc.org/browse/ODUHIGH-189](https://jira.o-ran-sc.org/browse/ODUHIGH-189) - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
  - Aligned O-DU High with FAPI files provided by Intel as part of Bronze release
  - Discussed integration plan in RSAC
As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking

As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking

As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL

As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL

As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares

integration plan discussion begun.

Dependency:
- Integration with O-DU Low not started since ATT servers are unavailable
- 3GPP Yang files will be used for Dev activity but will not be checked-in to public repo.

Updated: 26 August 2020

Jira: EPICS Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-10 - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
    - msg-5 processing in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-188 - WIP
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
    - Support for format A1 - C0 - done
    - Support for format C2 - WIP
- https://jira.o-ran-sc.org/browse/ODUHIGH-189 - WIP
  - As an O-DU L2 developer, I want to explore O1 interface
    - Analysis of HC usecase in progress
    - Analysis of CM yang files in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP
  - As an O-DU L2 developer, I want to establish Netconf session for O1 interface for CM
    - Brainstorming and usage of netopeer2, sysrepo in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-214 - WIP
  - As an O-DU L2 developer, I want to support Health Check use-case
    - Get-alarm list to be supported i.e., Health Status Retrieval
- https://jira.o-ran-sc.org/browse/ODUHIGH-199 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
    - Aligned O-DU High with FAPI files provided by Intel as part of Bronze release
    - Awaiting servers/machines from ATT
- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - TODO
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking
- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - TODO
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking
- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - TODO
  - As an O-DU L2 developer, I want to add support for 4QAM modulation scheme in DL
- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL
- https://jira.o-ran-sc.org/browse/ODUHIGH-190 - TODO
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares

Blocker:
- Lack of clarity on usage of 3gpp Yang files for CM due to copyright issues

Dependency:
- Integration with O-DU Low not started since ATT servers are unavailable

Updated: 12 August 2020

Jira: EPICS Status below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-10 - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
    - msg-5 processing in progress
- https://jira.o-ran-sc.org/browse/ODUHIGH-188 - WIP
  - As an O-DU L2 developer, I want to add support for all short PRACH formats
    - Support for format A1 - done
    - Support for format A2 - WIP
- https://jira.o-ran-sc.org/browse/ODUHIGH-191 - WIP
  - As an O-DU L2 developer, I want to explore O1 interface
- Analysis of HC usecase in progress
  - https://jira.o-ran-sc.org/browse/ODUHIGH-196 - WIP
    - As an O-DU L2 developer, I want to Establish Netconf session for O1 interface
    - Brainstorming and usage of netopeer2, sysrepo in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-214 - WIP
  - As an O-DU L2 developer, I want to support on-demand Health Check use-case
    - Study in progress

- https://jira.o-ran-sc.org/browse/ODUHIGH-189 - WIP
  - As an O-DU L2 developer, I want to integrate O-DU High with O-DU Low
    - Aligned O-DU High with FAPI files provided by Intel as part of Bronze release

- https://jira.o-ran-sc.org/browse/ODUHIGH-184 - TODO
  - As an O-DU L2 developer, I want to implement single UE DL data path and benchmarking

- https://jira.o-ran-sc.org/browse/ODUHIGH-185 - TODO
  - As an O-DU L2 developer, I want to implement single UE UL data path and benchmarking

- https://jira.o-ran-sc.org/browse/ODUHIGH-186 - TODO
  - As an O-DU L2 developer, I want to add support for 64QAM modulation scheme in DL

- https://jira.o-ran-sc.org/browse/ODUHIGH-187 - TODO
  - As an O-DU L2 developer, I want to add support for 16QAM modulation scheme in UL

- https://jira.o-ran-sc.org/browse/ODUHIGH-190 - TODO
  - As an O-DU L2 developer, I want to integrate O-DU High with Viavi softwares

Dependency:

- Integration with O-DU Low not started since ATT servers are unavailable
- Clarity on using netconf/VES for alarm notification as part of on-demand Health check

Updated: 13 May 2020

Jira: EPICS Status is mentioned below:

- https://jira.o-ran-sc.org/browse/ODUHIGH-1 - DONE
  - As an O-DU L2 developer, I want to create F1AP module based on F1 interface APIs and develop them as per the architecture defined

- https://jira.o-ran-sc.org/browse/ODUHIGH-8 - DONE
  - As an O-DU L2 developer, I want to implement FAPI interface towards O-DU low

- https://jira.o-ran-sc.org/browse/ODUHIGH-9 - DONE
  - As an O-DU L2 developer, I want to implement cell broadcast procedure at MAC Layer

- https://jira.o-ran-sc.org/browse/ODUHIGH-10 - WIP (Implemented until RAR)
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling

- https://jira.o-ran-sc.org/browse/ODUHIGH-11 - DONE
  - As an O-DU L2 developer, I want to implement E2 interface

- https://jira.o-ran-sc.org/browse/ODUHIGH-27 - DONE (partially)
  - As an O-DU L2 developer, I want to develop RLC layer interfaces

Risks:

- E2SM Specification baseline is still not available while the development is being done using below draft specifications.
  - ORAN WG3.E2AP v01.00
  - ORAN WG3.E2SM v01.00
- WLS, FAPI interface files baseline - FAPI interface development is dependent on this.
- UE Attach Scenario development - Completed till msg-2,

Status:

Raised 18 change requests in WG8 AAD Specification; Already presented to the WG8 Task groups to be addressed in subsequent releases of the document.

O-DU High layers (MAC, RLC, and app):

- Re-align seed code to 3GPP Release 15.3.0 - Done (completed for all the messages until msg-2)
- Align seed code to WG8 AAD specification and interfaces - MAC - RLC Interface is done, RLC-F1AP interface is partially done (completed for all the data path messages)
- Implementation of cell broadcast procedure and UE attach procedure (SA mode)
  - FDD mode and FR1 (Numerology = 0, Bandwidth = 20 MHz) and basic scheduler APIs for single UE and single HARQ transmission
  - Cell Broadcast procedure - WIP
  - UE attach - WIP
  - F1-U interface development - Done

E2 Traffic Steering implementation based on draft specification - Done (with some limitations due to specifications)

F1-C interface enhancement: Done (procedures identified for bronze released is done)

Support for following additional F1AP messages:
  - Initial UL RRC Message Transfer
Basic FAPI messages Implementation - WIP (based on Intel FAPI 1.0.5 version)

Out of Scope:

- Use cases – Traffic Steering, Health Check related messages and call flows
- TDD functionality, NSA
- End to end testing

Limitations/Dependencies:

- FAPI implementation – Dependency on O-DU Low to open source WLS files, interface files
- Testing: Currently only some unit testing can be done due to lack of test infrastructure i.e UE or UE simulator, O-RU, O-CU, and core components.

Updated: 23 April 2020

Jira: EPICS Status is mentioned below:

- **https://jira.o-ran-sc.org/browse/ODUHIGH-1** - DONE
  - As an O-DU L2 developer, I want to create F1AP module based on F1 interface APIs and develop them as per the architecture defined
- **https://jira.o-ran-sc.org/browse/ODUHIGH-8** - WIP
  - As an O-DU L2 developer, I want to implement FAPI interface towards O-DU low
- **https://jira.o-ran-sc.org/browse/ODUHIGH-9** - WIP
  - As an O-DU L2 developer, I want to implement cell broadcast procedure at MAC Layer
- **https://jira.o-ran-sc.org/browse/ODUHIGH-10** - WIP
  - As an O-DU L2 developer, I want to implement UE attach procedure with basic scheduling
- **https://jira.o-ran-sc.org/browse/ODUHIGH-11** - DONE
  - As an O-DU L2 developer, I want to implement E2 interface
- **https://jira.o-ran-sc.org/browse/ODUHIGH-27** - DONE (partially)
  - As an O-DU L2 developer, I want to develop RLC layer interfaces

Risks:

- E2SM Specification baseline is still not available while the development is being done using below draft specifications.
  - ORAN WG3.E2AP v01.00
  - ORAN WG3.E2SM v01.00
- WLS, FAPI interface files baseline - FAPI interface development is dependent on this.
- UE Attach Scenario development - Completed till msg-2.

Status:

Raised 18 change requests in WG8 AAD Specification; Already presented to the WG8 Task groups to be addressed in subsequent releases of the document.

O-DU High layers (MAC, RLC, and app):

- Re-align seed code to 3GPP Release 15.3.0 - Done (completed for all the messages until msg-2)
- Align seed code to WG8 AAD specification and interfaces - MAC - RLC Interface is done, RLC-F1AP interface is partially done (completed for all the data path messages)
- Implementation of cell broadcast procedure and UE attach procedure (SA mode) for FDD mode and FR1 (Numerology = 0, Bandwidth = 20 MHz) and basic scheduler APIs for single UE and single HARQ transmission
  - Cell Broadcast procedure - WIP
  - UE attach - WIP

F1-U interface development - Done

E2 Traffic Steering implementation based on draft specification - Done (with some limitations due to specifications)

F1-C interface enhancement: Done (procedures identified for bronze released is done)

- Support for following additional F1AP messages:
  - Initial UL RRC Message Transfer
  - UL/DL RRC Message Transfer
  - UE Context Setup Request/Response
- Enhance F1AP messages:
  - F1AP Setup Request/Response
  - GNB DU Config Update

Basic FAPI messages Implementation - WIP (based on Intel FAPI 1.0.5 version)

Out of Scope:

- Use cases – Traffic Steering, Health Check related messages and call flows
- TDD functionality, NSA
- End to end testing

Limitations/Dependencies:
- FAPI Implementation – Dependency on O-DU Low to open source WLS files, interface files
- Testing: Currently only some unit testing can be done due to lack of test infrastructure i.e UE or UE simulator, O-RU, O-CU, and core components.

Updated: 10 April 2020

Risks:
- E2SM Specification baseline is still not available while the development is being done using draft specifications
- WLS, FAPI interface files baseline - FAPI interface development is dependent on this.
- UE Attach Scenario development - in medium risk due to the effort needed to complete the development

Status:
Raised 16 changes in WG8 AAD Specification; working with Ganesh to get them addressed in the next release of the document.

O-DU High layers (MAC, RLC, and app):
- Re-align seed code to 3GPP Release 15.3.0 - WIP
- Align seed code to WG8 AAD specification and interfaces - MAC - RLC Interface is done, RLC-F1AP interface is WIP
- Implementation of cell broadcast procedure and UE attach procedure (SA mode) for FDD mode and FR1 (Numerology = 0, Bandwidth = 20 MHz) and basic scheduler APIs for single UE and single HARQ transmission
  - Cell Broadcast procedure - WIP
  - UE attach - Open

F1-U interface development: Done

E2 Traffic Steering implementation based on draft specification - Done (with some limitations due to specifications)

F1-C interface enhancement: Done (procedures identified for bronze released is done)
- Support for following additional F1AP messages:
  - Initial UL RRC Message Transfer
  - UL/DL RRC Message Transfer
  - UE Context Setup Request/Response
- Enhance F1AP messages:
  - F1AP Setup Request/Response
  - GNB DU Config Update

Basic FAPI messages Implementation - Open

Out of Scope:
- Use cases – Traffic Steering, Health Check related messages and call flows
- TDD functionality, NSA
- End to end testing

Limitations/Dependencies:
- FAPI Implementation – Dependency on O-DU Low to open source WLS files, interface files
- Testing: Currently only some unit testing can be done due to lack of test infrastructure i.e UE or UE simulator, O-RU, O-CU, and core components.

Updated: 26 March 2020

Risks:
- E2SM Specification baseline is still not available while the development is being done using draft specifications
- WLS, FAPI interface files baseline - FAPI interface development is dependent on this.
- UE Attach Scenario development - in medium risk due to the effort needed to complete the development

Status:
O-DU High layers (MAC, RLC, and app):
- Re-align seed code to 3GPP Release 15.3.0
- Align seed code to WG8 AAD specification and interfaces - WIP
- Implementation of cell broadcast procedure and UE attach procedure (SA mode) for FDD mode and FR1 (Numerology = 0, Bandwidth = 20 MHz) and basic scheduler APIs for single UE and single HARQ transmission
F1-U interface development - WIP

E2 Traffic Steering implementation based on draft specification - WIP

F1-C interface enhancement: Done

- Support for following additional F1AP messages:
  - Initial UL RRC Message Transfer
  - UL/DL RRC Message Transfer
  - UE Context Setup Request/Response
- Enhance F1AP messages:
  - F1AP Setup Request/Response
  - GNB DU Config Update

Basic FAPI messages Implementation - Open

Out of Scope:

- Use cases – Traffic Steering, Health Check related messages and call flows
- TDD functionality, NSA
- End to end testing

Limitations/Dependencies:

- FAPI Implementation – Dependency on O-DU Low to open source WLS files, interface files
- Testing: Currently only some unit testing can be done due to lack of test infrastructure i.e. UE or UE simulator, O-RU, O-CU, and core components.