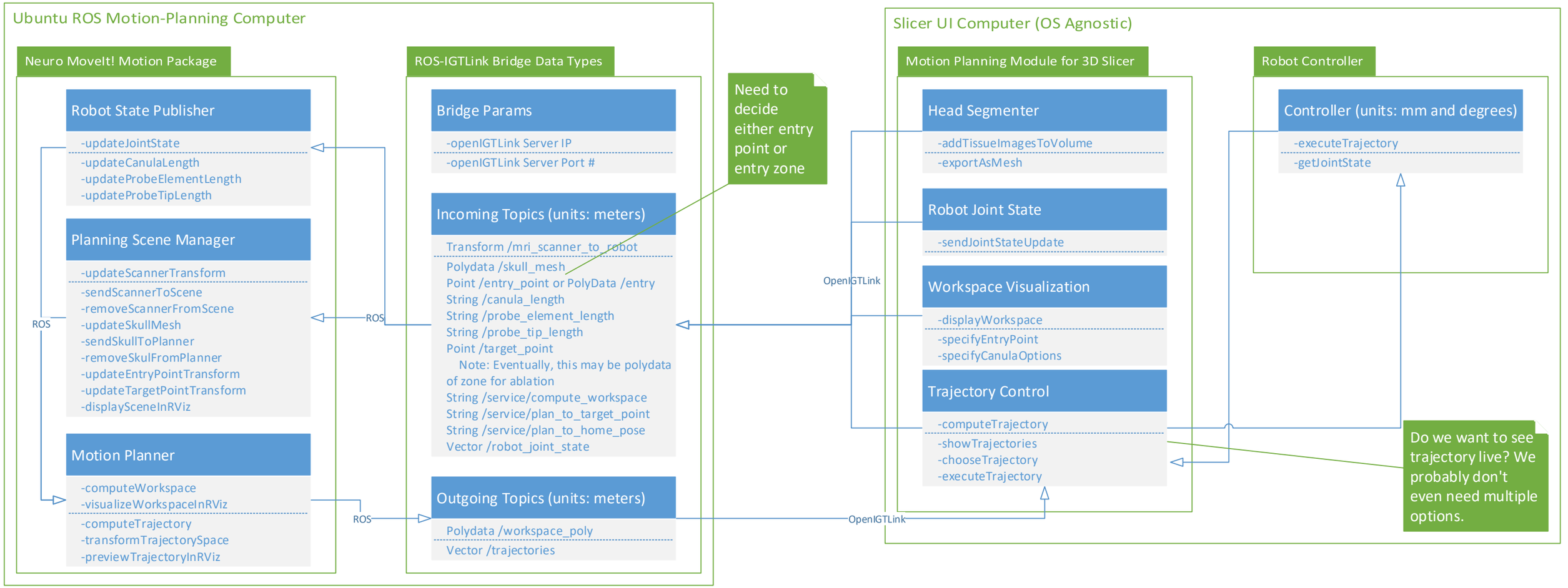
Ubuntu ROS Motion-Planning Computer
Neuro MoveIt! Motion Package
Robot State Publisher
-updateJointState
-updateCanulaLength
-updateProbeElementLength
-updateProbeTipLength
Planning Scene Manager
-updateScannerTransform
-sendScannerToScene
-removeScannerFromScene
-updateSkullMesh
-sendSkullToPlanner
-removeSkulFromPlanner
-updateEntryPointTransform
-updateTargetPointTransform
-displaySceneInRViz
Motion Planner
-computeWorkspace
-visualizeWorkspaceInRViz
-computeTrajectory
-transformTrajectorySpace
-previewTrajectoryInRViz
ROS
ROS
ROS
ROS-IGTLink Bridge Data Types
Bridge Params
-openIGTLink Server IP
-openIGTLink Server Port #
Incoming Topics (units: meters)
Transform /mri_scanner_to_robot
Polydata /skull_mesh
Point /entry_point or PolyData /entry
String /canula_length
String /probe_element_length
String /probe_tip_length
Point /target_point
Note: Eventually, this may be polydata of zone for ablation
String /service/compute_workspace
String /service/plan_to_target_point
String /service/plan_to_home_pose
Vector /robot_joint_state
Outgoing Topics (units: meters)
Polydata /workspace_poly
Vector /trajectories
Need to decide either entry point or entry zone
OpenIGTLink
OpenIGTLink
Slicer UI Computer (OS Agnostic)
Motion Planning Module for 3D Slicer
Head Segmenter
-addTissueImagesToVolume
-exportAsMesh
Robot Joint State
-sendJointStateUpdate
Workspace Visualization
-displayWorkspace
-specifyEntryPoint
-specifyCanulaOptions
Trajectory Control
-computeTrajectory
-showTrajectories
-chooseTrajectory
-executeTrajectory
Robot Controller
Controller (units: mm and degrees)
-executeTrajectory
-getJointState
Do we want to see trajectory live? We probably don't even need multiple options.