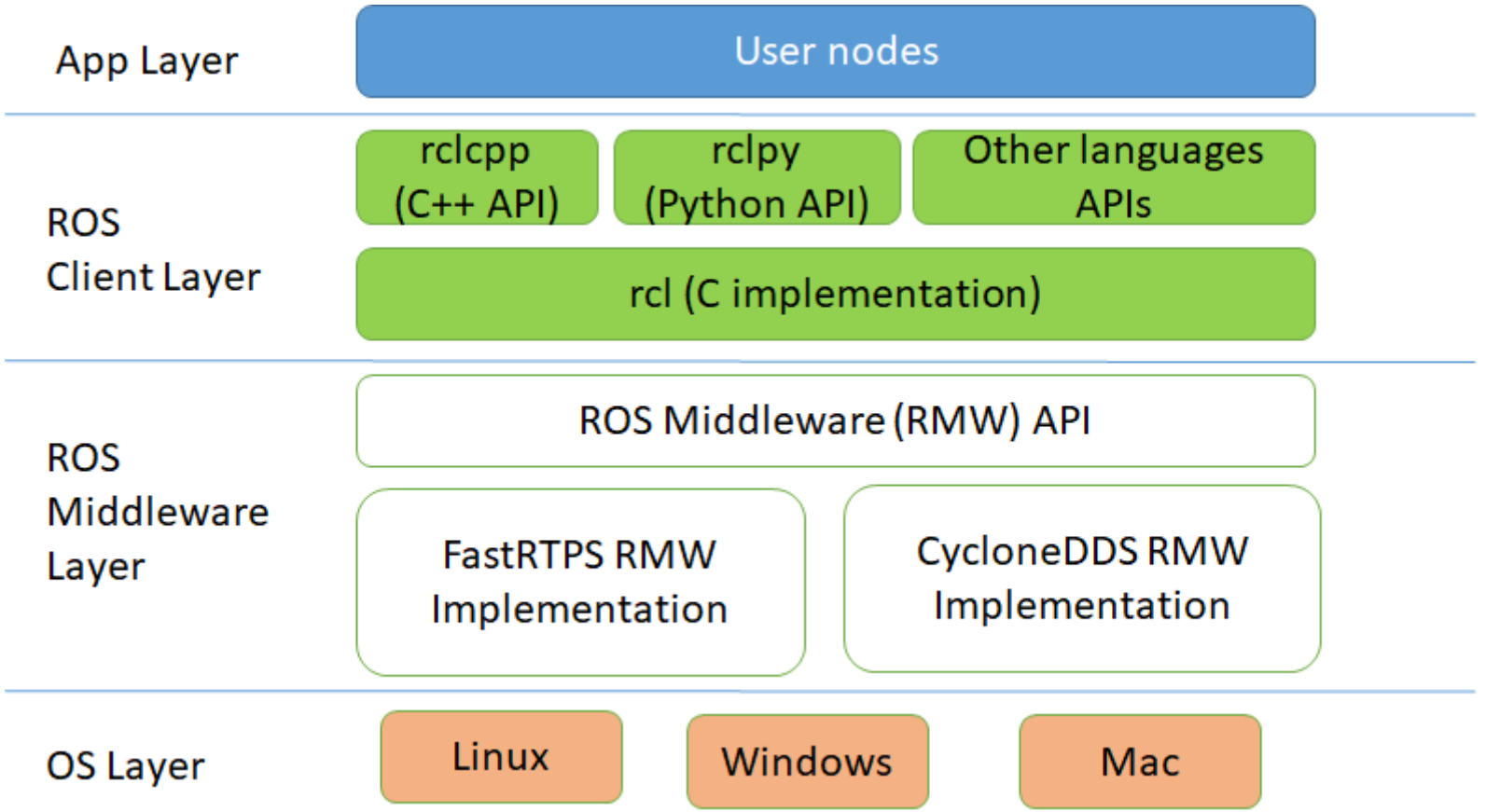
ROS 2

Setup RO2 on Virtual Ubuntu OS

https://docs.ros.org/en/galactic/Installation.html

Thong LT



https://aws.amazon.com/blogs/robotics/ros2-foxy-fitzroy-robot-development/

Nodes

Topics
Services
Parameter server

Install packets

1. Install ros2 foxy
   - Ubuntu Linux - Focal Fossa (20.04) 64-bit
   -**Step1**.

https://docs.ros.org/en/galactic/Installation/Ubuntu-Development-Setup.html

   -**Step2.**

https://docs.ros.org/en/galactic/Installation/Ubuntu-Install-Debians.html

sudo apt install ros-galactic-desktop
source /opt/ros/galactic/setup.bash

2. Install packets in C++ (rclcpp)

3. Install packets for testing
source /opt/ros/galactic/setup.bash
ros2 run demo_nodes_cpp talker

source /opt/ros/galactic/setup.bash
ros2 run demo_nodes_py listener

Cli on ros 2

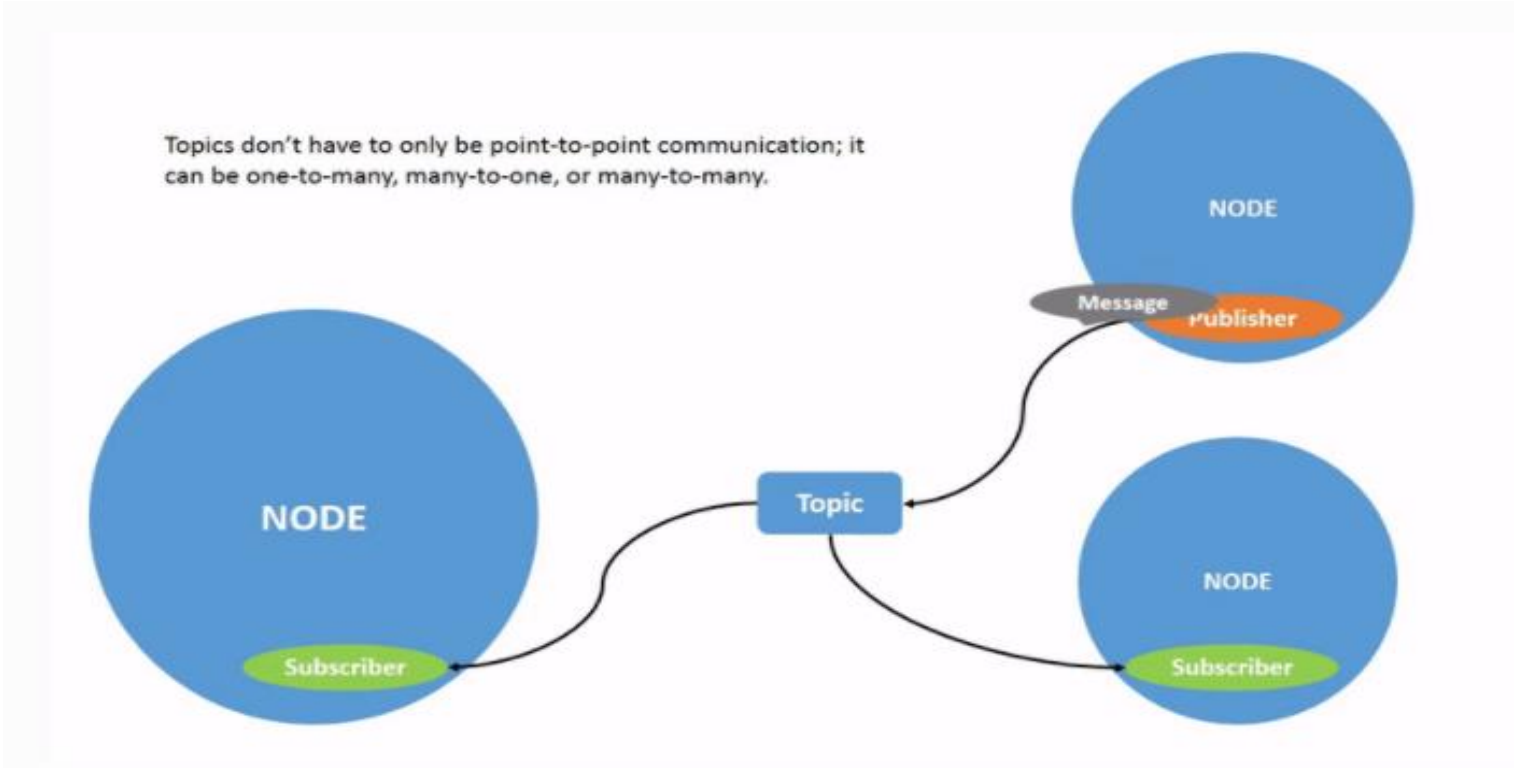
- ros2 node list
- node info <node_name>

```
thonglt@thonglt-virtual-machine:~/ros2_galactic$ ros2 node list
/talker
thonglt@thonglt-virtual-machine:~/ros2_galactic$ ros2 node info  talker
Unable to find node 'talker'
thonglt@thonglt-virtual-machine:~/ros2_galactic$ ros2 node info  /talker
/talker
  Subscribers:
    /parameter_events: rcl_interfaces/msg/ParameterEvent
  Publishers:
    /chatter: std_msgs/msg/String
    /parameter_events: rcl_interfaces/msg/ParameterEvent
    /rosout: rcl_interfaces/msg/Log
  Service Servers:
    /talker/describe_parameters: rcl_interfaces/srv/DescribeParameters
    /talker/get_parameter_types: rcl_interfaces/srv/GetParameterTypes
    /talker/get_parameters: rcl_interfaces/srv/GetParameters
    /talker/list_parameters: rcl_interfaces/srv/ListParameters
    /talker/set_parameters: rcl_interfaces/srv/SetParameters
    /talker/set_parameters_atomically: rcl_interfaces/srv/SetParametersAtomically
  Service Clients:

  Action Servers:

  Action Clients:

thonglt@thonglt-virtual-machine:~/ros2_galactic$
```



https://docs.ros.org/en/galactic/Tutorials/Topics/Understanding-ROS2-Topics.html

rclcpp

- ros2 node list
- node info <node_name>

rclcpp

How to create an example

https://docs.ros.org/en/galactic/Tutorials/Writing-A-Simple-Cpp-Service-And-Client.html

http://wiki.ros.org/rosdep

https://colcon.readthedocs.io/en/released/

Example at

https://github.com/ros2/examples/tree/master/rclcpp