

Add IPv6 support to ODIMRA

This is a proposal to add IPv6 support for communications to ODIM from the north bound apps and amongst the ODIM microservices. The communication between plugins and the managed nodes are not covered as these will be implementation dependent. As part of this enhancement we will have to ensure that

- ODIM will receive API calls made from north bound apps using IPv6 address for ODIM.
- ODIM microservices can reach each other when configured using IPv6 addresses.
- ODIM supports mixed mode addressing where both IPv4 and IPv6 addresses may be used.
- ODIM services support IPv6 addresses in payloads for eg. aggregation service while adding nodes, system service while searching etc.

The changes required will be for IP address validation code in ODIM, setup functions viz., odim controller which interacts with kubernetes and nginx configurations. ODIMRA supports deployment to a single and three node kubernetes cluster only. Any implementation that uses standalone deployment not currently supported will have to handle these setup functions correctly.