

# Loop Platform Standards

The protocols and standards used by Litmus Automation software comprise these categories:

- [Connectivity](#)
  - [Southbound \(PLC to LoopEdge\)](#)
  - [Northbound \(device to cloud\)](#)
- [Management](#)
- [Security](#)
- [Data](#)

## Connectivity

### Southbound (PLC to LoopEdge)

- ORiN device interface
- DOSA (Distributed-power Open Standards Alliance)
- OPC UA
- MTConnect open standard

### Northbound (device to cloud)

- MQTT (IETF)
- REST/HTTP
- LWM2M (OMA)

## Management

- LWM2M (OMA)
- oneM2M (OMA)

## Security

- Authentication (follow northbound)
- Transport Layer (SSL, TLS 1.3/1.2)
- Certificate Management (EPID)

## Data

- IPSO
- OPC UA