LNI 4.0 TSN Testbed
Update of Stream Reservation Approach
LNI 4.0 Goals

Drive solution for dynamic Industry 4.0 M2M use-cases:

- Provide Proof of concept for distributed stream configuration model
- Contribute feedback to standardization (Liaison with IEEE 802.1)
- Perform plug-fests to achieve cross-vendor interoperability
LNI 4.0 Approach to Distributed Stream Reservation

From MSRP++          ….            to LRP/RAP

Intermediate step

IEEE 802.1/IETF Standard  IEEE 802.1 Pre-Standard  LNI Community Spec  Other Community Spec
LNI 4.0 Expectations

- The LRP/ RAP standards will provide a **flexible and generic framework** of resource allocation models for distributed stream reservation:

  - Enhanced for arbitrary shapers / resource models,
  - Open for vendor / organization specific enhancements,
  - With proxy support to add “centralized” RAP stream reservation entities.

- The LRP/ RAP standards will be referenced by **IEC/IEEE 60802**
### LNI 4.0: Options for “fast go to market”

#### LNI Stream Reservation

**Application with RAP Draft Functionality**

<table>
<thead>
<tr>
<th>LNI-SR</th>
<th><strong>RAP 802.1Qdd</strong></th>
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<tbody>
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#### RAP Pre-Standard

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1) will be specified just before Sponsor Ballot commences

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The LNI-SR Application is an organization specific LRP Application, identified by an LNI CID based AppID.

The LNI-SR Application implements a subset of the RAP draft functionality.

LNI required enhancements (QBV) are contributed to RAP.

Goal is easy migration from LNI-SR Application to IEEE Std 802.1Qdd.
LNI 4.0: Next steps

➢ Transfer MSRP++ Specification into LNI-SR Application Specification for LRP/RAP based Stream Reservation
➢ Deliver new stack for LNI members
➢ Plugging the next generation stack
➢ Deliver feedback to IEEE
Questions ?