

# New LLDP capabilities v100

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January 3, 2015

# Goal

Introduce new features for LLDP that are applicable to a wide range of applications and in scope for the protocol. All proposed TLVs are optional for PSEs to implement.

# New TLVs

## 1. Autoclass

These TLVs make Autoclass available to PDs that have dynamic maximum power needs, or to PDs that cannot meet the physical layer Autoclass timing requirements.

- Request a new Autoclass measurement
- Cancel Autoclass (the PSE reverts to the L1 class power detected during classification)

## 2. Power cycle

A TLV to request a power cycle, with a timeout as a parameter. Can be used for forcing a complete reboot and as watchdog functionality.

# New TLVs

## 3. Port measurements

Enable the PSE to request the measured  $V_{PD}$  and  $I_{port}$  from the PD. This can be used to enable retracted power.

Enable the PD to request measured  $V_{PSE}$  and  $I_{port}$  from the PSE. This can be used to facilitate extended power.

## 4. $I_{cut}$

Request the value of  $I_{cut}$  from the PSE. This enables extended power beyond  $P_{Class}$  potentially up to  $V_{PSE} \cdot I_{Cable}$ .

## 5. MPS $I_{Hold}$

Negotiate lower MPS current  $I_{Hold}$  if the PSE supports it.

