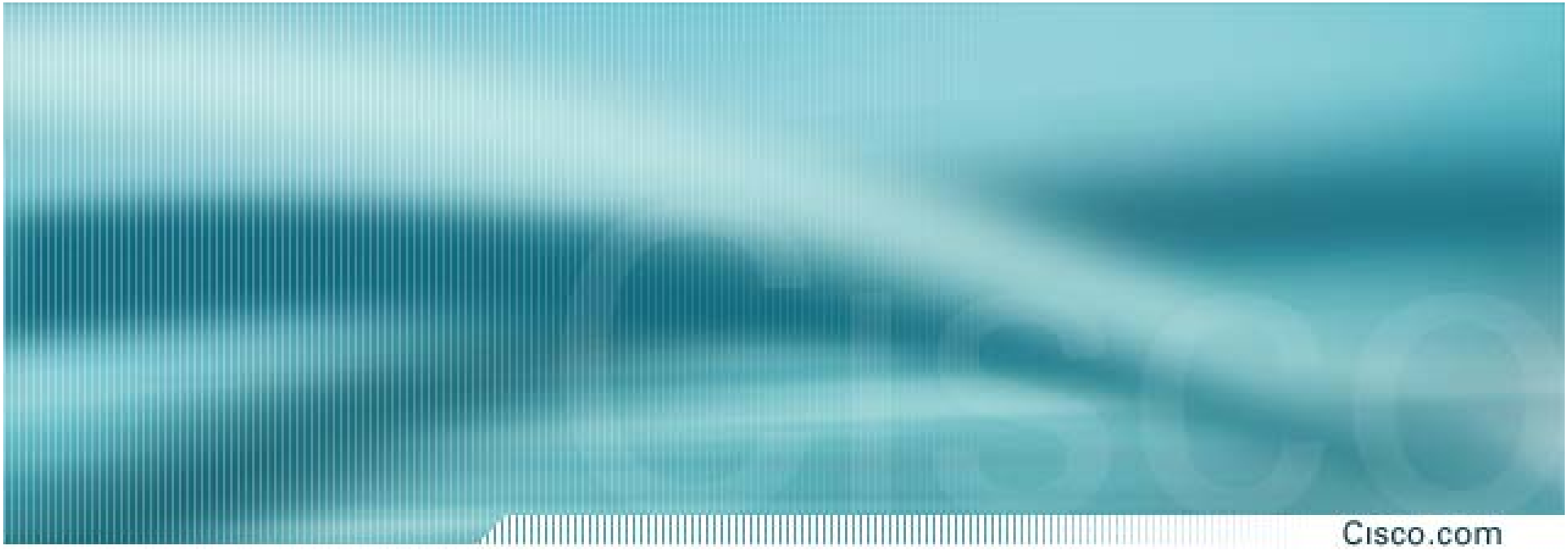

Sleep Mode in 802.3at Systems

(Proposal to the IEEE 802.3at committee)

By

Ramesh Sastry

Cisco,

San Jose CA, USA

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Sleep Mode is 802.3at systems

Goal

- **Define Sleep Mode in 802.3at PDs**
- **Use L2 Protocol (LLDP) to notify the sleep/wake modes to PSE**

Sleep Mode is 802.3at systems

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Any PD which supports Sleep Mode will support the following

1. Use one Reserved bit in the TLV to define Sleep Mode. This bit will be set and the TLV will be sent to PSE when the PD wants to enter sleep mode
2. The power consumed in the Sleep Mode will be entered in the PD Request Power field of the TLV
3. The PD will change the TTL (max 18 hours approx)
4. The PD will stop sending the advertise TLVs – once in 30sec and will ignore all the advertisement TLV's which it receives
5. If the PD wants to extend Sleep Time more than 18 hours it will wake up and do MIB update before the TTL expires and goes to sleep again as long it wants.
6. The PD will reset the Sleep Bit when it wants to wake up

Note: How PD wakes up from sleep mode is implementation dependent.

Sleep Mode is 802.3at systems

Any PSE which supports Sleep Mode will support the following

1. **The PSE recognizes that the PD entering the sleep mode and It can reallocate the available power**
2. **The PSE may stop sending the advertisement TLV's to the sleeping TLV's**
3. **If the PD remains in the Sleep Mode more than TTL duration and then the PSE MIB will be destroyed and it is treated as loss of communication**

Note: PSE operation in Sleep mode is implementation dependent.