

# draft-lam-lime-summary-l0-l2-layer-independent-01

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# From the LIME charter

- Absence of common approach makes it difficult to:
  - Suppress large numbers of unnecessary alarms and notifications related to defects and failures arising in lower layers and visible in each higher layer
  - Quickly identify root causes of network failures
  - Coordinate end-to-end performance measurement with the results of performance monitoring at different layers in the network
  - Correlate defects, faults, and network failures between the different layers to improve efficiency of defect and fault localization and provide better OAM visibility
- Therefore, it is anticipated that the working group will closely coordinate its activities with other SDOs (including, but not limited to the ITU-T, MEF, IEEE, BBF and 3GPP) to ensure that the generic models are harmonized with work done in those SDOs and are applicable to many technologies.

# Well which is it?

- OAM = Operation, Administration, Maintenance
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- OAM&P = Operations, Administration, Maintenance and Provisioning
- OAMP&T = Operations, Administration, Maintenance, Provisioning and Troubleshooting

And don't forget FCAPS - *Fault, Configuration, Accounting, Performance and Security*

Note: see also [RFC 6291](#), Guidelines for the Use of the "OAM" Acronym in the IETF



ISO allergy alert

# 6 characteristics of approach to OAM for Transport in ITU-T

- OAM behaviour is the same across different technologies
- Defect/alarm correlation rules are generic
- OAM behaviour is deterministic
- OAM shares fate with payload
- OAM in client layer is transported transparently in the server layer
- OAM operates independent of a control plane

# Transport Carriage of OAM

- Originally circuit but successfully extended to packet
- In TDM transport part of overhead in the signal
- In packet transport uses dedicated packets between MEPs

	Transport Tech.	Transport Technology Specific			
	Generic	OTN	Carrier Ethernet	MPLS-TP Note 2	SDH
Transport Architecture	G.800 G.805	G.872	G.8010	G.8110.1	G.803
Equipment Function	G.806	G.798	G.8021	G.8121.x series	G.783
Management Requirement	G.7710	G.874	G.8051	G.8151	G.784
Mgmt Interface Protocol-neutral Info Model	G.gim	G.874.1	G.8052	G.8152	G.774 series Note 1

Note 1: The model had been specified, but not in a protocol neutral manner.

Note 2: MPLS-TP is actually L2.5; it is included as it falls under the generic transport management umbrella (as per design).

Figure 1: L0-L2 Architecture and Management Standards

# Next Steps

- Comments and feedback are welcome
- If none, is it ready to become WG draft?