

CATS Metrics Definition

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Updates Summary from -04 to -06 since IETF124

- Author Change
 - Special thanks to Hang for his initial contribution to the formulation of the draft, and welcome Guanming, Hang's colleague, for taking over his work.
- Change the document type to “Standard Track”
- Add Metric Registry Entries of CATS L1 & L2 metrics for IANA request
 - This document will NOT standardize L0 metrics
 - This document will NOT force the choice of normalization/aggregation functions for L1 & L2 metrics generation

Metric Registry Template (From RFC8911 & RFC8912)

- **RFC 8911** “Registry for Performance Metrics” provides guidelines and defines the format for IANA Registry of Performance Metrics.
- **RFC 8912** “Initial Performance Metrics Registry Entries” Defines the initial entries for the IANA Registry of Performance Metrics, like Packet Delay Variation, etc.
- CATS metrics registries (Section 6) follow the metric registry templates and examples in RFC8911 & RFC8912, with the following registry terms:
 - Summary (Metric Identifier, Name, URI, etc)
 - Metric Definition
 - Method of Measurement
 - Reference
 - Output
 - Administrative Information
 - Comments and Remarks

Summary						
Identifier	Name	URI	Desc.	Reference	Change Controller	Ver
Metric Definition						
Reference Definition Fixed Parameters						
Method of Measurement						
Reference Method	Packet Stream Generation	Traffic Filter	Sampling Distribution	Runtime Parameters	Role	
Output						
Type	Reference Definition	Units	Calibration			
Administrative Information						
Status	Requester	Rev	Rev. Date			
Comments and Remarks						

CATS L2 & L1 Metric Registry Entry

- **Metrics Summary (one L2 metric & four L1 metrics)**
- L2 Metric: Norm_Passive_CATS-L2_RFCXXXsecY_Unitless_Singleton
- L1 'compute': Norm_Passive_CATS-L1_Compute_RFCXXXsecY_Unitless_Singleton
- L1 'communication': Norm_Passive_CATS-L1_Communication_RFCXXXsecY_Unitless_Singleton
- L1 'service': Norm_Passive_CATS-L1_Service_RFCXXXsecY_Unitless_Singleton
- L1 'composed': Norm_Passive_CATS-L1_Composed_RFCXXXsecY_Unitless_Singleton
- **Metric Definition**
- Parameters: Normalization score range: 0-10 (0 indicates the poorest capability, 10 indicates the optimal capability),
- Data precision: decimal number (unsigned integer)


CATS L2 & L1 Metric Registry Entry Cont'd

- **Method of Measurement**

- Define reference methods (raw metrics collection, aggregation logic, normalization logic)
- runtime parameters (CATS service contact instance ID (CSCI-ID), Service_Instance_IP, Measurement_Window)
- metrics collection roles (C-NMA, C-SMA)

- **Output**

- score semantics
- calibration method




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- **A technical question for the audience:**
Should C-SMA also collect communication metrics for computation of L1 communication/composed metric or L2 metric, like BW/throughput within a service site?

Please help review the metric collection roles for each registered metric. Thanks:-)

Next Steps

- Are there any important issues that are still unclear?
- Is the document mature enough to go for WGLC?
- Please help review the draft. Thanks!

Milestones

Date 	Milestone 	Associated documents 
Mar 2026	Submit document describing CATS metrics to the IESG for publication as Informational	draft-ietf-cats-metric-definition