



Scott Mansfield <scott.mansfield@gmail.com>

FW: RE: Make a recap of previous requirements/discussions about an updated version of RFC #1

1 message

Scott Mansfield <scott.mansfield@ericsson.com>
To: "scott.mansfield@ieee.org" <scott.mansfield@ieee.org>

Thu, May 5, 2022 at 6:10 AM

From: Jonas Ahlberg <jonas.ahlberg@ericsson.com>
Sent: Monday, April 25, 2022 3:15 AM
To: Scott Mansfield <scott.mansfield@ericsson.com>; Italo Busi <Italo.Busi@huawei.com>; Yemin (Amy) <amy.yemin@huawei.com>; Spreafico, Daniela (Nokia - IT/Vimercate) <daniela.spreafico@nokia.com>; Xi Li <Xi.Li@neclab.eu>
Subject: RE: Make a recap of previous requirements/discussions about an updated version of RFC #1

Hi all,

This is an extract of the mail conversions we have had about the update of RFC 8561, from March 2021 until July 2021. I haven't found any mails about the update after that.

Let's walk through and create the required "issues" at our next meeting.

/JonasA

[2021-07-14 / Scott] RE: Draft Notes from Microwave meeting

14 July Notes:

Discussed meeting schedule and determined critical mass for productive discussion will next occur on 11 August.

Discussed the wording of the Microwave Topology discussion update message for the CCAMP list.

Next meeting 11 August

Agenda:

Review output of IETF meeting relevant to Microwave discussion (if any)

Use Case Status review (Jonas)

Draft contribution (Jonas)

Liaison review (discuss need for changes to microwave interface model – if any)

Discuss draft update plans and schedule

Discuss meeting cadence (decide next meeting date and agenda)

Contact CCAMP chair to cancel 21 July, 28 July, 4 Aug.

Actions: To be done by COB 15 July, to give some time for comment.

- Send out one email with the minutes from last week and this week.
- Send out the update message below to the CCAMP mailing list

<ccamp-update-message>

The Microwave Topology yang data model is an expired draft (<https://datatracker.ietf.org/doc/draft-ietf-ccamp-mw-topo-yang/>), work is continuing to update the expired draft in time for discussion at the IETF 112 in November.

Recent collaboration with experts from ETSI mWT ISG is summarized in the following meeting minutes: https://mailarchive.ietf.org/arch/msg/ccamp/Lq1_lpvpsqzwWPy84fHfTDNbaC0/ with a follow-up https://mailarchive.ietf.org/arch/msg/ccamp/RfP-yCyogF_EFOXdU-nzh2us8AU/. The purpose of the collaboration is to investigate revising the microwave interface model (found in RFC 8561) to address the relevant gaps identified in ETSI GR mWT 025. The details for the Microwave meeting series calls are on the mailing list: (announced: <https://mailarchive.ietf.org/arch/msg/ccamp/dTo-UebzMQpqV4m-SHDTdnE39cg/>).

The meeting minutes for the microwave discussions are archived on the CCAMP mailing list (<https://mailarchive.ietf.org/arch/browse/ccamp/?q=microwave>)

Next meeting of the Microwave team will be 11 August. Resume discussions on Use Cases and Topology draft alternatives.

[2021-06-08 / Scott] Meeting note for 3 June 2021 IETF CCAMP - Microwave / ETSI GR mWT 025

- BCA
 - Any mix of bands is included
 - Includes carrier aggregation in the same band
 - Intent:
 - Understand underlying topology
 - Address more advanced applications
 - Handling each carrier independently for specific purposes
 - Have the information about the total capacity
 - MW topo extension?
 - Performance information is important, like capacity latency
 - Combined performance of the bundle is required
 - → potentially describes a set of attributes related to the multicarrier

- We are addressing L1 bonding
 - RFC8561 has a basis with the protection group
 - Extend or add a new group?
- Fade Margin
 - With adaptive modulation enabled, which modulation does this refer to?
 - It's a planning target
 - → at least for the lowest modulation allowed on the link (the other margins can be calculated by the controller)
 - → what about the threshold degradation due to interference?
 - To be managed between planning tool / optimization tool / SDN Controller, not in the equipment
- BER, Errored block – EB, Mean Time between outages, Outage Intensity
 - → based on counters implemented within the equipment
 - See document about error performance evolution from ETSI ISG mWT [<https://www.etsi.org/committee/1426-mwt>] (WI 19)
 - To be discussed more in a later session
- Current Alarm Specific Problem, Historical Alarm Specific Problem
 - Refer to the existing alarm management module?
 - What's the "Specific Problem"?
 - → exists in the IETF alarm modeling [to be double checked by both sides (see bullets below)]
 - → Comment: information abundance is going to be important to feed future AI algorithms
 - Specific problems.
 - This parameter, when present, identifies further refinements to the Probable cause of the alarm. This parameter qualifies the chosen Probable cause and may be used by the managed object class definer to specify a set of identifiers for use in managed object classes." according to ITU (X.733-1992 X.733 : Information technology - Open Systems Interconnection - Systems Management: Alarm reporting function (itu.int))
 - RFC8632 is the alarms IETF RFC <https://datatracker.ietf.org/doc/html/rfc8632>
 - Action: To Everyone, review RFC 8632 against the definition in X.733 and provide input of information that needs to be considered for probable cause.
- Maximum Link/Carrier Utilization %
 - → original intent was to support the power consumption optimization, based on actual link traffic load
 - Per carrier and per link (bundled)
 - Interval?
 - → Action: everyone to consider and bring proposals/thoughts on measurement interval granularity
 - → current 15 minute integration time is too long for advanced applications
 - For non-continuous transmission (packet transmission) the integration time should not be too short
 - Integration time could be much shorter than 15 minutes, reporting max and min could be on a 15 minutes interval
 - Percentage relative to what?
 - → maximum and minimum modulation (static)
 - → Action: everyone to consider and bring contributions that provide clarity on the interaction between electrical power consumption and traffic
- Latency
 - Latency of what? Link? Service? Defined on Ethernet traffic, any requirements on interval for measurement of latency?
 - Requirements related to supporting configuration of L2 or L3 service based on latency, availability, and capacity.
 - Differentiate between what needs to be stored/retrieved/measured from the equipment, or supported by an end-to-end protocol like TWAMP.
 - Ethernet OAM IEEE CFM (current CFM YANG found here: [yang/standard/ieee/published/802.1](https://github.com/YangModels/yang) at master · YangModels/yang · GitHub), ITU-T work on G.8052.1 (G.8052.1 : Operation, administration, maintenance (OAM) management information and data models for the Ethernet-transport network element (itu.int))
 - Applicability of current tools to the given requirements based on new features like slicing.
 - Action: to the equipment vendors to propose what support is available on the equipment (capabilities may be beyond the microwave modeling work, more related to system-level OAM measurement/management).
 - Action: identify the YANG models that identify the latency measurement
- Electrical Power Consumption
 - Calculated how? Consumption per link? Per carrier? Or Aggregate for the node?
 - Suggestion: A system is modular, the modules are chassis that take power, so power consumption is measured at the granularity of the chassis. Take this to the carriers to determine if this provides the power consumption information needed.
 - Action: proposal for electrical power consumption model (and granularity of measurement)
 - Action: Can carriers agree that chassis-level measurement is sufficient.

Action: Carriers to determine if there is a need for another ETSI WI25/CCAMP discussion meeting.

[2021-06-03 / Daniela] RE: CCAMP - Microwave / ETSI GR mWT 025 (notes 3 June 2)

Hi all,

as Action Point for vendors, my side I checked on RFC8632 the concept of alarm 'specific problem' as defined on ITU X.733 .

I found it using the following leaf attribute of 'alarm-list' to identify an alarm instance (added to 'resource' and 'alarm-type-id')

leaf **alarm-type-qualifier** {

type alarm-type-qualifier;

description

"This leaf is used when the 'alarm-type-id' leaf cannot uniquely identify the alarm type. Normally, this is not the case, and this leaf is the empty string."

typedef alarm-type-qualifier {

type string;

description

"If an alarm type cannot be fully specified at design time by 'alarm-type-id', this string qualifier is used in addition to fully define a unique alarm type.

Take into account that 'alarm-type-id' corresponds to the Probable cause of the alarm

BR, Daniela

[2021-06-03 / Scott] CCAMP - Microwave / ETSI GR mWT 025 (notes 3 June 2021)

Please check for accuracy, I will send to the CCAMP list in a few days with any updates needed.

Meeting note for 3 June 2021 IETF CCAMP - Microwave / ETSI GR mWT 025

Attendees:

Scott Mansfield

Daniela Spreafico

Gabriele Ferrari

Jean Rebiffé

Leo Macciotta

Zakaria Tayq

Min Ye (Amy)

Note: Writing in blue is discussion that has occurred in previous CCAMP Microwave meetings. The text in red was discussed during the meeting. Actions are marked with "Action:"

Regards,

-scott.

-
- **BCA**
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 - Combined performance of the bundle is required
 - → potentially describes a set of attributes related to the multicarrier
 - We are addressing L1 bonding
 - RFC8561 has a basis with the protection group
 - Extend or add a new group?
 - **Fade Margin**
 - With adaptive modulation enabled, which modulation does this refer to?
 - It's a planning target
 - → at least for the lowest modulation allowed on the link (the other margins can be calculated by the controller)
 - → what about the threshold degradation due to interference?
 - To be managed between planning tool / optimization tool / SDN Controller, not in the equipment
 - **BER, Errored block – EB, Mean Time between outages, Outage Intensity**
 - → based on counters implemented within the equipment
 - See document about error performance evolution from ETSI ISG mWT [<https://www.etsi.org/committee/1426-mwt>] (WI 19)
 - To be discussed more in a later session

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 - Applicability of current tools to the given requirements based on new features like slicing.
 - Action: to the equipment vendors to propose what support is available on the equipment (capabilities may be beyond the microwave modeling work, more related to system-level OAM measurement/management).
 - Action: identify the YANG models that identify the latency measurement
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 - Action: proposal for electrical power consumption model (and granularity of measurement)
 - Action: Can carriers agree that chassis-level measurement is sufficient.

Action: Carriers to determine if there is a need for another ETSI WI25/CCAMP discussion meeting

[2021-05-19 / Leo] Clarification May 19th // RE: CCAMP - Microwave / ETSI GR mWT 025

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 - To be managed between planning tool / optimization tool / SDN Controller, not in the equipment
- BER, Errored block – EB, Mean Time between outages, Outage Intensity
 - → based on counters implemented within the equipment
 - See document about error performance evolution from ETSI ISG mWT [\[insert link here\]](#)
 - To be discussed more in a later session ([invite Pietro?](#))
- Current Alarm Specific Problem, Historical Alarm Specific Problem
 - Refer to the existing alarm management module?
 - What's the "Specific Problem"?
 - → exists in the IETF alarm modeling [\[to be double checked by both sides\]](#)
 - → Comment: information abundance is going to be important to feed future AI algorithms
- Maximum Link/Carrier Utilization %
 - → original intent was to support the power consumption optimization, based on actual link traffic load
 - Per carrier and per link (bundled)
 - Interval?
 - → **TBD**
 - → current 15 minute integration time is too long for advanced applications
 - For non-continuous transmission (packet transmission) the integration time should not be too short
 - Integration time could be much shorter than 15 minutes, reporting max and min could be on a 15 minutes interval
 - Percentage relative to what?
 - → maximum and minimum modulation (static)
 - → **TBD**
 -
- Latency
- Power Consumption

[2021-05-12 / Leo] RE: CCAMP - Microwave / ETSI GR mWT 025

We had our regular CCAMP meeting today, and would like to propose that you participate in our CCAMP meeting next week May 19th at 12.00 to 13.00 CET – that's the best chance to involve as many CCAMP participants as possible

When starting to look at the actual implementation, details pop up that need some clarification with you, namely regarding the following attributes from the gap list:

- BCA
 - Fade Margin
 - BER
 - Errored block - EB
 - Mean Time between outages
 - Outage Intensity
 - Current Alarm Specific Problem
 - Historical Alarm Specific Problem
 - Maximum Link/Carrier Utilization %
 - Latency
 - Power Consumption
-

[2021-04-14 / Jonas] Notes: CCAMP - Microwave - 2021-04-14

ETSI gap

- Plan going forward:
 - Mail sent by Leo to operator representatives in ETSI information them about this work and with a request for a meeting to clarify the definitions of the attributes
 - Decided to only use the excel sheet internally.
 - Another attribute, not in the list of gaps, to be discussed
 - Reference mode
 - The reference mode is assumed to be based on the definition in ETSI EN 302 217-2 V3.2.2
 - Reference mode (reference equipment class and channel separation): in mixed-mode systems, it identifies the operative mode which characteristics (i.e. system capacity, spectral efficiency class over a given channel separation) are used (i.e. declared in the licensing process) in the link per link coordination analysis
 - Classes: 2, 3, 4L, 4H, 5L, 5H, 6L, 6H, 7, 8
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[2021-04-01 / Jonas] Notes: CCAMP - Microwave - 2021-03-31

ETSI update

- Attached excel sheet, lists the gap according to ETSI WI 25 and summarizes the reflections from our team.
- Many of the attributes need to be more clearly defined before we can conclude on if they can be supported in RFC 8561 or not.
- Other attributes are not directly related to microwave and need to be covered by other models. Some of them are related to other IETF models, such as ietf-alarm-management. Other are related to models defined by IEEE and ITU-T.
- Plan going forward:
 - Mail sent by Leo to operator representatives in ETSI information them about this work and with a request for a meeting to clarify the definitions of the attributes
 - Review of excel sheet. After that we can share that with the ETSI representatives
- Another attribute, not in the list of gaps, to be discussed
 - Reference mode – To be further clarified internally



ETSI Gaps 210401.xlsx

12K