

A YANG Data Model for Attachment Circuit as a Service with UDP Tunnel Support

draft-jlu-dmm-udp-tunnel-acaas-01

Mobility Aware Transport Network Slicing for 5G

draft-ietf-dmm-tn-aware-mobility-24

IETF 125 Shenzhen, March 2026

Split into Network Slicing for 5G, and UDP ACaaS YANG Model

draft-ietf-dmm-tn-aware-mobility-20

1.	Introduction	2
2.	Scope of Transport Networks in 5G Slicing	4
3.	Mapping 3GPP Slice to Transport Network Slices	6
3.1.	Mid-haul and Backhaul Transport Networks	6
3.2.	3GPP Slice Configuration Overview	7
3.3.	Slice Mapping using UDP Source Port Number	9
4.	Transport Network Underlays	13
5.	Attachment Circuit as a Service Extension	14
5.1.	Attachment Circuit Extension for UDP Tunnel	14
5.2.	ietf-ac-udp-tunnel YANG Module	15
6.	Acknowledgements	15
7.	Security Considerations	15
8.	IANA Considerations	15
9.	Contributing Authors	15
10.	References	16
10.1.	Normative References	16
10.2.	Informative References	16
	Appendix A. Abbreviations	16
	Authors' Addresses	16

draft-ietf-dmm-tn-aware-mobility-24

1.	Introduction	2
2.	Scope of Transport Networks in 5G Slicing	4
3.	Mapping 3GPP Slice to Transport Network Slices	6
3.1.	Mid-haul and Backhaul Transport Networks	6
3.2.	3GPP Slice Configuration Overview	7
3.3.	Slice Mapping using UDP Source Port Number	9
4.	Transport Network Underlays	13
5.	Acknowledgements	14
6.	Security Considerations	15
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8.	Contributing Authors	15
9.	References	16

draft-jlu-dmm-udp-tunnel-acaas-01

1.	Introduction	2
2.	Attachment Circuit for UDP Tunnel	3
3.	ietf-ac-udp-tunnel YANG Module	4
4.	Acknowledgements	6
5.	Security Considerations	6
6.	IANA Considerations	7
7.	References	7
7.1.	Normative References	7
7.2.	Informative References	8
	Appendix A. Abbreviations	9
	Appendix B. Example	10
	Authors' Addresses	16

ietf-ac-udpt (section 2) and ietf-ac-udp-tunnel (section 3)

draft-jlu-dmm-udp-tunnel-acaas-01

```
module: ietf-ac-udpt

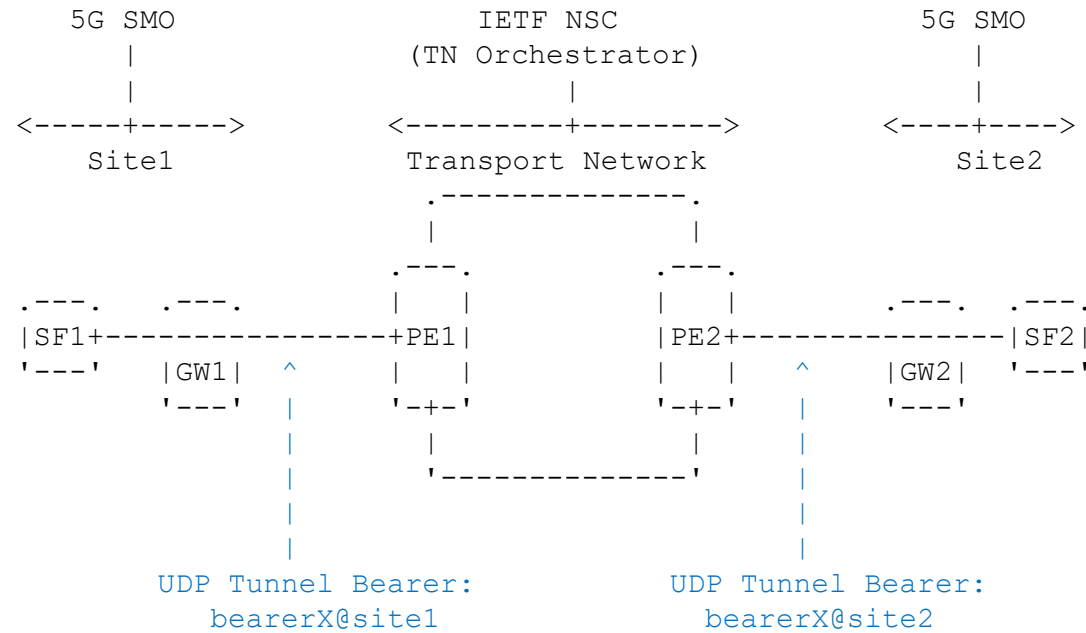
augment /ac-svc:attachment-circuits/ac-svc:ac/ac-svc:ip-connection
  /ac-svc:l3-service/ac-svc:l3-tunnel-service
  /ac-svc:l3-tunnel-service:

  +---rw (udp-port)?
    +---: (port-range-or-operator)
      +---rw source-port-range-or-operator
        +---rw (port-range-or-operator)?
          +---: (range)
            | +---rw lower-port      inet:port-number
            | +---rw upper-port      inet:port-number
          +---: (operator)
            +---rw operator?         operator
            +---rw port               inet:port-number
```

- No change in the model.
- ietf-ac-udp-tunnel YANG module is re-compiled on 2025-09-18.
- Security Consideration (section 5) revised as per updates in [I-D.ietf-netmod-rfc8407bis].

Appendix B: UDP Tunnel YANG Model Example

draft-jlu-dmm-udp-tunnel-acaas-01



This example is adapted from Appendix A.7 of [I-D.ietf-opsawg-teas-attachment-circuit], now RFC 9834. Here, the original Layer 2 ACaaS is replaced with a UDP Tunnel Bearer.

Comments on draft-jlu-dmm-udp-tunnel-acaas-01

Comments from Linda:

- The title suggests a complete YANG model, but the document text indicates it is an extension to an existing AC service model. It is more accurate to indicate that "A YANG Data Model Extension for .."
- The terminology is slightly inconsistent (e.g., "Layer 3 tunnel" vs. "Layer-3 tunnel").

Comments from Tianji:

In sec#2 (term.): PE and SF are mixed, with PE being explained as SF and SF as PE. Please correct.

“Layer 3 UDP tunnel”: is the major fundamental term used in the draft. So, suggest adding one bullet in Sec#2 (term) to explain ‘Layer 3 UDP tunnel’.

Comments from Lionel:

OLD: [RFC9834] describes further details of bearers and 'Attachment Circuits'-as-a-service.

NEW: [RFC9834] provides further details on the description of the bearer service and the attachment circuit service.

OLD: [RFC9834] specifies YANG data models for bearers and 'Attachment circuits'-as-a-service ACaaS.

NEW: [RFC9834] specifies YANG data models for the bearer service and the attachment circuit service.

Acknowledge previous contribution to the definition of Yang structures for the ietf-ac-udp-tunnel attachment circuit
(Authors: sorry about that – we will fix that)

[Authors acknowledge the comments and will revise.](#)

Summary

draft-jlu-dmm-udp-tunnel-acaas-01:

- YANG New draft has had a detailed and expert review for all YANG aspects.
(Main changes: Added Appendix B with example.)
- WG adoption call. Thanks for the reviews and comments.

draft-ietf-dmm-tn-aware-mobility-24 is completing WG last-call

Questions ?

Backup: draft-ietf-dmm-tn-aware-mobility-22 comments (IETF 124)

[Tianji Jiang]

[quoted from section#1] However, 3GPP standards **do not specify** the capabilities of transport network (TN) slices or slice characteristics for QoS, hard /soft isolation, protection and other aspects. Either 3GPP standards do 'not specify' or 'consider this is actually out of scope of 3GPP'? if later, please clarify it.

>> [Can clarify that it is out of scope for 5G](#)

[quoted from section#1] TN slices in this document can be used to realize slices between 3GPP control plane NFs or for a UE's user plane. For realizing control plane slicing, the TN slice is deployed along the interface between two 3GPP NFs. User plane 5G slice for each user's PDU session is mapped to corresponding TN slices and is the focus of this document.

From reading these couple of sentences, my understanding is that it implies the TN-slice mapping scheme as specified in the draft is applicable to both 3GPP CP and UP. However, the mapping of the scheme goes thru the source UDP port (of GTP-U), which is not applicable to CP. – suggest clarifying it.

>> [Can clarify that this is for the User Plane.](#)

[quoted from section#1] Mapping a 3GPP slice to a TN slice using GTP-U (UDP) source port number is useful when the **3GPP network function** and PE for TN slice are in different IP subnets

3GPP network functions include both CP and UP NFs. This draft is focusing on UP and the mapping (via source UDP-port) is applicable to UP (F1-U, N3, N9).

So, a little ambiguous and suggest replacing with '3GPP UP NF (e.g., anchor-UPF)'

>> [This can apply to F1-U, N3 and N9. Not only for the anchor-UPF.](#)

[quoted from section #2] ...the N3 interface between the gNB-CU-**CP** and the UPF...

Should be 'gNB-CU-**UP**'

>> [Good point. Should be revised to gNB-CU-UP.](#)

Also, the draft is referencing a couple of documents which are not yet WG-adopted. Not sure what will be the criteria for this kind of reference. Maybe the DMM chairs could shed some light & guidance. .

>> [ACK](#)