

S-123 TG Update to 2nd NIPWG VTC (2024)

Presented by
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S-123 TG Update, 2nd NIPWG VTC (2024)

• NIPWG VTC-01 (2024) in March - Action Item 12

- NIPWG invited to review proposed changes to S-123 PS and to provide feedback to S-123TG.
- The only feedback received so far is a proposal, as follows, *“to expand categoryOfConnectivitySubscription with a floating communication = 5”*

Received input: “Probably we will have to add a “floating” type to the S123 model to account for the base stations similar to the Jet Connectivity’s product.”

| <<FeatureType>> ConnectivitySubscriptionArea |
|---|
| <<SimpleAttribute>> + categoryOfConnectivitySubscription:categoryOfConnectivitySubscription [0..1] + communicationStandard: text [0..1] + estimatedRangeOfTransmission: real [0..1] + baseStationAntennaHeight: real [0..1] |
| <<ComplexAttribute>> + frequencyRange: frequencyRange [0..*] + sectorLimit: sectorLimit [0..*] + coverageIndication: coverageIndication [0..1] |
| <<SpatialAttribute>> + geometry: Point or Surface |

| <<enumeration>> categoryOfConnectivitySubscription |
|---|
| satellite communication GEO = 1 satellite communication LEO = 2 land-based cellular communication =3 terrestrial ad-hoc communication =4 |



floating communication = 5 ?

Not yet discussed in S-123 TG meeting

Floating communication ?

- Jet connectivity's "product"
 - Floating 5G network with base stations/relay station **deployed on buoys**
- Others also called "floating" or "non-fixed"
 - Base stations deployed on balloons, drones ...
- All using 5G cellular communication
 - From end-user devices' perspective
- NTOU's suggestion:
 - instead of adding 'floating communication (5)'
 - 'categoryOfConnectivitySubscription' could
 - Rename 'land-based cellular communication (4)'
 - into 'cellular communication (4)'



Floating Cell Towers Are the Next Step for 5G >
Terrestrial 5G networks will support high-altitude balloons and drones, and could someday merge with them

BY JEREMY HOU | 26 APR 2019 | 3 MIN READ | □

IEEE Spectrum
2019



<https://spectrum.ieee.org/internet-balloons-and-drones-look-to-rise-in-the-5g-era>

Action Requested of NIPWG

- NIPWG is invited to
 - note this update
 - endorse the proposed changes as recommended by the S-123 TG