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# Drone Remote Identification Protocol (DRIP)

IETF 115 updates: regulators, external SDOs & early adopters

2022 NOV 10 [stu.card@axenterprize.com](mailto:stu.card@axenterprize.com) 315-725-7002

- Interactions between regulators & external SDOs affecting DRIP since IETF 114
  - JUL: ASTM published F3411-22a (acknowledges DRIP) & F3586 Means Of Compliance w/US FAA rule (MOC). 😊
  - AUG: FAA Notice Of Availability (NOA) of F3586 MOC added ill-defined “tamper resistance” requirement. 😞
  - SEP: UAS manufacturers began filing [nominal] Declarations Of Compliance (DOCs) based on MOC & NOA.
  - OCT: I filed comment that DRIP key wipe triggered by tamper-reactive hardware could provide economical anti-tamper. 😊
  - OCT: FAA staff agreed w/need for authentication & other benefits offered by, & unofficially expressed appreciation of, DRIP. 😊
- DRIP needs more participation from outside US w/awareness of other regulator & SDO activities.
- Do we need a MOC showing how to use DRIP to satisfy CAA regs more fully, starting w/Session IDs?  
The basic DRIP document set, with one doc (presumably Architecture) as a single point of entry, probably could serve.
- To meet urgent needs, before FAA blessing or even RFCs
  - The DTN working group is considering whether HHITs fit their node/endpoint identifier needs. 😊
  - Some US agencies are conducting field trials intended rapidly to become actual deployments of DRIP!



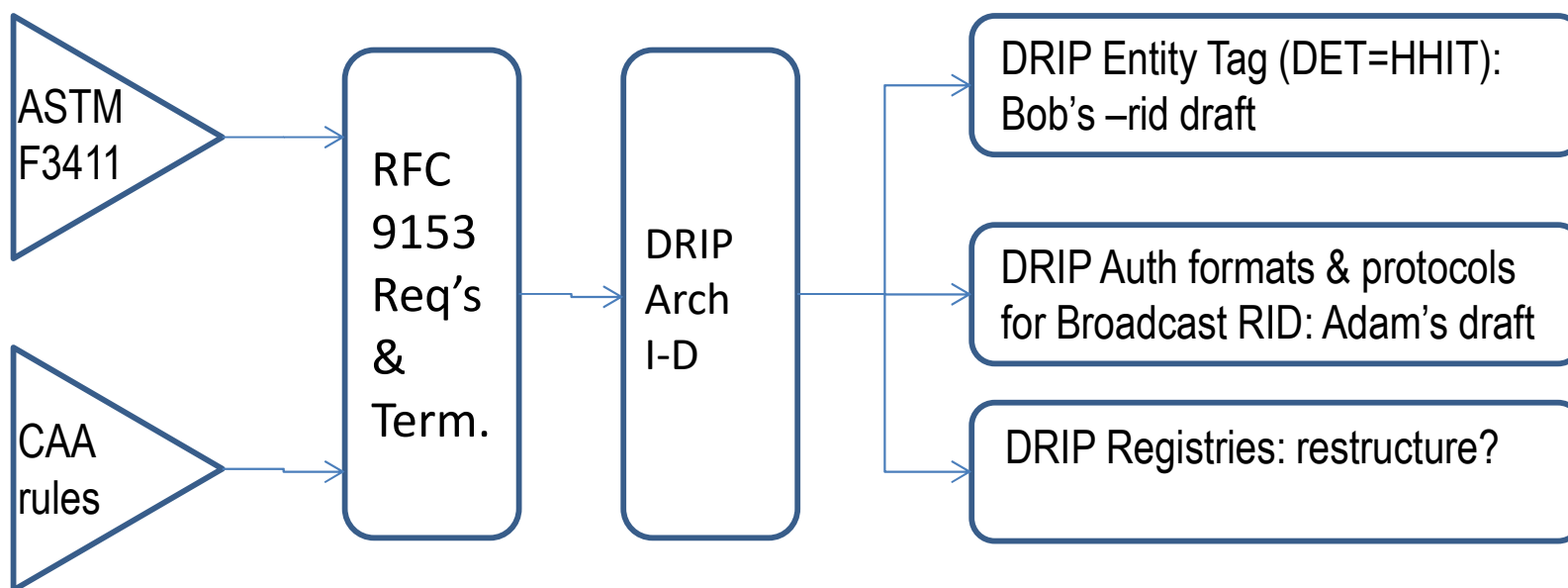
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## How do these drive DRIP work?





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- IETF (IESG? IAB?) wants Points Of Contact (POCs) from ICAO & ASTM to validate DRIP efforts.
- ICAO wants an “Observer” (non-voting Subject Matter Expert) from IETF in Trust Framework Panel.
  - Bob & Stu are already on the TFP as Observers representing businesses active in aviation trust.
  - The first meeting of the TFP will be 2023 JAN in Montreal.
- ASTM wants ICAO to act as registrar for some RID types & corresponding integer code assignments.
  - Specific Session ID types: “IETF DRIP entity ID” is designated as Type 1 in F3411-22a so we are already covered.
  - Specific Authentication Method (SAM) types: we need at least 3 to support DRIP Links, Manifests & Wrappers.
- Each of the above 3 organizations has formal procedures for establishing official liaisons.
- To get DRIP SAM assignments:
  - ASTM has drafted a letter (currently in their legal review) to ICAO requesting they perform the registrar function.
  - ICAO has unofficially agreed in principle to do it (pending review of the letter as yet unsend by ASTM).
  - We (IETF DRIP) will request our SAM assignments as soon as that process is in place.
  - We have identified the following informal interim POCs:
    - IETF: Adam Wiethuechter, primary author, DRIP Authentication draft
    - ICAO: Saulo Da Silva, Chief, Global Interoperable Systems Section
    - ASTM: Gabriel Cox, Chair, F38.02 UAS RID Working Group
- To identify an appropriate DNS apex, we’ve been talking w/IANA *et al.*
- To identify an appropriate IP prefix, we’ve been talking so far just among ourselves.