

IETF MADINAS WG

MAC Address Device Identification for Network and Application Services

Chairs:

Juan Carlos Zúñiga - Sigfox

Carlos Bernardos – UC3M

November 2021



I E T F®

IETF 112 Virtual Meeting Tips + Etiquette

- **Please join the queue before participating**
- **Mute your microphone unless you are speaking**
- **Preferably, turn your video off**

<https://www.ietf.org/how/meetings/112>

<https://www.ietf.org/how/meetings/112/ietf112-meetecho/>

Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

As a reminder:

- By participating in the IETF, you agree to follow IETF processes and policies.
- If you are aware that any IETF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion.
- As a participant in or attendee to any IETF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public.
- Personal information that you provide to IETF will be handled in accordance with the IETF Privacy Statement.
- **As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (<https://www.ietf.org/contact/ombudsteam/>) if you have questions or concerns about this.**

Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- [BCP 9](#) (Internet Standards Process)
- [BCP 25](#) (Working Group processes)
- [BCP 25](#) (Anti-Harassment Procedures)
- [BCP 54](#) (Code of Conduct)
- [BCP 78](#) (Copyright)
- [BCP 79](#) (Patents, Participation)
- <https://www.ietf.org/privacy-policy/>(Privacy Policy)

IETF Guidelines of Conduct

A brief reminder of key points from RFC 7154:

- IETF participants extend respect and courtesy to their colleagues at all times
- IETF participants have impersonal discussions
- IETF participants devise solutions for the global Internet that meet the needs of diverse technical and operational environments
- Individuals are prepared to contribute to the ongoing work of the group

Reminders

- Minutes are taken
- This meeting is recorded
- Presence is logged (blue sheets) by logging into DataTracker
- **Scribe(s): please contribute online to the minutes at <https://codimd.ietf.org/notes-ietf-112-madinas>**
Recordings and Minutes are public and may be subject to discovery in the event of litigation

Agenda

- **Welcome, Agenda Review and Status Update (WG Chairs) -- 15 mins**

- **Status update from other SDOs -- 30 mins**

WBA Wi-Fi Devices Identification, Tim Twell (10 min)

Updates from IEEE 802.1 , Glenn Parsons (10 min)

Updates from IEEE 802.11bh/bi, Jerome Henry (10 min)

- **Use cases and Problem statement -- 30 mins**

Randomized and Changing MAC Address Use Cases, Jerome Henry
<https://datatracker.ietf.org/doc/draft-henry-madinas-framework/>

- **MAC Address Randomization current state-of-affairs -- 20 mins**

MAC Address Randomization, Amelia Andersdotter
<https://datatracker.ietf.org/doc/draft-zuniga-madinas-mac-address-randomization/>

- **Next Steps (WG Chairs w/AD Support) -- 15 mins**

Background – Purpose of (previous) MADINAS BoF

- Inform IETF community about latest MAC address randomization activities and purposes
- Present Network and Application Service-related issues related to MAC address randomization
- Identify whether any actions are required at the IETF, such as:
 - Coordination with other SDOs
 - Documentation of use cases
 - Identification of existing solutions/gaps

***MADINAS became an official WG in September 2021
First working meeting at IETF 112***

MADINAS WG Charter (1/2)

The default static assignment of the MAC address raises privacy concerns for personal devices. These concerns have recently started to be mitigated by SDOs specifying the use of **Randomized and Changing MAC addresses (RCM)** and end-device vendors implementing RCM.

Device identity is important in scenarios where the network needs to know the device or user identity in order to offer, operate and maintain certain services. Currently, **many use cases and applications make an implicit assumption that a device is represented by an IEEE 802 Layer 2 permanent and unique MAC address.** This assumption is being used in both control plane and data plane functions and protocols. RCM breaks this assumption. This requires updating applications to function across MAC address changes.

The MADINAS Working Group will :

(i) identify relevant network and application services scenarios and examine the effect of RCM schemes on them;

(ii) analyze various existing identifiers (i.e., beyond the MAC address) that can be used by the network to provide seamless services, and

(iii) identify scenarios where device identity is not required.

MADINAS WG Charter (2/2)

The group will generate a Best Current Practices (BCP) document recommending means to reduce the impact of RCM on the documented use cases while ensuring that the privacy achieved with RCM is not compromised. For scenarios where device identity stability is desirable, the BCP document will recommend existing protocols that can be used to protect the request and exchange of identifiers between the client and the service provider.

The Working Group will work together with other IETF WGs (e.g., DHC, IntArea), and will liaise with other relevant organizations, such as IEEE 802 and the Wireless Broadband Alliance (WBA), by coordinating on the different recommendations, as well as potential follow-up activities within or outside the IETF.

The group will produce the following deliverables:

1. Documents about Current State of Affairs:

An Informational use cases and identity requirements document

An Informational MAC Address Randomization current state-of-affairs document

2. Document Best Practices handling RCM

A Best Current Practices document

Next steps ...

WG Call for Adoption (1)

- **An Informational use cases and identity requirements document**
- `draft-henry-madinas-framework-03`

WG Call for Adoption (2)

- **An Informational MAC Address Randomization current state-of-affairs document**
- draft-zuniga-madinas-mac-address-randomization-01