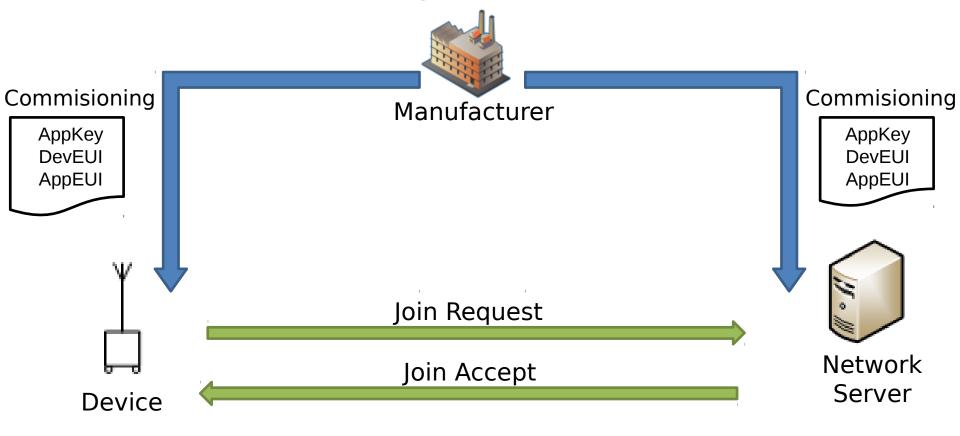
Dan Garcia-Carrillo (University of Murcia)
Rafael Marin-Lopez (University of Murcia)
Arunprabhu Kandasamy (Acklio)
Alexander Pelov (Acklio)

LoRaWAN Authentication LoRaWAN 1.0 Join procedure

- 1. Commissioning
- 2. Over the Air Activation (Join Procedure)



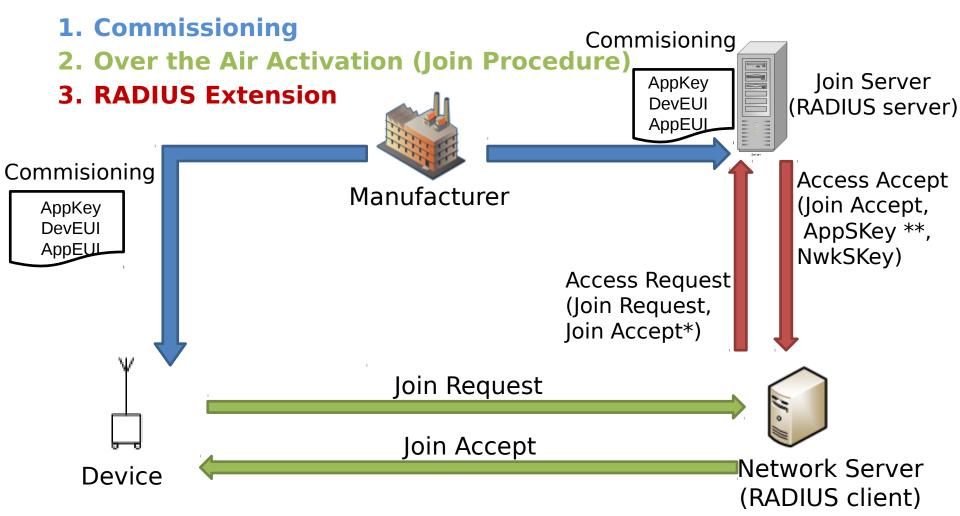
LoRaWAN Authentication - Message Definition

The request (join-request)

Size(bytes)	8	8	2
Join Request	AppEUI	DevEUI	DevNonce

The Response (join-accept)

Size(bytes)	3	3	4	1	1	16(opt)
Join Accept	AppNonce	NetID	DevAddr	DLSettings	RxDelay	CFList



^{*} MIC field empty. To be calculated by the RADIUS server. ** Optional field.

New RADIUS Attributes

- JoinRequest (containing the join-request)
- JoinAnswer (containing the join-accept)
- Nwkskey (containing the NwkSKey)
- Appskey (containing the AppSKey, optional)

Current status and Expectations

Changes from previous draft version(01):

- introduction section 1
- Added reference to RFC6158 "RADIUS Design Guidelines" for the data structures defined outside RADIUS

Lpwan:

- First working group meeting held in ietf97 seoul.
- AAA infrastructure not part of the current charter.
- But, Inclusion of AAA server in LPWAN architecture draft-minaburo-lpwan-gap-analysis-02

Radext:

- Though this draft speaks more about lorawan, it uses RADIUS and its architecture for transport we would need the help in refining the attributes, if needed, further in radext group.

- Acknowledgements
 - This work has been possible partially by:
 - The SMARTIE project (FP7-SMARTIE-609062 EU Project)
 - The Spanish National Project CICYT EDISON (TIN2014-52099-R) granted by the Ministry of Economy and Competitiveness of Spain (including ERDF support).