

# Constrained MAnanagement (COMAN)

## Management of Networks with Constrained Devices: Use Cases and Requirements

[draft-ersue-constrained-mgmt-02](#)

IETF #85, Atlanta, USA

[mehmet.ersue@nsn.com](mailto:mehmet.ersue@nsn.com)

[dromasca@avaya.com](mailto:dromasca@avaya.com)

[j.schoenwaelder@jacobs-university.de](mailto:j.schoenwaelder@jacobs-university.de)

# Management of Constrained Devices: A Problem Statement

- The tininess of constrained devices requires a rethinking of the communication characteristics concerning energy-efficiency, memory, and CPU usage as well as protocol simplification.
  - The deployment of such an environment involves many, in some scenarios up to million small devices (e.g. smart meters).
- The management of a network with constrained devices needs to be planned for easy deployment, (self-)configuration, and simple monitoring.
- The IETF so far has not developed any specific technologies for the management of constrained devices and the networks comprised by these devices.
  - The current management protocols seem to be too heavyweight compared to the capabilities of constrained devices involved.
- There is a need to reconsider the network management mechanisms based on the new and reduced requirements coming from the constrainedness of smart devices.
  - The network management of constrained devices needs to be designed in a more simplified and less complex though robust manner.

# COnstrained MANagement

- The aim of the COMAN activity is to . . .
  - provide a problem statement on the issue of the management of constrained devices and the networks with constrained devices.
  - provide use cases for different scenarios where constrained networks and devices are deployed and discuss related issues of network management.
  - discuss the constrainedness of a network and how it influences the management of devices.
  - raise the questions on and understand the requirements and the required solution space for the management of constrained devices and the networks with constrained devices.
  - avoid recommending any particular solutions.
  - highlight gaps and propose potential new work.
- The draft will be divided into three pieces after the IETF 85 meeting as the problem statement, use cases and requirements documents.
- The COMAN activity might further result into a BoF in the March 2013 meeting.

# Next Steps

- Class of networks considering the different type of radio and communication technologies in use, needs a discussion and revision.
- The section on the management of the constrainedness needs a discussion.
- Section 4 on the management requirements, as the core section of the document, needs further discussion and consolidation.
- A section highlighting the gaps concerning constrained devices in network management standards needs to be written.

# How to contribute?

- We need more experts of constrained networks as reviewers. PLEASE review.
- The discussion is ongoing on the non-wg maillist 'coman':

<https://www.ietf.org/mailman/listinfo/coman>

- Please subscribe to the coman maillist and contribute.
- Contact: [mehmet.ersue@nsn.com](mailto:mehmet.ersue@nsn.com)