

# DOTS Server(s) Discovery

<https://tools.ietf.org/html/draft-boucadair-dots-server-discovery>

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# Context & Motivation: Reminder

- A DOTS client needs to learn the IP reachability information to contact its DOTS server(s)
  - Idem for a DOTS gateway
- The DOTS architecture and Data/Signal channel drafts do not specify how such information is provided to DOTS clients
- *This document is filling this void*

# What Happened Since Prague?

- Solicited more feedback from the list
  - Seek for more inputs whether we need to shorten the list of options in the draft
  - The discussion confirmed the approach of the draft
    - One single discovery mechanism is unlikely
    - The solution should cover a variety of devices, with heterogeneous capabilities
    - ..including devices with no name resolution capabilities

# What Happened Since Prague?

- Integrated comments from Russ White:
  - A DOTS client may be configured with a name, an address and a reference identifier, or an IP address only
  - When only a name is provided, the name is used to retrieve the list of DOTS server IP addresses, but also for authentication
  - If both an IP address and a name are supplied, the name is only used for authentication; it is not passed to an underlying resolution library
  - If only an IP address is provided, this means that the IP address is also used as a reference identifier for authentication purposes
    - Using an IP address for PKIX-based authentication is not widely used
      - *“few certification authorities issue server certificates based on IP addresses”* (RFC6125)
    - But, Russ’s argument is that operators who want to avoid DNS dependency can build such certificates

# Updated Behavior

- All DOTS clients **MUST** support at least one of the four mechanisms
  1. Explicit configuration
    - I. Local/Manual configuration
    - II. Automatic configuration
  2. Service Resolution
  3. DNS-SD
  4. Anycast
- All DOTS clients **SHOULD** implement all four
- DOTS Clients **MUST** prefer information received from the discovery methods in the listed order

# What is Next?

- Consider adoption of the draft
- Comments & questions are welcome