

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*

The Discovery 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

Multi-homing Considerations for DOTS

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

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Objectives

- **Complete** the base DOTS architecture with multi-homing specifics
- **Identify** DOTS deployment schemes in a multi-homing context
 - Where the upstream transit provider(s) is offering DDoS mitigation service
 - Without recommending any favorite scheme
- **Sketch** guidelines and recommendations for placing DOTS requests in multi-homed networks, e.g.,:
 - Select the appropriate DOTS server(s)
 - Identify cases where anycast is not recommended

Why is This Document Needed?

- Send a DOTS mitigation request to an arbitrary DOTS server **won't help** mitigating a DDoS attack
- Blindly forking all DOTS mitigation requests among all available DOTS servers is **suboptimal**
- Sequentially contacting DOTS servers may **increase the delay** before a mitigation plan is enforced
- Guidance is therefore needed for DOTS client/gateway implementations

Methodology

- Rely upon draft-ietf-dots-use-case to identify and **extract viable** deployment candidates
 - Also, the use case I-D sates “*More multi-homing considerations are discussed in [I-D.boucadair-dots-multihoming]*”
- **Augment** the description with multi-homing technicalities, e.g.,
 - One vs. multiple upstream network providers
 - One vs. multiple interconnect routers
 - Provider-Independent (PI) vs. Provider-Aggregatable (PA)
- Describe the **recommended behavior** of DOTS clients and gateways for each case

What is Next?

- Now that the core DOTs specifications are advanced, we request to consider adoption of these two drafts