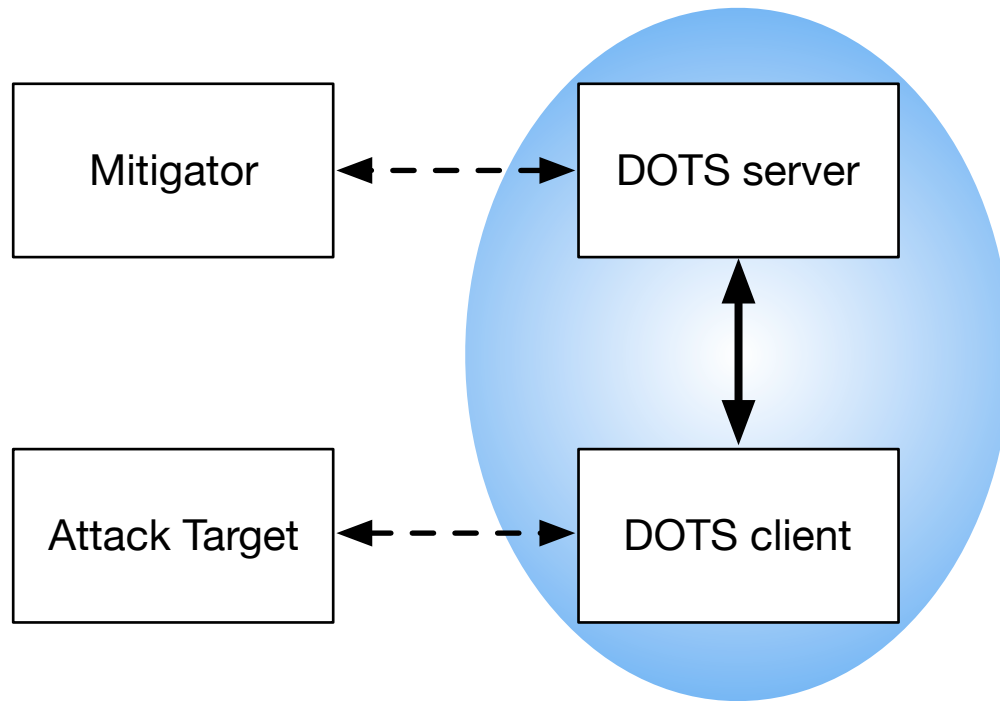# draft-mortensen-dots-architecture-00
IETF 95

Andrew Mortensen
Flemming Andreassen
Nik Teague
Tiru Reddy
Chris Gray
Rich Compton

Overview

- Roles and relationships in a DOTS architecture
- Architecture scope
- Preconditions for signaling
- Establishing and maintaining signaling sessions
- Modes of signaling

Basic Architecture

```
┌─────────────┐         ┌─────────────┐
│             │ ◄ ─ ─ ► │             │
│  Mitigator  │         │ DOTS server │
│             │         │             │
└─────────────┘         └──────▲──────┘
                               │
                               ▼
┌─────────────┐         ┌─────────────┐
│             │ ◄ ─ ─ ► │             │
│Attack Target│         │ DOTS client │
│             │         │             │
└─────────────┘         └─────────────┘
```
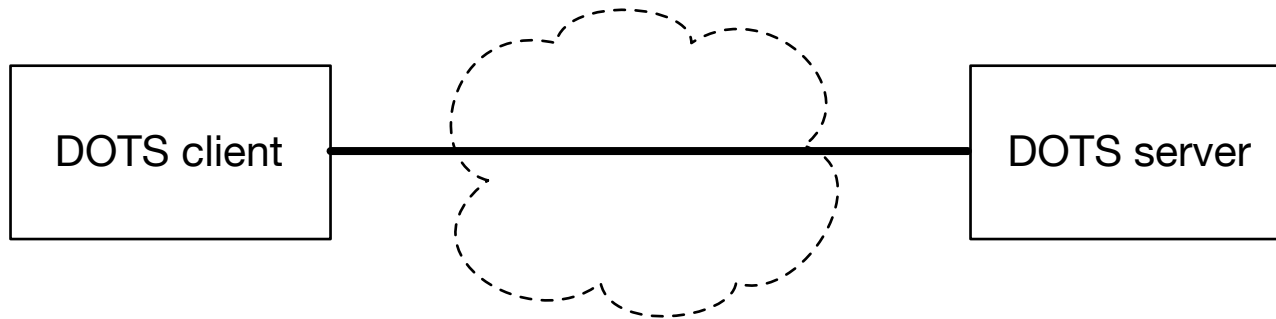
Establishing Signaling Sessions

- Client connects to server over signal channel and data channel

- WG feedback requested on value of DOTS service discovery
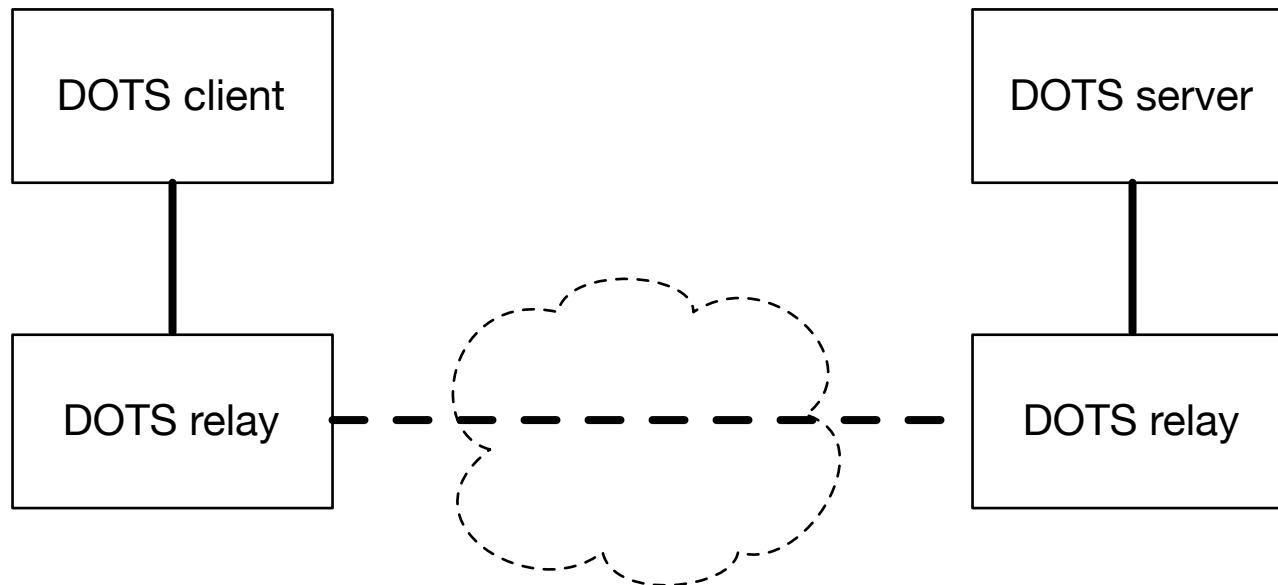 - DNS SRV, DNS-SD

Direct signaling

- Simplest form, no relays in path
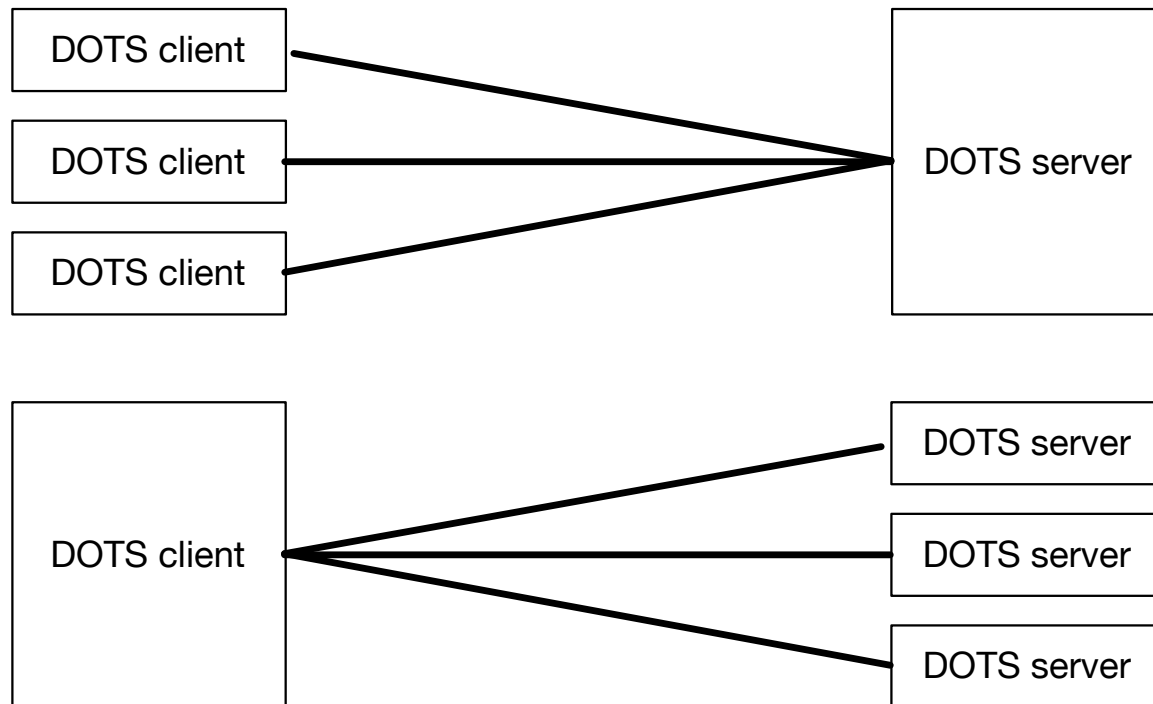
Relayed signaling

- Signal bridging and aggregation

Relayed Signaling Issues

- Operational complexity
- End-to-end signaling with relay in path
- Client awareness of relayed signaling?
- Privacy considerations
- Feedback needed

DOTS agent relationships

- Multiple DOTS clients for one DOTS server
- Multi-homed DOTS client

Multi-homed DOTS client

- Coordinating multiple provider responses to a mitigation request?

- Feedback needed on M:N cases in general

Additional signaling modes

- Redirected signaling
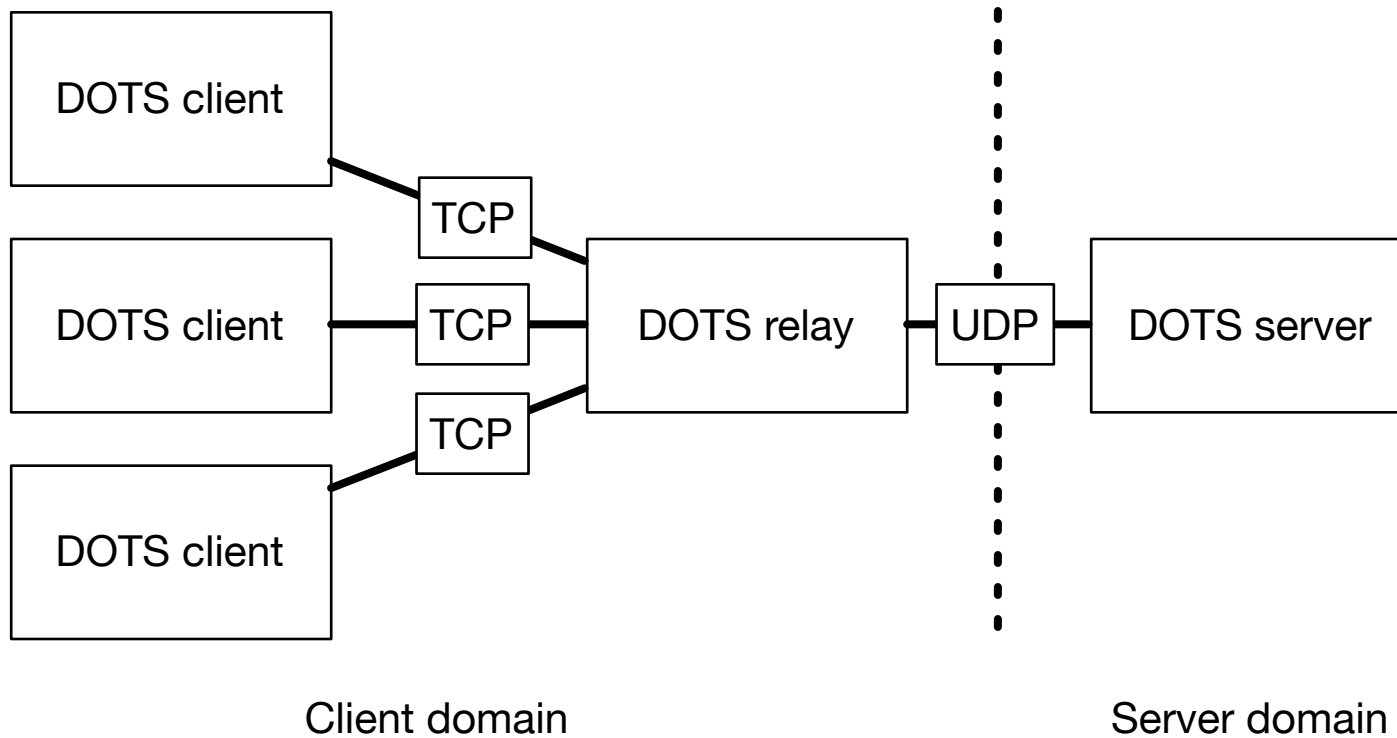- Recursive signaling
- Feedback needed

Next Steps

- Discussion of mitigation request triggers
- Discussion of privacy concerns
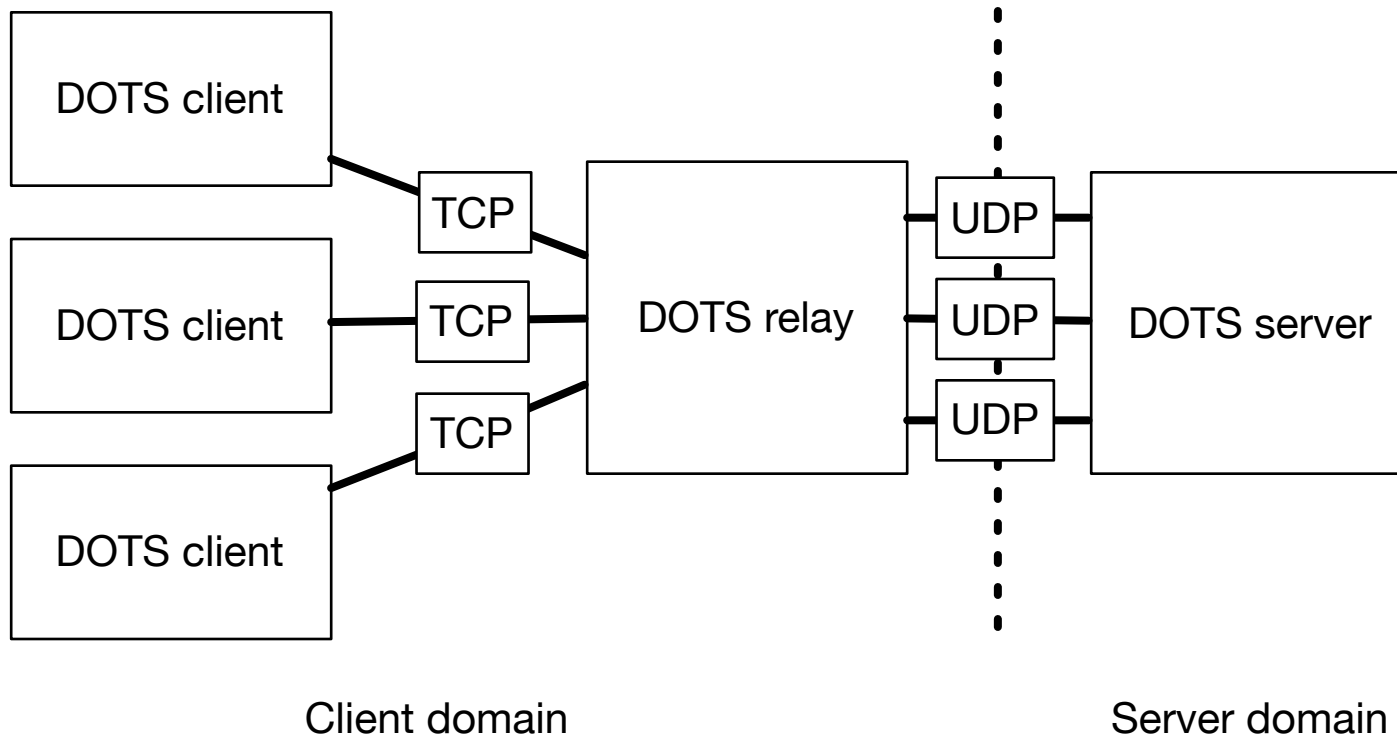- Incorporate WG feedback

Thank you

Appendix A: DOTS relay diagrams

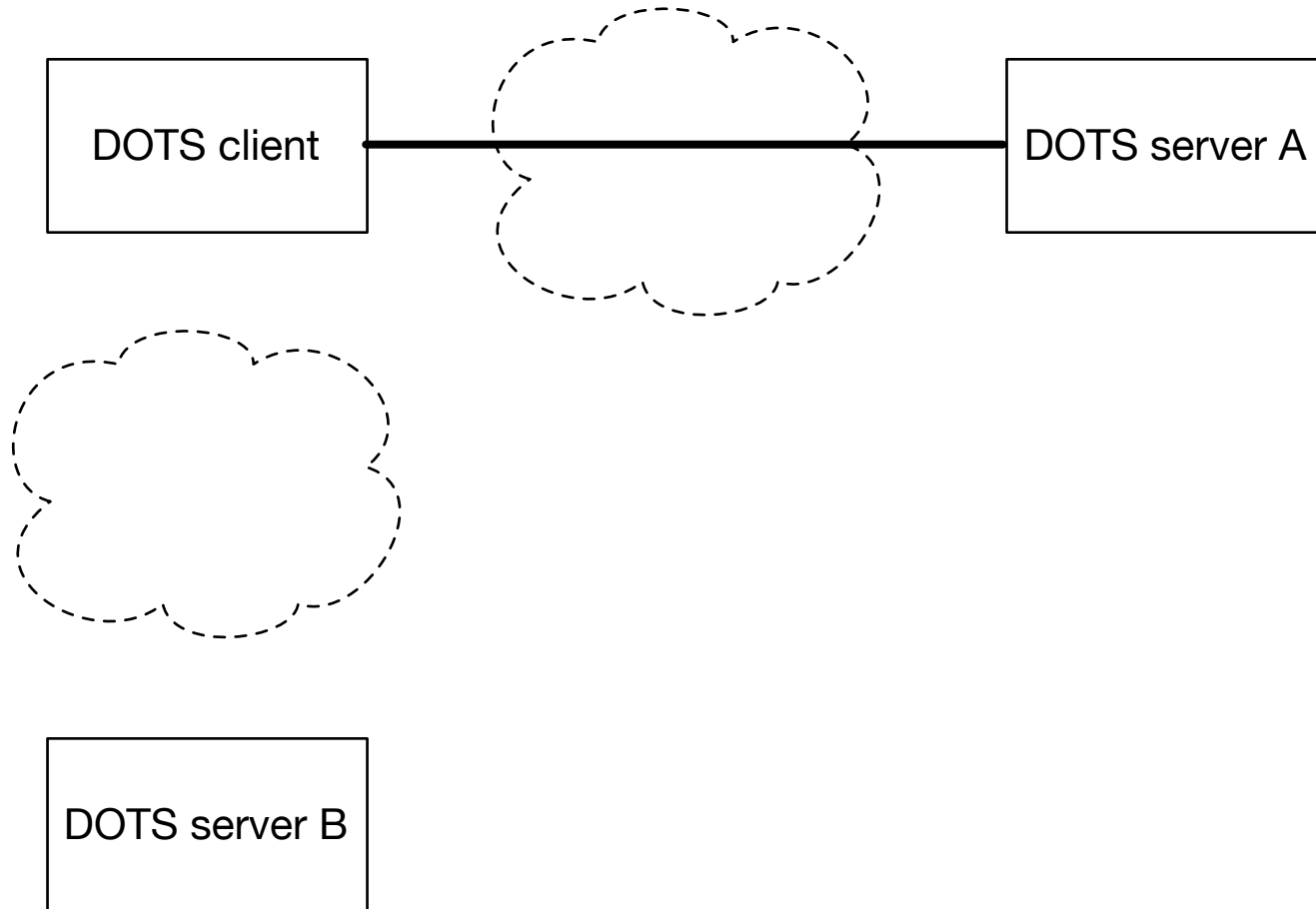# Client-side aggregating relay

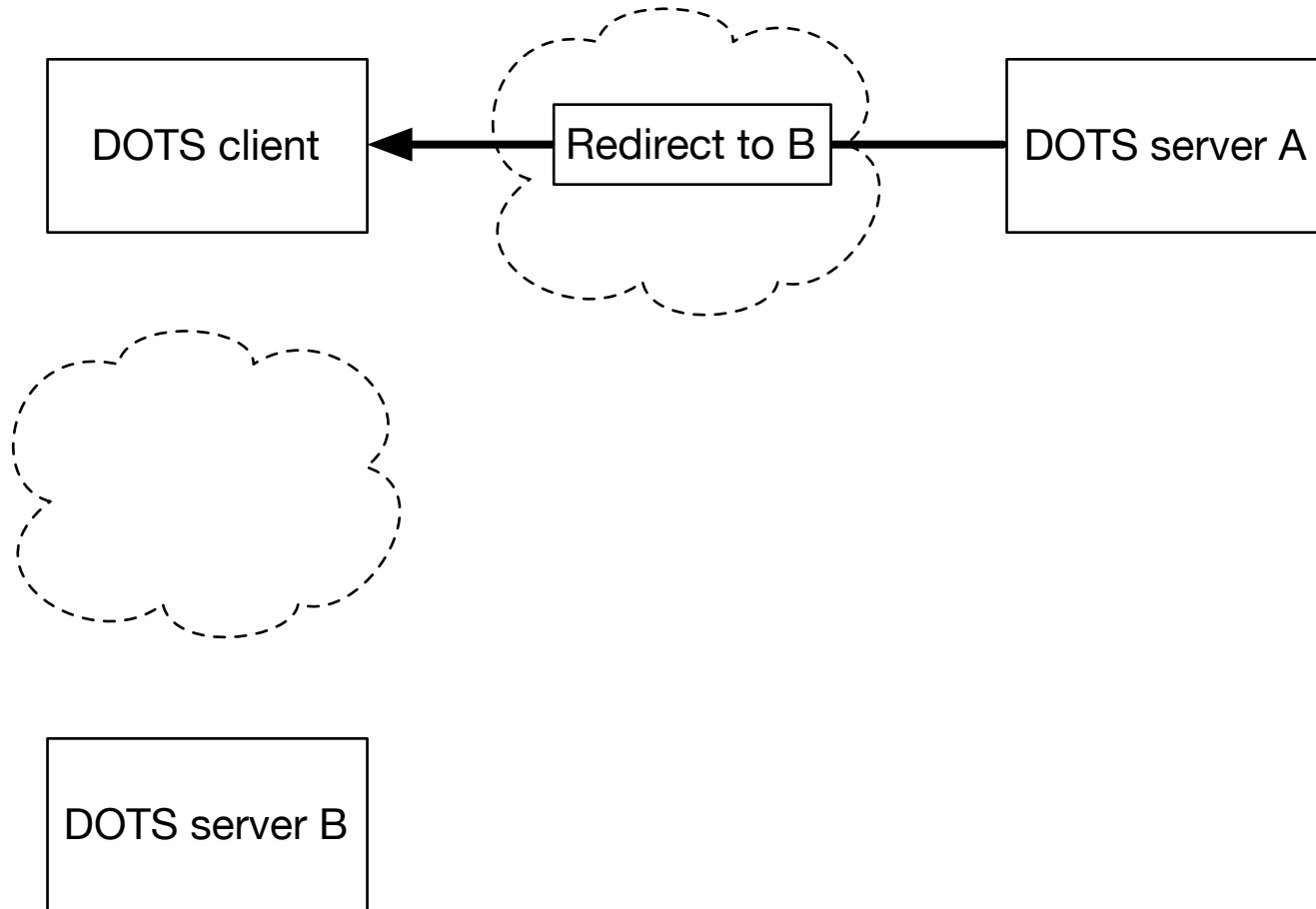# Client-side bridging relay
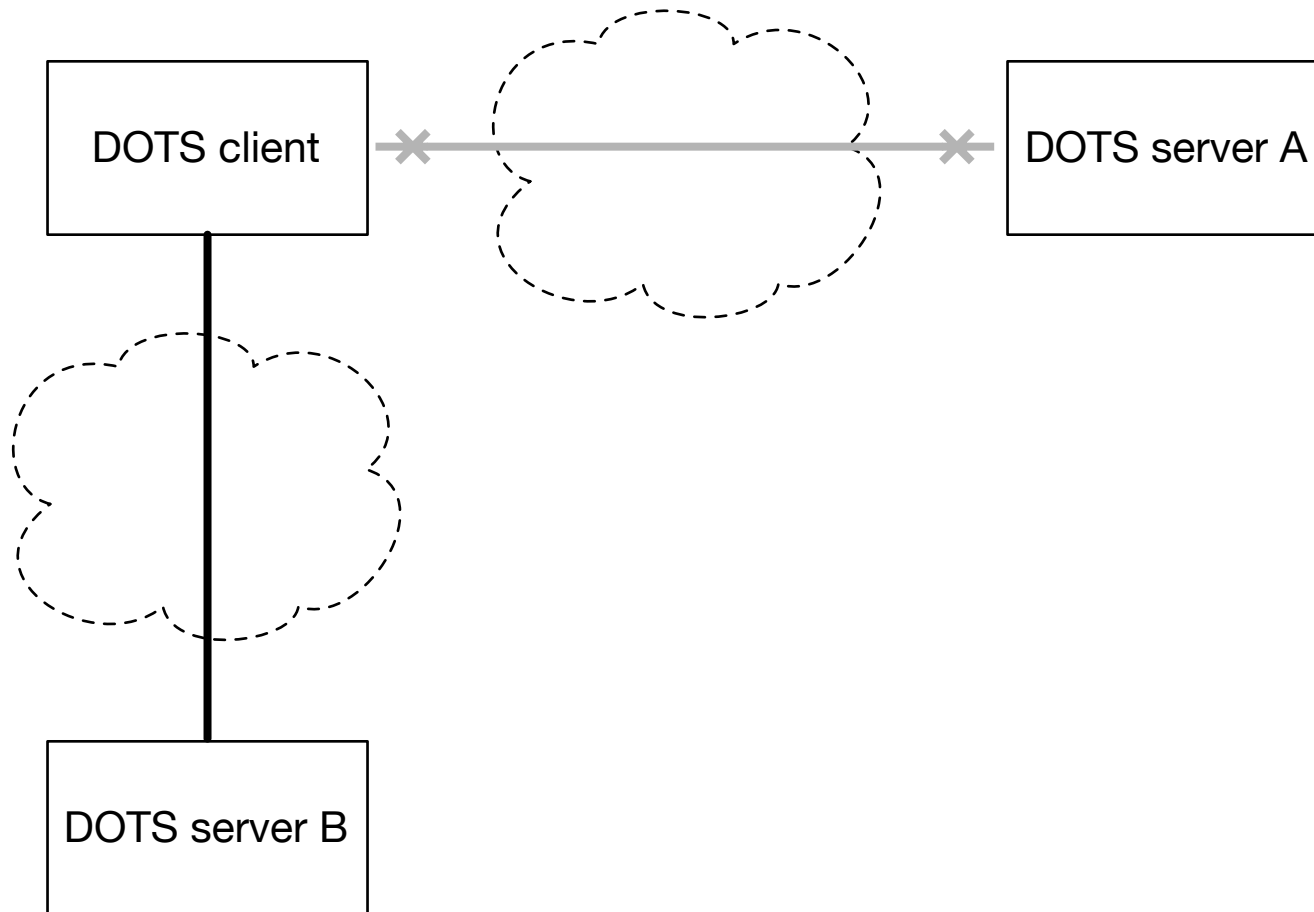
Appendix B: Signaling mode diagrams

Redirected signaling

Redirected signaling

Redirected signaling

Recursive signaling