Transition requirements of unmanaged scope networks

draft-ietf-ngtrans-unmanscope.txt
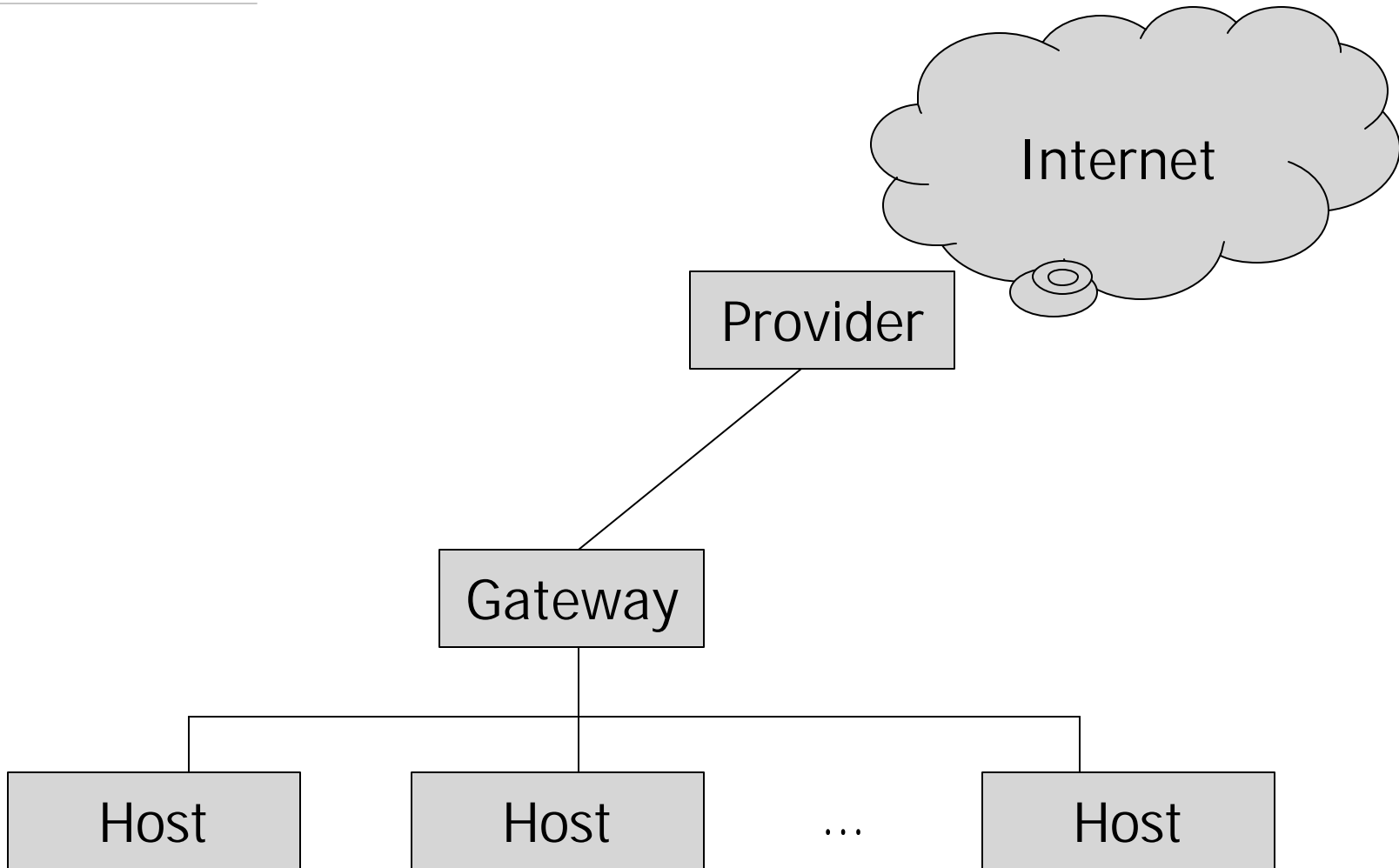
Christian Huitema

huitema@microsoft.com

July 17, 2002

Unmanaged scope network topology

Internet

Provider

Gateway

| Host | Host | ... | Host |

Looking at requirements...

- ◆ Decided to not start from mechanisms
- ◆ Instead, start from applications
  - ▪ Local
  - ▪ Client
  - ▪ Server
  - ▪ Peer-to-peer
- ◆ Look at 4 types of requirements
  - ▪ Connectivity & addresses
  - ▪ Naming
  - ▪ Security

Local applications (e.g. file & print)

- ◆ **Connectivity**
  - ■ Local addresses
- ◆ **Naming**
  - ■ Typically ad hoc.
  - ■ Example: SLP
- ◆ **Security**
  - ■ Isolation of local traffic from the Internet.

Client applications (e.g. mail, web)

- ◆ **Connectivity**
  - ▪ Global addresses, or possibly relay.
- ◆ **Naming**
  - ▪ Access to a DNS resolver.
  - ▪ In some cases, address to name mapping is required.
- ◆ **Security**
  - ▪ Isolation of local traffic from the Internet.
  - ▪ Privacy of the client.

Peer-to-Peer (e.g. SIP, Gnutella)

- ◆ **Peer-to-peer**
  - Global addresses, stable during a "session"
- ◆ **Naming**
  - Typically ad hoc.
- ◆ **Security**
  - Restrict communication to authorized peers.
  - Protect local applications
  - Possibly, privacy requirement.

Servers (e.g. web server)

◆ **Connectivity**

  ■ Global addresses, stable enough for DNS publishing

◆ **Naming**

  ■ Publish DNS records for the server.

◆ **Security**

  ■ Restrict access to the authorized services.

Decision

- Working group item ?