

# An IPv6 Tunnel Broker Service

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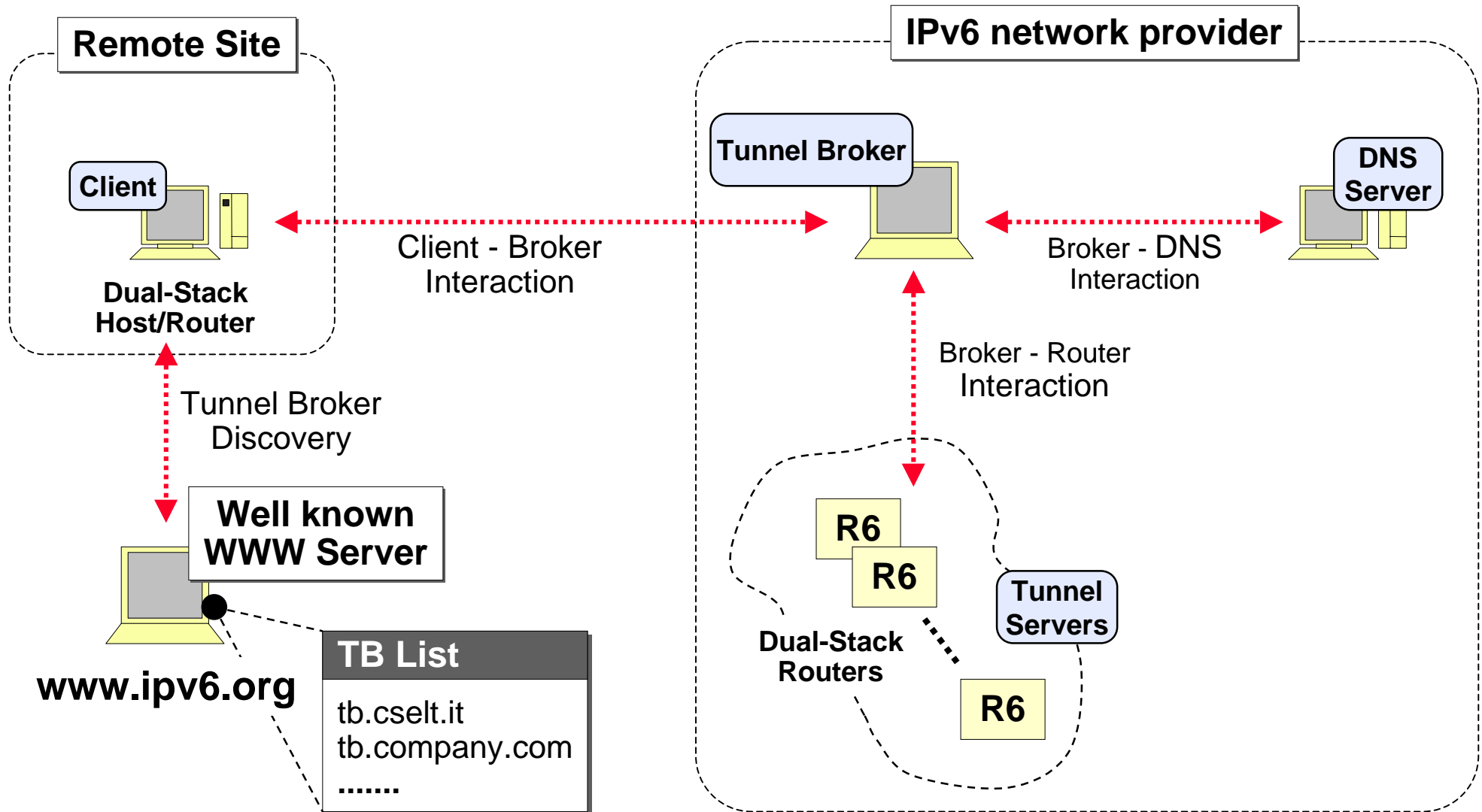
# Motivation

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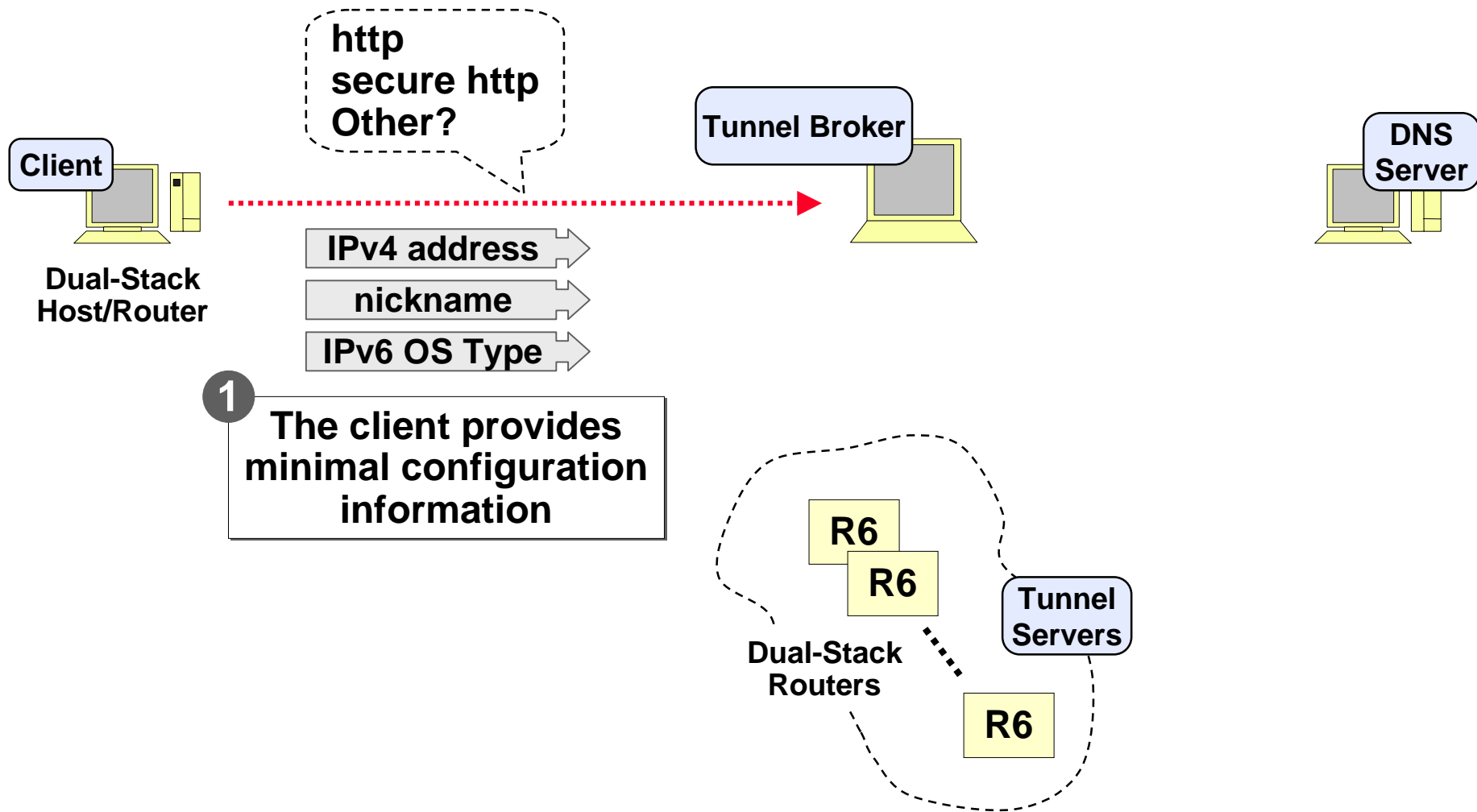
- **IPv6 tunneling over the Internet requires heavy manual configuration**
  - » network administrators are faced with overwhelming management load
  - » getting connected to the IPv6 world is not an easy task for IPv6 beginners
- **The Tunnel Broker approach is an opportunity to solve the problem**
  - » the basic idea is to provide tunnel broker servers to automatically manage tunnel requests coming from the users
- **Benefits**
  - » stimulate the growth of IPv6 interconnected hosts
  - » allow to early IPv6 network providers the provision of easy access to their IPv6 networks

# The Tunnel Broker architecture

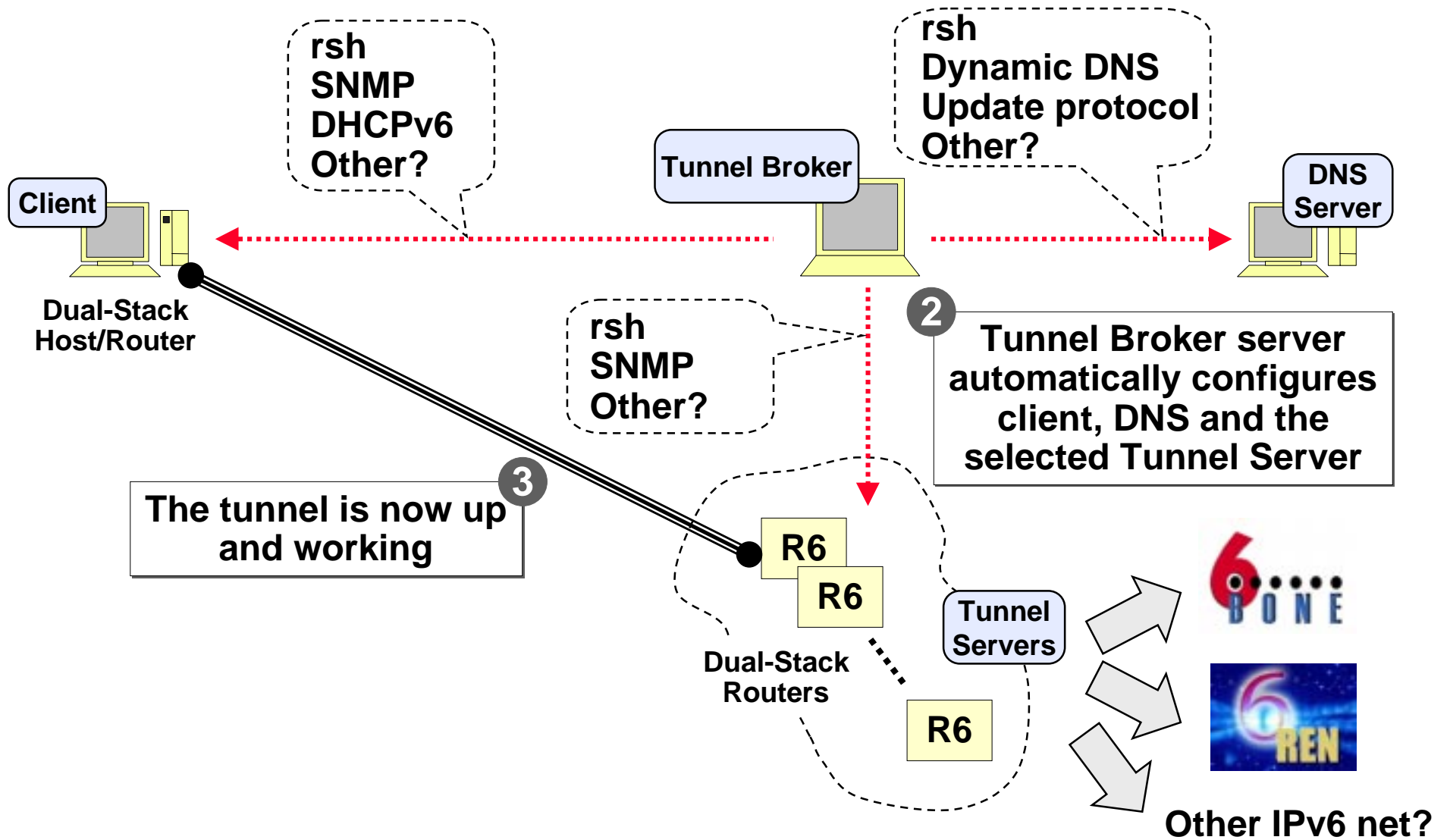
Broker 3



# How does it work? (1)



# How does it work? (2)

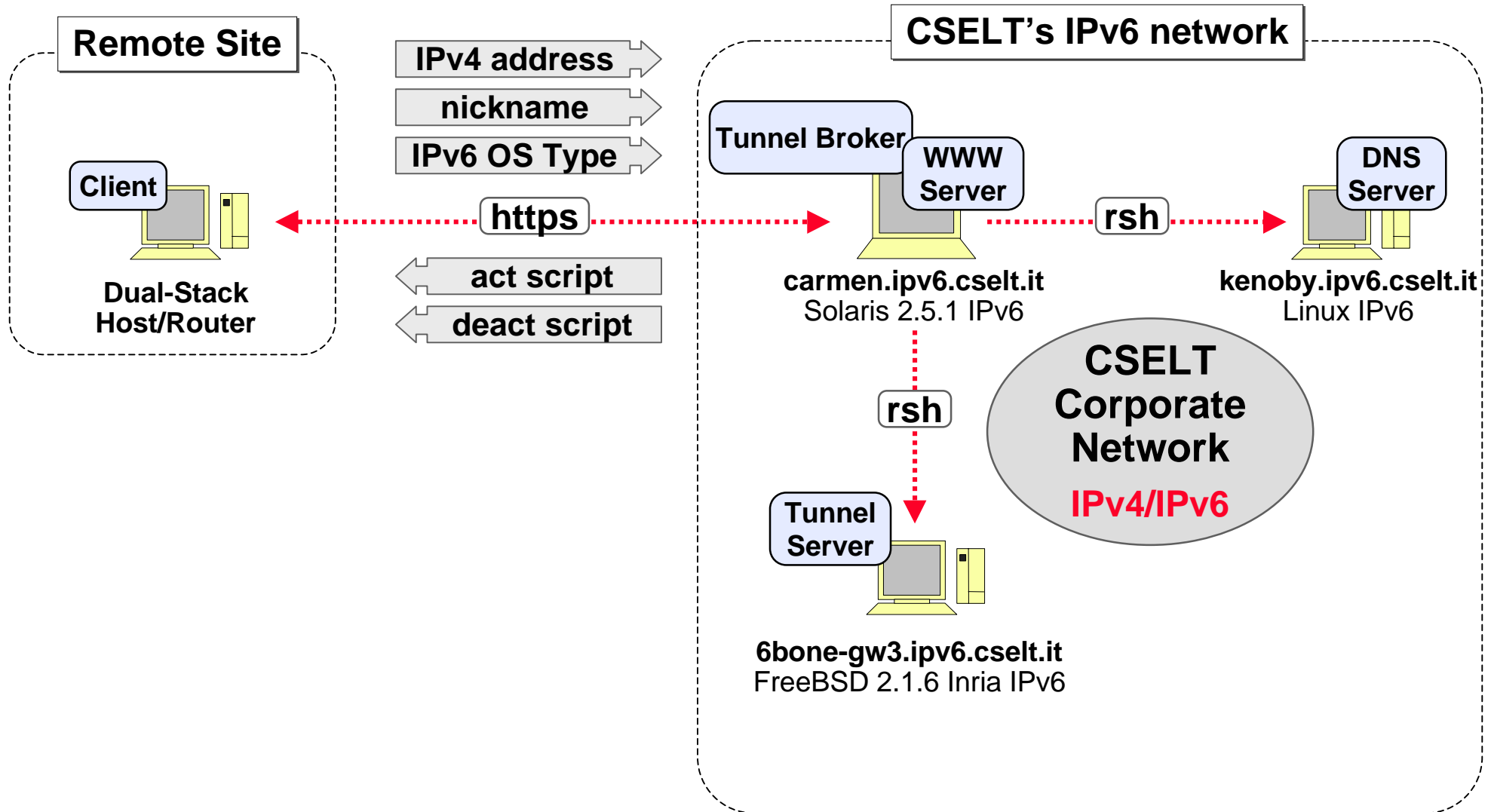


# Our implementation

- **CSELT's Tunnel Broker service available at:**
  - » <https://carmen.csel.it/ipv6tb>
- **Basic features:**
  - » based on widely available tools to allow fast prototyping of the service
  - » basic communications between client and broker run over http
  - » Tunnel Broker - Tunnel Server and Tunnel Broker - DNS interactions based on simple rsh commands
  - » the user must register before getting access to the service
  - » the Tunnel Broker provides scripts (automatically created) to ease client's configuration
  - » both router and host support
  - » the provider DNS manages names - global IPv6 addresses mapping
    - e.g. **guardini.tb.ipv6.csel.it** and **guardini-if.tb.ipv6.csel.it**
  - » administrator interface allows full control over users, tunnels and Tunnel Servers

# The Tunnel Broker service at CSELT

Broker 7



# Software availability

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Broker 8

- **The first version of our implementation of the Tunnel Broker will be available soon at:**
  - » <ftp://carmen.csel.it/pub/broker/tb-current.tar.gz>
- **It already supports:**
  - » **Client**
    - IPv6 Inria FreeBSD, IPv6 for Windows NT (MS Research)
  - » **Tunnel Server**
    - IPv6 Inria FreeBSD
- **We need contributions to add support for more IPv6 stacks!**