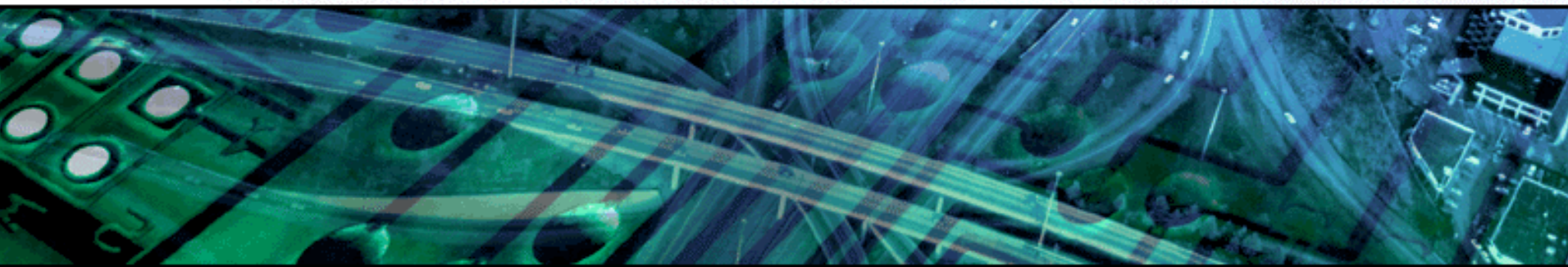




Tunnel Setup Protocol



draft-vg-ngtrans-tsp-00.txt
draft-vg-ngtrans-tsp-v6v4profile-00.txt



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- Tunnel Broker (RFC3053)
 - "Client" to broker uses http with forms.
- Mimetype draft specifies the format of the response
- Peter Tattam idea

- No protocol exists between the client and the broker for:
 - Negotiation of parameters:
 - Servers Capabilities
 - Authentication method
 - Client wants a /48, server don't want.
 - Keep alive (detection of ipv4 network problems)
 - Server policies:
 - Lifetime of the tunnel
 - Generalization and extensions
 - DNS information
 - Whois-type information
 - Error conditions and protocol feedback (error numbers)
 - Easy renegotiation of parameters:
 - change of ipv4 address
 - Can be included in boot sequence (or dhcp lease...)

- Control protocol for tunnel set-up
- Uses TCP
- Uses SASL (RFC2222) for:
 - Authentication negociation
 - And transport encryption negociation
- XML messaging:
 - Easy to describe data, extend, optional parameters,
...
- Protocol version numbering

- One framework
 - Generic for any kind of tunnels
 - Supports both tunnel broker and server models
- One specific for IPv6 in IPv4 profile
- Others to come:
 - IPv4 in IPv6 profile
 - ...

Example



C:VERSION=0.1 CR LF

S:CAPABILITY TUNNEL=V6V4 AUTH=DIGEST-MD5
AUTH=ANONYMOUS CR LF

C:AUTHENTICATE ANONYMOUS CR LF

S:200 Authentication successful CR LF

C: Content-length: 123 CR LF

<tunnel action="create" type="v6v4">

<client>

<address type="ipv4">1.1.1.1</address>

</client>

</tunnel> CR LF

Example (cont.)



```
S: Content-length: 234 CR LF
200 OK CR LF
<tunnel action="info" type="v6v4" lifetime="1440">
  <server>
    <address type="ipv4">206.123.31.114</address>
    <address
type="ipv6">3ffe:b00:c18:ffff:0000:0000:0000:0000</address>
  </server>
  <client>
    <address type="ipv4">1.1.1.1</address>
    <address
type="ipv6">3ffe:b00:c18:ffff::0000:0000:0000:0001</address>
    <address type="dn">userid.domain</address>
  </client>
</tunnel> CR LF
```

- Currently implemented in freenet6.net service.
- More work on the detailed specification to be done.
- Ngtrans wg work item?