HTTP adaptation with OPES

www.measurement-factory.com/tmp/opes/http.html
future: draft-ietf-opes-http-00.txt

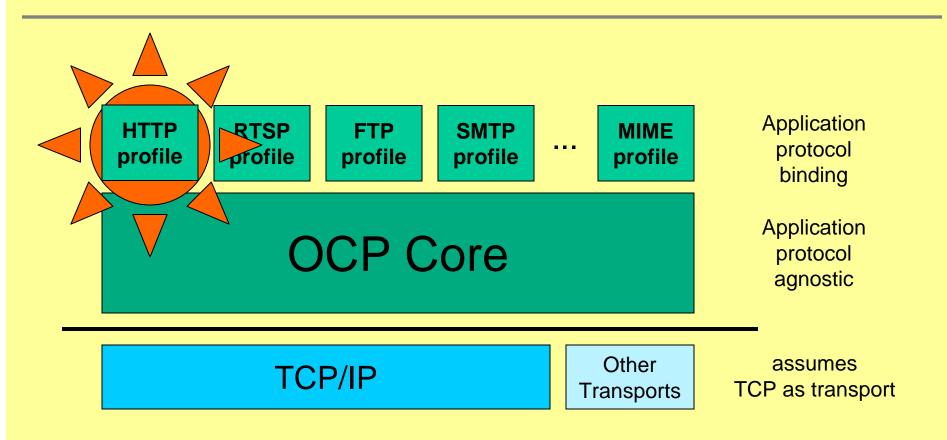
OPES WG meeting on 57th IETF in Wien, Österreich

Martin Stecher (martin.stecher@webwasher.com)
Alex Rousskov (rousskov@measurement-factory.com)

Content

- HTTP/OCP overview
- HTTP application profiles
 - HTTP request profile
 - HTTP response profile
- Application Message parts
 - Standard parts, adapted parts
 - Additional parts
- Body encoding
 - Content Encoding
 - Transfer Encoding
- Tracing and Bypass

OCP Building Blocks



HTTP application profiles

- Two profiles defined
 - HTTP request profile
 - HTTP response profile
- Define original and adapted parts
- Can define additional parts as optional profile parameters
- Used in negotiations messages NO/NR
- Authors want to further simplify this mechanism

HTTP request profile

- http://iana.org/opes/ocp/HTTP/request
- original parts:
 - request-header
 - request-body
 - request-trailer
- adapted parts:
 - request-header
 - request-body
 - request-trailer

HTTP response profile

- http://iana.org/opes/ocp/HTTP/response
- original parts:
 - response-header
 - response-body
 - response-trailer
- adapted parts:
 - response-header
 - response-body
 - response-trailer
- additional parts:
 - request-header
 - request-trailer

Profile examples

```
NO ({"37:http://iana.org/opes/ocp/HTTP/request"});
NO ({"38:http://iana.org/opes/ocp/HTTP/response"});
NO ({"38:http://iana.org/opes/ocp/HTTP/response" http-request});
```

Application Message parts

- Introduces "AM-Part" as new named parameter for DUM messages.
- Describes the original, adapted or additional part available in that profile.
- →DUM messages always contain exactly one application part
- →An application part can be splitted across several DUM messages

Example

```
DUM 88 1 0
AM-Part: request-header
65:GET /opes/adsample.html HTTP/1.1
Host: www.martin-stecher.de

;
DUM 88 1 65
AM-Part: response-body
26:<html>
<body>
This is my;
```

Encodings

- HTTP message can have content encoding (e.g. gzipped)
- HTTP messages can be transferred with a transfer encoding (e.g. chunked)
- OPES processor and callout server will negotiate capabilites:
 - Does server support that encoding?
 - Can OPES processor do some pre-processing to remove the encoding?
- Identity encoding MUST be supported

Tracing and Bypass

 For tracing and bypass the draft will define HTTP extension headers (to be done)