UAPprof

An overview

Mikael.Nilsson@ericsson.com
Contents

Background

Architecture

RDF

Binary Encoding

Use Cases

Privacy

<?xml version="1.0"?>
<RDF xmlns="http://www.w3..."
  <rdf:Description ID="Profile">
    . . .
  </rdf:Description>
  . . .
Background - Requirements

- Optimize performance
- Maximize the user experience
- Provide high-quality content
- Provide leverage to developers
Background

ุมExisting solutions were thought insufficient
  - They required extra roundtrips
  - Insufficient properties
  - Too inflexible

ุมA note called "CC/PP" had been submitted to the WBC...
  - Describing the use of RDF for describing user agents

ุมIn WAP 2.0, the WGP is not mandatory
  - An optional "Feature and Performance enhancing" proxy has been introduced
Architectural overview (1.X)

Profile Repository

GET /520m

x-wap-profile: http://…

x-wap-profile-warning: 100
Architectural overview (1.X)

- MT
  - Profile: http://...520m

- Gateway
  - x-wap-profile: http://...
  - x-wap-profile-warning: 100

- Profile Repository
  - GET /520m

- Origin Server
  - x-wap-profile: http://..., 02-
  - x-wap-profile-diff: <xml>
  - x-wap-profile-warning: 100

- Format conv. proxy
Architectural Overview (2.0)

Profile Repository

MT

x-wap-profile: http://…520m

x-wap-profile-warning: 100

Proxy

GET /520m

Origin Server
Architecture 1.X

MobileTerminal
- Profile - UAProf or CC/PP
- RDF/XML
- CC/PP Ex for WSP
- WSP
- Wireless network

Origin server
- Profile - UAProf or CC/PP
- RDF/XML
- CC/PP Ex for HTTP
- HTTP
- Wireline network
Architecture WAP 2.0

MobileTerminal
- Profile - UAProf or CC/PP
- RDF/XML
- WP- HTTP
- WP- TCP/IP

(Proxy)

Wireless network

Origin server
- Profile - UAProf or CC/PP
- RDF/XML
- HTTP
- TCP/IP

Wireline network
Architecture - The UAProf Protocol

保密 A standardized way to transmit Profiles over HTTP using the:

Request headers

- x-wap-profile:
- x-wap-profile-diff:

Response header

- x-wap-profile-warning:

保密 Headers can be used interchangeably in requests/responses by PPGs
RDF - The Ericsson R320s Example

<?xml version="1.0"?>
<RDF xmlns=http://www.w3.org/1999/02/22-rdf-syntax-ns#
 xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
 xmlns:ccpp="http://www.w3.org/2000/07/04-ccpp#"
 xmlns:uaprof="http://www.wapforum.org/UAPROF/ccppschema-20000405#"/>
<rdf:Description ID="Profile">
  <ccpp:component>
    <ccpp:HardwarePlatform>
      <rdf:Description ID="HardwarePlatform">
        <uaprof:Model>R320S</uaprof:Model>
        <uaprof:InputCharSet>
          <rdf:Bag>
            <rdf:li>ISO-8859-1</rdf:li>
          </rdf:Bag>
        </uaprof:InputCharSet>
        <uaprof:VoiceInputCapable>Yes</uaprof:VoiceInputCapable>
        <uaprof:ColorCapable>No</uaprof:ColorCapable>
        <uaprof:PointingResolution>Pixel</uaprof:PointingResolution>
        <uaprof:TextInputCapable>Yes</uaprof:TextInputCapable>
        <uaprof:ImageCapable>Yes</uaprof:ImageCapable>
        <uaprof:Vendor>Ericsson Mobile Communications AB</uaprof:Vendor>
      </ccpp:HardwarePlatform>
    </rdf:Bag>
  </ccpp:HardwarePlatform>
</rdf:Description>
</RDF>
Architecture - RDF

- RDF is defined by the RDF DTD
- RDF presumes the existence of a “Schema”
- A schema is a set of “components”, that each contain a set of attributes
- An attribute MUST belong to one and only one component
- The realization of the schema constitute the “Profile”
Architecture - The Schema

- The schema contains the following components
  - HardwarePlatform
  - SoftwarePlatform
  - BrowserUA
  - NetworkCharacteristics
  - WapCharacteristics
  - PushCharacteristics

- Properties can be shared between components using the “Defaults” description block

- URI’s can be used to reference properties that are available in other “physical” documents outside the current profile
Binary Encoding - From the MS to the Gateway (1.X)

Mobile Terminal

- Profile - UAProf - CC/PP
- RDF/XML
- CC/PP Ex for WSP
- WSP

WBXML

Wireless Network
Binary Encoding - From the MS to the Gateway (1.X)

MobileTerminal

- Profile - UAProf - CC/PP
- RDF/XML
- CC/PP Ex for WSP

WSP

Wireless Network
Binary Encoding - Plain Text on the Wireline side

Origin server

- Profile - UAPref - CC/PP
- RDF/XML
- HTTP
- TCP/IP

Wireline network
Use Cases

- Opening a WSP session and establishing an initial Profile
  - WSP Connect

- Updating the UAProf during an active WSP session
  - Done using WSP Resume

- Resuming/Suspending a WSP session
Use Cases

Issuing a request for content:

1. Using cached Profile Information
   - The regular ‘GET’ request

2. Overriding the Profile Information within a request
   - Overrides the cached information for that request

3. Profile Information provided by the WAP GW

1. GET http://…/

2. Profile-Diff: <?xml….
   GET http://…/
Use Cases

- Resolving attribute values in the Profile
  - How the server should construct the profile

- Third party requests for cached profile information
  - Push Access Protocol (PAP)