UAProf

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">
          . . .
          . . .
```

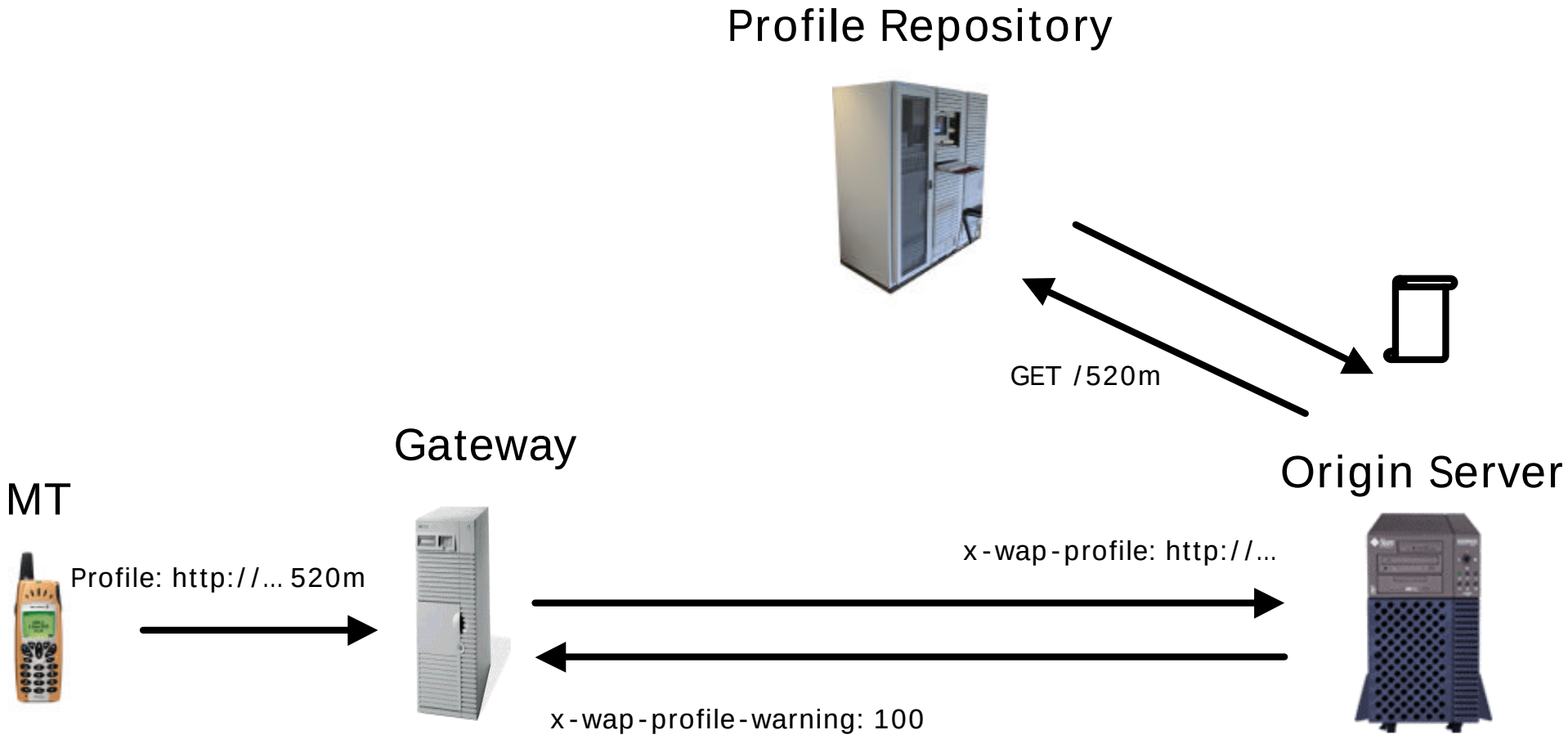
Background - Requirements

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

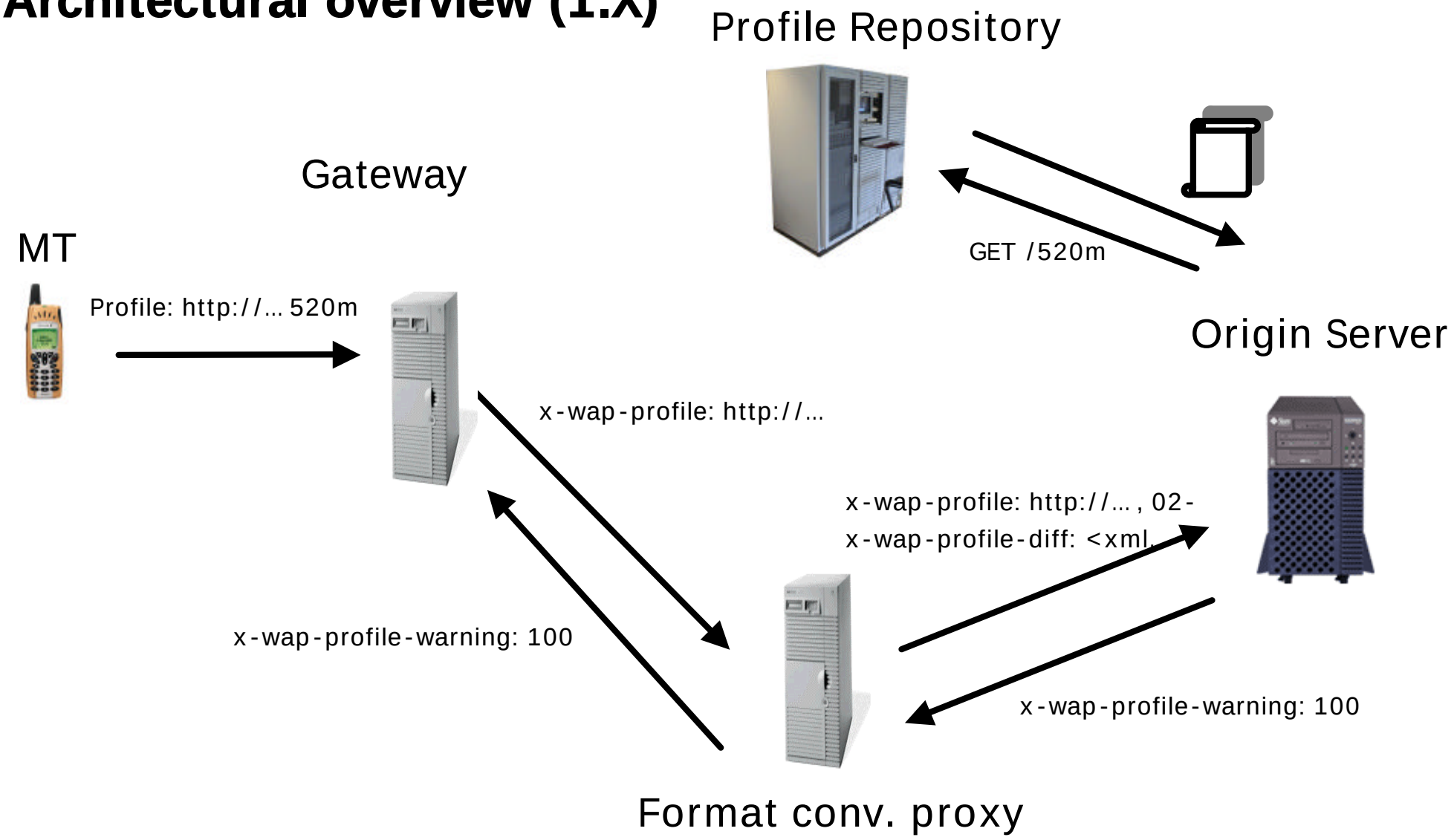
Background

- Existing solutions were thought insufficient
  - They required extra roundtrips
  - Insufficient properties
  - Too inflexible
- A note called "CC/PP" had been submitted to the W3C...
  - Describing the use of RDF for describing user agents
- In WAP 2.0, the WGP is not mandatory
  - An optional "Feature and Performance enhancing" proxy has been introduced

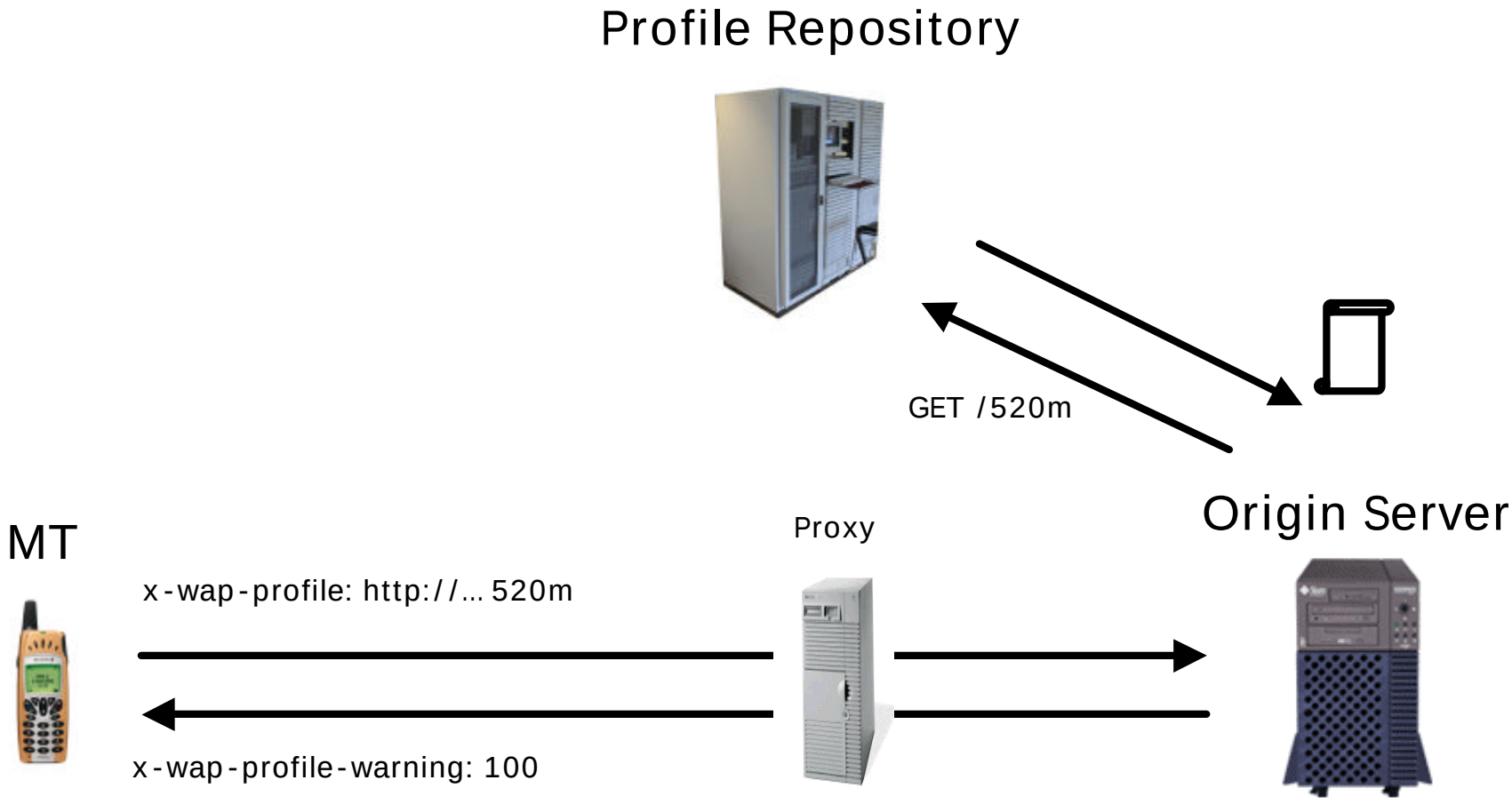
Architectural overview (1.X)



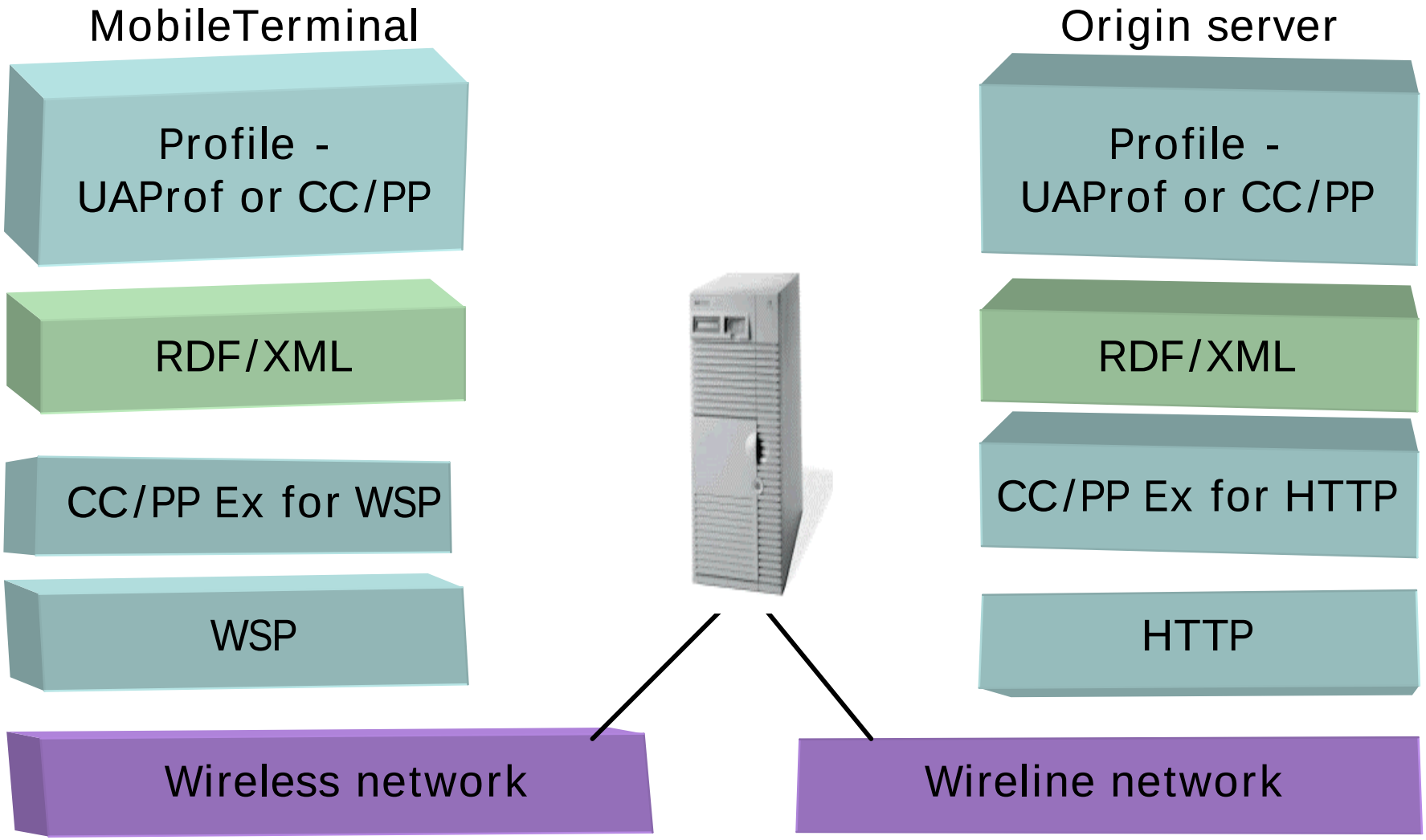
Architectural overview (1.X)



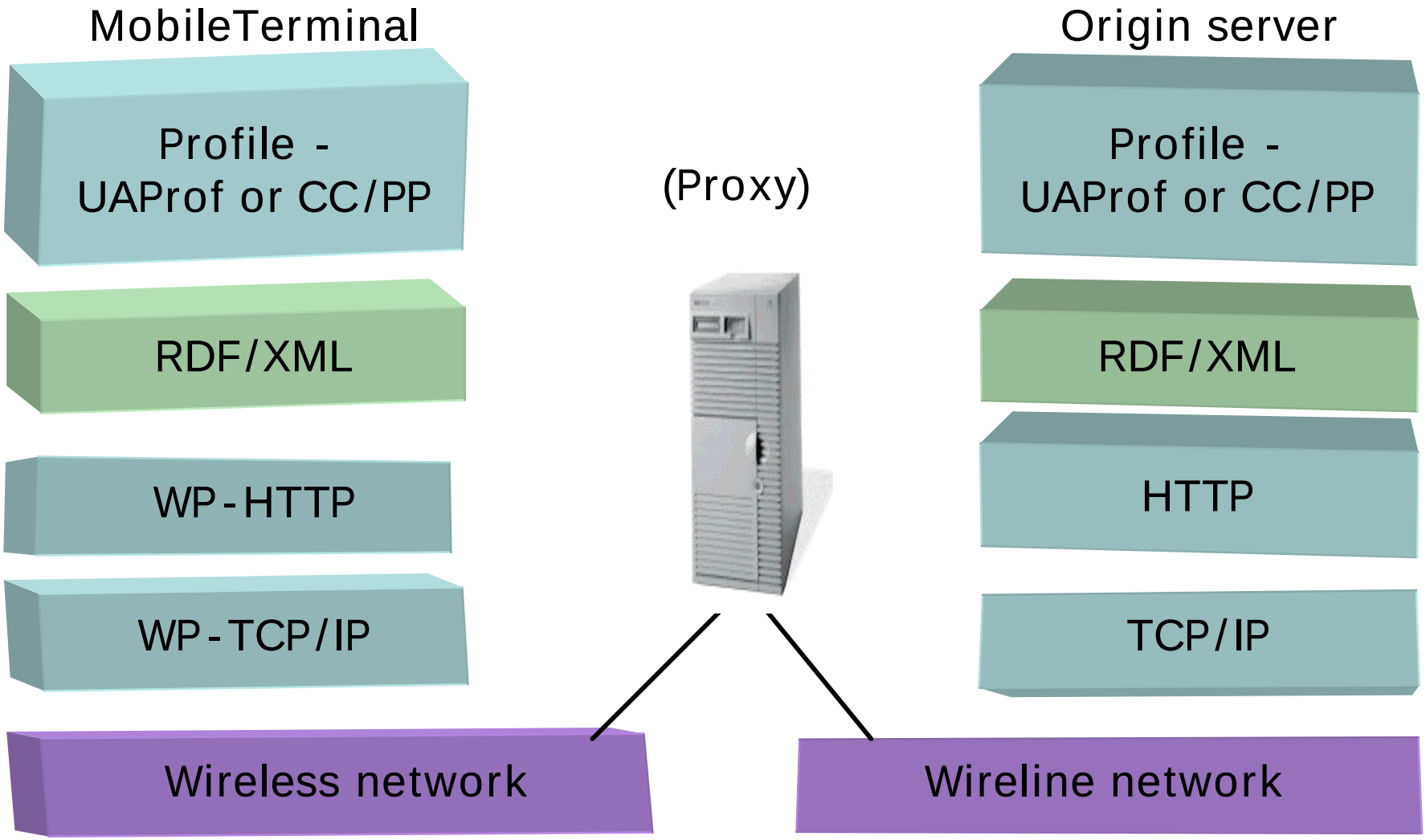
Architectural Overview (2.0)



Architecture 1.X



Architecture WAP 2.0



Architecture - The UAProf Protocol

- 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:

- 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>
                        <rdf:Description ID="HardwarePlatform">
                                <uaprof:Model>R320S</uaprof:Model>
                                <uaprof:InputCharSet>
                                        <rdf:Bag>
                                                <rdf:li>ISO-8859-1</rdf:li>
                                                <rdf:li>US-ASCII</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>
                        </rdf:Description>
                </ccpp:component>
        </rdf:Description>
</RDF>
```

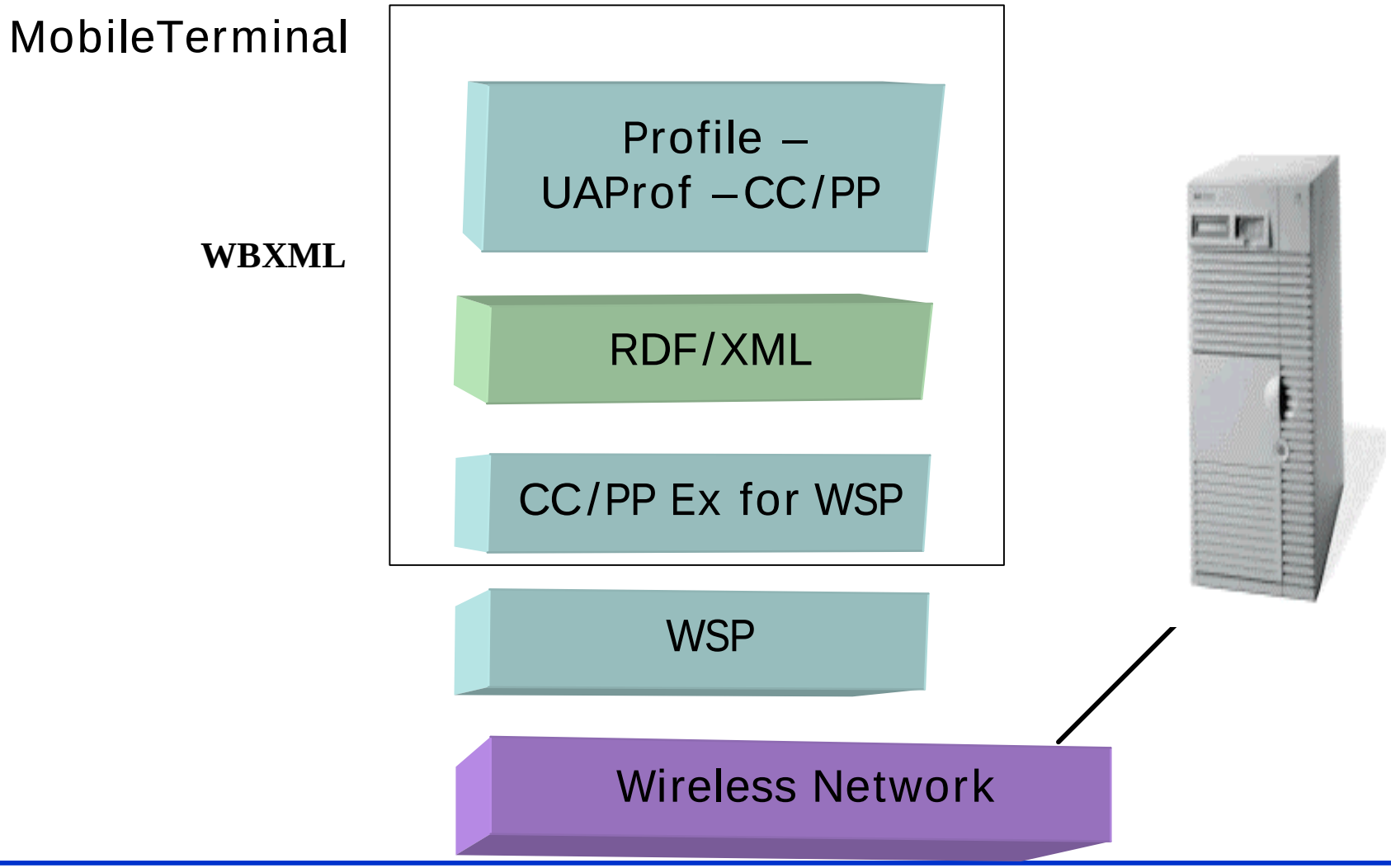
Architecture - RDF

- 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

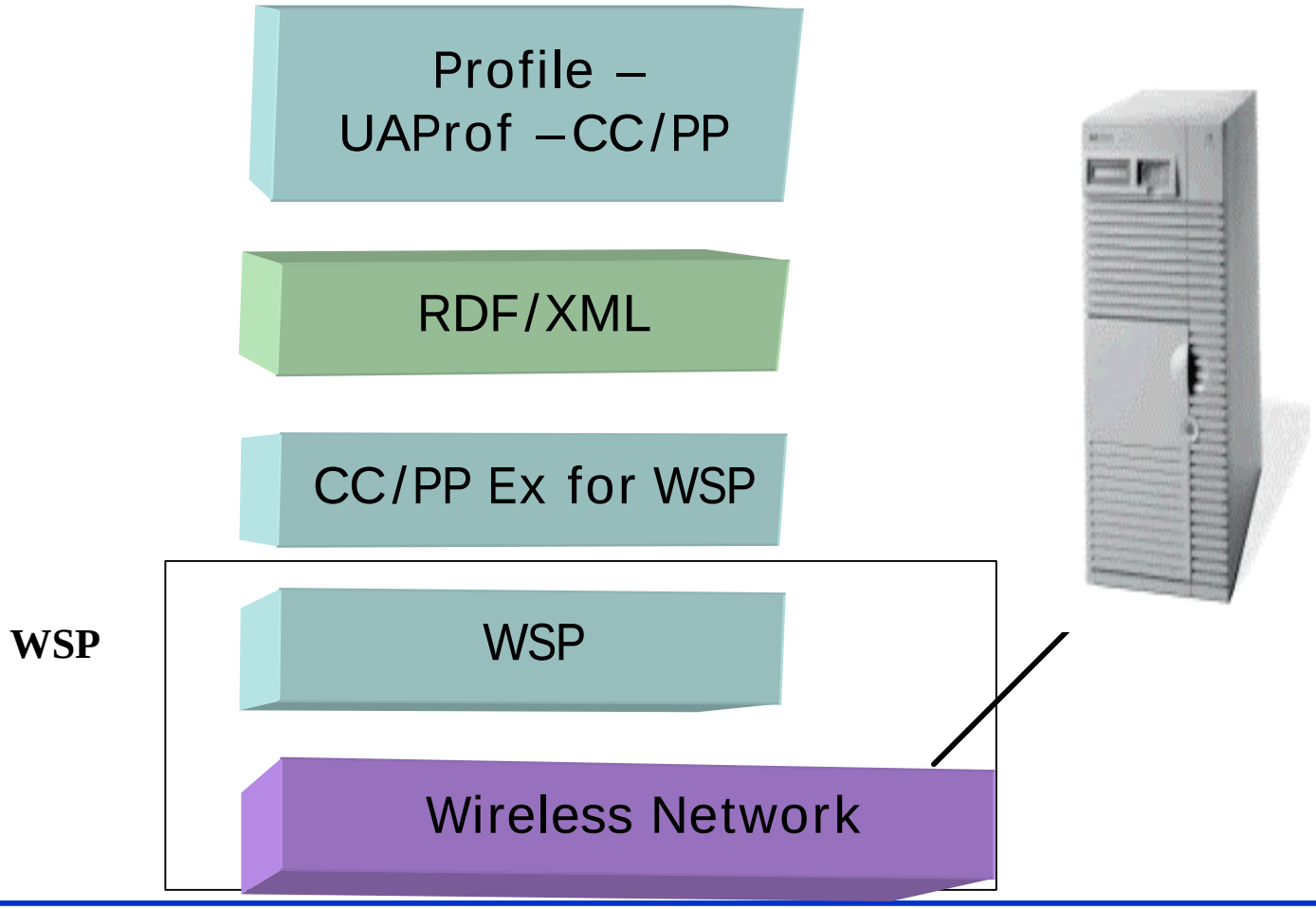
- The schema contains the following components
  - HardwarePlatform
  - SoftwarePlatform
  - BrowserUA
  - NetworkCharacteristics
  - WapCharacteristics
  - PushCharacteristics
- Properties can be shared between components using the "Defaults" description block
- URI's can be used to reference properties that are available in other "physical" documents outside the current profile

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

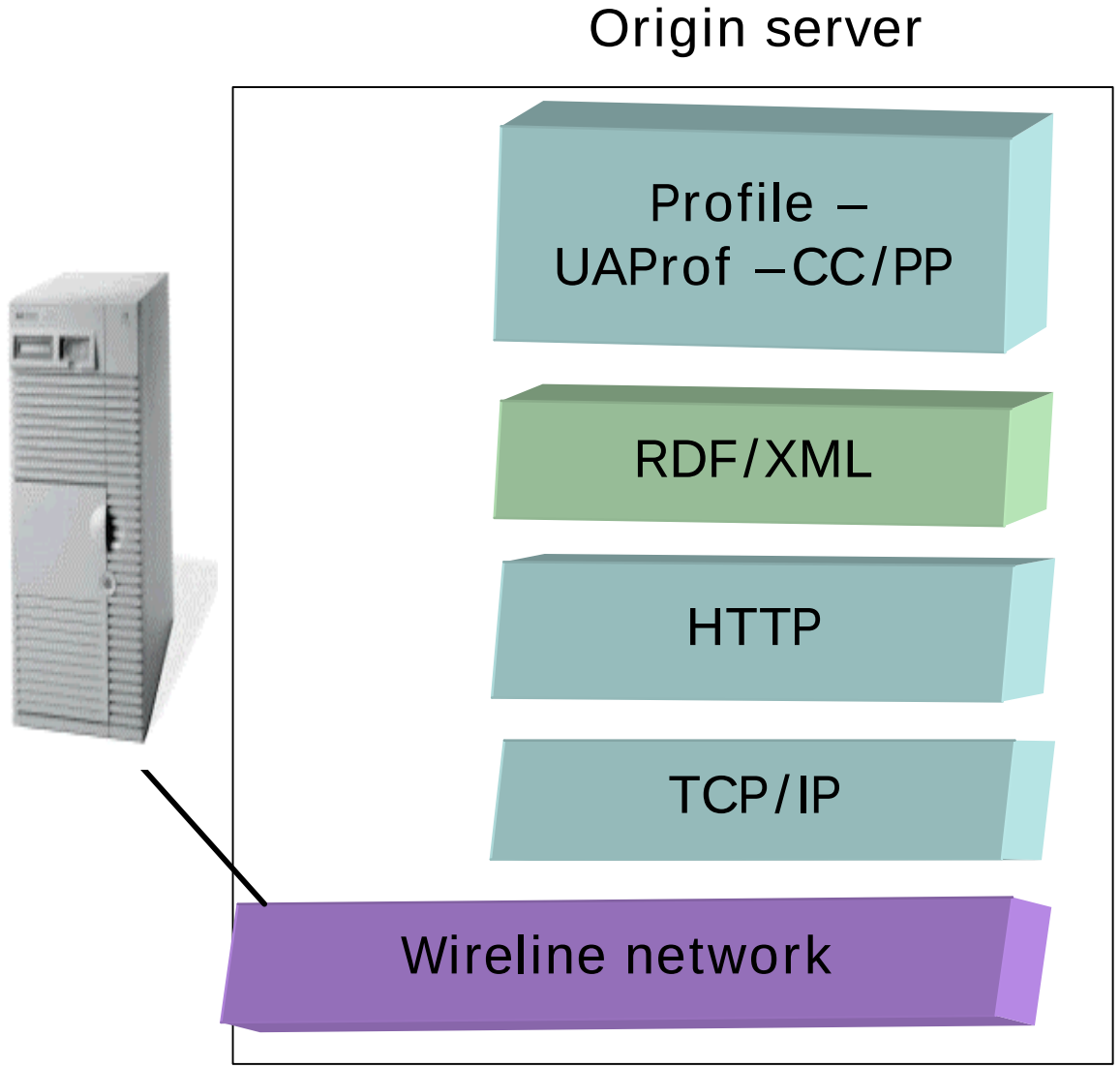


Binary Encoding - From the MS to the Gateway (1.X)

MobileTerminal

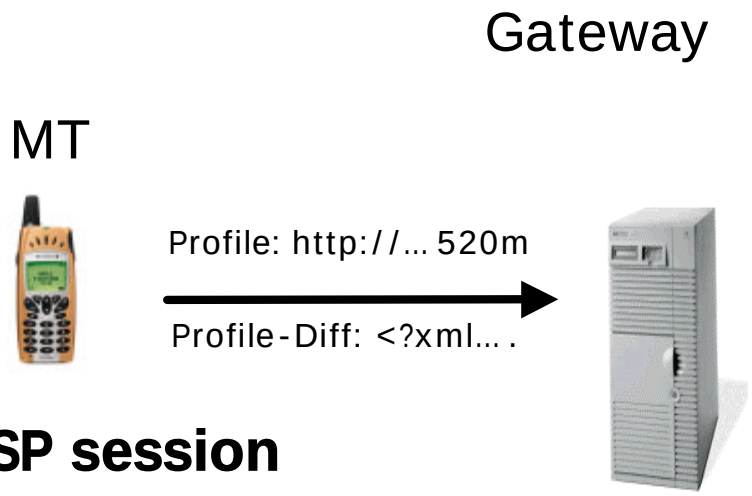


Binary Encoding - Plain Text on the Wireline side



Use Cases

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

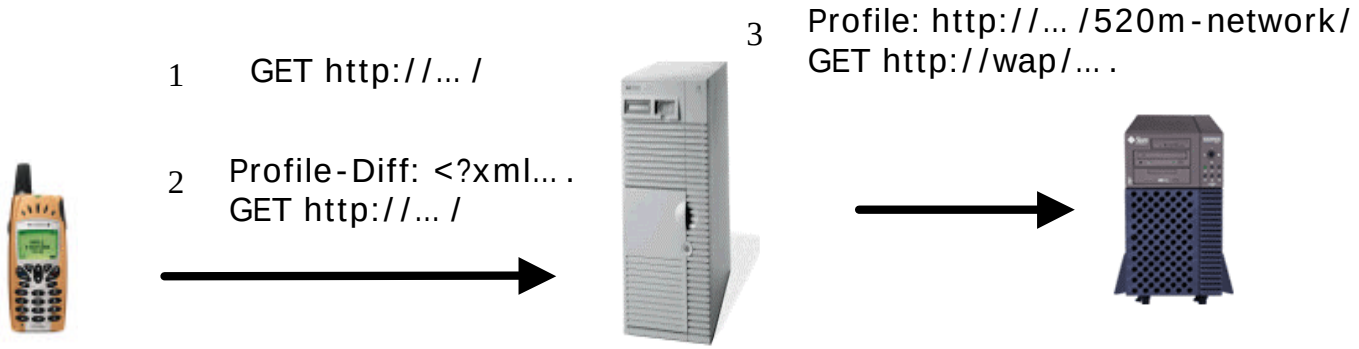


- **Updating the UAProf during an active WSP session**
  - **Done using WSP Resume**

- **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**



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)**