Gigaset

Interactive Info Center

XHTML Gigaset Profile 2.0

Protocol Specification

Version 1.0.10

October 9, 2008

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Content

1 Introduction

1.1 Purpose of the Document

The purpose of this document is to define an overview of the XHTML Gigaset Profile; it describes the elements and attributes suitable for the Interactive Info Center. Since it defines a subset of XHTML, it is called XHTML Gigaset Profile (XHTML GP).

1.2 Validity of the document

This document is valid for the specification of the interface to the Interactive Info Center for the realization of Gigaset Web Services.

2 XHTML Reference

2.1 XHTML-GP Markup Rules

XHTML-GP is based on XHTML-MP (which is based on XHTML) and uses the same markup rules. XHTML elements consist of a start tag (which includes the element name and element attributes), element content, and an end tag arranged as follows:

```
<element attribute="value">element content</element>
```

Not all elements have attributes or content.

The following rules apply to XHTML and XHTML-GP documents:

- XHTML documents must be well formed. Because XHTML is based on XML, documents must conform to XML syntax rules.
- XHTML elements must be properly nested.
- Tags and attributes must be lowercase.
- All XHTML elements must be closed. You can use a closing slash with any empty element such as `<br />` or `<a id="page1"/>`.
- All attribute values must be enclosed in quotation marks.
- A DOCTYPE declaration is required. All examples in this book include this declaration.

2.2 Prologue Components

Each XHTML-GP document starts with a prolog. The prolog declares the language standards to which the document conforms and identifies the document's root element.

2.2.1 Xml declaration

Valid XHTML-GP documents start with an XML declaration, for example:

```
<?xml version="1.0" encoding="utf-8"?>
```

This XML declaration states that the document follows the syntax of XML 1.0. This is the only XML version that is supported by the Gigaset system.

It also states that the character encoding follows the utf-8 standard. The Gigaset system always supports the character set ISO-8859-1, also known as "Latin 1". More character sets might be supported as product specific feature:

- ISO-8859-5, also known as "Cyrillic"
- ISO-8859-6, also known as "Arabic"
- ISO-8859-7, also known as "Modern Greek"
- ISO-8859-8, also known as "Hebrew"
- ISO-8859-9, also known as "Turkish"

2.2.2 Doctype declaration

Every valid XHTML-GP document contains a `DOCTYPE` declaration between the XML declaration and the document's root element. The `DOCTYPE` declaration tells the browser which XHTML-GP document type the document conforms to and the name of the root element (for XHTML-GP, always `<html>`).

```
<!DOCTYPE html PUBLIC "-//OMA//DTD XHTML Mobile 1.2//EN"
"http://www.openmobilealliance.org/tech/DTD/xhtml-mobile12.dtd">
```

3 XHTML-GP Reference

3.1 Overview

3.1.1 Elements and Attributes

This chapter defines the elements and attributes used in the XHTML Gigaset Profile. Other elements are interpreted as <p> elements. Unknown attributes are silently ignored.

Elements / Attributes	action	checked	content	disabled	href	inputmode	maxlength	method	name	selected	style	type	value	xmlns
<a>	-	-	-	-	X	-	-	-	-	-	-	-	-	-
<body>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
 	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<form>	X	-	-	-	-	-	-	X	-	-	-	-	-	-
<head>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<html>	-	-	-	-	-	-	-	-	-	-	-	-	-	X
<input>	-	X	-	X	-	X	X	-	X	-	-	X	X	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<meta>	-	-	X	-	-	-	-	-	X	-	-	-	-	-
<option>	-	-	-	-	-	-	-	-	-	X	-	-	X	-
<p>	-	-	-	-	-	-	-	-	-	-	X	-	-	-
<select>	-	-	-	X	-	-	-	-	X	-	-	-	-	-
<title>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<textarea>	-	-	-	-	-	-	-	-	X	-	-	-	-	-

Table 1 Elements and Attributes

3.1.2 CSS Styles

This chapter defines the CSS styles and their values used in the XHTML Gigaset Profile. Other styles and values are silently ignored.

CSS Keywords	
text-align	
	left, center, right
text-decoration	
	none, blink
float	
	left, center, right
margin	
	left, center, right
font-weight	
	Normal, bold

Table 2 CSS Styles

3.2 Classification of Elements

3.2.1 Block Elements

Block elements generate a dedicated paragraph in the text flow, i.e. these elements always start in a new line. Block elements might contain regular text and inline elements. Some block elements might also contain other block elements. Exceptions from this rule are explained in the descriptions of the elements.

3.2.2 Inline Elements

Inline-Elements do **not** create a dedicated paragraph in the text flow. Inline-Elements are subordinated, inner elements for block elements. Normally, they might contain normal text as well as additional inline elements, but no block elements. Exceptions from this rule are explained in the descriptions of the elements.

3.3 Structure and Header Elements

<html>

The <html> element indicates the start and end of an XHTML-MP document: It is the root element for all XHTML Family Document Types.

Contents	One <body> element and one <head> element.		
Attributes	attribute	values (default are bolded)	description
	xmlns	*URI*	expected value: "http://www.w3.org/1999/xhtml" Though this attribute is needed to build a valid XHMTL document, the mechanism behind is not supported by the Gigaset system (i.e. specific namespaces are not supported)

Examples

Example 1

```
<?xml version="1.0" encoding="utf-8"?><!DOCTYPE html PUBLIC "-
//OMA//DTD XHTML Mobile 1.2//EN"
"http://www.openmobilealliance.org/tech/DTD/xhtml-mobile12.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title>Template</title>
</head>
<body>
  <!-- put the content here -->
</body>
</html>
```

<head>

The <head> element contains information about the current document, such as its title, that is not considered document content.

Contents	Must contain one <title> element; may contain any number of the following elements: <meta>.		
Attributes	attribute	values (default are bolded)	Description
	(none)		
Examples	See Example 1 on page *10*		

<title>

Every XHTML document must have a <title> element in the <head> section. The title element is used to identify the document.

Contents	text only		
Attributes	attribute	values (default are bolded)	Description
	(none)		
Examples	See Example 1 on page *10*		

<body>

The <body> element contains the element content that make up the main body of the document. The <body> element is contained in the root element (<html>).

Contents	Either one or more of the elements: <p> or only one of the elements: , <form>		
Attributes	attribute	values (default are bolded)	description
	(none)		
Examples	See Example 1 on page *10*		

<meta>

The <meta> element contains meta information about a document. Examples of meta information are directions indicating how long the browser should cache the document, keywords or descriptions for search engines, or details about the creator and version of a document.

The <meta> element is contained in the <head> element; it is not displayed.

Contents	Empty		
Attributes	attribute	values (default are bolded)	description
	http_equiv	expires	The meta-tag “expires” is used to suggest a time period for reload of the page to the client.
	content	0..86400	Value means seconds between reloads, 0 means no automatic refresh.
Examples	**Example 2**		

```
<?xml version="1.0" encoding="utf-8"?><!DOCTYPE html PUBLIC "-
//OMA//DTD XHTML Mobile 1.2//EN"
"http://www.openmobilealliance.org/tech/DTD/xhtml-mobile12.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title>Template</title>
  <meta http_equiv="expires" content="3600" />
</head>
<body>
  <!-- put the content here -->
</body>
</html>
```

3.4 Text Elements

<p>

All texts and hyperlink and controls elements must be defined in paragraph.

Type	Block Element		
Contents	Empty or any combination of text and the following elements: `<a>,  ` Only inside `<form>`: empty or any combination of text and the following elements: `<a>,  , <input>, <select>`		
Attributes	attribute	values (default are bolded)	description
	style	text-align: **left** | center | right text-decoration: **none** | blink font-weight: **normal** | bold float: **left** | center | right margin: **left** | center | right	Specifies style information for the current text element.

Examples

Example 3

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <p style="text-align:center;text-decoration:blink">
    Weather Bocholt:</p>
  <br/>
  <p style="text-align:left font-weight:bold">Today:</p>
  <p style="text-align:right">Cloudy, 22°C</p>
</body>
```


Moving to the next line with
.

 MUST be written as

Type	Inline Element		
Contents	Empty		
Attributes	attribute	values (default are bolded)	Description
	(none)		
Examples	See Example 3 on page 13		

3.5 Hypertext

<a>

The <a> element could contain hyperlink to other XHTML document or WTAI function.
Supported WTAI functions are:
wtai://wp/mc, wtai://wp/ap (see [2] for WTAI specification)

Type	Inline Element		
Contents	text description of hyperlink Only inside `<li>`: combination of text and `<p>`		
Attributes	attribute	values (default are bolded)	description
	href	*URI*	specifies the location of a web resource

Examples

Example 4

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <p><a href="http://host.com/foo.html">HTTP hyperlink</a></p>
  <p><a href="wtai://wp/mc;12345">WTAI: call function</a></p>
</body>
```

Example 5

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <p>Do you need help?</p>
  <p>You can
    <a href="http://host.com/index.html">go to on-line
support</a>
    or
    <a href="wtai://wp/mc;12345">call our helpdesk</a>
    department</p>
  <p style="text-align: right">
    <a href="http://host.com/more.html">Next...</a></p>
</body>
```

3.6 List

The <ul> element indicates unordered list.

Type	Block Element		
Contents	One or more of the following elements:		
Attributes	attribute	values (default are bolded)	description
	(none)		
Examples	**Example 6**		

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <ul>
    <li>non-browsable text entry</li>
    <li><a href="http://host.com/index.html">hyperlink</a></li>
  </ul>
</body>
```

Example 7

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <ul>
    <li>Choose region:</li>
    <li><a href="http://host.com/index.html">Asia</a></li>
    <li><a href="http://host.com/index.html">Europe</a></li>
    <li><a href="http://host.com/index.html">America</a></li>
    <li></li>
    <li><a href="wtai://wp/mc;12345">Call Helpdesk</a></li>
  </ul>
</body>
```


The <li> element contains list item

Type	List Item Element		
Contents	Any combination of text and the following elements: exactly one <a>, <p>, 		
Attributes	attribute	values (default are bolded)	description
	(none)		
Examples	see also Example 6 and Example 7 on page 16 **Example 8**		

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <ul>
    <li><a href="mailbox.html">02146912426</a>
      <br/>20.07.2007 20:07</li>
    <li><a href="mailbox.html">05956551531</a>
      <br/>10.07.2007 10:07</li>
    <li><a href="mailbox.html">32687751531</a>
      <br/>12.01.2007 12:07</li>
    <li><a href="mailbox.html">01371617556</a></li>
  </ul>
</body>
```

3.7 Basic Forms

<form>

The <form> element acts as container for controls elements.

Type	Block Element		
Contents	A combination of one element `<input type="submit">` and - one or more of the following elements: `<input>, <select>,  , <p>` - or one single `<textarea>` element		
Attributes	attribute	values (default are bolded)	description
	action	*URI*	Specifies a form processing agent. User agent behavior for a value other than an HTTP URI is undefined.
	method	**get**	Specifies the HTTP method used to send the form to the processing agent. Only *get* method is supported in XHTML-GP.
Examples	See Example 9 and Example 10 on page 19 and 20		

<input>

The <input> element represents editable area

Type	Inline Element		
Contents	Empty		
Attributes	attribute	values (default are bolded)	description
	type	**text** password checkbox radio submit	Specifies the type of control to create.
	name	*text*	Assigns name to the control. Not used for `type="submit"`. Some names are reserved for Gigaset systems (see also chapter 4.4).

	value	*text*	Specifies the initial value of the control. Mandatory for `type=″radio″` and `type=″checkbox″`.
	disabled	disabled	When set for a form control, this Boolean attribute disables the control for user input.
	checked	checked	Specifies the state of a button. Valid for `type=″radio″` and `type=″checkbox″`.
	inputmode	**text** digits dialpad	Specifies appropriate input mode for the text input expected in an associated input control. Possible values means:
	maxlength	1..**32**	Specifies the maximum number of editable characters. Valid for `type="text"` and `type="password"`

text	all available characters
digits	digits only: 0…9
dialpad	dial characters: 0…9 and #, *, P, R

Examples

Example 9

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <form action="http://host.com/adddata" method="get">
    <p>text description</p>
    <p>Text:
      <input type="text" name="input1" maxlength="12"
             value="default" /></p>
    <p>Password:
      <input type="password" name="input2" maxlength="12" /></p>
    <p>Checkmark
      <input type="checkbox" name="c1" checked="checked"
             value="check 1" /></p>
    <p>Radio 1
      <input type="radio" name="r1" checked="checked"
             value="option 1" /></p>
    <p>Radio 2
      <input type="radio" name="r1" value="option 2" /></p>
    <p><input type="submit" value="Send"/></p>
  </form>
</body>
```

<select>

The <select> element indicates list with options

Type	Inline Element		
Contents	One or more of the following elements: <option>		
Attributes	attribute	values (default are bolded)	description
	disabled	disabled	When set for a form control, this boolean attribute disables the control for user input.
	name	*text*	Assigns a name to the control.
Examples	**Example 10**		

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <form action="http://host.com/adddata" method="get">
    <p>Color:
      <select name="colors">
        <option value="1">red</option>
        <option value="2" selected="selected">green</option>
        <option value="3">blue</option>
      </select>
    </p>
    <input type="submit" value="Submit"/>
  </form>
</body>
```

<option>

The <option> element represents choice of menu created by <select>

Type	Form Menu Option Element		
Contents	One or more of the following elements: text		
Attributes	attribute	values (default are bolded)	Description
	value	*text*	Specifies initial value to the control
	selected	selected	When set, this boolean attribute specifies that this option is pre-selected
Examples	See Example 9 and Example 10 on page 19 and 20		

<textarea>

Element allows the creation of a multiline text window for textual user input.

Type	Inline Element		
Contents	One or more of the following elements: text		
Attributes	attribute	values (default are bolded)	description
	name	*text*	An attribute used to assign a variable name to a form control. The name should be unique within the document
Examples	**Example 11**		

```
<!-- structure and header see Example 1 on page 10 -->
<body>
  <form method="get" action="edit result.jsp">
    <textarea name="s1">
      The quick brown fox jumps over the lazy dog.
    </textarea>
    <input type="submit" value="Search"/>
  </form>
</body>
```

4 HTTP reference

4.1 Authorization

Authorization is done directly at the first request sent to the HTTP-server. The server responds with “401 Unauthorized” and sends the authentication data to the client. The request has to be repeated, extended with authentication data (see examples).

In the following requests the client can directly use these authentication data, until it has expired (after a fixed timeout, typically 1 hour). After that time HTTP-server will again respond with “401 Unauthorized” and send new authentication data to the client.

```
GET http://www.gigaset.net/servlet.do?command=……HTTP/1.1
User-Agent: C455 IP R020770000000
Host: www.gigaset.net

HTTP/1.1 401 Unauthorized
WWW-Authenticate:Digest realm="gigaset.net",
   nonce="2356561841-9a875d65f56d5c6b45a6d5d56b45a5d4",
   qop="auth,auth-int"

GET http://www.gigaset.net/servlet.do?command=……HTTP/1.1
User-Agent: C455 IP R020770000000
Host: www.gigaset.net
Authorization:Digest username="user@gigaset.net",
   realm="gigaset.net",
   nonce="2356561841-9a875d65f56d5c6b45a6d5d56b45a5d4",
   uri="/servlet.do?command=……",
   qop="auth”,nc="00000001”,cnonce="78F86D5A",
   response="565a6d5455f6a45c55b6d5a45f5c5b51",
   opaque=""
```

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
...
```

4.2 Redirection

The Gigaset system supports temporary redirection.

4.3 HTTP Methods

The Gigaset system always uses the ‘GET’ method.

4.4 HTTP Parameters

In order to provide the server with information about the requesting client, the following mechanisms are used:

- Identify the client via the the User Agent string (`HTTP_USER_AGENT`)
- Transfer dynamic data as URL parameters

4.4.1 Header Parameters

User Agent String

The User Agent String (`HTTP_USER_AGENT`) contains information about the client. Since the client capabilities are given by the combination of handset and basestation, the User Agent String is a combination of information about base station and handset.

Format of User Agent String:

```
"<brand_name> <device_info(basestation)> <device_info(handset)>"

device info         = "<product name>[1] [<product specifier>][2]"

product_specifier   = "<device_type>.<firmware_version>.<article_code>"
```

[1] special values are provided for legacy handsets, see Annex B

[2] available for handsets of portfolio 2008 and later

Example:

```
User-Agent: Gigaset C675IP 045.025.000000 S67H 02.077.0000000
```

4.4.2 URL Parameters

The Gigaset system transfers dynamic parameters with every HTTP request in the following way:

```
http://192.168.2.169/example.html?####1=value1&#####2=value2
```

These parameters can be used by the server application to return XHTML-GP pages regarding to the context of the requesting system.

Language

Parameter name: `lang`

Parameter values: defines the display language as specified in the handset settings, values see Annex A

Country Code

Parameter name: `cc`

Parameter value: defines the country code as specified in the basestation settings values according to ITU-T recommendation E.164 [3]

Handset ID

The handset ID is used to identify the handset that currently requests the XHTML pages and can be used for personalization issues.

Parameter name: `ppid`

Parameter values: defines the internal subscriber number of the handset
range: 0..99

Date and Time

Parameter name: `dt`

Parameter values: defines the date and time as specified in the basestation
coding: yyyymmddhhmm

MAC address

Parameter name: `mac`

Parameter value: defines the Ethernet MAC address of the basestation
coding: `01-23-45-67-89-ab`

Annex

A. Language Codes

Value	Meaning	Value	Meaning
0	Undefined	16	Turkish
1	US	17	Polish
2	German	18	Canadian French
3	English International	19	Mexican Spanish
4	Spanish	20	Brasilien Portuguese
5	Portuguese	21	Numeric
6	Scandinavia	22	Slovakian
7	Italian	23	reserved
8	Greek	24	Reserved
9	French	25	Hungarian
10	Dutch	26	Croatian
11	Norwegian	27	Slovenian
12	Danish	28	Romanian
13	Swedish	29	Serbian
14	Finnish	30	Bulgarian
15	Czech		

Table 3: Language Codes

B. Handset Product Names

Some legacy handsets do not provide a <product_specifier> for the <device_info> field in the User Agent String, but only a generic <product_name>. The following table describes the meanings of these special values.

Value	Meaning
SL37S45C47	Specifies one of the following legacy handsets and does not allow any further distinction: - Gigaset SL37H - Gigaset S45 - Gigaset C47H All handsets have 6 display lines.
SL55S67	Specifies one of the following legacy handsets and does not allow any further distinction: - Gigaset SL55 - Gigaset SL56 - Gigaset S67H - Gigaset S68H All handsets have 8 display lines.
S67IP	Gigaset S67IP

Table 4: Handset Product Names

C. Bibliography

[1] http://www.w3.org/TR/xhtml2

[2] http://www1.wapforum.org/tech/terms.asp?doc=WAP-268-WTAI-20010908-a.pdf

[3] Annex to ITU Operational Bulletin No. 892