Civic Location Format Extension for Utility and Lamp Post Numbers
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Abstract

This document describes an extension to civic location format and
adds new element PN (pole number). PN carries pole number information which can identify a civic location.

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1. Introduction

In many cities in China, utility and lamp posts carry a unique identifier, which we call a pole number in this document. In some countries, the label on the lamp post also carries the local emergency service number, such as "110", encouraging callers to use the pole number to identify their location. This method is initially provided and implemented in China by Shenzhen police department. (One suspects that this is particularly useful in cities where street naming and numbering systems make it difficult to accurately identify locations.)

The pole number is also useful to report broken street lights. The major disadvantage is that callers would have to enter the pole number manually, although it may be possible in the future to simply point a camera phone at the number and have it recognize the number using pattern recognition.

In this document, we define an extension of the civic address format [RFC XXXX] to carry such pole number information. The following figure is a diagram for this kind of lamp post number. "110" in the circle is emergency service number or PSAP.

Lamp post with emergency number.
2. Terminology Used in This Document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

3. Additional Civic Address Type

[RFC4776] and [RFC5139] provides a full set of parameters that may be used to describe a civic location. Specifically, [RFC4776] lists several civic address types (CAtypes) that require support in the formal PIDF-LO definition that are not in [RFC4119].

The new element, PN (pole number), is used to support Lamp Post number in street addresses. The pole number can consist of any combination of letters and digits. Punctuation characters and embedded spaces are ignored; lower and upper case letters are treated as equivalent.

<table>
<thead>
<tr>
<th>New Field</th>
<th>CAtype</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN</td>
<td>40</td>
<td>lamp post number</td>
<td>A12101S</td>
</tr>
</tbody>
</table>

Table 1: New Civic PIDF-LO Type

4. Example

```xml
<civicAddress xml:lang="en-AU"
 xmlns="urn:ietf:params:xml:ns:pidf:geopriv10:civicAddr">
 <country> CN </country>
 <A1> GD </A1>
 <A3> Shenzhen </A3>
 <A4> Bantian </A4>
 <RD> Wuhe </RD>
 <LMK> Bai Cao Yuan </LMK>
 <LOC> Front Gate </LOC>
 <NAM> Video Rental Store </NAM>
 <PC> 518129 </PC>
 <PN> 2121014 </PN>
</civicAddress>
```
5. Security Considerations

The security considerations of [RFC4119] is relevant to this document.

6. IANA Considerations

6.1. CAtype Registry Update

This document updates the civic address type registry established by [RFC4776]. The "PIDF" column of the CAtypes table has been updated to include the types shown in the first column of Table 1.

7. References

7.1. Normative References


7.2. Informative References


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