ECRIT	R. George	
Internet-Draft	Q. Sun	
Intended status: Informational	Huawei Technologies	
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	March 08, 2010	

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Civic Location Format Extension for Utility and Lamp Post Numbers
draft-george-ecrit-lamp-post-02

Abstract

This document describes an extension to civic location format and adds two new CAtypes: PN (pole number) and MP (milepost). Pole Numbers are used on poles such as lamp posts or utility poles, and can be used in some circumstances as location information. Mileposts are numeric values measured from an end of a trail, road, railway line or other feature.

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1. Introduction

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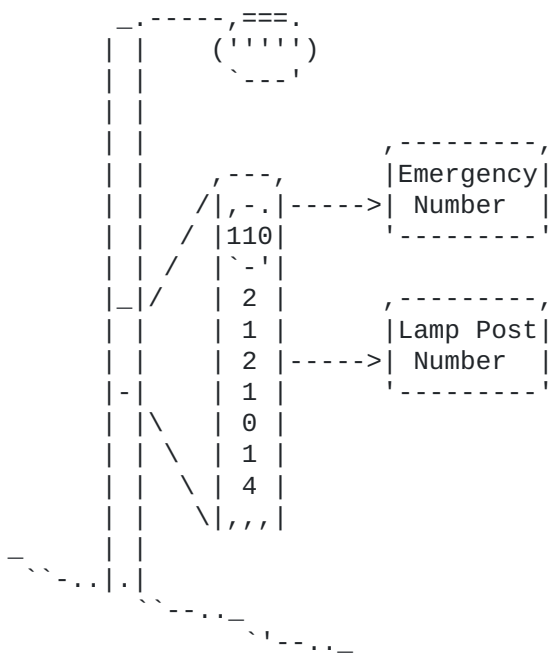
In some areas, utility and lamp posts carry a unique identifier, which we call a pole number in this document. In some countries, the label on the lamp post also carries the local emergency service number, such as "110", encouraging callers to use the pole number to identify their location.



Lamp post with emergency number.

On some roads, and many trails, railroad rights of way and other linear features, a post with a mile or kilometer distance from one end of the feature may be found (a "milepost"). There are other cases of poles or

markers with numeric indications that are not the same as a "house number" or street address number.
In this document, we define an extension of the civic address format defined in [RFC4119] (Peterson, J., “A Presence-based GEOPRIV Location Object Format,” December 2005.) updated by [RFC5139] (Thomson, M. and J. Winterbottom, “Revised Civic Location Format for Presence Information Data Format Location Object (PIDF-LO),” February 2008.) to carry such pole number and milepost information.

2. Terminology Used in This Document

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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] (Bradner, S., “Key words for use in RFCs to Indicate Requirement Levels,” March 1997.).

3. Pole Number and Milepost

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[RFC4776] (Schulzrinne, H., “Dynamic Host Configuration Protocol (DHCPv4 and DHCPv6) Option for Civic Addresses Configuration Information,” November 2006.) and [RFC5139] (Thomson, M. and J. Winterbottom, “Revised Civic Location Format for Presence Information Data Format Location Object (PIDF-LO),” February 2008.) provides a full set of parameters that may be used to describe a civic location.
This document describes two new CAtypes, PN (pole number), which is used to support post numbers, and MP (milepost), which is used to support mileposts. 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. Mileposts are traditionally mile or kilometer distances from one end of the feature, but the field may contain any combination of letters, digits and punctuation characters. There could be country specific considerations for PN or MP use, but none are described in this document.

CAtype	PIDF	Description	Example
43	PN	lamp post number	A12101S
44	MP	Milepost	102.4

Table 1: New Civic PIDF-LO Types

4. Examples

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```
<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>
```

```
<civicAddress xml:lang="en-AU"
  xmlns="urn:ietf:params:xml:ns:pidf:geopriv10:civicAddr">
  <country>US</country>
  <A1>PA</A1>
  <A3>Hopewell</A3>
  <RD>Baker Trail</RD>
  <MP>11.4</MP>
</civicAddress>
```

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5. Security Considerations

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The security considerations of [RFC4119] is relevant to this document. No new security considerations arise as a result of these new fields

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6. IANA Considerations

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6.1. CAtype Registry Update

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This document updates the CAtype registry established by [RFC4776]. Two entries are defined, with values as indicated in Table 1.

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7. References

7.1. Normative References

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[RFC2119]	Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels," BCP 14, RFC 2119, March 1997 (TXT, HTML, XML).

7.2. Informative References

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[RFC3693]	Cuellar, J., Morris, J., Mulligan, D., Peterson, J., and J. Polk, "Geopriv Requirements," RFC 3693, February 2004 (TXT).
[RFC4119]	Peterson, J., "A Presence-based GEOPRIV Location Object Format," RFC 4119, December 2005 (TXT).
[RFC4776]	Schulzrinne, H., "Dynamic Host Configuration Protocol (DHCPv4 and DHCPv6) Option for Civic Addresses Configuration Information," RFC 4776, November 2006 (TXT).
[RFC5139]	Thomson, M. and J. Winterbottom, "Revised Civic Location Format for Presence Information Data Format Location Object (PIDF-LO)," RFC 5139, February 2008 (TXT).

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