The Internet Assigned Number Authority (IANA) tel Uniform Resource Identifier (URI) Parameter Registry
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Abstract

This document creates an Internet Assigned Number Authority (IANA) registry for tel Uniform Resource Identifier (URI) parameters and their values. It populates the registry with the parameters defined in the tel URI specification, along with the parameters in tel URI extensions defined for number portability and trunk groups.
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1. Introduction

The tel URI, defined in RFC 3966 [1], defines a URI that can be used to represent resources identified by telephone numbers. The tel URI, like many other URIs, provides extensibility through the definition of new URI parameters and new values for existing parameters. However, RFC3966 did not specify an IANA registry where such parameters and values can be listed and standardized. This specification creates such a registry.

2. Terminology

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 RFC 2119 [3].

3. Use of the Registry

The tel URI parameters and values for these parameters MUST be documented in a standards-track RFC in order to be registered by IANA. This documentation MUST fully explain the syntax, intended usage, and semantics of the parameter. The intent of this requirement is to assure interoperability between independent implementations, and to prevent accidental namespace collisions between implementations of dissimilar features.

RFCs defining tel URI parameters or parameter values MUST register them with IANA as described below.

Registered tel URI parameters and their values are to be considered "reserved words". In order to preserve interoperability, registered parameters MUST be used in a manner consistent with that described in their defining RFC. Implementations MUST NOT utilize "private" or "locally defined" URI parameters that conflict with registered parameters.

Some tel URI parameters only accept a set of predefined parameter values while others can take any value. There are also parameters that do not have any value; they are used as flags.

Those URI parameters that take on predefined values typically take on a large number of values. Registering each of those values, or creating a sub-registry for each such parameter is not appropriate. Instead, we have chosen to register URI parameter values by reference. That is, the entry in the URI parameter registry for a given URI parameter contains references to the RFCs defining new values of that parameter.
Accordingly, the tel URI parameter registry contains a column that indicates whether or not each parameter only accepts a set of predefined values. The column can contain "Yes", or "No". A value of "Yes" in the column implies that certain predefined values exist for this parameter and the accompanying RFC should be consulted to find out the accepted set of values. A value of "No" in the column implies that the parameter is used either as a flag, or does not have a set of predefined values. The accompanying RFC should provide more information on the semantics of the parameter.

4. IANA Considerations

The specification creates a new IANA registry named "tel URI Parameters".

4.1 tel URI Parameters Registry

New tel URI parameters and new values for existing tel URI parameters MUST be registered by IANA.

When registering a new tel URI parameter the following information MUST be provided:

- Name of the parameter.
- Whether the parameter only accepts a set of predefined values.
- Reference to the RFC defining the parameter and to any RFC that defines new values for the parameter.

When registering a new value for an existing tel URI parameter the following information MUST be provided:

- Name of the parameter.
- Reference to the RFC providing the new value.

Note to IANA editor: When a new value for an existing tel URI parameter is standardized, the Reference column of Table 1 (below) corresponding to the parameter name must be updated to include the new RFC number.

Table 1 contains the initial values for this registry.
### Table 1: IANA tel URI parameter registry

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Predefined Values</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>isub</td>
<td>Yes</td>
<td>[RFC 3966]</td>
</tr>
<tr>
<td>ext</td>
<td>Yes</td>
<td>[RFC 3966]</td>
</tr>
<tr>
<td>phone-context</td>
<td>Yes</td>
<td>[RFC 3966]</td>
</tr>
<tr>
<td>enumdi</td>
<td>No</td>
<td>[RFC AAAA]</td>
</tr>
<tr>
<td>npdi</td>
<td>No</td>
<td>[RFC BBBB]</td>
</tr>
<tr>
<td>rn</td>
<td>Yes</td>
<td>[RFC BBBB]</td>
</tr>
<tr>
<td>rn-context</td>
<td>Yes</td>
<td>[RFC BBBB]</td>
</tr>
<tr>
<td>cic</td>
<td>Yes</td>
<td>[RFC BBBB]</td>
</tr>
<tr>
<td>cic-context</td>
<td>Yes</td>
<td>[RFC BBBB]</td>
</tr>
<tr>
<td>tgrp</td>
<td>Yes</td>
<td>[RFC CCCC]</td>
</tr>
<tr>
<td>trunk-context</td>
<td>Yes</td>
<td>[RFC CCCC]</td>
</tr>
</tbody>
</table>

Note to RFC Editor: Please replace AAAA with the RFC number for [7]. Please replace BBBB with the RFC number for [6]. Please replace CCCC with the RFC number for [5].

4.2 Registration Policy for tel URI Parameters

As per the terminology in RFC 2434 [4], the registration policy for tel URI parameters shall be "Standards Action". For the purposes of this registry, the parameter for which IANA registration is requested MUST be defined by a standards-track RFC.

5. Security Considerations

The registry in this document does not in itself have security considerations. However, as mentioned in RFC 3427 [2], an important reason for the IETF to manage the extensions of SIP is to ensure that all extensions and parameters are able to provide secure usage. The supporting RFC publications for parameter registrations described this specification MUST provide detailed security considerations for them.

6. Acknowledgments

The bulk of this document comes from RFC 3969 [8] written by Gonzalo Camarillo. Jonathan Rosenberg provided substantive comments that have improved this document.

7. References
7.1 Normative References


7.2 Informative References


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