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A Clarification on the Use of Globally Routable User Agent URIs (GRUUs)  
in the SIP Event Notification Framework

Abstract

Experience since the publication of the most recent SIP Events framework (in July 2012) has shown that there is room for interpretation around the use of Globally Routable User Agent URIs in that specification. This document clarifies the intended behavior.

This document updates RFC 6665.

Status of This Memo

This is an Internet Standards Track document.

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Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at <http://www.rfc-editor.org/info/rfc7621>.

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1. Introduction

This document is intended to clarify a point of implementor confusion arising from lack of clarity in [RFC6665].

2. Clarification of GRUU Handling

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].

Section 4.5.1 of [RFC6665] contains the following normative requirement on implementations:

Notifiers MUST implement the Globally Routable User Agent URI (GRUU) extension defined in [RFC5627], and MUST use a GRUU as their local target. This allows subscribers to explicitly target desired devices.

The second sentence of this paragraph attempted to set context for the normative statement: the reason GRUUs are required in this context is to allow you to send SUBSCRIBE or REFER requests to a specific user agent, with the target of the subscription request being something like an INVITE dialog on that device. Consequently, the requirement to include a GRUU as a local target was intended to apply not just to the local target for SUBSCRIBE-created dialogs, but to \*all\* dialogs, even those created by INVITE. This requirement has been interpreted in a variety of ways by implementors, so a clarification is in order.

Discussion subsequent to the publication of [RFC6665] has highlighted obscure cases in which implementations might be notifiers in some contexts, but may not wish to act as notifiers in others. Under these narrow circumstances, the restriction described above is not necessary for dialogs about which the notifier will never accept subscriptions (although the use of GRUUs in such a context causes no harm, either).

This document updates [RFC6665] to clarify the actual requirements. The replacement text is as follows:

Notifiers MUST implement the Globally Routable User Agent URI (GRUU) extension defined in [RFC5627]. Notifiers MUST use a GRUU as their local target for all dialog-forming methods and all target-refresh methods, except for those dialogs for which they will reject all subscription requests (implicit or explicit). For clarity: an implementation that uses a non-GRUU local contact under the exception described above MUST reject a request that might create a subscription to the associated dialog, regardless of whether such subscription would be created by a SUBSCRIBE or a REFER message. The rejection code under such conditions SHOULD be 403 (Forbidden) unless some other code is more appropriate to the circumstances. The foregoing requirements to implement and use GRUUs specifically include dialogs created by the INVITE method.

### 3. Security Considerations

This mechanism does not introduce any security issues beyond those discussed in [RFC6665].

### 4. IANA Considerations

This document requests no actions of IANA.

### 5. Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <<http://www.rfc-editor.org/info/rfc2119>>.
- [RFC5627] Rosenberg, J., "Obtaining and Using Globally Routable User Agent URIs (GRUUs) in the Session Initiation Protocol (SIP)", RFC 5627, DOI 10.17487/RFC5627, October 2009, <<http://www.rfc-editor.org/info/rfc5627>>.
- [RFC6665] Roach, A.B., "SIP-Specific Event Notification", RFC 6665, DOI 10.17487/RFC6665, July 2012, <<http://www.rfc-editor.org/info/rfc6665>>.

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