

IANA Registration of New Session Initiation Protocol (SIP) Resource-Priority Namespaces

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Abstract

This document creates additional Session Initiation Protocol (SIP) Resource-Priority namespaces to meet the requirements of the US Defense Information Systems Agency, and places these namespaces in the IANA registry.

Table of Contents

1. Introduction	2
1.1. Conventions Used in This Document	3
2. New SIP Resource-Priority Namespaces Created	3
3. IANA Considerations	4
3.1. IANA Resource-Priority Namespace Registration	4
3.2. IANA Priority-Value Registrations	6
4. Security Considerations	6
5. Acknowledgments	6
6. Normative References	6

1. Introduction

The US Defense Information Systems Agency (DISA) is rolling out their Session Initiation Protocol (SIP) based architecture at this time. This network will require more Resource-Priority namespaces than were defined, and IANA registered, in RFC 4412 [RFC4412]. The purpose of this document is to define these additional namespaces. Each will be preemptive in nature, as defined in RFC 4412, and will have the same 10 priority-values.

DISA has a requirement to be able to assign different Resource-Priority namespaces to differing groups of differing sizes throughout their networks. Examples of this may be

- namespaces as large as each branch of service (Army, Navy, Air Force, Marines, Coast Guard)
- namespaces for some departments within the government (for example, Homeland Security)
- namespaces that are temporary assignments to individual units of varying sizes (from battle groups to patrol groups or platoons)

These temporary assignments might be combinations of smaller units involving several branches of service operating as one unit (say, one task force, which is separate than the branch of service), or a single commando unit requiring special treatment for a short period of time, making it appear separate from the branch of service they are from.

Providing DISA with a pool of namespaces for fine-grained assignment(s) allows them the flexibility they need for their mission requirements. One can imagine due to their sheer size and separation of purpose, they can easily utilize a significant number of namespaces within their networks. This is the reason for the

assignment of so many new namespaces, which seems to deviate from guidance in RFC 4412 to have as few namespaces as possible.

This document makes no changes to SIP, it just adds IANA-registered namespaces for SIP's use within the Resource-Priority header framework.

1.1. Conventions 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].

2. New SIP Resource-Priority Namespaces Created

The following 40 SIP namespaces are created by this document:

dsn-000000	drsn-000000	rts-000000	crts-000000
dsn-000001	drsn-000001	rts-000001	crts-000001
dsn-000002	drsn-000002	rts-000002	crts-000002
dsn-000003	drsn-000003	rts-000003	crts-000003
dsn-000004	drsn-000004	rts-000004	crts-000004
dsn-000005	drsn-000005	rts-000005	crts-000005
dsn-000006	drsn-000006	rts-000006	crts-000006
dsn-000007	drsn-000007	rts-000007	crts-000007
dsn-000008	drsn-000008	rts-000008	crts-000008
dsn-000009	drsn-000009	rts-000009	crts-000009

Each namespace listed above is wholly different. However, according to the rules within Section 8 of RFC 4412, one or more sets can be treated as if they are the same when they are configured as an aggregated grouping of namespaces.

These aggregates of two or more namespaces, that are to be considered equivalent during treatment, can be a set of any IANA registered namespaces, not just adjacent (i.e., consecutive) namespaces.

Each namespace listed above will have the same 10 priority levels:

- .0 (lowest priority)
- .1
- .2
- .3
- .4
- .5
- .6
- .7
- .8
- .9 (highest priority)

According to the rules established in RFC 4412 [RFC4412], priority-values have a relative order for preferential treatment, unless one or more consecutive groups of priority-values are to be considered equivalent (i.e., first-received, first treated).

The dash character ('-') is just like any other ASCII character within a namespace, and is not to be considered a delimiter in any official way within any namespace here. Other namespace definitions in the future could change this.

As stated in Section 9 of RFC 4412 [RFC4412] an IANA-registered namespace SHOULD NOT change the number, and MUST NOT change the relative priority order, of its assigned priority-values.

3. IANA Considerations

Abiding by the rules established within RFC 4412 [RFC4412], this is a Standards-Track document registering new namespaces, their associated priority-values, and intended algorithms.

3.1. IANA Resource-Priority Namespace Registration

Within the "Resource-Priority Namespaces" registry in the sip-parameters section of IANA, the following table lists the new namespaces registered by this document.

Namespace	Levels	Intended Algorithm	New warn-code	New resp. code	Reference
dsn-000000	10	preemption	no	no	[RFC5478]
dsn-000001	10	preemption	no	no	[RFC5478]
dsn-000002	10	preemption	no	no	[RFC5478]
dsn-000003	10	preemption	no	no	[RFC5478]
dsn-000004	10	preemption	no	no	[RFC5478]
dsn-000005	10	preemption	no	no	[RFC5478]
dsn-000006	10	preemption	no	no	[RFC5478]
dsn-000007	10	preemption	no	no	[RFC5478]
dsn-000008	10	preemption	no	no	[RFC5478]
dsn-000009	10	preemption	no	no	[RFC5478]
drsn-000000	10	preemption	no	no	[RFC5478]
drsn-000001	10	preemption	no	no	[RFC5478]
drsn-000002	10	preemption	no	no	[RFC5478]
drsn-000003	10	preemption	no	no	[RFC5478]
drsn-000004	10	preemption	no	no	[RFC5478]
drsn-000005	10	preemption	no	no	[RFC5478]
drsn-000006	10	preemption	no	no	[RFC5478]
drsn-000007	10	preemption	no	no	[RFC5478]
drsn-000008	10	preemption	no	no	[RFC5478]
drsn-000009	10	preemption	no	no	[RFC5478]
rts-000000	10	preemption	no	no	[RFC5478]
rts-000001	10	preemption	no	no	[RFC5478]
rts-000002	10	preemption	no	no	[RFC5478]
rts-000003	10	preemption	no	no	[RFC5478]
rts-000004	10	preemption	no	no	[RFC5478]
rts-000005	10	preemption	no	no	[RFC5478]
rts-000006	10	preemption	no	no	[RFC5478]
rts-000007	10	preemption	no	no	[RFC5478]
rts-000008	10	preemption	no	no	[RFC5478]
rts-000009	10	preemption	no	no	[RFC5478]
crts-000000	10	preemption	no	no	[RFC5478]
crts-000001	10	preemption	no	no	[RFC5478]
crts-000002	10	preemption	no	no	[RFC5478]
crts-000003	10	preemption	no	no	[RFC5478]
crts-000004	10	preemption	no	no	[RFC5478]
crts-000005	10	preemption	no	no	[RFC5478]
crts-000006	10	preemption	no	no	[RFC5478]
crts-000007	10	preemption	no	no	[RFC5478]
crts-000008	10	preemption	no	no	[RFC5478]
crts-000009	10	preemption	no	no	[RFC5478]

3.2. IANA Priority-Value Registrations

Within the "Resource-Priority Priority-values" registry in the sip-parameters section of IANA, the list of priority-values for each of the 40 newly created namespaces from Section 3.1 of this document, prioritized least to greatest, is registered by the following (replicated similar to the following format):

Namespace: dsn-000000

Reference: RFC5478 (this document)

Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5", "6", "7", "8", "9"

4. Security Considerations

This document has the same Security Considerations as RFC 4412.

5. Acknowledgments

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6. Normative References

[RFC4412] Schulzrinne, H. and J. Polk, "Communications Resource Priority for the Session Initiation Protocol (SIP)", RFC 4412, February 2006.

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

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