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

   This document creates additional Session Initiation Protocol
   Resource-Priority header namespaces, to be IANA registered.

Table of Contents

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 header (RPH)
   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 RFC 4412 defined as preemption
   based in nature, and will have the same 9 priority-values.

   DISA has a requirement to be able to assign different RPH namespaces
   to different units of differing sizes throughout their networks.
   Examples of this may be

   - each branch of service (army, navy, air force, marines, coast
     guard)

   - some departments within the government (Homeland Security,
     Commerce, Treasury)

   - plus have temporary assignments to individual units of varying
     sizes

   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 RPH
   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 a few namespaces as possible.

This document makes no changes to SIP, just adds IANA registered RPH namespaces for its use.

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 RPH Namespaces Created

The following 50 SIP Resource Priority header namespaces are created by this document:

```
dsn-000000      dsn-000010      dsn-000020      dsn-000030
dsn-000001      dsn-000011      dsn-000021      dsn-000031
dsn-000002      dsn-000012      dsn-000022
dsn-000003      dsn-000013      dsn-000023
dsn-000004      dsn-000014      dsn-000024
dsn-000005      dsn-000015      dsn-000025
dsn-000006      dsn-000016      dsn-000026
dsn-000007      dsn-000017      dsn-000027
dsn-000008      dsn-000018      dsn-000028
dsn-000009      dsn-000019      dsn-000029
dsn-00000A      dsn-00001A      dsn-00002A
dsn-00000B      dsn-00001B      dsn-00002B
dsn-00000C      dsn-00001C      dsn-00002C
dsn-00000D      dsn-00001D      dsn-00002D
dsn-00000E      dsn-00001E      dsn-00002E
dsn-00000F      dsn-00001F      dsn-00002F
```

Each namespace listed above is wholly different, unless one or more sets of namespaces are aggregated according to the rules of section 8, within RFC 4412.

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

Each namespace listed above will have the same 9 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).

Thus, a message (or a call) with the following Resource-Priority header value:

```
dsn-000001.8
```

for example, MUST NOT ever receive preferential treatment over a message, for example, with this Resource-Priority header value:

```
dsn-000010.0
```

because they are two difference namespaces, unless the namespaces

```
dsn-000001 and dsn-000010
```

are configured as equivalent namespaces (according to section 8 of RFC 4412).

The dash '-' character is just like any other character, and is not to be considered a delimiter in any official way within any namespace here. This MAY change in future efforts.

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 SIP Resource-Priority header namespaces, and 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
   RPH namespaces registered by this document (NOTE: 'RFCXXXX' is to be
   replaced by this document's RFC number if this document is published
   by the RFC-Editor):

Namespace	Levels	Intended Algorithm	New warn-code	New resp. code	Reference
dsn-000000	10	preemption	no	no	[RFCXXXX]
dsn-000001	10	preemption	no	no	[RFCXXXX]
dsn-000002	10	preemption	no	no	[RFCXXXX]
dsn-000003	10	preemption	no	no	[RFCXXXX]
dsn-000004	10	preemption	no	no	[RFCXXXX]
dsn-000005	10	preemption	no	no	[RFCXXXX]
dsn-000006	10	preemption	no	no	[RFCXXXX]
dsn-000007	10	preemption	no	no	[RFCXXXX]
dsn-000008	10	preemption	no	no	[RFCXXXX]
dsn-000009	10	preemption	no	no	[RFCXXXX]
dsn-00000A	10	preemption	no	no	[RFCXXXX]
dsn-00000B	10	preemption	no	no	[RFCXXXX]
dsn-00000C	10	preemption	no	no	[RFCXXXX]
dsn-00000D	10	preemption	no	no	[RFCXXXX]
dsn-00000E	10	preemption	no	no	[RFCXXXX]
dsn-00000F	10	preemption	no	no	[RFCXXXX]
dsn-000010	10	preemption	no	no	[RFCXXXX]
dsn-000011	10	preemption	no	no	[RFCXXXX]
dsn-000012	10	preemption	no	no	[RFCXXXX]
dsn-000013	10	preemption	no	no	[RFCXXXX]
dsn-000014	10	preemption	no	no	[RFCXXXX]
dsn-000015	10	preemption	no	no	[RFCXXXX]
dsn-000016	10	preemption	no	no	[RFCXXXX]
dsn-000017	10	preemption	no	no	[RFCXXXX]
dsn-000018	10	preemption	no	no	[RFCXXXX]
dsn-000019	10	preemption	no	no	[RFCXXXX]
dsn-00001A	10	preemption	no	no	[RFCXXXX]
dsn-00001B	10	preemption	no	no	[RFCXXXX]
dsn-00001C	10	preemption	no	no	[RFCXXXX]
dsn-00001D	10	preemption	no	no	[RFCXXXX]
dsn-00001E	10	preemption	no	no	[RFCXXXX]
dsn-00001F	10	preemption	no	no	[RFCXXXX]
dsn-000020	10	preemption	no	no	[RFCXXXX]
dsn-000021	10	preemption	no	no	[RFCXXXX]
dsn-000022	10	preemption	no	no	[RFCXXXX]
dsn-000023	10	preemption	no	no	[RFCXXXX]
dsn-000024	10	preemption	no	no	[RFCXXXX]
dsn-000025	10	preemption	no	no	[RFCXXXX]

```
dsn-000026    10     preemption     no          no      [RFCXXXX]
dsn-000027    10     preemption     no          no      [RFCXXXX]
dsn-000028    10     preemption     no          no      [RFCXXXX]
```

```
dsn-000029    10      preemption      no            no        [RFCXXXX]
dsn-00002A    10      preemption      no            no        [RFCXXXX]
dsn-00002B    10      preemption      no            no        [RFCXXXX]
dsn-00002C    10      preemption      no            no        [RFCXXXX]
dsn-00002D    10      preemption      no            no        [RFCXXXX]
dsn-00002E    10      preemption      no            no        [RFCXXXX]
dsn-00002F    10      preemption      no            no        [RFCXXXX]
dsn-000030    10      preemption      no            no        [RFCXXXX]
dsn-000031    10      preemption      no            no        [RFCXXXX]
```

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 newly created RPH namespaces from section 4.1 of this document,
prioritized least to greatest, is registered by the following:

Namespace: dsn-000000
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000001
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000002
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000003
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000004
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000005
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000006
Reference: RFCXXXX (this document)

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

Namespace: dsn-000007
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000008
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000009
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00000A
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00000B
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00000C
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00000D
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00000E
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00000F
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000010
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000011
      Reference: RFCXXXX (this document)

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

   Namespace: dsn-000012
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-000013
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-000014
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-000015
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-000016
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-000017
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-000018
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-000019
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-00001A
   Reference: RFCXXXX (this document)
   Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
   "6", "7", "8", "9"

   Namespace: dsn-00001B
   Reference: RFCXXXX (this document)

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

Namespace: dsn-00001C
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00001D
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00001E
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-00001F
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000020
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000021
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000022
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000023
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000024
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000025
Reference: RFCXXXX (this document)
Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
"6", "7", "8", "9"

Namespace: dsn-000026

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

    Namespace: dsn-000027
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-000028
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-000029
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-00002A
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-00002B
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-00002C
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-00002D
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-00002E
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-00002F
    Reference: RFCXXXX (this document)
    Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",
    "6", "7", "8", "9"

    Namespace: dsn-000030

Reference: RFCXXXX (this document)
      Priority-Values (least to greatest): "0", "1", "2", "3", "4", "5",

      "6", "7", "8", "9"

      Namespace: dsn-000031
      Reference: RFCXXXX (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](#). Acknowledgements

   To Jeff Hewett for his helpful guidance in this effort. Thanks to
   Janet Gunn, John Rosenberg, Joel Halpern and Henning Schulzrinne for
   their comments.

[6](#). References

[6.1](#) Normative References

 [RFC4412] Schulzrinne, H., Polk, J., "Communications Resource
           Priority for the Session Initiation Protocol (SIP)", [RFC
           4411](#), Feb 2006

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

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