New Values of the "status:" Attribute for Inetnum Objects (LIR-PARTITIONED)

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Abstract

This document describes the new value of the "status:" attribute for **inetnum** objects and its impact on database operation.

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1.0 Motivation

For various reasons large Local Internet Registries (LIRs) often need to distribute their allocated address space between various parts of their organisation (for example, some organisations have separate national operations in several countries obtaining address space through a single LIR). In these situations it is desirable to document this redistribution in the RIPE Database. In the past there was no way to do this without throwing up errors in the RIPE NCC auditing procedures or by removing flexibility by having each local operation treated as a RIPE NCC allocation. More information about the "RIPE NCC Consistency and Auditing Activity" is available from the RIPE Document Store at:

http://www.ripe.net/ripe/docs/audit.html

To facilitate administration of an LIR allocation, a new set of status values - <LIR-PARTITIONED PA> and <LIR-PARTITIONED PI> - was introduced. This allows an LIR to register one or more **inetnum** objects with one of the new "status:" values (further LIR-PARTITIONED **inetnum**) that are more specific to the allocation but less specific to the assignment. By doing this, an LIR may register different contact persons within the LIR organisation for different blocks of their allocated space. It is also possible to restrict changes in the RIPE Database within the LIR's allocated space differently in different blocks of this space.

2.0 Database Objects Affected

Only **inetnum** objects may have the <LIR-PARTITIONED> "status:" values.

3.0 Usage

The <LIR-PARTITIONED> feature allows an LIR to document distribution and delegate management of allocated space within their organisation. This is done by creating one or more <LIR-PARTITIONED> **inetnum** objects under the **inetnum** object representing an LIR allocation. These objects may reference different contact information and have different values of "mnt-lower:" and "mnt-routes:" attributes. The "mnt-routes:" attribute delegates authorisation for the creation of more specific **inetnum** and **route** objects in the RIPE Database to different entities in different address blocks within the LIR's allocated space. For example, if we consider the following **inetnum** hierarchy:

```
inetnum:            192.168.0.0 - 192.168.255.255

status:             ALLOCATED PI

mnt-by:             RIPE-NCC-HM-MNT

mnt-lower:          LIR-MNT

mnt-routes:         LIR-MNT


inetnum:            192.168.0.0 - 192.168.15.255

status:             LIR-PARTITIONED PI

mnt-by:             LIR-MNT

mnt-lower:          DEPT1-MNT

mnt-routes:         DEPT1-RT-MNT
```

Then DEPT1-MNT has the authority of creating more specific **inetnum** and **route** objects within the 192.168.0.0 - 192.168.15.255 range. DEPT1-RT-MNT has the authority to create 192.168.0.0/20 **route** and more specific ones. Please be aware that absence of a "mnt-lower:" attribute will allow anyone to create more specific **inetnum** objects within the address space.

For more information regarding authorisation rules in the RIPE Database, please refer to the RIPE document "RIPE Database Reference Manual" available from the RIPE Document

Store at:

http://www.ripe.net/ripe/docs/databaseref-manual.html

4.0 Functionality

When creating or modifying an **inetnum** object, the database will check the value of the "status:" attribute according to the following rules:

- The value of <ALLOCATED PA> or <ALLOCATED PI"> is allowed if the object is maintained by the RIPE-NCC-HM-MNT **mntner**.

- The value of <LIR-PARTITIONED PA> is allowed if one level less specific **inetnum** object contains a "status:" attribute with the value of <ALLOCATED PA>, <LIR-PARTITIONED PA> or <ALLOCATED UNSPECIFIED>.

- The value of <LIR-PARTITIONED PI> is allowed if one level less specific **inetnum** object contains a "status:" attribute with the value of <ALLOCATED PI>, <LIR-PARTITIONED PI> or <ALLOCATED UNSPECIFIED>.

5.0 IP Address Policy Implications

The use of the <LIR-PARTITIONED> status value creates no implications to IP address policy. The utilisation in any allocation is always measured by the assignments within the allocation that are registered in the RIPE Database. Furthermore, LIRs are always responsible for the usage of address space allocated to them. For details on Internet Registry policies and procedures, please refer to the "IPv4 Address Allocation and Assignment Policies in the RIPE NCC Service Region" document available from the RIPE Document Store at:

http://www.ripe.net/ripe/docs/ipv4-policies.html