IP/ASNs for governments BoF

Abstract:

The purpose of this BoF is to start the discussion about the needs of governments when it comes to obtaining IPv6 address allocations and AS numbers and possible ways in which the RIPE policies could be changed to address the needs of governments and perhaps other very large organizations made up of largely independent sub-organizations.

BoF proposal:

The RIPE policies tend to be geared towards ISPs and single organizations. In those cases, an organization requesting IP address space usually advertises that address space as a single block in BGP.

However, in the past years several European national governments, such as the German and Dutch national governments, have created government-wide IPv6 addressing plans, where the national government requests a large IPv6 allocation and sub-allocates/assigns smaller blocks out of that large assignment towards branches of the national/federal government, provinces, municipalities and so on. These organizations tend to have their own connectivity to the internet, so the allocation isn't advertised as a single large block, but rather, the assignments are advertised individually, like PI assignments.

The reason to use a single allocation even though individual governmental organizations advertise their assignments individually is because this allows for easy identification of traffic that comes from or goes to a governmental organization at the IP level.

Because the IPv6 allocation policy doesn't recognize this way of allocating IPv6 address space, obtaining the IPv6 address space for governmental address plans is time consuming and may not always produce optimal results.

In addition to their connectivity to the internet, governmental organizations also tend to connect to each other using private networks. These private networks tend to get large enough that coordinating private AS numbers becomes very difficult. However, the current policies don't address the use of public AS numbers for private use.

This BoF is intended for representatives of governments in the RIPE region to share their experiences in these areas, and to start a conversation with the RIPE community at large about ways in which the RIPE policies could be changed to accommodate for this type of use of IPv6 address space and AS numbers.

It may very well be that very large enterprises share some of these challenges. In that case, it could be useful to incorporate those use cases as well.