







BGP Routing Policy

Experience of the last years show up that a single Parent-AS should not contain more than 16 locations or sites. Otherwise clarity in management is getting difficult and the amount of assigned free IP-subnetworks might be running up. In such a case it would be wise to request a new parent-AS at the IP-Coordination DL. There are still some free resources in the pool right now.

-  **POLICY:** In European HAMNET routing-informations between every AS are handled by eBGP-routing.
-  **POLICY:** Within a single AS other routing-protocols might be in use. If a single AS has more than 1 AS-neighbor, it is absolutely essential that the border-routers (eBGP) transmit identical routing-informations to every neighbor.
-  **POLICY:** In every case loops and flapping routes have to be prevented by suitable, technical measures.
-  **POLICY:** In the German HAMNET we prefer „Site-to-Site eBGP“ using the 32-bit AS-numbers for technical routing.

BGP-Confederations

At the end of the German 16-bit-AS range we have a reservation for as-internal bgp-confederation setups (65510-65534). It can be used for some as-internal testings, e.g. routing-exchange within a confederation via iBGP. Parent-AS-maintainers have to be very careful NOT to announce any internal as-confederation-numbers to their neighbors via eBGP on the border-routers! Internal routing informations have to be announced with the external AS-number of the confederation-group. Confederation-AS-numbers are not exclusively assigned to a single AS. So they have to be filtered out (import and export) at the border-routers of any Parent-AS.

-  **POLICY:** Confederation-AS-numbers should never appear in an AS-path of the own AS.
-  **POLICY:** eBGP Router are advised to filter out local-test-AS (in and out) to keep those things local.

IP-Coordination Germany advises urgently, NOT to use BGP-confederations within the German HAMNET because of some issues in commonly used routers and some other unpredictable side-effects. Version 1.00-2019-12-31

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Last update: **09.12.2020 21:15 Uhr**

