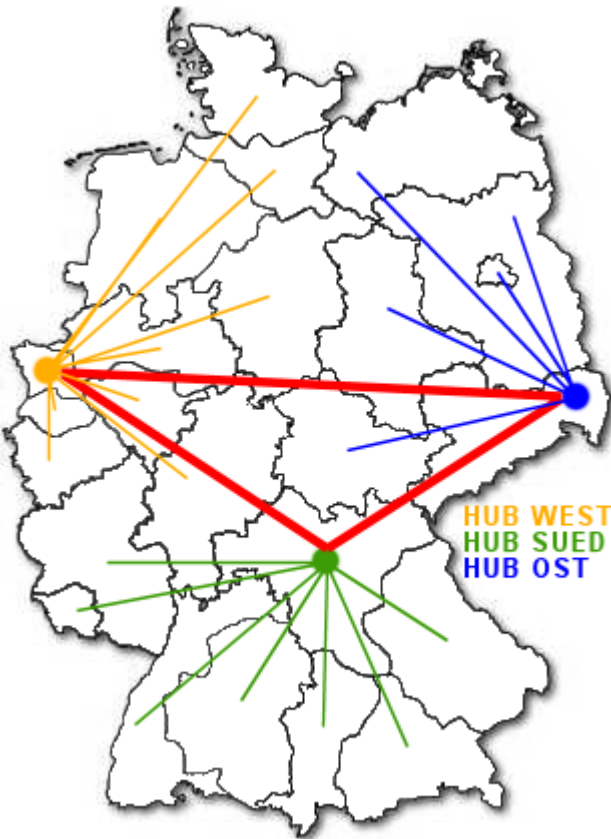


The DNS-System in German HAMNET

DNS-Hubs



Core of the DNS-system in German HAMNET consists of three so called DNS-Hubs. They are located at three different locations in DL with excellent technical and physical accessibility. DNS-Hubs are interconnected with redundand and fast internet-tunnels. They sum up the complete german subzone-concept which is related to the parent-AS-regions. IP-Coordination Germany maintains a Net-44-interface for correctly transferring all the subdomains into the worldwide „flat“ ampr.org domain. Our DNS-Hubs answer any requests from HAMNET-clients, not only for our regional zones or for flat ampr.org zone. This assures a very simple DNS-concept to be created in the local as-regions. In most cases it's enough to set up a simple cache-dns as main dns-server inevery parent-as. At local sites there could be more cache-dns, which are connected to the parent-as's dns as their „master“. Then the local site-dns will serve every client-request generated at the local site. The existing Mikrotik-routers at any site can easily take over those tasks.

Internet MASTER-DNS CNAME ns.ampr.org		
<name>.ampr.org transfer into Net-44 Interface <name>.as64xxxyy.de.ampr.org		
<name>.as64xxxyy.de.ampr.org DNS-Hub WEST CNAME dl-west.ampr.org	<name>.as64xxxyy.de.ampr.org DNS-Hub SÜD CNAME dl-sued.ampr.org	<name>.as64xxxyy.de.ampr.org DNS-Hub OST CNAME dl-ost.ampr.org

Workflow

Bottom/Up

Zone-maintainers from any parent-AS have 2 options to feed their own dns-entries into the world. Option 1 normaly is default. Option 2 requires very good knowledge in setting up authoritative dns-servers. Local admins must exactly know what they are doing. An initial one-time-consultation with IP-Coordination Germany is essential in getting option 2 up and running.

Option	Procedure
1. HamnetDB	Admins from parent-as feeding dns-data into the HamnetDB
2. Auth-DNS	Maintaining a master-Auth-DNS in the parent-as with connecting to a DNS-Hub

learn more

- [Informations about naming of host- and zones in a german AS](#)
- [Important hints for registering of personal callsigns in the German DNS-system](#) (sorry, still in german...)
- [Tips for maintaining an Auth-DNS in a Parent-AS](#) (sorry, still in german ...)
- [Tips for maintenance of DNS-data into HamnetDB](#)

For both options automatic transfer of DNS-data from out of HAMNET up to highest instance, the DNS-master for AMPR.ORG is ensured. Distribution within Germany is done with the DNS-hubs, distribution into the flat ampr.org domain is done automagically by IP-Coordinations's Net-44-interface. Regional AS-maintainers do not need to care about further distribution of their dns-data. Zone-transfer at the DNS-Hubs is done by NOTIFYing each other immediately when some data have been changed at any site. So there is very low latency in maintaining DNS-data within German HAMNET.

TopDown

Locale DNS-servers at a specific site get **all** their dns-informations from their „master-dns“ in the corresponding parent-as. There is no need to multiple transfer any zonefiles across all the country. DNS-traffic is limited on the local rf-interlink-structures in the own region which makes everything fast and safe.

As all the 3 DNS-Hubs are directly connected to internet, every connected parent-AS's master can resolve any wordlwide domainnames and ip-addresses and so do the connected local site-dns as well, even when the whole AS has no local internet access.

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