

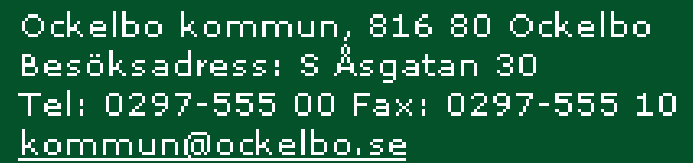
# IPv6 Ockelbo kommun

*”At current allocation rates, the remaining pool of unallocated IPv4 address space is likely to be allocated within the next two to four years.”*

*Torbjorn.eklov@interlan.se*

# Why Ockelbo

- Typical school network  
Windows 2003 server, Windows XP
- No service published on Internet
- Show other schools and municipalities how easy it is.



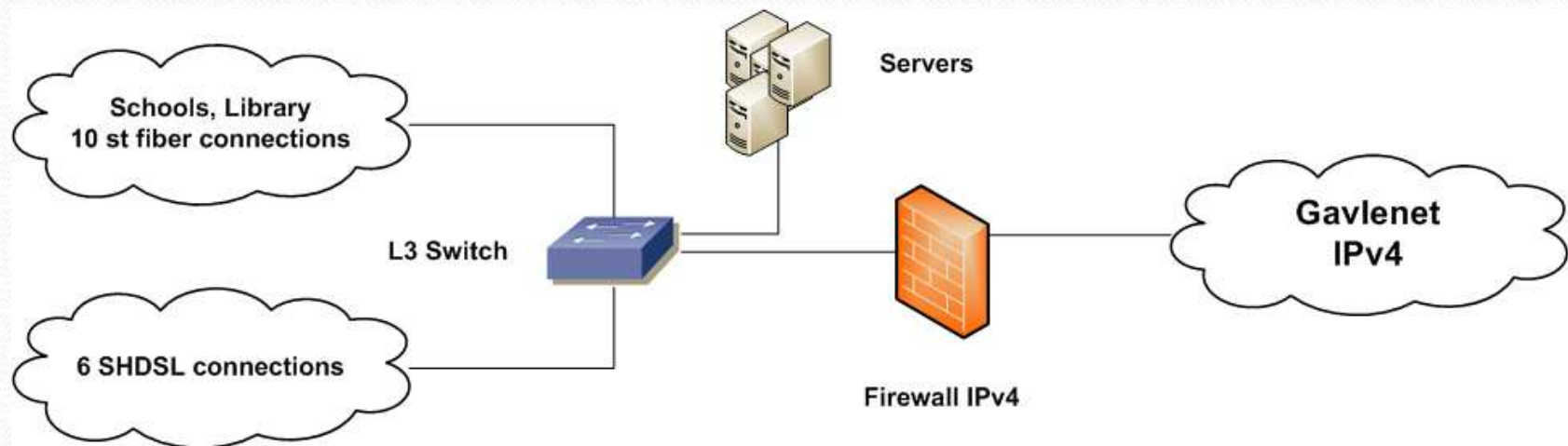
- ~6000 invånare
- Ockelbo skoter och båt
- Orientering i världsklass och basket i elitserien
- Wij trädgårdar

Ockelbo kommun



# Network

- ~16 schools, library etc
- ~ 200 Windows XP
- ~ 10 Windows 2003 servers



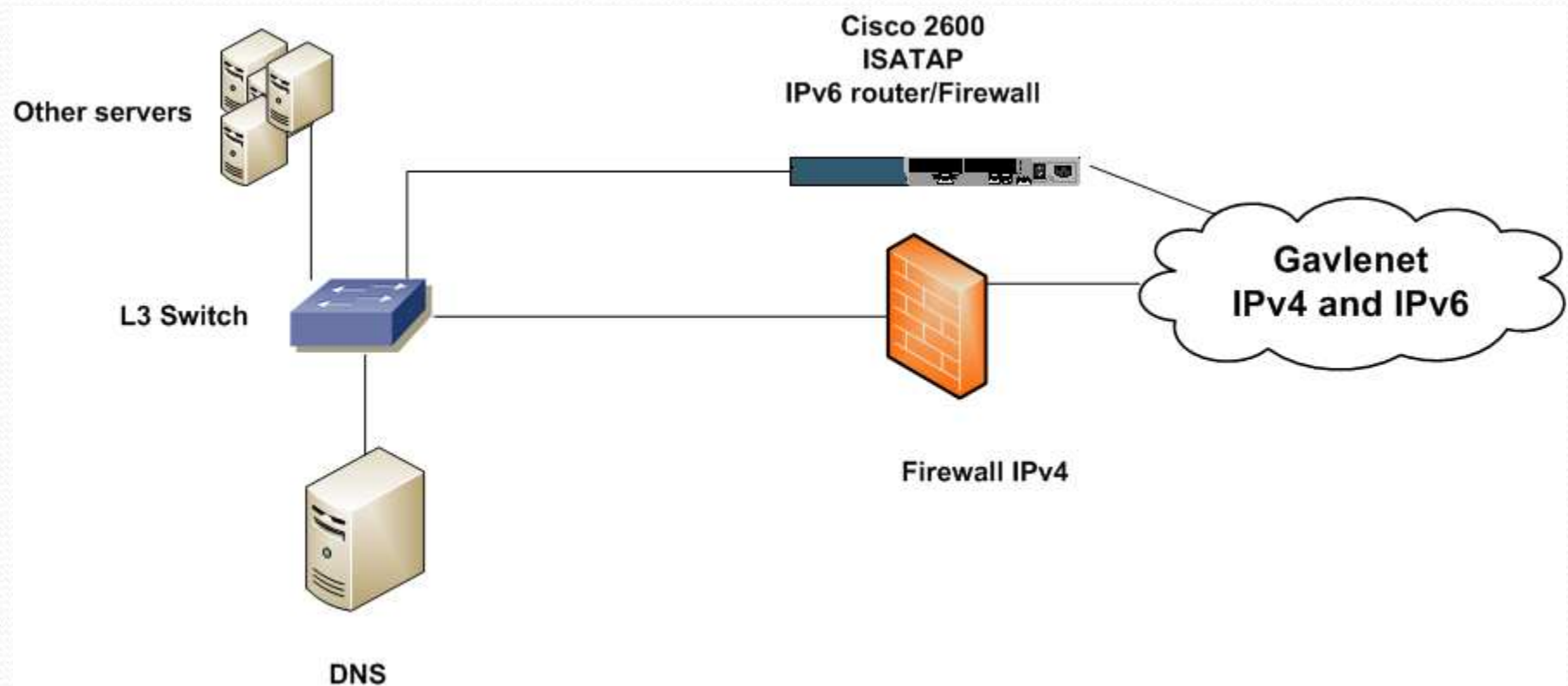
# IPv6

- Gavlenet has "native" IPv6
- 2001:b48:12/48
- 65536 prefix to 16 locations, about 200 computers. ☺  
~6000 inhabitants in Ockelbo kommun
- Ask your ISP for IPv6 support....
- If not, use [www.sixxs.net](http://www.sixxs.net)

# Deployment without disruption

- Firewall and L3 switch don't have IPv6 support
- Windows XP don't run without Ipv4
- Use IPv6 along IPv4, avoid NAT-PT  
( Did I said simple? ☺ )
- Chose to tunnel IPv6 in Ipv4
- => Microsofts ISATAP tunnel  
( NOT Teredo!! )
- Can turn IPv6 on and of by the internal DNS server

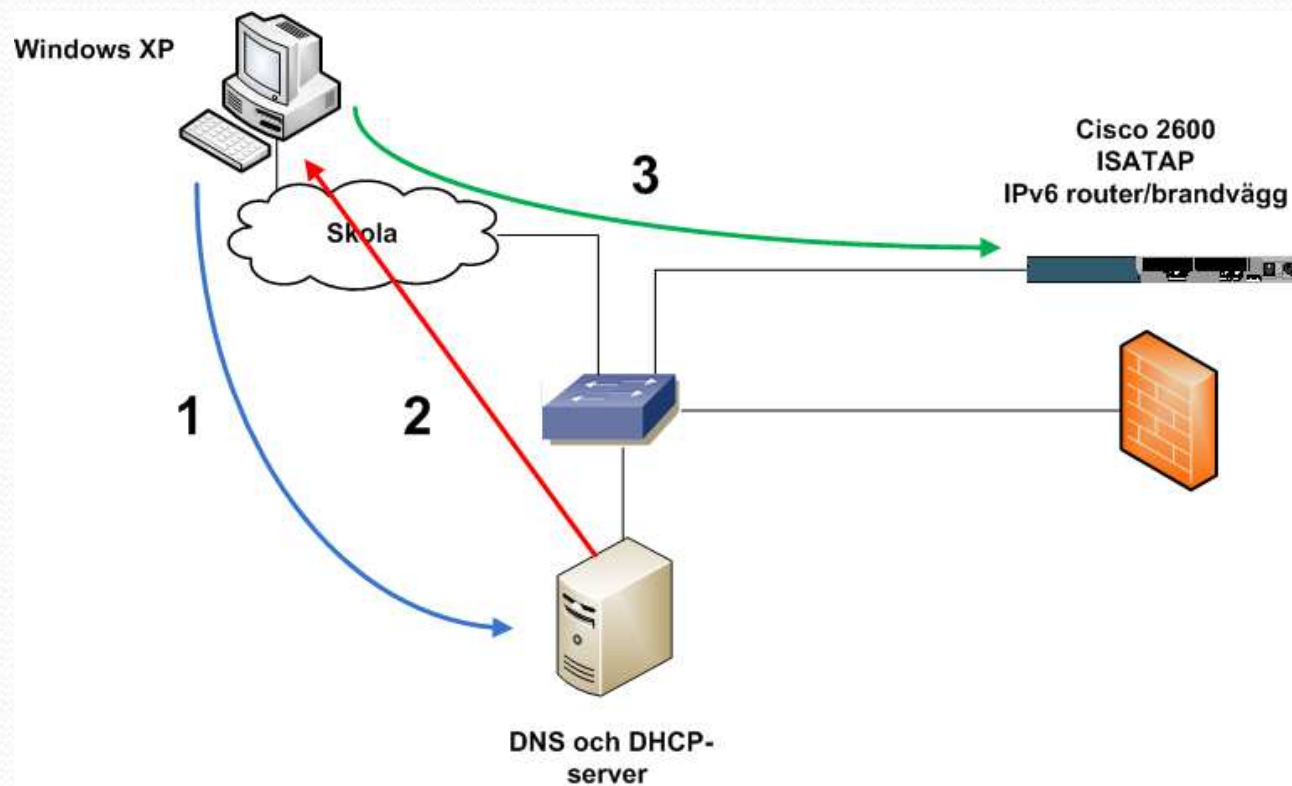
# IPv6 centrally



# IPv6 in the bush

- "ipv6 install"
- DNS distributes IPv6 connectivity

# How?



# Problem?

- Simple, it works.....
- We haven't seen any problem at all!
- We can disable it with DNS, never had to...
- Have not enabled IPv6 on servers  
( Except one Linux and one Windows 2003 )

# To contiune

- Be careful, start with a small part of network
- If you have IPv6 aware equipment, use native mode not tunnel
- Maybe Linuxrouter/Firewall with tunnel from Sixxs?
- More protocols to bother about??  
What about - Netbios, SNA, Decnet, IPX.....

# Why wait?

- Five municipalities preparing for IPv6  
They start with Windows Vista and Windows server 2008 now and will be prepared
- Why wait?

# Status IPv6

## Municipalitys 2008-10-13

|               |   |                                                                                         |
|---------------|---|-----------------------------------------------------------------------------------------|
| nordanstig.se | – | External MX record with v6                                                              |
| hofors.se     | – | External MX record with v6                                                              |
| gavle.se      | – | <a href="http://ipv6.gavle.se">http://ipv6.gavle.se</a>                                 |
| ljusdal.se    | – | <a href="http://ipv6.ljusdal.se">http://ipv6.ljusdal.se</a>                             |
| sandviken.se  | – | <a href="http://ipv6.sandviken.se">http://ipv6.sandviken.se</a>                         |
| ockelbo.se    | – | <a href="http://ipv6.ockelbo.se">http://ipv6.ockelbo.se</a><br>+ IPv6 in school network |
| ovanaker.se   | – | Two external name server with v6                                                        |
| danderyd.se   | – | External name server with v6                                                            |
| varmdo.se     | – | External name server with v6                                                            |