

IPv6 - Migration Planning

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This is not an IPv6 introduction!

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- But: There will be some resources only accessible over IPv6 in the (near) future
- There's no need to change everything at once. Take your time, you still have it.
- Some parts of a network will be running IPv4 for the next couple of years (decades?)

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See [DoD IPv6 Standard Profiles For IPv6 Capable Products](#) for an example on how to define IPv6 support.

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- Deploy IPv6 services. Start with DNS and DHCPv6, services requiring no user interaction (e.g. SMTP) should be next.
- Be careful when offering IPv6 services to the outside. There are broken IPv6 networks out there.

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Migrating your network to IPv6 (IV)

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- Some errors will have nothing to do with IPv6, but they'll be blamed on IPv6

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 - or IPv6 is passed through without any notice

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- RF5375 gives some hints on address planing
- You might want do code interface-IDs / connections into your IPv6 addresses

IPv6 - How to assign addresses?

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Use

- Static configuration for routers / servers / ...
- SLAC or DHCPv6 for clients

- For testing and learning, a tunnel is acceptable
- For production use: native access should be used (maybe a very short tunnel at the beginning)

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- RFC4864 describes some alternatives to NAT

Nothing really new:

| IPv4 | IPv6 |
|-------------|-------------|
| RIPv2 | RIPnG |
| EIGRP | EIGRP |
| OSPFv2 | OSPFv3 |
| ISIS | ISIS |
| BGP | BGP |

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- Which protocols do you know? What are you using for IPv4?

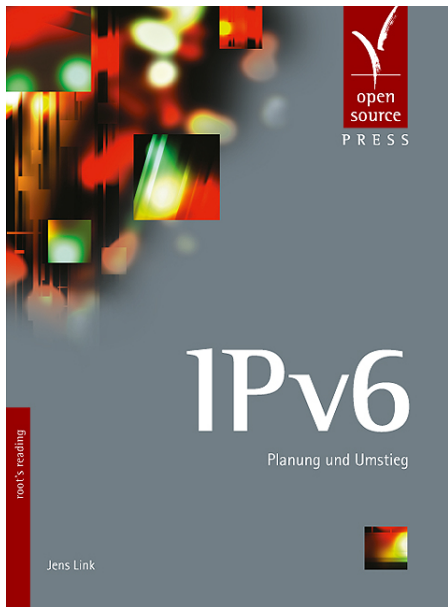
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- Which protocols do you know? What are you using for IPv4?
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- **There is also a chance to document and clean up your IPv4 network while implementing IPv6.**

- Benedikt Stockebrand
IPv6 in Practice
A Unixer's Guide to the Next Generation Internet
ISBN 978-3540245247
- Ciprian Popoviciu, Eric Levy-Abegnoli, Patrick Grossetete
Deploying IPv6 Networks
1-58-705210-5
- UpTimes 03/2007 (Proceedings ECAI6 2007)
ISBN 978-3865412287
- Vorträge ECAI6, http://www.guug.de/veranstaltungen/ecai6-2007/further_readings.html
- DoD IPv6 Standard Profiles For IPv6 Capable Products
- Empfehlungen der NSA zum Thema IPv6 Firewalling



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