IPv6 status in XRootD

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XRootD

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- The **old client** is deprecated and will not support IPv6

- The **new client** supports IPv6 in XRootD 4.0.0
  - supported by default in ROOT since 5.34.14 (Dec 14, 2013) via TNetXNGFile
  - it will prefer IPv6 if possible

- **The server** will run dual-stack by default

Configuration

- **The client**:
  - no configuration necessary
  - it will try to detect the available network stacks by default
  - it may be forced to various IP modes by setting configuration file entries or environment variables
- **The server:**
  - no configuration necessary
    - provided proper interface and DNS settings
  - may be forced to IPv4-only via command line option

Federations - XRootD 4.0.0

- Servers and redirectors can accept **both IPv6 and IPv4** clients

- The **IPv6 clients** are assumed **dual-stack** in XRootD 4.0.0 and may be redirected to both IPv6 and IPv4 downstream
  - in case the client is not able to connect it should ask its current redirector for another downstream server

- We remove the dual-stack assumption
- **IPv4 clients**:
  - the redirector will attempt to match IPv4 capable downstream
- **IPv6 clients**:
  - the redirector will attempt to match IPv6 downstream
- **Dual-stack clients**:
  - the redirector will try to much the least loaded and the most optimally connected downstream, either IPv6 or IPv4

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Thanks!

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Thanks for your attention!

Questions? Comments? Concerns?