## **3.4 tls** (*required* *for* **TLS**)

**xrd.tls** *cpath* [ *kpath* ] [ *options* ]

*options*: [[**no**]**detail**] [**hsto** *to*{**h**|**m**|**s**]

**Function**

Configure transport layer security (**TLS**).

**Parameters**

*cpath* Specifies the absolute path to the **x509** certificate file to use for **TLS**. The certificate must be in **PEM** format. The file may only be written by the owner of the file.

*kpath* Specifies the absolute path to the certificate’s **x509** private key file to use for **TLS**. The key must be in **PEM** format. The file may only be read and written by the owner of the file. If *kpath* is not specified then the certificate file must contain the key.

[**no**]**detail**

When **detail** is specified, detailed **TLS** trace back messages are printed along with explanatory messages. The **nodetail** option suppresses the **TLS** trace back messages. The default is **nodetail**. See the notes why this is so.

*to* Specifies the maximum amount of time a **TLS** handshake is allowed to take before the connection is closed. The *to* value may be suffixed by **h** for hours, **m** for minutes, or **s** for seconds, respectively; otherwise, the *to* value defaults to seconds. There is no default time limit for the **TLS** handshake.

**Defaults**

**TLS** is not configured and cannot be used. See individual options for the defaults should you configure **TLS**.

**Notes**

1. Normally, a host certificate should be used because the client can use it to validate that it connected to the intended host.
2. If you specify the **tls** directive then you must specify the **tlsca** directive as well.
3. Most **TLS** trace back messages do not provide any more information than the companion explanatory messages and, as such, is only useful for debugging purposes. This is why **nodetail** is the default. However, if you enable **TLS** tracing using the **xrd.trace** directive, **detail** is enabled regardless of what is specified.

**Example**

**xrd.tls /etc/security/xrootd/hostcert.pem**