

# Information for Developers

## Developer Tools

- [JIRA bugtracking](#)
- [git web](#)

The source code is available using git from `git://git.nordu.net/saml-md-aggregator.git`. See [Building from Source](#) for information on how to build the saml-md-aggregator application from the source code.

## Contributing

Any reasonable patches will be considered! Contributors will be required to sign the NORDUnet contributors agreement which guarantees that your contribution will be available under the NORDUnet BSD license.

## Technology

- [Spring 3](#)
- [Spring Integration](#)
- [Neo4j](#)
- [Winstone Servlet Container](#)

The saml-md-aggregator is based on [Spring 3](#). It uses a RESTful URL model and relies on the JAVA cryptography engine for key management and PKCS#11 as an interface to Hardware Security Modules (HSMs). Spring integration is used for internal asynchronous messaging between the metadata store and metadata index. In order to provide fast searching and lookup based on tags on metadata the saml-md-aggregator employs a graph database called [Neo4j](#). The neo4j is a very fast native graph store. The standalone jar uses the winstone servlet container.

## Understanding the source

Generally speaking each package under `net.nordu.mdx` provides a separate component of the saml-md-aggregator with sub-packages providing implementations of interfaces in the top-level packages.

package	what it does
<code>net.nordu.mdx.index</code>	Indexing for metadata.
<code>net.nordu.mdx.scanner</code>	Utilities for detecting changes in metadata for re-indexing
<code>net.nordu.mdx.signer</code>	Metadata signer and key management
<code>net.nordu.mdx.spring</code>	Various spring utilities
<code>net.nordu.mdx.store</code>	Interface to metadata stores
<code>net.nordu.mdx.utils</code>	Various utilities (non-spring)
<code>net.nordu.mdx.web</code>	Web controllers