"myperl"
&
Perl Connector Module

Scott Hardin, 10/2015

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"myperl"

in lieu of the system perl quagmire
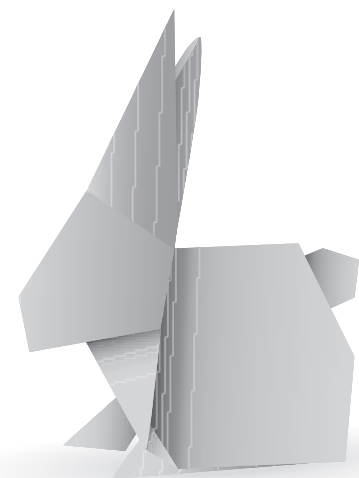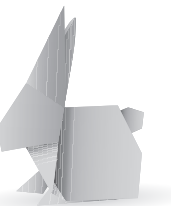
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Perl Alternatives

- System Perl: Perl and CPAN modules are tailored to system administration tasks and vendor-supplied tools

- "local::lib": Uses System Perl, but installs additional CPAN modules to separate directory

- "perlbrew": Independent Perl, but packaging targeted for developers, not deployment in data centers

- "myperl": Independent Perl deployed in /opt/myperl
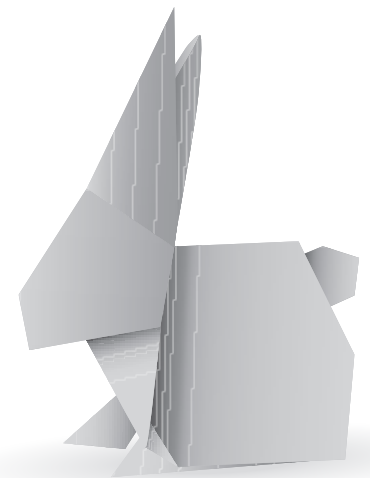
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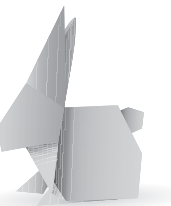
Benefits of "myperl"

- Independent from vendor Perl and CPAN

- Simplifies process for updating CPAN modules

- Simplified support for related distributions (e.g. Debian vs Ubuntu, SuSE vs RedHat)

- Use "Pinto" to pin versions for specific CPAN modules

- Debian and RPM (SLES 11) packages currently available for use by OpenXPKI
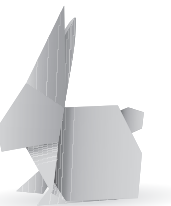
Perl "Connector"

A flexible connection to a hierarchical data structure

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Perl "Connector"

- Generic connection to a data set in a hierarchical structure

- Key names are in dotted-name format (e.g: 'root.parent.child.attr')

- Connector objects may have different object types representing different sources of data or types of data structures
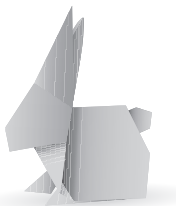
Simple Data Access

```perl
# Get a scalar value at the leaf of the tree
my $val = $connector->get( qw{smartcard.owners.bob} );

# Allow delimiter in get() string
my $val = $connector->get(
    [ qw{smartcard owners bob.builder} ] );

# Get a list of values at the leaf of the tree
my @vals = $connector->get_list( qw{smartcard.owners} );
```
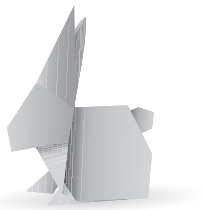
Built-in Data Types

Direct Access to Specific Data Source Types

- Authentication::LDAP

- Authentication::Password

- Env

- File::Path

- File::Simple

- Memory

- Static

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Multi (Multiple Types)
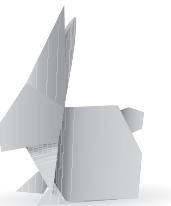## Logical View

```
smartcards:
tokens:
    token_1:
        status: ACTIVATED
    token_2:
        status: DEACTIVATED
owners:
    joe:
        tokenid: token_1
    bob:
        tokenid: token_2
```
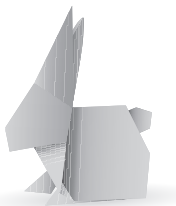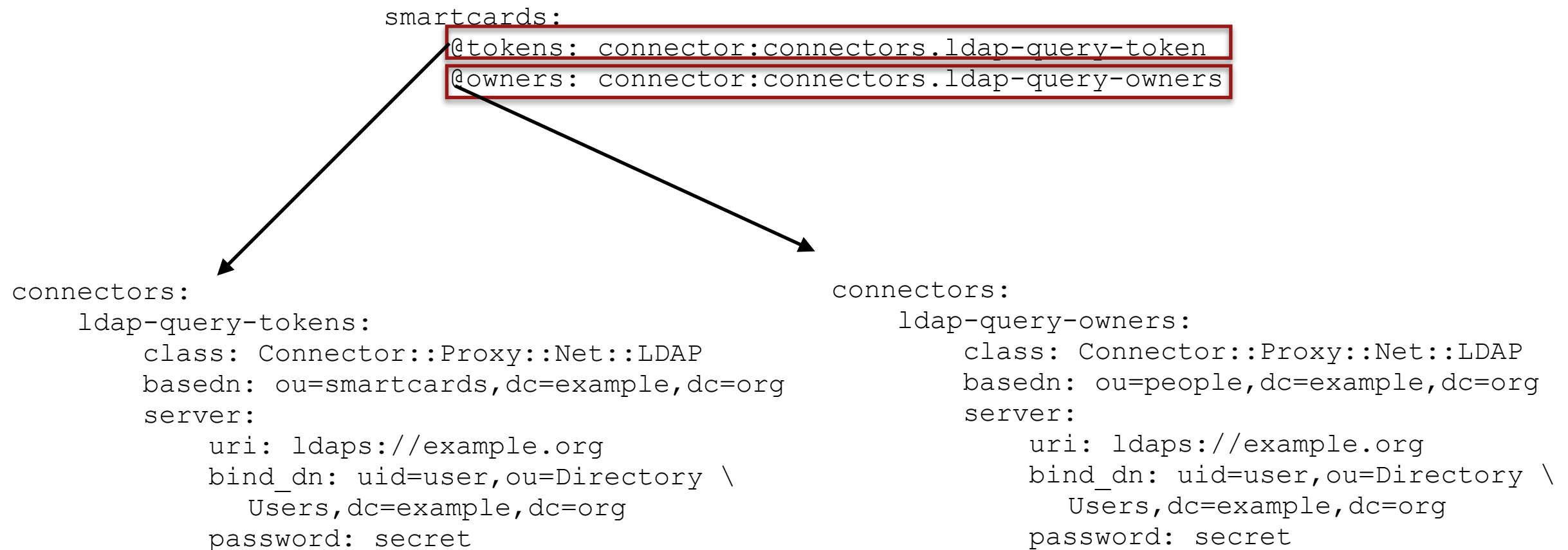
LDAP Subtree: "tokens"

LDAP Subtree: "owners"

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Multi (Multiple Types)
Implementation View

```
smartcards:
    @tokens: connector:connectors.ldap-query-token
    @owners: connector:connectors.ldap-query-owners
```

```
connectors:
    ldap-query-tokens:
        class: Connector::Proxy::Net::LDAP
        basedn: ou=smartcards,dc=example,dc=org
        server:
            uri: ldaps://example.org
            bind_dn: uid=user,ou=Directory \
                Users,dc=example,dc=org
            password: secret
```

```
connectors:
    ldap-query-owners:
        class: Connector::Proxy::Net::LDAP
        basedn: ou=people,dc=example,dc=org
        server:
            uri: ldaps://example.org
            bind_dn: uid=user,ou=Directory \
                Users,dc=example,dc=org
            password: secret
```
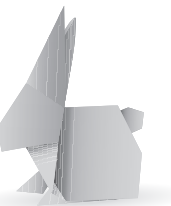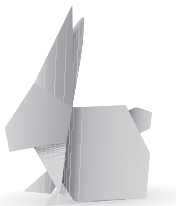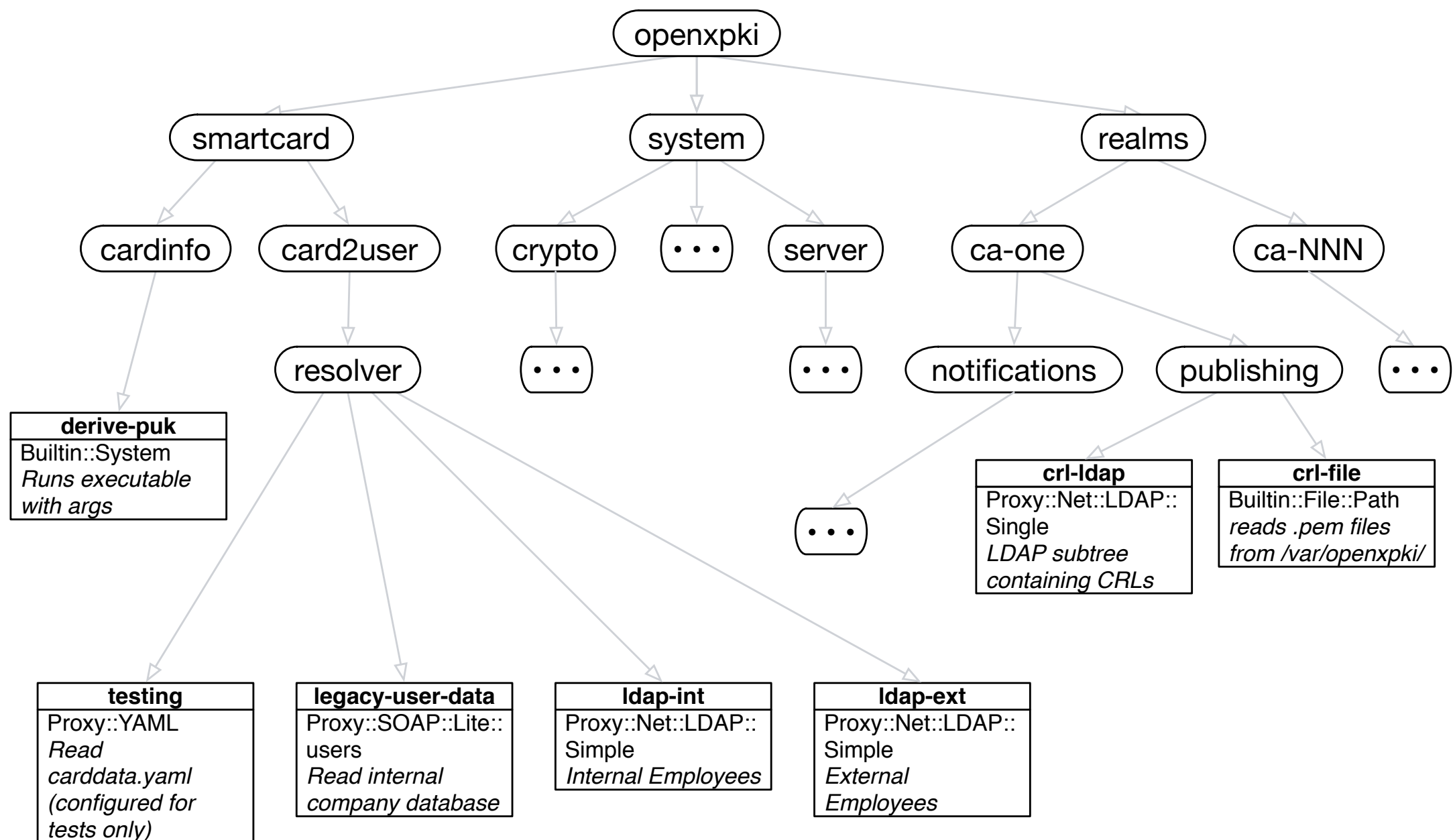
Proxy (for CPAN Modules)

Currently Supported Modules

- Config::Std

- Config::Versioned
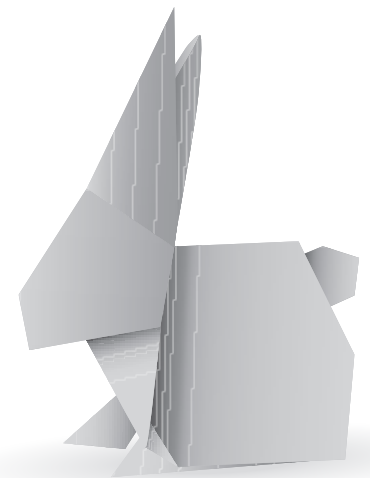
- DBI

- LDAP

- Proc::SafeExec

- SOAP::Lite

- YAML

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Example Configuration

"Thank you"

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