



# Valkyrie Update

Presented By:

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# What's Valkyrie?



1. Gem written by the Data Mapper Working Group and other collaborators to allow Samvera applications to use different backends to store their metadata and files, but still share application code.
2. An ActiveFedora replacement
3. <https://github.com/samvera-labs/valkyrie>

# Guidelines for Valkyrie Development




1. Documentation is more important than the code.
2. The library should be welcoming for developers to jump into.
3. Use as much as possible from external libraries (dry-types/reform/etc)
4. Migration between adapters should always be simple

```
fedora = Valkyrie::MetadataAdapter.find(:fedora)
postgres = Valkyrie::MetadataAdapter.find(:postgres)

fedora.query_service.find_all.each do |resource|
  postgres.persister.save(resource: resource)
end
```

# Comparison

	ActiveFedora	Valkyrie
Find a Record	<code>Book.find(id)</code>	<code>adapter.query_service.find_by(id: id)</code>
Save	<code>book.save</code>	<code>adapter.persister.save(resource: book)</code>
Delete	<code>book.destroy</code>	<code>adapter.persister.delete(resource: book)</code>
Save to Fedora/Solr	<code>book.save</code>	<code>combined_adapter.persister.save(resource: book)</code>
Save only to Fedora	?	<code>fedora_adapter.persister.save(resource: book)</code>
Save to Postgres		<code>postgres_adapter.persister.save(resource: book)</code>
Migrate Schema	“How do I write this script?”	<code>book = old_adapter.query_service.find_by(id: id)</code> <code>new_adapter.persister.save(resource: book)</code>

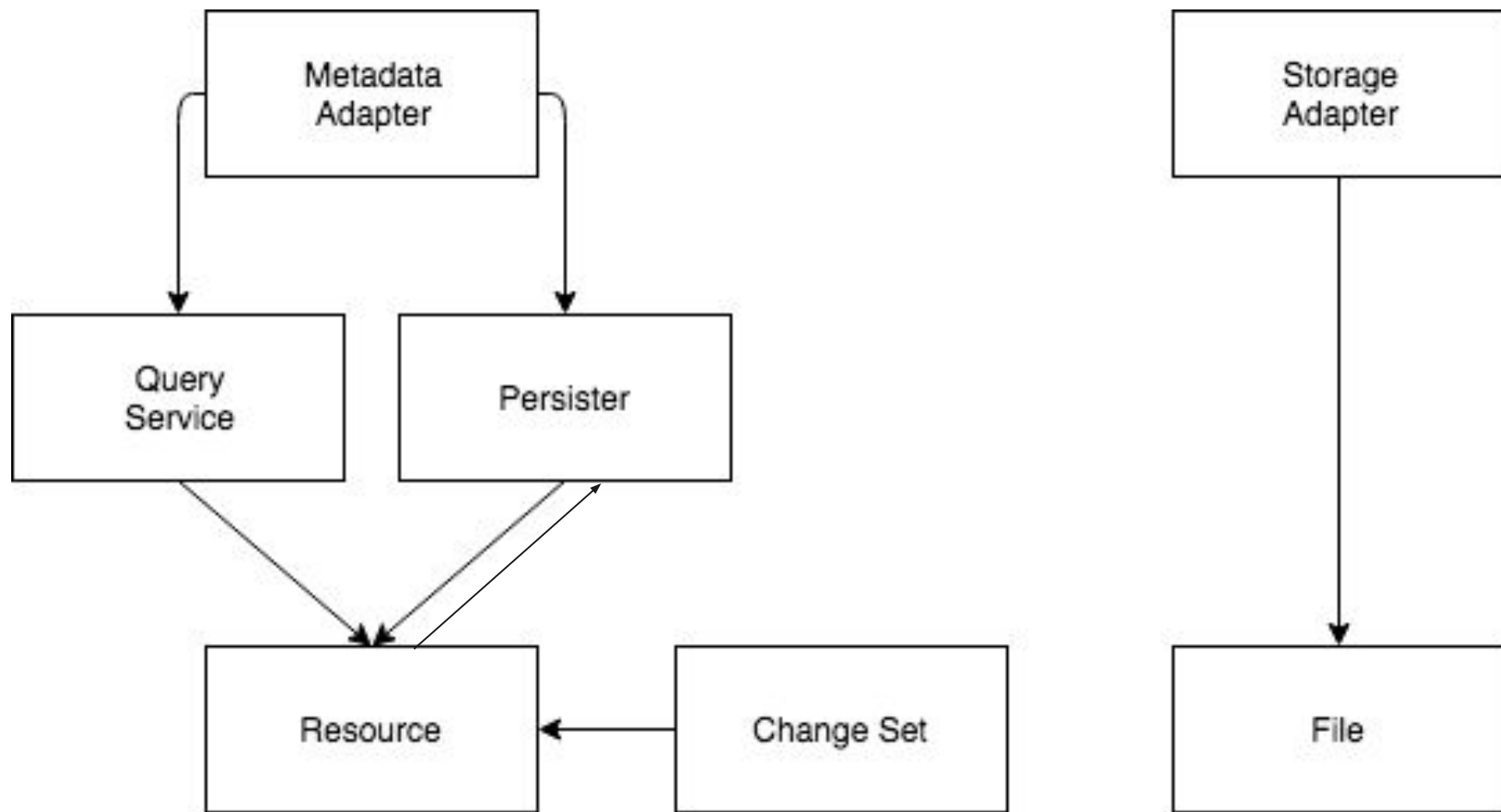


Diagram of Valkyrie's Technical Stack

# Valkyrie::Resource



```
class Postcard < Valkyrie::Resource
  attribute :id, Valkyrie::Types::ID.optional
  attribute :title, Valkyrie::Types::Set
  attribute :author, Valkyrie::Types::Set
end
```

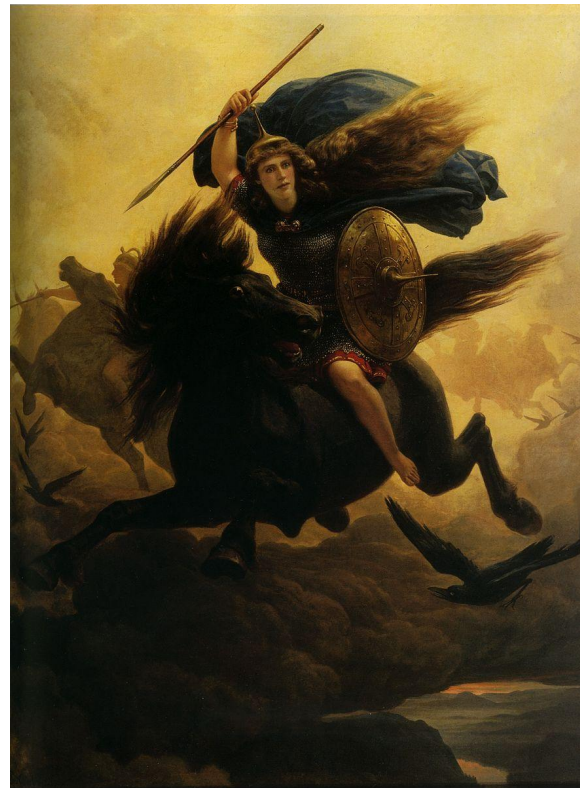
# Storage Backend Abstracted

```
1
2 def create
3   respond_to do |format|
4     @change_set = ::ArmorChangeSet.new(Armor.new).prepopulate!
5
6     @armor = @change_set.validate(armor_params.to_h) &&
7       @change_set.sync &&
8       metadata_adapter.persister.save(resource: @change_set.resource)
9     if @armor
10      format.html { redirect_to @armor, notice: 'Armor was successfully created.' }
11      format.json { render :show, status: :created, location: @armor }
12    else
13      format.html { render :new, alert: @change_set.errors }
14      format.json { render json: @armor.errors, status: :unprocessable_entity }
15    end
16  end
17 end
```

# Current Applications

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1. Cho (Penn State University Libraries)
  - a. Working on MVP
2. Figgy (Princeton University Library)
  - a. In Production
  - b. 2.5 million objects (mostly pages)
3. Yours?





# Features in the Last Year



# 1.0.0!

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1. March 23, 2018 we released v1.0.0
2. Commitment to delay 2.0.0 for as long as possible.
3. Declared our stable API as that which is tested by the shared specs.
4. Solr, Fedora, In-Memory, Postgres MetadataAdapters.
5. Disk, Fedora, In-Memory StorageAdapters.



## 1.1.0



1. Released May 8, 2018
2. Includes “find\_by\_alterate\_identifler” to support use cases such as NOIDs.
3. Adds Docker development environment

## 1.2.0



1. Released August 29, 2018
2. Support for Single Values
3. Support for Optimistic Locking
4. Deprecate ActiveFedora
5. Include `id` by default in `Valkyrie::Resource`
6. Support for Ordered Properties (Not in ActiveFedora)

# Community Contributions



1. <https://github.com/samvera-labs/valkyrie-dynamodb>
2. <https://github.com/samvera-labs/valkyrie-redis>
3. <https://github.com/samvera-labs/valkyrie-sequel>
4. [https://github.com/samvera-labs/valkyrie-cloud search](https://github.com/samvera-labs/valkyrie-cloud_search)
5. <https://github.com/durham-university/valkyrie-activerecord>
6. <https://github.com/stkenny/valkyrie-moab>
7. <https://github.com/pulibrary/figgy/tree/master/app/adapters/bagit>
8. <https://github.com/durham-university/valkyrie-benchmark>

# What's Coming Up?

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## 2.0.0



1. Update dry-struct
2. Remove ActiveFedora dependency.
3. Remove other deprecations.
4. That's it.

# Valkyrie-Sequel?

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1. <https://github.com/samvera-labs/valkyrie-sequel>
2. Uses Sequel instead of ActiveRecord for postgres.
3. Significant performance improvements, supports multiple databases.
4. If it replaces current Postgres adapter, will allow Valkyrie with any Rails version, or even without Rails.

Look into using Sequel for Postgres adapter #601



tpendragon opened this issue 17 days ago · 8 comments



# Indexer?



1. Solr MetadataAdapter right now.
2. Search indexes used for an application don't need 1-1 matches of a Resource.
3. Could implement reasonable defaults for actual searching.

Consider adding an "Indexer" concept. #598



tpendragon opened this issue 23 days ago · 4 comments

# Performance Work



1. Solutions for N+1 Queries
2. Benchmarking of existing adapters and improvements using that.
  - a. We've done plenty of this, but always trying to improve.

# Hyrax on Valkyrie

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1. Come and talk about it during the Hyrax Working Group meeting during lunch from 12:30 - 2:30 in Room 1130.



# Hyrax

# Special Thanks To:



- |                      |                                   |
|----------------------|-----------------------------------|
| 1. Adam Wead         | 15. Josh Gum                      |
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| 12. James Griffin    | 26. <b>Samvera Community!</b>     |
| 13. Jeremy Friesen   |                                   |
| 14. Joe Atzberger    |                                   |

# Questions?



<https://github.com/samvera-labs/valkyrie/wiki/Frequently-Asked-Questions>

# LUNCH



Grand Reading Room on 3rd Floor  
Where Breakfast Was Served!