



THE HARVARD CLINICAL  
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# SHRINE Update

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A faint, light gray network diagram with three circular nodes and several connecting lines, serving as a background for the text.

Douglas MacFadden

Chief Informatics Officer, Harvard Catalyst

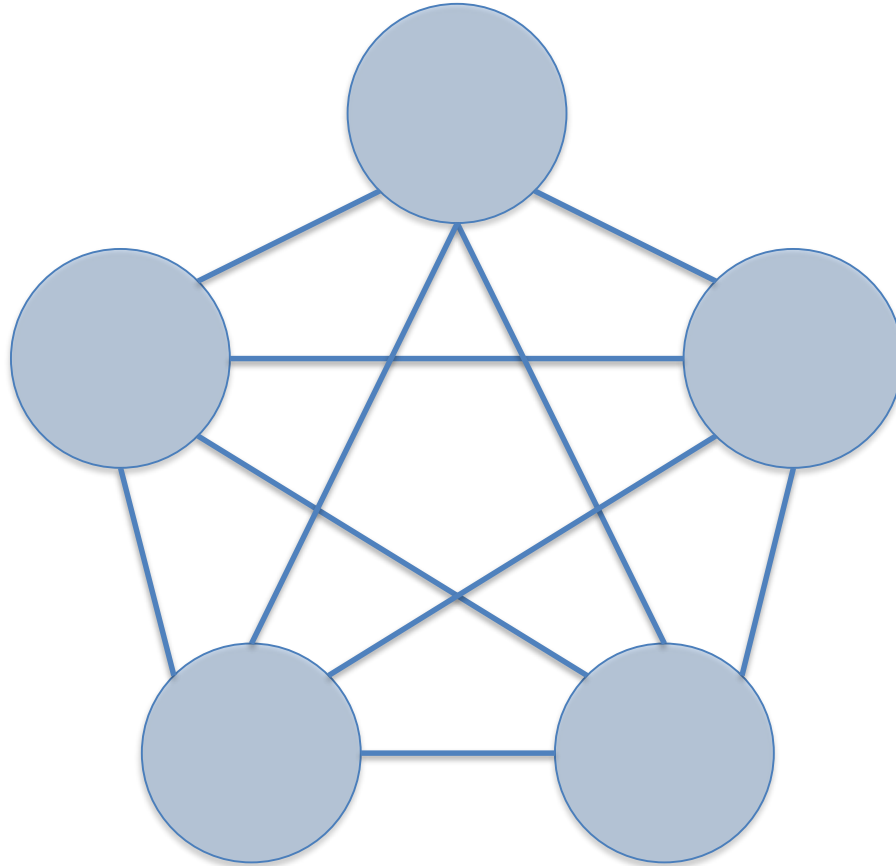
June 2016

<http://catalyst.harvard.edu>

- Allows any qualifying investigator to query clinical data across a network of hospitals in real-time
- Supports many use cases (e.g. hypothesis validation, population research, cohort discovery, step 1 for LDS preparatory to research/clinical trials recruitment/...)
- Web application to perform real-time queries
- Data protection architecture
- Installs on top of i2b2
- Open Source software
- Expandable networks

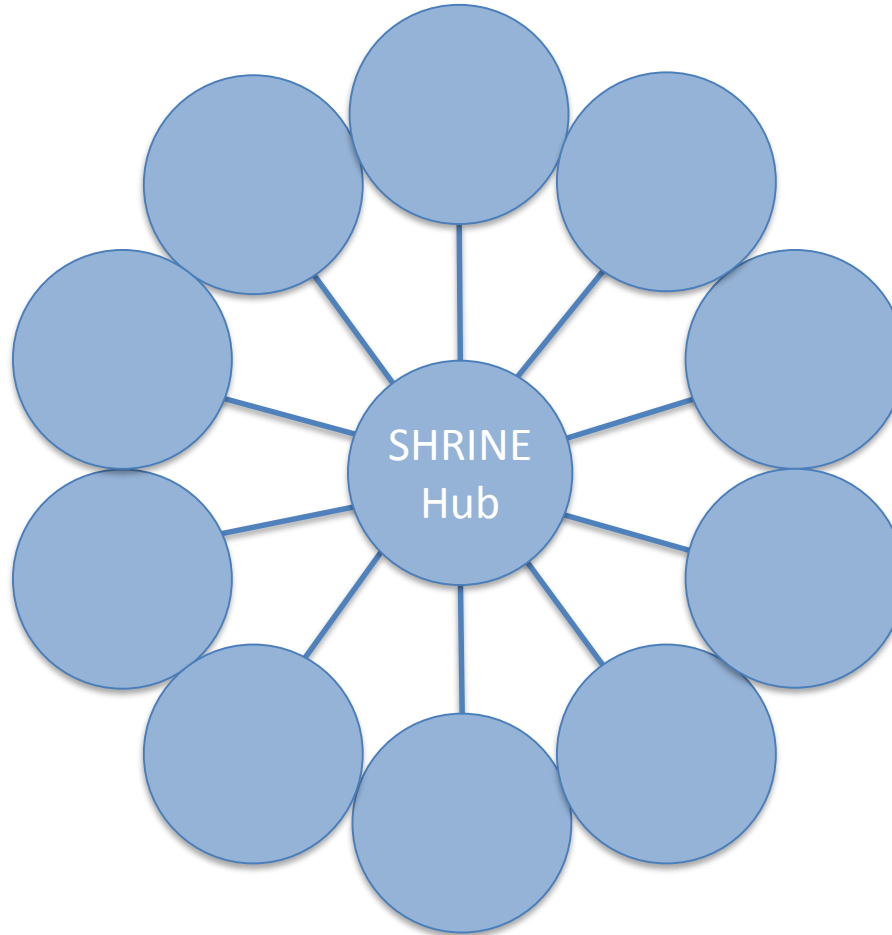
# Previous Work

## Scaling SHRINE Networks: Meshed



# Previous Work

## Scaling SHRINE Networks: Hub



## **1.19.2, released 7/7/15**

- **New: DSA (Data Steward Application) Federated Data Stewardship**


## **1.20.1, released 12/22/15**

- **New: Enhanced error messaging in the Web client**
- **New: Query Audit Database**
- **New: Dashboard Application for System Admin**
- **Update: DSA**

## **1.21.2, planned release late June or early July 2016**

- **New: Local storage of query definitions and results**
- **New: Graphing and Reporting of query results**
- **Update: Dashboard Application**

# SHRINE DATA STEWARD

Hello, Shrine 

 Topics

 History

Topic Name	Date Created	Last Updated ^	State	
1.21 Test Topic	3/11/2016	4/18/2016	Rejected	<a href="#">view</a>
1.21 Test Topic 2	4/27/2016	5/16/2016	Approved	<a href="#">view</a>
				<b>NEW</b> 



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# SHRINE DATA STEWARD

Hello, Dave

- Topics
- History
- Statistics

<span>PENDING</span> <span>✓ APPROVED</span> <span>✗ REJECTED</span>						
ID	Topic Name	Username	Date Created	Last Updated ▲	State	
21	qait	nn80	3/14/2016	3/14/2016	Pending	<a href="#">view</a>
22	spring	nn80	3/14/2016	3/14/2016	Pending	<a href="#">view</a>
23	new 1	nn80	3/14/2016	3/14/2016	Pending	<a href="#">view</a>
24	test	nn80	3/14/2016	3/14/2016	Pending	<a href="#">view</a>
25	shrine	nn80	3/14/2016	3/14/2016	Pending	<a href="#">view</a>
29	dfas	ben	3/16/2016	3/16/2016	Pending	<a href="#">view</a>
31	latest1	ij22	3/16/2016	3/23/2016	Pending	<a href="#">view</a>
35	test1	ij22	3/23/2016	3/23/2016	Pending	<a href="#">view</a>
37	test4	ij22	3/23/2016	3/23/2016	Pending	<a href="#">view</a>
38	test5	ij22	3/23/2016	3/23/2016	Pending	<a href="#">view</a>
39	test6	ij22	3/23/2016	3/23/2016	Pending	<a href="#">view</a>
40	test7	ij22	3/23/2016	3/23/2016	Pending	<a href="#">view</a>
41	test8	ij22	3/23/2016	3/23/2016	Pending	<a href="#">view</a>
42	test9	ij22	3/23/2016	3/23/2016	Pending	<a href="#">view</a>



# SHRINE DATA STEWARD

 Hello, Shrine 
 Topics

 History

ID	Query Topic	Username	Query Text	Status	Date ▲
21	1.21 Test Topic	shrine	18-34 years old@17:24:54	Approved	3/11/2016
22	1.21 Test Topic	shrine	18-34 years old@17:47:37	Approved	3/11/2016
86	1.21 Test Topic	shrine	18-34 years old@15:48:14	Approved	3/14/2016
152	1.21 Test Topic	shrine	18-34 years old@10:35:06	Approved	3/22/2016
211	1.21 Test Topic	shrine	18-34 y-HDLc Se@13:31:38	Approved	3/24/2016
212	1.21 Test Topic	shrine	18-34 y-HDLc Se@13:31:51	Approved	3/24/2016
292	1.21 Test Topic	shrine	18-34 years old@13:36:43	Approved	3/29/2016
294	1.21 Test Topic	shrine	18-34 years old@16:02:44	Approved	3/29/2016
295	1.21 Test Topic	shrine	18-34 years old@16:03:03	Approved	3/29/2016
296	1.21 Test Topic	shrine	18-34 years old@16:03:34	Approved	3/29/2016
297	1.21 Test Topic	shrine	18-34 years old@16:03:40	Approved	3/29/2016
298	1.21 Test Topic	shrine	18-34 years old@16:03:46	Approved	3/29/2016
299	1.21 Test Topic	shrine	18-34 years old@16:03:54	Approved	3/29/2016
300	1.21 Test Topic	shrine	18-34 years old@16:04:03	Approved	3/29/2016
301	1.21 Test Topic	shrine	18-34 years old@16:04:09	Approved	3/29/2016
428	1.21 Test Topic	shrine	18-34 years old@13:20:34	Approved	4/5/2016



Summary

I2B2 Connections

Keystore

**Adapter**

QEP

Config File

## Adapter Configuration

*These are the parameters that the SHRINE Adapter will use for querying the i2b2 CRC.*

CRC URL	http://shrine-qa1.catalyst/i2b2/services/QueryToolService/
CRC Project	Demo
Domain	i2b2demo
Adapter User	demo
Adapter Password	REDACTED
Lockout Threshold	1000

## Adapter Query Test

SHRINE Query Term	"\\SHRINE\SHRINE\Demographics\Gender\Male\"
Status	<b>Success</b>
Details	81 Number of patients

## Mappings File

Filename	AdapterMappings.xml
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# Graphing and Reporting

Query Status

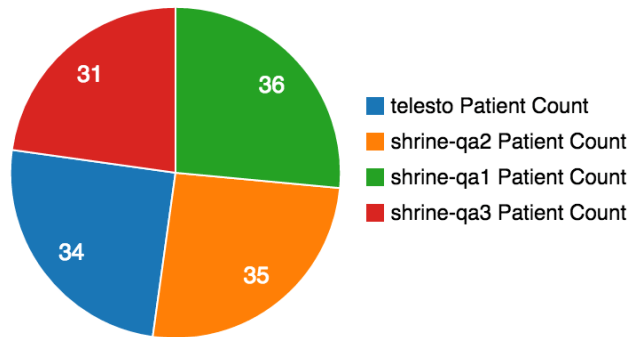
**Graph Results**

Query Report

Download Results



## Patient Count



# Graphing and Reporting

[Query Status](#)
[Graph Results](#)
[Query Report](#)
[Download Results](#)

 [Print Report](#)


## Query Report

The query entitled "35-44 years old@10:49:54" was completed in 3.2 secs . This query was performed by "shrine".

### Query Definition

Temporal Constraint: Treat All Groups Independently

#### All Groups

 **35-44 years old**

Demographics\Age\35-44 years old

Independent of Visit

From earliest date available to latest date available

# of times an item is recorded is > 0

### Query Results

#### Total Number of Cases

	shrine-qa1	shrine-qa2	shrine-qa3	telesto
Total Patients Count	36	35	31	34

Patient Count



**Lockout** – adjust how lockouts function in order to address the likelihood and administrative burden of false positives.

**Data Access Workflow** – augment existing saved query flagging feature in order to better support downstream data access use cases.



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# SHRINE Open Source Resources

[open.med.harvard.edu](http://open.med.harvard.edu)



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# Questions?



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