

# Design - External Search

Towards the goal of modularizing the VIVO application, the search index has been identified as a component that should be installed separately from VIVO and connected to as a remote component.

The initial target is to support externalized:

- Solr 7 and
- ElasticSearch 6

## Requirements

1. Search index must be deployed separately from VIVO
2. Connection from VIVO to search index must be over HTTP
3. [Failure to connect to search index on start-up must be non-fatal](#)
4. VIVO must not require a restart in order to connect to search index that was not available on VIVO's initial startup
5. VIVO SmokeTest must make it clear to the user that VIVO is in a non-functional state while a search index is not available
6. Externalized search index must provide the same results as the previous, embedded Solr index

## Related tickets

1. [↑ VIVO-1589](#) - Upgrade to externalized Solr7 CLOSED
2. [↑ VIVO-1592](#) - Remove Embedded Solr CLOSED
3. [↑ VIVO-1596](#) - Create documented external Solr7 install package CLOSED
4. [↑ VIVO-1600](#) - Add ElasticSearch smoke test CLOSED
5. [↑ VIVO-1612](#) - Externalized Solr Error Handling CLOSED
6. [↑ VIVO-1614](#) - Solr7 removes getBoost CLOSED
7. [↑ VIVO-1590](#) - Assess SearchEngine Abstractions OPEN

Current work has been merged into the following branches:

- <https://github.com/vivo-project/Vitro/tree/sprint-search>
- <https://github.com/vivo-project/VIVO/tree/sprint-search>

Deployment / Configuration of externalized Solr index:

- <https://github.com/awoods/vivo-solr>