Share IT Act - Concept of Operations (ConOps)   
***Prepared by:*** *JR Freyre (*[*jrf1@cdc.gov*](mailto:jrf1@cdc.gov)*) - June 21,2025****Description:*** *This ConOps (see* [*Lucidchart Diagram*](https://lucidgov.app/lucidspark/cc762090-042f-4654-9f25-097057293b5d/edit?view_items=X_Mqm.~PT.Xs&invitationId=inv_e2513e6a-887a-4245-87d9-efdae008026e)*) outlines the technical solution to comply with the SHARE IT Act as of* ***June 2025****, including metadata generation, review workflows, publication, and access handling.*

The design minimizes operational overhead for C/I/Os and BSOs in complying with the SHARE IT Act by **eliminating the need for every development team, scientist, and contractor** to learn the Code.gov Schema 2.0 and manually generate a CODE.JSON file for each new or existing repository**.** Instead, metadata is automatically derived from existing repository artifacts, significantly reducing the learning curve and administrative burden across CDC.

**1. Metadata Generation *(Starts June 6 & Nov 16 – Semi-annual)***

**Actors:** EDSO Staff  
**Process:**

* A Python-based **Repo Scanner Tool** runs across GitHub, GitLab, and ADO.
* It parses:
  + README.md files
  + Commit history
  + Code owner metadata
* It uses AI to **infer**:
  + Exemption status
  + Organization name
  + Description
* **Outputs:**
  + **Code.json** - the CDC’s metadata catalog as a JSON file.
  + **privateid\_mappings.csv** - contains a list of all private repositories and corresponding “privateid” plus the associated contact email(s) found. This table is used for routing external email requests to these associated contact email(s).
  + **exemption\_log.csv** - contains a list of all repositories found with an exemption claim. Some exemptions may have been assigned automatically by the AI scanner.
* Automated notifications to announce review period (June 6 and Nov 16). Note this could be a simple auto-annual announcement setup in CDC Today and/or CDC Connect. Alternatively, it EDSO may generate an email announcement sent only to C/I/Os with private repositories extracting recipients email addresses from the file privateid\_mappings.csv. The email notifications do not need to be sent per each repository, only per each unique email address there. Also, a separate notification could be sent to emails associated with repositories listed in exemption\_log.csv and when an exemption or an AI suggestion was applied to their repos.

**2. Review Period *(45 days: June 6–July 18 / Nov 16–Dec 28)***

**Actors:** C/I/Os  
**Process:**

* Users can review the metadata generated in code.json using a friendly **HTML interface**.
* They can:
  + Search by organization name, description, and other fields to get a list of repositories.
  + Click and open a repository listed to see the all the generated metadata fields.
  + Currently, user cannot make direct changes to the metadata fields via the HTML interface but that may be a future improvement. They can only see instructions on how they themselves can update / override some of the metadata fields, particularly the organization name, contact emails and exemption claimed. FYI- Users can override up to 7 fields using documented markers in their readme files. Other metadata fields generated by the scanner cannot be overridden by the user.
* **Reminder:** The decision to eliminate the option in the HTML interface to submit “change requests or issues” to EDSO is due to the current lack of personnel resources to support this. A future improvement would allow the HTML interface to make direct changes to the CODE.JSON file during the review period only which would also eliminate the need to re-run the scanner again before publishing the metadata catalog (see workflow 3).

**3. Re-generation & Publishing *(Runs July 21 & Dec 31)***

**Actors:** EDSO Staff  
**Process:**

* The scanner is run this time to ensure that any new changes made by C/I/Os to their README.md files are re-ingested in the final metadata catalog (code.json).
* Regenerated:
  + code.json
  + privateid\_mappings.csv
  + exemption\_log.csv
* code.json is published (via an automated workflow) to [**www.cdc.gov/code.json**](https://www.cdc.gov/code.json)and made publicly available.

**4. Public Access and Request Handling**

**Actors:** Federal agencies, CDC staff, general public.   
**Process:**

* Users browse the catalog at <https://www.cdc.gov/code.json> and identify one or more repositories they would like to reuse. For each repository identified,…
* If the requested repo is public (visibility=public): the requestor already has direct access to the source code repository via the repositoryURL metadata field. No email requests or workflow are needed.
* If the requested repo is private (visibility=private):
  + If the private repository is “exempted”, the user only gets a link to a PDF in the repositoryURL field announcing that the repository cannot be shared and is exempted under the allowed Share IT Act exemptions.
  + Otherwise, the user gets a link to a PDF in the repositoryURL field with step-by-step instructions on how to properly request access for a private repository.
    - The user sends an email to the [shareit@cdc.gov](mailto:shareit@cdc.gov) and includes the “privateid” identifier of the repository in the subject line as instructed.
    - EDSO runs a script on intervals or automated-schedule to auto-route new email requests received that contain a privateid in the subject line. The script first searches the file privateid\_mappings.csv file generated by the scanner by the privateid.
    - If the script finds a valid email address in the privateid\_mappings.csv, it redirects the email request to that email address and moves the request to a “processed” email folder under the [shareit@cdc.gov](mailto:shareit@cdc.gov) mailbox.
    - If the script could not locate the contact emails for the repository, it instead moves the email request to an email folder “NeedsRevision” for manual review and disposition. Either EA and/or EDSO may be asked to perform such manual review and disposition.
    - CDC teams who received a source code access request must respond to the requestor with instructions on how to access the requested source code or with the reason why the source code could not be shared and within 10 days. By CC’ing [shareit@cdc.gov](mailto:shareit@cdc.gov) CDC can track responses.

**🔗 Technical Solution Documentation Links**

* Lucidchart Diagram: <https://lucidgov.app/lucidspark/cc762090-042f-4654-9f25-097057293b5d/edit?view_items=X_Mqm.~PT.Xs&invitationId=inv_e2513e6a-887a-4245-87d9-efdae008026e>
* [📘 Share IT Act Implementation Workflows.docx](https://cdc.sharepoint.com/:w:/r/sites/OCIOPublishedDocs/ODDocumentsAllCDC/Share%20IT/%F0%9F%93%98%20Share%20IT%20Act%20Implementation%20Workflows.docx?d=wb0b33fdddee145b7ba20c2fbcbc826cf&csf=1&web=1&e=OHI9vF&xsdata=%3D&sdata=V0R4eDNJQXN4amVQTktoU2U2bVdiZ3gyR3hYNzNTNCtDTW10dHB3MU9YQT0%3D&ovuser=9ce70869-60db-44fd-abe8-d2767077fc8f%2Cjrf1%40cdc.gov)
* [CDC's Share IT Act repository platforms scanning tool](https://github.com/OCIO-ricky/ShareITAct_RepoScanning)
* [CDCgov/ShareIT-Act: Metadata Preview site.](https://github.com/CDCgov/ShareIT-Act)

-----------------------------------------------------------------------------------------

Recommended Improvements Moving Forward:  
**Metadata Feedback Loop Automation**

**Current:** Manual updates to README.md are needed to override inferred metadata.  
 **Improvement:**

* Update the HTML interface to let C/I/Os edit some metadata directly in code.json. Requires logs.
* This will eliminate the need to re-run the metadata generation scanner again after the review period. Save the delta changes per repo permanently and as input for the scanner when re-generating code.json.

✅ **Benefit:** Ensures edits are schema-valid and less error-prone, while reducing user friction.

### **📊 2. Add Metrics and Dashboard Drilldowns**

**Current:** Dashboard planned, but may not include drilldowns.  
 **Improvement:**

* Allow C/I/Os to view their **compliance status**, flagged exemptions, missing metadata fields, and access request logs.

✅ **Benefit:** Improves transparency and supports decentralized accountability.