

# Toxic Release Inventory (TRI) Flow Implementation Guide

The Toxics Release Inventory (TRI) flow allows partners to exchange information about facilities' self reported releases of hazardous substance to air, water, and land. It is unusual among National System Flows because data flows from reporting facilities to EPA and then out to partners.

## BENEFITS

States receiving data from EPA automatically via their nodes do not need to process submissions directly from facilities

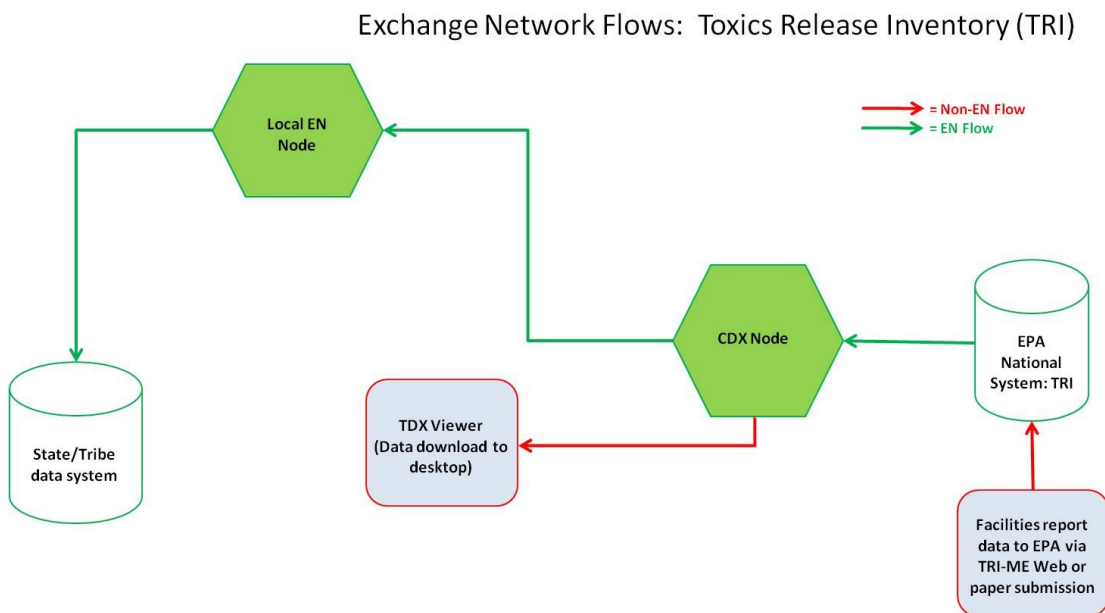
Facilities in States that receive data automatically from EPA do not have to double report to EPA and then to States—saving time and money

## Practical Implementation Advice

- Anyone who has a node should consider implementing the TRI flow because it eliminates a dual reporting requirement for industry (thus saving industry reporters money) and it can save States and Tribes significant resources by eliminating manual data entry.
- Agencies that are Exchange Network partners but are not designated Right-to-Know (RTK) coordinators should consider assisting the RTK coordinators by receiving data on their behalf.
- Partners without nodes can use the TDX viewer to gain access to their TRI data. The TDX Viewer is a Web application accessible through the Central Data Exchange (CDX) that allows state and regional users to:
  - Determine which submissions EPA's Data Processing Center has received from TRI facilities.
  - View the status of TRI Data Exchange transactions from CDX to state nodes.
  - Reconcile TRI data with EPA and manually request that TRI data be "pulled" from CDX to state nodes, if necessary.
- Information on accessing TDX viewer is available here: [http://www.epa.gov/tri/stateprograms/SDXviewer/UserGuide/TDXviewerUserGuide\\_v3.pdf](http://www.epa.gov/tri/stateprograms/SDXviewer/UserGuide/TDXviewerUserGuide_v3.pdf)

## TRI Data Flow Options

The graphic below shows the current options for flowing data. Exchange Network (EN) flow options are shown in green and non-EN options are shown in red. (Terms are explained in Attachment I).



### EXCHANGE NETWORK (EN) OPTIONS:

- For participating states, CDX transmits TRI data to States via node-to-node flows.

### NON-EXCHANGE NETWORK OPTIONS:

- States and Territories that participate in TRI Data Exchange may use the TDX Viewer to download data from the CDX Node to the desktop, from which it can then be propagated into their data

## Summary of Current Practice

Federal law requires that facilities submit TRI data to both EPA and their State. Facilities required to report TRI data use EPA’s online TRI –ME Web. After EPA receives TRI data, CDX uses the EN to send it to partners’ nodes. This satisfies the legal requirement for many reporting facilities to submit the same data to both States and EPA without having to report twice.

Facilities in States that don’t have a node-to-node arrangement with EPA must submit data to EPA and print out a form to mail to their State agency. As a result, States that implement the TRI flow can eliminate a dual reporting requirement for industry, thus saving industry reporters money and saving States and Tribes significant resources consumed by manual data entry.

## TRI Flow Status and Milestones

TRI currently meets all of the “Network ready” criteria. EPA general criteria for assessing the “readiness” of National System Flows is included as Attachment 2.

Criteria:	Status	Actions	Primary Responsibility	Completion Period (CY)
Automation Ready	Complete			
Solutions for all partners	Complete			
Access to transaction status	Complete			
Accessible and stable flow documentation	Complete			
Specifications for Data Access Services	N/A	<i>Note: Because this is a “reverse flow,” traditional data access is not relevant</i>		
Clear path to eliminate alternatives	N/A			

## Attachment 1: Terms

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**Node:** A partner's point of presence on the EN consisting of a server (hardware and software) enabled with web services that allow partners to automatically provide and receive information via the EN and to publish data for use by other EN partners.

**EN Client:** A stand-alone application (i.e., software code) that lets partners submit data, request data, and receive results from an EN request. Clients differ from nodes in that they cannot respond to queries from other nodes and so cannot publish data. Clients also need more manual (vs. automated) steps, for example, to extract data and generate and review reports before submission.

**EN Services Center:** A website that allows EN users to easily send, get, and download information from other partners on the EN. The Services Center will serve as a replacement for manual submissions of information through CDX Web. It is an appropriate solution for those EN partners who do not require or are not yet ready for the automation and data publishing capabilities of an EN Node. The EN Services Center is available at <https://enservices.epa.gov>.

**CDX:** EPA's Central Data Exchange. It serves as EPA's centralized electronic report receiving system. It receives data from partners and directs the data to EPA's program-specific National Systems (e.g., AQS, WQX, etc.).

**CDX Node:** CDX Node is EPA's node on the EN, allowing EPA to receive, send, and provide information via the Network. CDX Node can also publish EPA data for use by other EN partners.

**CDX Web (non-EN) Application:** A legacy CDX application that receives data (flat file or XML format) via standard web browsers. CDX Web applications are not consistent with EN protocols (e.g., they have a separate authentication and authorization service from the EN) and typically involve more manual steps than a node-to-node exchange of data.

**Data Access Services:** Using web services to make data available to Network users by querying nodes and returning environmental data in the form of XML documents. Published data can be accessed using a node or clients. Published data can be used in a number of ways, such as populating Web pages, synchronizing data between sites, viewing data in a Web service client, or building new sources of data into an integrated application.

**Direct User:** A partner entering data directly into a National Data System through a system-specific interface (manual entry).

**EPA National Data System:** Program-specific data systems at EPA that can receive and publish data.

**Local Data System:** A partner's database or series of databases in which environmental data is stored, managed, and manipulated.

**XML:** eXtensible Markup Language is a flexible language for creating common information formats and sharing both the format and content of data over the Internet and elsewhere. The electronic language that expresses and transports data standards and transaction sets. XML uses an extensible set of tags to describe the meaning of data.

## Attachment 2: National System Flow “Ready to Use” Criteria

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A focus of Exchange Network (EN) governance has been developing the National System Flows to help partners take advantage of the Network’s business value. Governance has identified six criteria for each flow to meet to make these flows “ready to use” by partners:

- Automation-ready. Support fully automated node-to-node flows.
- Solutions for all partners. Provide appropriately scaled EN solutions for partners of all sizes, needs, and capabilities. Some partners such as tribes and local clean air authorities may not need a fully functional node. Other EN solutions should be available to these users.
- Access to transaction status. Support a fully automated process for reporting transaction status, processing results, and QA results from receipt by CDX through final processing in the National System.
- Accessible and stable flow documentation. Develop and make accessible stable documentation that describes all flow requirements. This includes a complete Flow Configuration Document (FCD) that is in compliance with EN procedures for version management.
- Specifications for Data Access Services. Provide a national standard set of query/solicit services defined in the FCD whether or not data are currently published. Implement a publishing interface where published data are critical to partner business processes (such as NPDES permit information for NetDMR).
- Clear path to eliminate alternatives. Have a clear path to eliminate legacy system alternatives to EN exchanges, including transition support for partners.

*For more information on TRI:*

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