

Exchange Network Forum

Thursday, March 14, 2024

1:00 to 2:00 PM ET

Agenda:

- Welcome
- Environmental Information & Innovation National Meeting (E2i)
- Combined Air Emissions Reporting System (CAERS)
- Open Forum

Welcome and Opening Remarks

Alex O'Neill, EPA Office of Information Management (OIM), Office of Mission Support (OMS)

- Meeting minutes and recordings are posted to the [Exchange Network Forum site](#).
- Answers to questions about the Water Quality Exchange are posted in last month's minutes.
- The Exchange Network (EN) Forum is an open meeting, with the goal of being collaborative.
- Participants are encouraged to ask questions while also being mindful that the audience of these calls is broad, with both technical and non-technical participants. If a question is too technical, EPA may need to follow-up after with an answer.

Environmental Information & Innovation National Meeting (E2i)

Eric Cleckler, Alabama Department of Environmental Management and Jennifer Reyher, Muscogee (Creek) Nation

- Eric Cleckler, Jennifer Reyher and Dwane Young are co-chairing the E2i meeting.
- The meeting will be an in-person event with some virtual components.
- E2i will be in Kansas City, Missouri on September 17-19, 2024. More information about specific locations is forthcoming.
- The theme of this year's meeting is reinvigorate, collaborate and innovate.
- EPA, states and Tribes are collaboratively planning E2i.
- The co-chairs sent out a [call for content](#) to the community. If you have ideas for the meeting agenda, you can submit a brief abstract on a relevant topic that you would like to present. Submissions are due by April 5, 2024.
- You can submit your abstract for any of the following formats:
 - Lighting talks
 - Podium presentations
 - Panel discussions
 - Innovation videos
 - Workshops

- Travel funding will be available for states, Tribes and territories. The Environmental Council of the States has funding available to support travel costs for two representatives per state or territory. For Tribes, there will be support to help Tribal staff offset travel expenses. More information about these opportunities is forthcoming.
- Meeting registration is anticipated to open in the second half of May.
- The draft agenda will be shared once developed.
- To stay in the loop on meeting details, you can sign up for [Exchange Network email alerts](#). Click the green box at the top of the webpage that says, “Sign up for EN Alerts.”

Combined Air Emissions Reporting System (CAERS)

Julia Gamas and Kevin Brundage, EPA Office of Air and Radiation (OAR), Office of Air Quality Planning and Standards (OAQPS) and Adam Ross, Arizona Department of Environmental Quality

- Julia Gamas gave an overview of the Combined Air Emissions Reporting System (CAERS).
- The goal of CAERS is to streamline air emissions reporting, making the overall process less burdensome for industry, federal, state, local and Tribal air quality authorities.
- There are many air quality regulations that require reporting on a variety of pollutants.
- Before CAERS, industry was reporting to states and then states would report the data to EPA. Different people were reporting the same information to different programs, potentially using different estimation factors and criteria. This can create inconsistencies and errors in the data.
- CAERS is envisioned to be a hub where you share data from one system to the next. It collects annual inventory data from industry, reviews it and sends it to EIS. Shared data with TRI is sent to TRI-MEweb.
- State, local and Tribal (SLT) partners are coregulators of CAERS and have been involved in the design of the system.
- Additional workflows with other air programs and SLTs are envisioned for the future state.
- Early in the development phase of CAERS, four use cases were identified.
 - Case 1: State custom system reporting interface and backend are retained (CAERS receives data from state interface).
 - Case 2: State custom system reporting interface and backend are retained (CAERS pushes data to state interface).
 - Case 3: CAERS replaces state reporting interface, but state database is retained.
 - Case 4: State does not have or want to keep custom system and prefers to use CAERS.
- CAERS is continuing to identify ways to innovate.
 - [OMB Open Source Policy](#): The group is exploring ways to let SLTs use open source so that they can add modules in CAERS and not have to wait for EPA to build customizations.
 - CAERS will have to continuously adapt as new pollutants and new issues arise.
- Kevin Brundage presented on the current effort to integrate open source code into CAERS.

- The goal is to allow external contributors to create merge requests and have their code merged into CAERS. SLTs have different needs, and we want to allow them to develop code to meet needs in their own schedule.
- SLTs will need to be invited into the CAERS repository and their teams can clone the repository, develop code and then make a merge request. The CAERS staff can review and approve the merge request so the changes the SLT made will go into CAERS for all users to access.
- Visit the [CAERS page on exchangenetwork.net](#) for resources such as the flow configuration, data exchange template, example JSON File, OpenAPI specification and Swagger UI.
- To access the JSON API, authorization and authentication is handled through CDX. You contact the helpdesk to get a token to access the API.
- Adam Ross provided insight into Arizona Department of Environmental Quality's participation in the development and use of CAERS.
- Arizona and other SLTs had the opportunity to provide business needs to EPA during the development of CAERS. Arizona uses CAERS to pull data into their state database.
- There was very little ramp up on development side to build the client, as well as off-the-shelf solutions they used to avoid work entirely. They also do rapid prototyping using Postman and use an open source Java library.
- It only took four to five months for a half-time developer to develop the client.
- The API only facilitates a down retrieval of data from CAERS. Eventually, a solution is needed to facilitate the up direction of data, but that requires additional security considerations.
- Contact [Adam Ross](#) with any questions on Arizona's use of CAERS.

Questions and Answers

The following are questions and answers from the session.

Q: Where is the code repository?

A: The repository is currently hosted in EPA's GitHub. It is not yet publicly available.

Q: Is the code closed and targeting deployment at EPA? Is it correct that open source here does not mean deployable outside of EPA? If SLTs fund a CAERS code improvement, is it deployed only at EPA?

A: The current state is that none of the open source capability is in place. The future state is if someone has the source code, theoretically they can host it anywhere, but they would not have access to the same data as EPA, and EPA would not help host it. If you put in a merge request and it is approved, it will be included in the code repository and go out with next deployment.