**Compliance Monitoring Data Portal (CMDP)**

Adoption Process Overview for Primacy Agencies

**Version 2.0**

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# **Document Version History**

| **Version****Number** | **Date** | **Description of Changes** | **Revision by:**  |
| --- | --- | --- | --- |
| 1.0 | 12/1/2016 | CMDP Quick Start Guide for New Primacy Agency Users |  |
| 2.0 | 10/8/2019 | Replaces the CMDP Quick Start Guide for New Primacy Agency UsersNew document title and updated content  | EPA CMDP Team  |

# **Compliance Monitoring Data Portal (CMDP) Adoption Process**

The purpose of this document is to provide a general, high-level overview of the CMDP adoption process, requirements, and associated tasks and resources for interested primacy agencies.

This document is not meant to be exhaustive and may not address specific primacy agency needs/requirements. This document can also be used to facilitate more detailed discussions with the EPA CMDP Team on your primacy agency adoption/transition goals, needs, and requirements, including additional technical assistance options, if needed.

The diagram below outlines the high-level requirements with corresponding tasks/milestones to be completed by primacy agencies. Details on each task and corresponding reference materials is provided in this document.

# Overview

All primacy agencies will need to complete three (3) major tasks to adopt/transition to CMDP. Details on each task and associated subtasks/milestones are provided below.

* CROMERR approval for CMDP
	+ Submit CROMERR application for CMDP
	+ Obtain CROMERR approval for CMDP
* CMDP Setup (activities under this task are dependent on primacy agency adoption of SDWIS State)

[For SDWIS State Primacy Agencies (see Part A)](#_Part_A:_SDWIS) or [Non-SDWIS State Primacy Agencies (see Part B)](#_Part_B._Non-SDWIS)

* + Setup Data Migration to CMDP (in Test Environment)
	+ End-to-End Testing (in Test Environment)
	+ CMDP Production Launch\* (Requires CROMERR approval)
* [Lab/Water System Transition](#_TRANSITION_LAB/WATER_SYSTEM)
	+ Outreach/Communications on CMDP
	+ Provide training to labs/water systems on using CMDP
	+ Provide support to labs/water systems for adopting/transitioning to CMDP for electronic reporting

# Cross-Media Electronic Reporting Rule (CROMERR)

Published on October 13, 2005, the Cross-Media Electronic Reporting Rule (CROMERR) established a framework by which EPA will accept electronic reports from regulated entities. CROMERR may apply to any electronic document submission required by or permitted under any EPA or authorized program governed by EPA's regulations in Title 40 of the Code of Federal Regulations (CFR).

CROMERR approval is required for CMDP production use. Primacy agencies can complete preliminary set-up and testing activities with the EPA while waiting for CROMERR approval.

**The CROMERR application/approval process may take up to 6-9 months, or longer to complete**. We highly recommend primacy agencies become familiar with the CROMERR application requirements and begin this process immediately to ensure alignment with the expected/planned timeframe for CMDP production use.

* [CROMERR Overview for State, Tribal and Local Governments](https://www.epa.gov/cromerr/cromerr-overview-state-tribal-and-local-governments)
	+ [Many states already have approved, broadly application CROMERR Attorney General certifications](https://www.epa.gov/cromerr/cromerr-program-announcements-and-initiatives#Blanket%20AG%20cert)
* [Status of CROMERR Applications from States](https://www.epa.gov/cromerr/status-cromerr-applications-states)
* [CROMERR Help Desk](https://www.epa.gov/cromerr/forms/cromerr-help-desk)

# Compliance Monitoring Data Portal (CMDP) Setup

There are 3 milestones for CMDP setup:

1. Setup Data Migration to CMDP (in Test Environment)
2. End-to-End Testing (in Test Environment)
3. Production Launch\* (in Production Environment – Requires CROMERR approval)

SDWIS State (S/S) primacy agencies should follow the steps outlined in Part A. [Non-SDWIS State primacy agencies should follow the steps outlined in Part B](#_Part_B._Non-SDWIS).

## Part A: SDWIS State (S/S) Primacy Agency

(required to have XML Sampling available)

**Milestone 1**: **Setup Data Migration to CMDP:**

*Configure the Data Synchronization Engine (DSE) to migrate Inventory data from SDWIS State (S/S) database to CMDP in a “Test” environment. EPA has a test environment to support CMDP testing activities with primacy agencies. EPA highly recommends primacy agencies also conduct testing activities in your own corresponding test environment.*

**Prerequisites**:

Complete CMDP Pre-setup – [Submit a request to the CMDP Help Center](https://cmdp.zendesk.com/hc/en-us/requests/new) for “CMDP Pre-setup Support”. **This step should be completed only once per primacy agency**.

* + For additional overview information: see [CMDP Transition Flowchart](https://cmdp.zendesk.com/hc/en-us/articles/115000454547-CMDP-Transition-Flowchart-)
	+ Understand the CMDP system -- *overview CMDP features via* [*CMDP User Manual*](https://cmdp.zendesk.com/hc/en-us/articles/231733088-CMDP-User-Manual-v-1-4)
	+ Understand the CMDP user roles and registration process – review the [CMDP Role Registration User Guide](https://cmdp.zendesk.com/hc/en-us/articles/228281028-CMDP-Role-Registration-User-Guide)
	+ Understand Shared CROMERR Services (SCS) – review the “[Shared CROMERR Services Advanced Help Desk User Guide](https://cmdp.zendesk.com/hc/en-us/articles/228068528-CMDP-Shared-CROMERR-Services-SCS-Helpdesk-)”

**Steps:**

1. Individuals that require a “State CMDP Administrator” role should follow this process for requesting a Shared CROMERR Services (SCS) Test account, [see section 2.1, p.11](https://cmdp.zendesk.com/hc/en-us/articles/228281028-CMDP-Role-Registration-User-Guide)
	1. Each primacy agency can have multiple users with the “State CMDP Administrator” role. EPA recommends 2-3 separate individuals for this role to provide sufficient coverage.
2. Get familiar with the administrative features of the [SCS](https://test.epacdx.net/epasharedservicesportal) and the [CMDP](https://cmdpprep.epa.gov/sso/login?service=https%3A%2F%2Fcmdpprep.epa.gov%2Fcmdp%2Fj_spring_cas_security_check%3Bjsessionid%3D269F5B99E4D8EFFF134C4E61203A9156) :
	1. SCS administration (*see Admin Tools, page 9* -- [Shared CROMERR Services (SCS) Advanced Services Help Desk User Guide](https://cmdp.zendesk.com/hc/en-us/articles/228068528-CMDP-Shared-CROMERR-Services-SCS-Helpdesk-))
	2. CMDP administration (*see figure 12, page 19 and Section 8: System Administration, page 167* -- [CMDP User Manual](https://cmdp.zendesk.com/hc/en-us/articles/231733088-CMDP-User-Manual-v-1-4))
3. Migrate & synchronize data from S/S database to CMDP:
4. Complete S/S data-cleanup - follow guidance on [Migration Data Checklist](https://cmdp.zendesk.com/hc/en-us/articles/231809607-Checklist-to-Migrate-State-Data-to-CMDP)
5. Configure DSE:
	1. Follow [DSE Setup Guide](https://cmdp.zendesk.com/hc/en-us/articles/231733348-DSE-Setup-Guide-v-2-1) (i.e., Java, Tomcat, etc) and [DSE ICD](https://cmdp.zendesk.com/hc/en-us/articles/231481547-DSE-Interface-Control-Document-DSE-ICD-) (including [Certificates](https://cmdp.zendesk.com/hc/en-us/articles/235381987-DSE-Certificates-Setup-for-Web-Services-Access-)) and use either [Oracle](https://cmdp.zendesk.com/hc/en-us/articles/115000757727-DSE-Setup-Guide-Oracle-Database) or [SQL Server](https://cmdp.zendesk.com/hc/en-us/articles/115000757907-DSE-Setup-Guide-MS-SQL-Server) appropriately
	2. Install [DSE WAR file](https://cmdp.zendesk.com/hc/en-us/article_attachments/360036139334/dseWebAdmin.war) and [other files](https://cmdp.zendesk.com/hc/en-us/articles/115000757907-DSE-Setup-Guide-for-SQL-Server-Database-War-file-cypher-tool-tomcat-DSE-config-jar-files-instructions-to-update-env-variables) ( i.e., “.bat”, “.jar”, “.crt”) in the same S/S Test environment (same State’s database environment)
6. Test data migration from **S/S 🡪 CMDP**:
	1. Run DSE to migrate [Inventory & Legal Entity](https://cmdp.zendesk.com/hc/en-us/articles/231732808-CMDP-Web-Services-Inventory-and-Lab-Data-Dictionary) data (i.e., PWS, Facility, Lab, Sampling Point) to the CMDP
	2. Verify if the migrated data loads to CMDP and synchronizes with S/S database as expected - *evaluate if the expected # of migrated records from CMDP’s screen and S/S database are matched for each migrated object)*

**Milestone 2**: **End-to-End Testing:**

*Testing the CMDP data flow setup in Test environment:*

* ***Lab/WS submission 🡪 CMDP 🡪 S/S****: test if Lab/WS’s Sample data submission is first displayed in CMDP and ultimately ends in S/S.*

**Prerequisites**:

* Completed data migration from SDWIS State to CMDP in milestone 1.
	1. **Note**: *Inventory, Legal Entity, and Lab profiles need to be loaded in the CMDP before lab users are able to register for SCS “lab administrator” roles.*
* Recruit labs/water systems to participate in end-to-end testing. We recommend testing both data submission methods: CMDP Web form and CMDP Excel templates.
	1. *Testing submission via LIM system may be a separate process due to additional set-up requirements with labs (XML mapping, web services, etc.)*
* Review the Method Codes in the CMDP and SDWIS State to confirm they match.
	1. **Note**: *Samples wouldn’t migrate into SDWIS State if Method Codes are different*.

**Steps:**

1. Register for SCS **Lab** Administrator role ([see section 2.2 or 2.3, p.18 or 23](https://cmdp.zendesk.com/hc/en-us/articles/228281028-CMDP-Role-Registration-User-Guide)) to submit test Samples
2. Submit test Samples (via Labs/WS Administrator account) to CMDP thru:
	1. Web form entry, and/or
	2. Excel template
3. Verify:
	1. If the submitted test Samples are displayed in the CMDP State Administrator’s screen
	2. Submission status on the CMDP Lab Administrator’s screen
4. Migrate submitted data from **CMDP 🡪 S/S**:
	1. Configure for the connection from DSE to XML Sampling
	2. Check if DSE creates the [Sample xml files](https://cmdp.zendesk.com/hc/en-us/articles/231476387-CMDP-Web-Services-Sampling-XML-Schema-Definitions) for XML Sampling to migrate the files into S/S
	3. Verify if the dataset in both CMDP and S/S are synchronized

**Milestone 3**: **CMDP Production Launch (Use CMDP in Production Environment)**

**Prerequisites**

* Completion of milestones 1 & 2 in the Test environment
* Obtain CROMERR approval for primacy agency use of the CMDP for electronic reporting

**Steps:**

1. Request [SCS production](https://encromerr.epa.gov/) account for State CMDP Administrator
2. Access SCS Production & [CMDP Production](https://cmdpapp2.epa.gov/sso/login?service=https%3A%2F%2Fcmdpapp2.epa.gov%2Fcmdp%2Fj_spring_cas_security_check%3Bjsessionid%3DF02970BF224D1E8DF00B06B08E77805B)
3. Move/Replicate milestone 1& 2 to Production environment
4. Confirm process with one (or two) end-to-end production submissions from Lab/WS (if desired).

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# Part B. Non-SDWIS State Primacy Agency

**Milestone 1**: **Setup Data Migration to CMDP:**

*Non-SDWIS State primacy agencies will need to support bi-directional (two-way data exchange) synchronization of water system data (inventory and sampling) between the local primacy agency database and the CMDP. For more information, see "*[*SDWIS State-Free" Database Interface Control Document*](https://cmdp.zendesk.com/hc/en-us/articles/231732708-CMDP-SDWIS-State-Free-Database-Interface-Control-Document)*.*

*EPA has a test environment to support CMDP testing activities with primacy agencies. EPA highly recommends primacy agencies also conduct testing activities in your own corresponding test environment.*

**Prerequisites**:

Complete CMDP Pre-setup – [Submit a request to the CMDP Help Center](https://cmdp.zendesk.com/hc/en-us/requests/new) for “CMDP Pre-setup Support”. **This step should be completed only once per primacy agency**.

* + For additional overview information: see [CMDP Transition Flowchart](https://cmdp.zendesk.com/hc/en-us/articles/115000454547-CMDP-Transition-Flowchart-)
	+ Understand the CMDP system -- *overview CMDP features via* [*CMDP User Manual*](https://cmdp.zendesk.com/hc/en-us/articles/231733088-CMDP-User-Manual-v-1-4)
	+ Understand the CMDP user roles and registration process – review the [CMDP Role Registration User Guide](https://cmdp.zendesk.com/hc/en-us/articles/228281028-CMDP-Role-Registration-User-Guide)
	+ Understand Shared CROMERR Services (SCS) – review the “[Shared CROMERR Services Advanced Help Desk User Guide](https://cmdp.zendesk.com/hc/en-us/articles/228068528-CMDP-Shared-CROMERR-Services-SCS-Helpdesk-)”

**Steps:**

1. Individuals that require a “State CMDP Administrator” role should follow this process for requesting a Shared CROMERR Services (SCS) Test account, [see section 2.1, p.11](https://cmdp.zendesk.com/hc/en-us/articles/228281028-CMDP-Role-Registration-User-Guide)
	1. Each primacy agency can have multiple users with the “State CMDP Administrator” role. EPA recommends 2-3 separate individuals for this role to provide sufficient coverage.
2. Get familiar with the administrative features of the [SCS](https://test.epacdx.net/epasharedservicesportal) and the [CMDP](https://cmdpprep.epa.gov/sso/login?service=https%3A%2F%2Fcmdpprep.epa.gov%2Fcmdp%2Fj_spring_cas_security_check%3Bjsessionid%3D269F5B99E4D8EFFF134C4E61203A9156) :
	1. SCS administration (*see Admin Tools, page 9* -- [Shared CROMERR Services (SCS) Advanced Services Help Desk User Guide](https://cmdp.zendesk.com/hc/en-us/articles/228068528-CMDP-Shared-CROMERR-Services-SCS-Helpdesk-))
	2. CMDP administration (*see figure 12, page 19 and Section 8: System Administration, page 167* -- [CMDP User Manual](https://cmdp.zendesk.com/hc/en-us/articles/231733088-CMDP-User-Manual-v-1-4))
3. Complete development of data migration/synchronization tools or services to support testing two-way data migration and synchronization between State’s database (DB) and the CMDP.
	1. If technical assistance is needed to complete this task, discuss options with the EPA CMDP/SDWIS Team.
	2. Though not specifically written for non-SDWIS State Primacy Agencies, you may find these documents helpful for identifying requirements for developing data migration and data synchronization tools or services.

[Migration](https://cmdp.zendesk.com/hc/en-us/articles/231809607-Checklist-to-Migrate-State-Data-to-CMDP) data checklist

[Inventory& Lab](https://cmdp.zendesk.com/hc/en-us/articles/115000803987-CMDP-Web-Services-Inventory-and-Lab-Data-Dictionary) data dictionary to migrate data from **State’s DB to CMDP**

Data requirements on [Sample](https://cmdp.zendesk.com/hc/en-us/articles/231476387) data definition to migrate data from **CMDP to State’s DB**

1. Test and validate **State’s DB 🡪 CMDP** migration:
	1. Check and validate migration of [Inventory & Legal Entity](https://cmdp.zendesk.com/hc/en-us/articles/231732808-CMDP-Web-Services-Inventory-and-Lab-Data-Dictionary) data (i.e., PWS, Facility, Lab, Sampling Point) from State’s DB to CMDP
	2. Check and validate if the migrated data in CMDP synchronizes with State’s DB as expected -- *evaluate if the expected # of migrated records from CMDP’s screen and S/S database are matched for each migrated object)*

**Milestone 2**: **End-to-End Testing:**

*Testing the CMDP data flow setup in Test environment:*

* ***Lab/WS submission 🡪 CMDP 🡪 State’s DB****: test if Lab/WS’s Sample data submission is first displayed in CMDP and ultimately ends in State’s DB.*

**Prerequisites**:

* Completed data migration from State Database to CMDP in milestone 1.
	1. **Note**: *Inventory, Legal Entity, and Lab profiles need to be loaded in the CMDP before lab users are able to register for SCS “lab administrator” roles.*
* Recruit labs/water systems to participate in end-to-end testing. We recommend testing both data submission methods: CMDP Web form and CMDP Excel templates.
	1. *Testing submission via LIM system may be a separate process due to additional set-up requirements with labs (XML mapping, web services, etc.)*

**Steps:**

1. Register for SCS **Lab** Administrator role ([see section 2.2 or 2.3, p.18 or 23](https://cmdp.zendesk.com/hc/en-us/articles/228281028-CMDP-Role-Registration-User-Guide)) to submit test Samples
2. Submit test Samples (via Labs/WS Administrator account) to CMDP thru:
	1. Web form entry, and/or
	2. Excel template
3. Verify:
	1. If the submitted test Samples are displayed in the CMDP State Administrator’s screen
	2. Submission status on the CMDP Lab Administrator’s screen
4. Migrate submitted data from **CMDP 🡪 State’s DB**:
	1. Test and validate migration of submitted Sample data from CMDP to State’s DB
	2. Check if the submitted Sample data is in State’s DB
	3. Verify if the dataset in both CMDP and State’s DB are synchronized

**Milestone 3**: **CMDP** **Production Launch (Use CMDP in Production Environment)**

**Prerequisites**

* Completion of milestones 1 & 2 in the Test environment
* Obtain CROMERR approval for primacy agency use of the CMDP for electronic reporting

**Steps:**

1. Request [SCS production](https://encromerr.epa.gov/) account for State CMDP Administrator
2. Access SCS Production & [CMDP Production](https://cmdpapp2.epa.gov/sso/login?service=https%3A%2F%2Fcmdpapp2.epa.gov%2Fcmdp%2Fj_spring_cas_security_check%3Bjsessionid%3DF02970BF224D1E8DF00B06B08E77805B)
3. Move/Replicate milestone 1&2 to Production environment
4. Confirm process with one (or two) end-to-end production submissions from Lab/WS (if desired).

# TRANSITION LABS/WATER SYSTEMS TO USE THE COMPLIANCE MONITORING DATA PORTAL (CMDP)

We recommend primacy agencies start communicating, as early as possible, to labs and water systems, about your plans to transition to electronic reporting using the CMDP. The steps below can be started before or in conjunction with primacy agency testing activities. In order to complete end-to-end testing, primacy agencies will need active participation by lab/water system users.

The steps provided below are guidelines for primacy agencies to follow based on feedback from other primacies agencies that have successfully transitioned to using the CMDP.

* The CMDP Help Center has a dedicated section for [Laboratories and Water Systems](https://cmdp.zendesk.com/hc/en-us/categories/204562347-For-Laboratories-and-Water-Systems) that provides additional support documentation and links to videos.
* Join the [CMDP User Forum](https://www.asdwa.org/forums/forum/sdwis-user-community/cmdp/) to take advantage of lessons learned and/or connect with other primacy agencies for advice and recommendations on this topic!

**Steps:**

1. Outreach & communication with laboratory and water system (Lab/WS) users:
	1. Provide information to Labs/WSs on the CMDP and how to use the CMDP for electronic reporting.
	2. Identify specific labs and/or water systems to partner with on testing the CMDP.
	3. Determine if any Labs/WSs have challenges or barriers to adopting/transitioning to using the CMDP. If so, are you able to work with your Labs/WSs to remove identified challenges or barriers?
	4. Be strategic with Lab/WS transitions – plan transition in phases. For example:
		1. Start with Labs/WSs that are already using the CMDP for reporting with other primacy agencies, or
		2. Groups Labs/WSs by data submission volume (i.e., smallest or largest), start with one group first, then expand further, or
		3. Group Labs/WSs by existing submission method (paper versus electronic), start with Labs/WSs that have experience with electronic reporting
	5. If your State does not require mandatory electronic reporting, determine other methods of encouraging Labs/WSs to transition to electronic reporting using the CMDP. For example:
		1. Provide technical support and/or or training.
		2. Explain how electronic reporting may help reduce data entry errors resulting in increased data quality and faster access to submitted data and compliance determinations.
2. Provide training for laboratories and water systems (Labs/WSs) on:
	1. CMDP submission process, how to do it via:
		1. Web form data entry
		2. [XML or Excel template](https://cmdp.zendesk.com/hc/en-us/articles/115000637408-EXCEL-Templates-download-here-)
		3. Web services (LIM or similar data system)
	2. [CMDP roles & registration](https://cmdp.zendesk.com/hc/en-us/articles/228281028-CMDP-Role-Registration-User-Guide):
		1. Lab/WS Administrator role
		2. Other roles (i.e., certifier, reviewer, preparer)
		3. Hierarchy between roles
3. Provide CMDP user support for laboratory and water system users:
	1. Identify a point of contact at the Primacy Agency to support Lab/WS users
		1. This [list](https://cmdp.zendesk.com/hc/en-us/articles/228074388-CMDP-Support-Primacy-Agency-Points-of-Contact-) is provided via the CMDP Help Center
	2. Help Lab/WS users register for Shared CROMERR Services accounts (for both Test and Production environments)
	3. Provide additional reference materials to address Primacy Agency specific reporting needs and requirements for laboratories and water systems
		1. Create reporting policy/guidance documents
		2. Develop FAQs