

Environmental Information



EN2015

CROMERR Made Easier

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2015 Exchange Network National Meeting

Supporting the Business of Environmental Protection

September 29–October 1, 2015
Sheraton Philadelphia Society Hill Hotel
Philadelphia, Pennsylvania

<http://www.exchangenetwork.net/en2015>

ABSTRACT

Shared CROMERR Services (SCS) is a group of web services aimed at making the implementation of CROMERR easier. EPA is working to address some of the pain points that early adopters have faced.

CROMERR Made Easier

- What is SCS?
- What does SCS look like?
- How does SCS make CROMERR easier?
- Lessons Learned
- Issues that still need to be worked out

What is SCS?

- Shared CROMERR Services
- Group of web services
- Covers 4 things:
 - Registration and Account Management
 - Identity Proofing
 - Signature Device
 - Signature Ceremony and Copy of Record

Background

Shared CROMERR History

- 09/27/2012 - Shared CROMERR Charter (18 States)
- 10/18/2012 - Component Guidance and Recommendations
- 11/15/2012 - Exchange Network/Grant Applicant Outreach (e.g. vote)
- 03/14/2013 - Application Status and Outreach Results
- 03/30/2013 - Prototype SCS services and offer SCS Toolkit
- 2013 – 2015 – Integrated Project Teams for State Partners

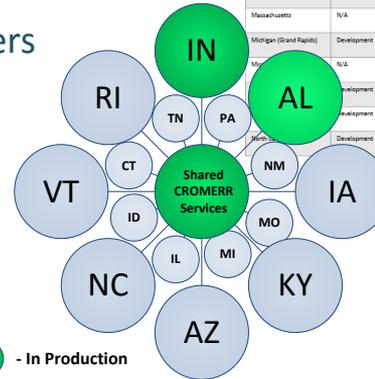
Exchange Network Shared CROMERR Services Website

<http://www.exchangenetwork.net/shared-cromerr-services-ipt/>

Shared CROMERR Projects (19+)

State	Environment	Reports	Target Production Date
Alabama	Production	• MDOE NOI • Title V Air Permitting	• Prod. 3/2015
Arizona	Test		
Connecticut	Development		
Illinois	Development		
Indiana	Production		• Prod. 2/25/15
Iowa	Test	• Title V Operating Permit Application • Title V Source Emissions Inventory • Motor Source Emissions Inventory • Air Quality Construction Permit • MDOE Permit Application • Discharge Monitoring Report	
Kentucky	Test		
Massachusetts	N/A		
Michigan (Grand Rapids)	Development		
Minnesota	N/A		
Montana	Development		
North Carolina	Development		
North Dakota	Development		
Ohio	Development		
Wisconsin	Development	• Emissions Inventory	

Signature	Approval State	Over Name	Final Report	ID Tracking
<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input checked="" type="checkbox"/>		<input type="checkbox"/>
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Shared CROMERR Toolkit

Services & Documentation

Getting Started with Shared CROMERR:

- **Kickoff Meeting**
- **Identify Shared CROMERR Component Goals**
- **CROMERR Toolkit**



Access Authority



Baseline CROMERR Checklist & Attachments



Contractual and Project Planning Package



Development Toolkit



Example Shared CROMERR Demo Application



<http://www.exchangenetwork.net/shared-cromerr-services-ipt/>

Shared CROMERR Demo Application

exchange Network Home Login Register

Web Services

Shared CROMERR Services Demonstration

This is a demonstration of the Shared CROMERR Services within a responsive UI.
[Training Reference](#)

API Trace

None

Download Clear API Trace

Login
If you have an existing account, log into SCS here.
[Login >](#)

Register Now
If you do not have a SCS account, you may create one here.
[Training Reference](#)
[Register >](#)

Privacy Statement

<<Agency>> will use the personal identifying information which you provide for the expressed purpose of registration to the Shared Cromerr Services site and for updating and connecting information in internal <<Agency>> databases as necessary. The Agency will not make this information available for other purposes unless required by law. <<Agency>> does not sell or otherwise transfer personal information to an outside third party.

Note: this is a demonstration system only.

<https://dev.epacdx.net/SharedCromerrServicesDemo>

CROMERR Made Easier

- What is SCS?
- What does SCS look like?
- How does SCS make CROMERR easier?
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- Issues that still need to be worked out

What does SCS look like?

Microsoft Visual Studio Administrator

FILE EDIT VIEW PROJECT BUILD DEBUG TEAM TOOLS TEST ARCHITECTURE ANALYZE WINDOW HELP

Internet Explorer - Debug

Source Control Explorer submissionreceipt.aspx.cs

```

169 AEERS_SCS.UserManagementService.RegisteredUserType scsUser = SCSUserManagement.RetrieveUser(UserNameLabel1.Text);
170 AEERS_SCS.SignatureAndCorService.UserType sigSCSUser = new AEERS_SCS.SignatureAndCorService.UserType()
171 {
172     FirstName = scsUser.FirstName,
173     MiddleInitial = scsUser.MiddleInitial,
174     LastName = scsUser.LastName,
175     UserId = scsUser.UserId
176 };
177
178 var tempSCSDocArray = ((AEERS.SCS.SignatureAndCorService.CorActivityType)Session["tempScsDocuments"]).Documents.ToArr
179 int index = Array.FindIndex(tempSCSDocArray, row => row.ID == (BLLActivityID.GetActivityID("Report", ((AEERS.DAL.Subm
180
181 reportlb.Text = tempSCSDocArray[index].Name;
182 reportdocidlbl.Text = tempSCSDocArray[index].ID;
183 reportsigvalidatelbl.Text = (SCSSigCor.ValidateCOR(sigSCSUser, tempSCSDocArray[index]) ? "Valid" : "Not Valid");
184
185 index = index % 2 == 0 ? index + 1 : index - 1;
186 reportsiglb.Text = tempSCSDocArray[index].Name;
187 reportdocsiglbl.Text = tempSCSDocArray[index].ID;
188
189 index = Array.FindIndex(tempSCSDocArray, row => row.ID == (BLLActivityID.GetActivityID("Documentation", ((AEERS.DAL.S
190
191 documentationlb.Text = tempSCSDocArray[index].Name;
192 documentationdocidlbl.Text = tempSCSDocArray[index].ID;
193 documentationsigvalidatelbl.Text = (SCSSigCor.ValidateCOR(sigSCSUser, tempSCSDocArray[index]) ? "Valid" : "Not Valid"
194
195 index = index % 2 == 0 ? index + 1 : index - 1;
196 documentationsiglb.Text = tempSCSDocArray[index].Name;
197 documentationdocsiglbl.Text = tempSCSDocArray[index].ID;
198
199 List<int> subIDlist = new List<int>();
200 subIDlist.Add(((AEERS.DAL.Submission)e.Item.DataItem).submissions_id);
201 submissionsstatus.Text = BLLSubmissions.GetSubmissions(subIDlist).First().SubmissionStatus.submission_status;
202
203

```

Solution Explorer

- Solution 'AEERS' (11 projects)
 - BatchStuff
 - BLL
 - DAL
 - SCS
 - Properties
 - References
 - Service References
 - app.config
 - SCSIdentityProof.cs
 - SCSSecondFactor.cs
 - SCSSigCor.cs
 - SCSUserManagement.cs
 - Utility
 - WebApp

Error List

0 Errors 0 Warnings 0 Messages

Description	File	Line	Column	Project

Web Publish Activity Error List Output Find Results 1

Team Expl... Solution E... Class View Properties

What does SCS look like?

Establish Proof of Identity

As a Responsible Official, you are required to establish proof of identity using LexisNexis Services prior to signing/submitted electronic reports through AEERS. Please verify the information below is correct before proceeding.

User ID: EX120@MAILINATOR.COM
First Name: Katharine
Middle Initial:
Last Name: Sisk

I have reviewed the name presented above and I would like to proceed with LexisNexis identity proofing.

Proceed

Cancel

[or click here for paper-based option](#)



Please click "OK" to perform identity verification conducted by LexisNexis®.

Canceling this process may require additional information to be provided in order to supply sufficient proof of identity under Title 40 CFR § 3.2000(b)(5)(vii).

OK

Cancel

[LexisNexis® Privacy Policy](#)

Report Management

[View Open Reports](#)[View Error Reports](#)[View Submissions](#)

Facility

[209-fake](#)[503-fake](#)

XML

[Upload XML](#)[XML Documentation](#)

Profile

[User Information](#)[Manage Password](#)[Manage Challenge Questions](#)

Admin

[View Signature Agreement](#)[- Email ADEM Air contact](#)[- User Guide](#)[- Reporting Guidance](#)Session expires in:
15 min

Submission Receipt

Signed by: Howard Wolowitz
User name: ex1@mailinator.com
Submission ID: _92a41841-230e-473b-bf89-2c4503bc19f8
Date signed: 6/26/2015 2:20:36 PM

ABC Plant

Facility Report: 2014-AirEmissionsReport.pdf
Signature Document: detached-signature.xml
Signature Validation: Valid

Facility Documentation: 2014-Documentation.docx
Signature Document: detached-signature.xml
Signature Validation: Valid

Submission Status: Submitted

What does SCS look like?

Whatever you want it to look like!

CROMERR Made Easier

- What is SCS?
- What does SCS look like?
- How does SCS make CROMERR easier?
- Lessons Learned
- Issues that still need to be worked out

How does SCS make CROMERR easier?

- Lots of code that you don't have to write
- Much easier CROMERR checklist
- Details of storage, backups, retention, etc. handled for you
- One account can span multiple applications by default

CROMERR Made Easier

- What is SCS?
- What does SCS look like?
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- Lessons Learned
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Lessons Learned

- From a programmer perspective, SCS is fairly straight-forward.
- Submit your CROMERR application before you think you should.
- Username collisions
- Test often and in every environment.

CROMERR Made Easier

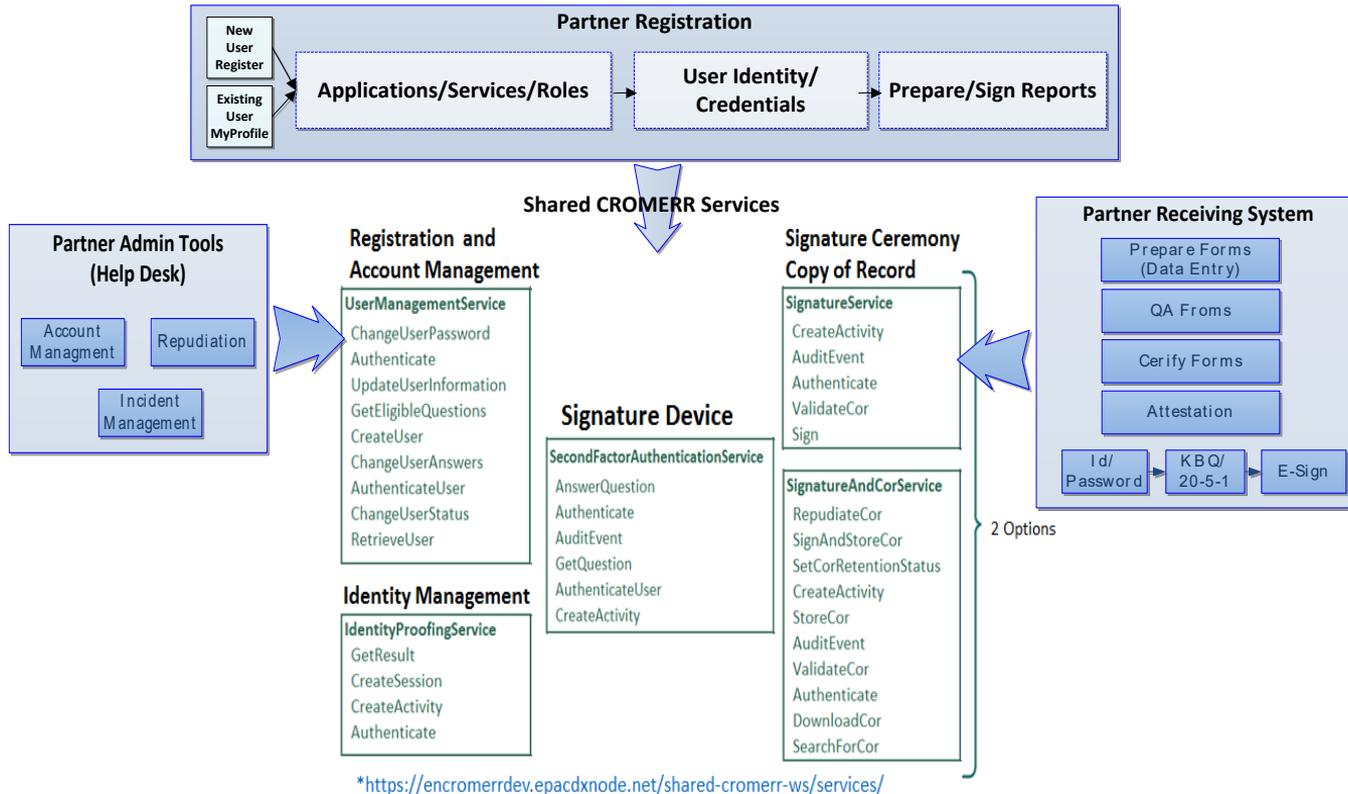
- What is SCS?
- What does SCS look like?
- How does SCS make CROMERR easier?
- **Lessons Learned**
- Issues that still need to be worked out

Issues that still need to be worked out

- LexisNexis via popup often fails
- Documentation needs to be updated and in some cases created

Partners Build System Tools

Using Existing Standard CROMERR Services



Partner System Tools Comprised of CROMERR System

Functions Necessary For CROMERR Checklist Compliance

- **Registration Tool**
 - Account Registration and Profile Management
 - Electronic & Paper Identity Proofing
 - Signature Device Registration
 - Electronic Signature Agreement (ESA) / Signature Ceremony
 - Organization / Organization Types / Role Affiliation bound to ESA
- **Help Desk Tool**
 - Account Management/Administration
 - Signature Device Management
 - Application / Role Based Access Management
 - Record Repudiation Administration Tool
 - Electronic Signature Agreement Management
 - Organization / Facility Management
- **Record Receiving System**
 - Out-of-Band Receipt and Incident Messaging
 - Human Readable Copy of Record Transaction History

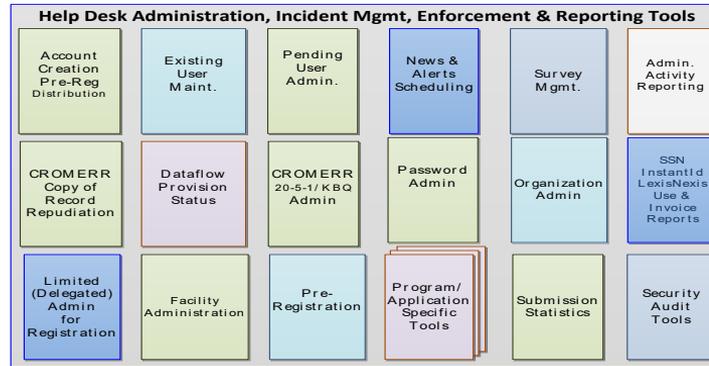
Each System Builds Dozens of System Functions

Each State/Tribe or Local Government Partner may have multiple Systems

Each System may involve building duplicate functions to delegate to separate organizations, Information Owners, Contractors, and/or Industry.

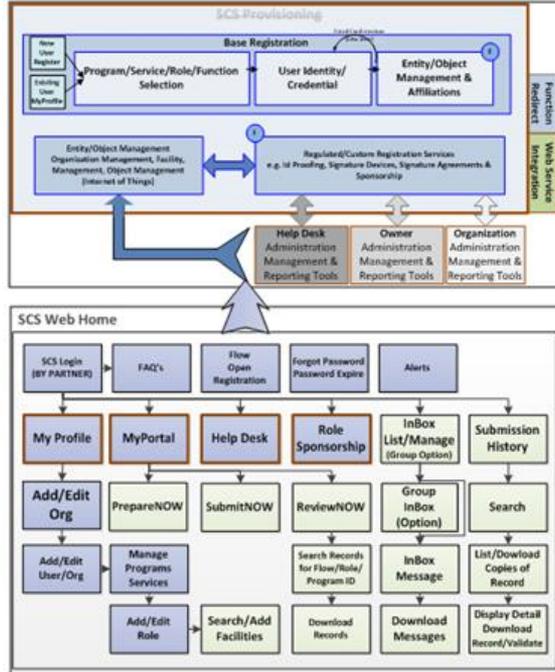
Original Services Conclusions:

- A lot of System Functions must be built
- A lot of potentially non-standard system functions for enforcement
- A lot of CROMERR Checklist Review Time

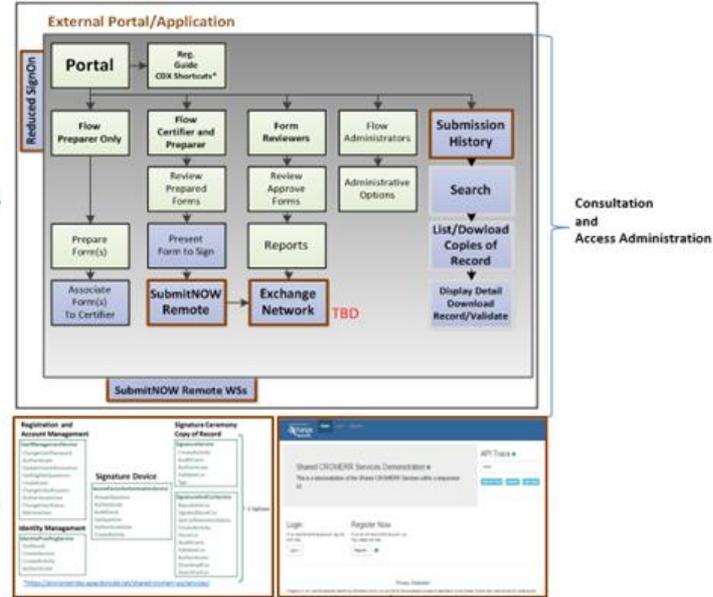


New Pilot Services for Compliance Monitoring Data Portal

New Shared CROMERR System Functions



CMD Portal



What is New?

- Enhanced Web Menu-based Shared CROMERR Services
 - Shared CROMERR Registration Tool
 - Shared CROMERR Partner Help Desk Tool
 - Shared CROMERR Dataflow Help Desk Tool
 - Shared CROMERR Company Administration Tool
- New Web Services
 - Single (or Reduced) Sign On Authentication/Authorization Services
 - Organization Management Web Services
- Custom Partner/Dataflow Provisioning
 - Customize Privacy Notices by Provider/Partner/Program/Role
 - Administrative tools to Delegate Role/Functions by Partner, and/or Role
 - Custom Home Pages and Help Services by Partner
 - Customize Electronic Signature Agreements (ESA's) & Attestations
 - Customize Identity Proofing and Metadata Collection Requirements
 - Customize Users Control over ability to Revise/Manage their own Profiles

Completely Optional and Integrate with Existing Services

Mock Demo

Shared CROMERR Registration

- Master Home Page
- Local Home Page

The screenshot shows the EPA Shared Services (SCS) website. At the top left is the EPA logo and the text "United States Environmental Protection Agency". Below this is a navigation bar with "Home", "FAQs", and "Help" links. To the right of the navigation bar is the "SCS EPA Shared Services" logo and a "Contact Us" link. The main content area features a large image of a forest path on the left and a login section on the right. The login section includes fields for "User ID" and "Password", "Log In" and "Register with SCS" buttons, and links for "Forgot your Password?", "Forgot your User ID?", and "Warning Notice and Privacy Policy". Below the image and login section is a "Welcome" message: "Welcome to the Environmental Protection Agency (EPA) Shared CROMERR Services (SCS) - the Agency's electronic reporting site. The Shared CROMERR Services concept has been defined as a central point which supplements EPA reporting systems by performing new and existing functions for receiving legally acceptable data in various formats, including consolidated and integrated data." Below this is a "Warning Notice and Privacy Policy" section. The "Warning Notice" states: "EPA's Shared CROMERR Services Registration procedure is part of a United States Environmental Protection Agency (EPA) computer system, which is for authorized use only. Unauthorized access or use of this computer system may subject violators to criminal, civil, and/or administrative action. All information on this computer system may be monitored, recorded, read, copied, and disclosed by and to authorized personnel for official purposes, including law enforcement. Access or use of this computer system by any person, whether authorized or unauthorized, constitutes consent to these terms." The "Privacy Statement" states: "EPA will use the personal identifying information which you provide for the expressed purpose of registration to the Shared CROMERR Services site and for updating and correcting information in internal EPA databases as necessary. The Agency will not make this information available for other purposes unless required by law. EPA does not sell or otherwise transfer personal information to an outside third party. [Federal Register: March 18, 2002 (Volume 67, Number 52)][Page 12010-12013]." At the bottom of the page is a footer with links for "EPA Home", "Privacy and Security Notice", "Accessibility", "SCS Help Desk: 888-895-1995 | (970) 494-2500 for callers from Puerto Rico and Guam", "About SCS", "Frequently Asked Questions", "Terms and Conditions", and "Contact Us". The EPA logo is also present in the bottom right corner.

Register

- **By Partner**
- By Program
- By Program & Role
- Local Home Bypass w/ parameters

The screenshot displays the EPA Shared Services registration interface. At the top, the EPA logo and 'United States Environmental Protection Agency' are visible. Navigation links for 'Home', 'FAQs', and 'Help' are present. The page title is 'SCS EPA Shared Services'. A 'Contact Us' link is in the top right. Below the title, there are two buttons: 'Register By Partner' (highlighted in green) and 'Register By Program'. A left-hand navigation menu includes 'Services Requested', 'Partner / Program / Role', 'Program ID', 'Terms & Conditions', 'Account Profile', 'Account Owner', 'Organization Information', 'Email Validation', 'Verify Identity', and 'Signature Agreement'. The main content area is titled 'Choose a state partner' and contains a search input field with the placeholder text 'Begin by typing an Environmental Partner name or related keywords to filter the list of available partners (e.g. Alabama, Michigan, etc.) To continue click on the desired State Partner.' Below the search field is a dropdown menu listing states: Alabama, Alaska, American Samoa, Arizona, Arkansas, California, Colorado, and Connecticut. A 'Cancel' button is located at the bottom right of the dropdown area. The footer contains links for 'EPA Home', 'Privacy and Security Notice', 'Accessibility', 'SCS Help Desk: 888-890-1995 | (970) 494-5500 for callers from Puerto Rico and Guam', 'About SCS', 'Frequently Asked Questions', 'Terms and Conditions', and 'Contact Us'. The EPA logo is also present in the bottom right corner.

Register

- By Partner
- By Program
- By Program & Role
- Local Home Bypass w/ parameters

The screenshot shows the EPA Shared Services registration interface. At the top, the EPA logo and 'United States Environmental Protection Agency' are visible. Below the navigation bar (Home, FAQs, Help), the 'SCS EPA Shared Services' header is present. A 'Contact Us' link is in the top right. The main content area features a 'Services Requested' section with a sidebar menu containing: Partner / Program / Role, Program ID, Terms & Conditions, Account Profile, Account Owner, Organization Information, Email Validation, Verify Identity, and Signature Agreement. Two buttons, 'Register By Partner' and 'Register By Program', are located to the right. A 'Choose a program' modal window is open, displaying a search input field and a list of programs: CMDP-DEV: Compliance Monitoring Data Portal - Dev, CMDP-PREP: Compliance Monitoring Data Portal - Prep, CMDP-STAGE: Compliance Monitoring Data Portal - Stage, and CMDP-TEST: Compliance Monitoring Data Portal - Test. A 'Cancel' button is at the bottom right of the modal. The footer contains links for EPA Home, Privacy and Security Notice, Accessibility, SCS Help Desk (888-896-1995), and About SCS, Frequently Asked Questions, Terms and Conditions, Contact Us. The EPA logo is also present in the bottom right corner.

Register

- By Partner
- By Program
- By Program & Role
- Local Home Bypass w/ parameters
- Local Home Page Skips Here

The screenshot displays the EPA SCS Shared Services registration interface. At the top, the EPA logo and 'United States Environmental Protection Agency' are visible. Below this, there are navigation links for 'Home', 'FAQs', and 'Help'. The main header includes 'SCS EPA Shared Services' and a 'Contact Us' link. A 'Services Requested' section features a 'Partner / Program / Role' dropdown menu. To the right, there are two buttons: 'Register By Partner' and 'Register By Program', with the latter being highlighted in green. Below these buttons, there are three selection steps: 'Choose a state partner' (with 'Alabama' selected), 'Choose a program' (with 'CMDP-DEV: Compliance Monitoring Data Portal - Dev' selected), and 'Choose a role'. The 'Choose a role' section contains a list of roles with a 'Continue' button next to each. The roles listed are: Private Lab Certifier, Private Lab CMDP Administrator, Private Lab Preparer, Private Lab Reviewer, PWS Certifier, PWS CMDP Administrator, PWS Preparer, PWS Reviewer, State Lab Certifier, State Lab CMDP Administrator, State Lab Preparer, and State Lab Reviewer. A 'Cancel' button is located at the bottom right of the page.

EPA United States Environmental Protection Agency

Home FAQs Help

SCS EPA Shared Services [Contact Us](#)

Services Requested ✓
 Partner / Program / Role ✓
 Program ID ✓
 Terms & Conditions ✓
Account Profile
 Account Owner
 Organization Information
 Email Validation
 Verify Identity
 Signature Agreement

Create your user information

Enter Account Identity Information. (Passwords must be a minimum of 8 alpha-numeric characters (no spaces or special characters) and contain at least 1 of each of the following: uppercase character, lowercase character, number. Passwords may not begin with a number nor contain the word "password" nor contain your User Name.) A required field is indicated with an asterisk (*).

Account Owner

Title

First Name *

Middle Initial

Last Name *

Suffix

Email Address *

Confirm Email *

Account

User ID * ⓘ

Password * ⓘ

Confirm Password *

Security Question 1 *

Security Answer 1 *

Security Question 2 *

Security Answer 2 *

Security Question 3 *

Security Answer 3 *

[Cancel](#) [Continue](#)

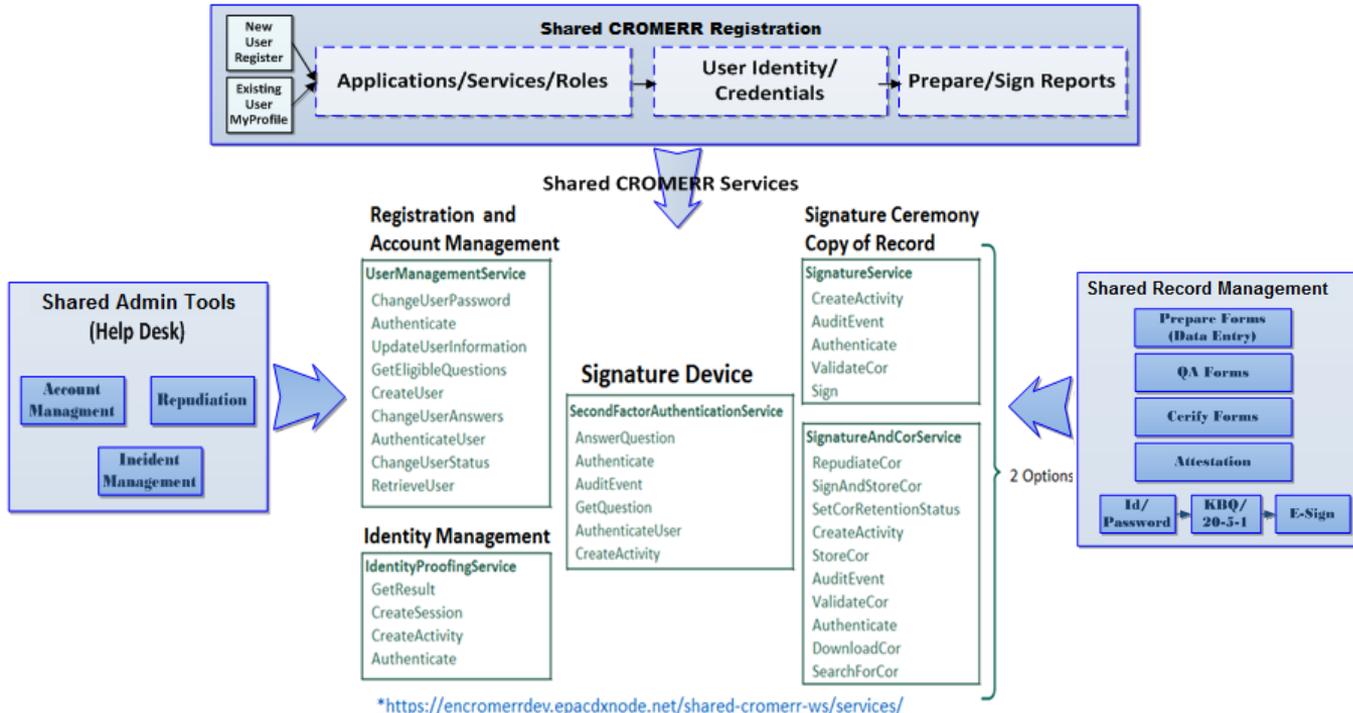
- Account Profile
- Organizations
- Email Verification
- Identity Proofing
- Signature Agreements

Many more features

- Id Proofing by Partner, Dataflow, Role
- Organization Web Services allow Partners to own and manage their Organization tables (or share)
- Both Roles and Organizations Optionally Managed by Type so only certain roles see certain Organizations or certain organizations for a specific partner.

Summary

- New Services and Functions
- Standard Web Services AND Standard Functions
- Reduced CROMERR Checklist Review



References and Documentation:

SCS Documentation: <http://www.exchangenetwork.net/shared-cromerr-services-ipt/>

SCS Demo Tool: <https://dev.epacdx.net/SharedCromerrServicesDemo>

MILESTONES

SCS State Registration:

SCS Owner Administration

SCS Organization Administration
(e.g. Sponsorship)

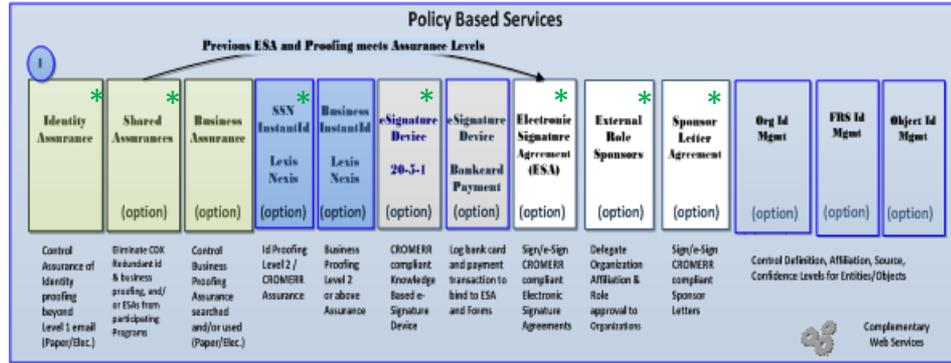
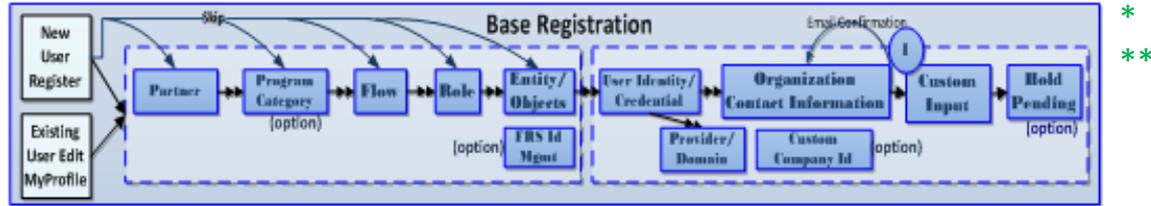
SCS Reduced Sign On

In Development Oct. 1, 2015

Production Goal Jan. 2016

Shared CROMERR Appendix

Flexible Registration

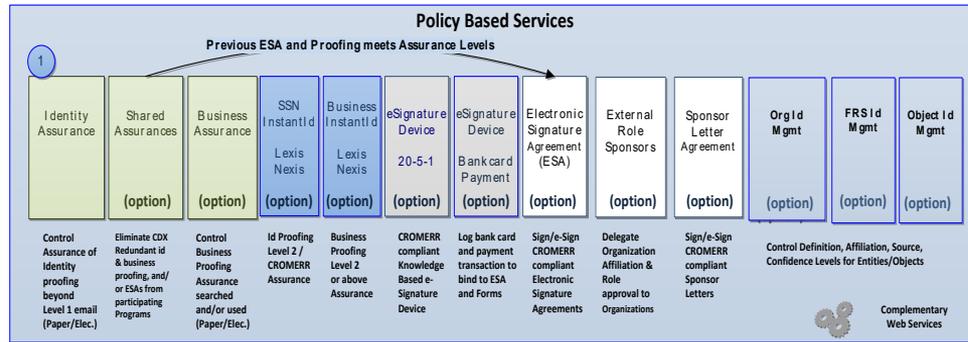
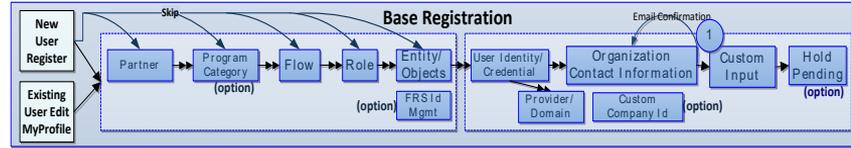


* Implemented

** Ability to Customize Registration, Skip (or hide) menus

Flexible Registration

Skip (or hide) menus (context variables)



Design Path to support additional shared services as they are constructed and integrated into Shared CROMERR Registration