

Environmental Information



EN2015

Virtual Exchange Services

Chris Clark, *US EPA*

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

The Virtual Exchange Services are a cloud-based alternative to EN Partner nodes. The services are configured, not installed, which allows Partners to focus on mapping their data to staging tables instead of dealing with the complexities of XML schemas and dataflow logistics. Partners can get started in minutes using the VES web application, which has wizards and powerful dataflow import functions.

What are the Virtual Exchange Services?

- A central node server that hosts any number of partner nodes: State, Tribe, Region, Agency, etc.
- Each partner node is configured on the cloud platform by filling out forms in a web application (eliminating partner node HW/SW)
- Each partner node functions like a conventional node only it is easier and less costly to set up and maintain

Why VES?

- Nodes are Configured not Deployed
(no code is installed)
- Provides a Low Cost Node Option for Partners
- Eliminates Node Server Maintenance
- Simplifies Development and Maintenance of Dataflows

VES Advantages

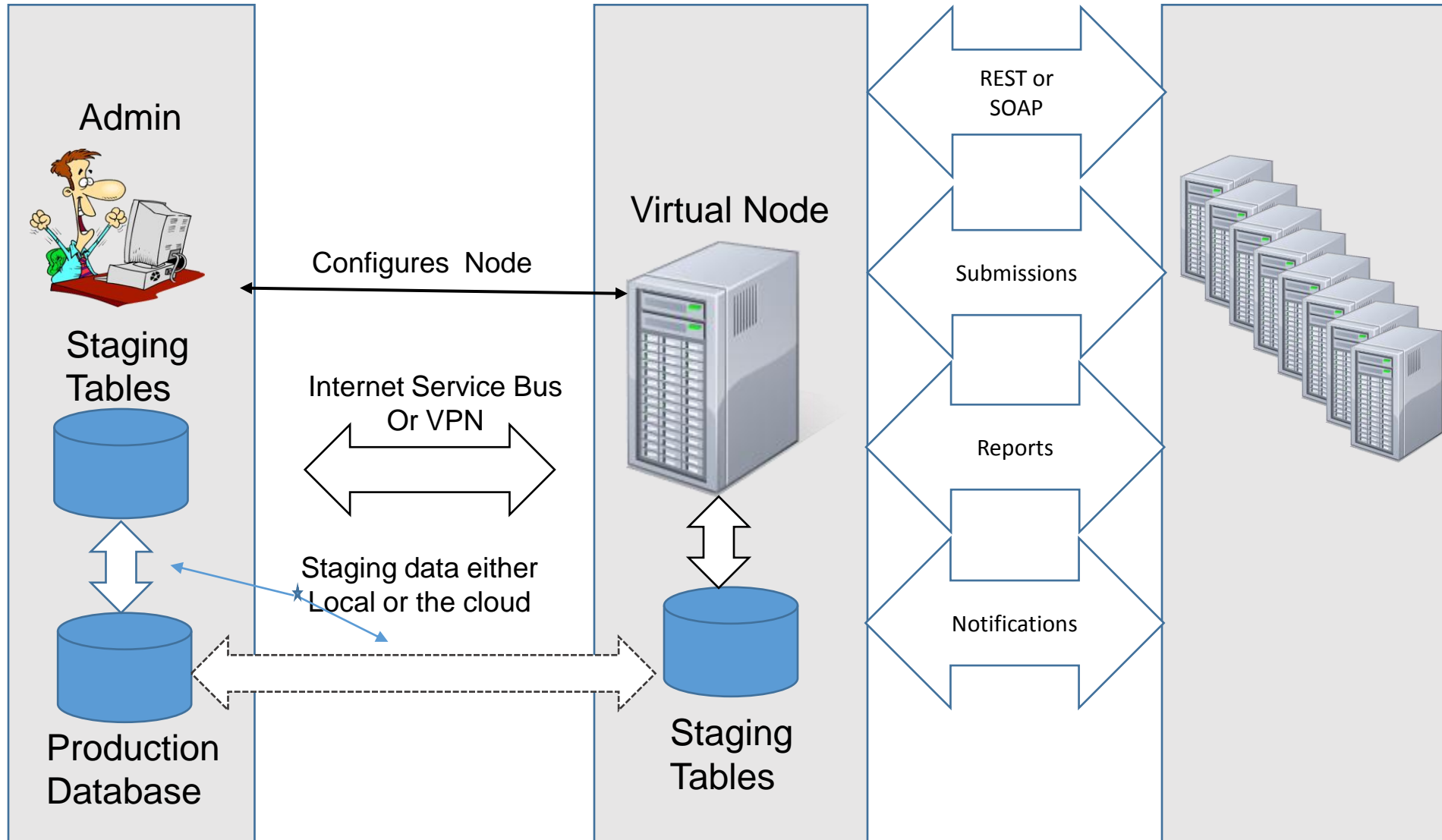
- Virtual Exchange Services can supplement existing nodes (e.g., for new dataflows)
- Common Architecture: New features and dataflow definitions will be shared by all nodes
- VES can inherit services
- Services can be cataloged automatically

VES

Partner Environment

Cloud

Exchange Network/
CDX



Basic Division of Labor for VES

What you do


- Call Node Help Desk
 - Get a NAAS account
 - Set up a “Getting Started” meeting with us
- Establish a Connection to VES
- Import Data Exchange
- Map your data to a Staging Database

What VES does for you

- Creates SOAP and REST Services
- Schedules data exchange
- Authenticates
- Pulls data from staging
- Formats data to XML
- Sends submission to CDX
- Logs activities
- Checks status
- Collects processing reports
- Sends notifications to you

Configuring a Service in the VES Admin Tool

Environmental Information



Virtual Exchange Service Administrator (VESA)

[Home](#) | [About](#) | [FAQs](#) | [Help](#)

Welcome clark.chris@epa.gov! [Log Off](#)

[Admin Console](#)
Service Details
[ACME-Virtual-Exchange-Services](#) (Operational | 2.1 | Test)

Node ID / Description:
ACME-Virtual-Exchange-Services - Chris Clark's Demo Node 11/25/2014

Dataflow:
ICIS-Air

Admin. Actions

- [Services](#)
- [Nodes](#)
- [Dataflows](#)
- [Data Sources](#)
- [Document Headers](#)
- [Tasks](#)
- [Workflows](#)
- [Node Requests](#)

Utilities

- [Search Transactions](#)
- [Provision Node](#)
- [Export/Import Node](#)
- [Import Configurations](#)
- [Register Servicebus](#)
- [Register Remote DB](#)
- [Test Services](#)

Service Settings

Service Name:

Service Description:

Method Type:

Visibility:

Service Status:

Workflow:

Data Source:

Style Sheet:

Template:

SQL Statement:

```
SELECT AirFacility.AirFacilityID,
FacilitySiteName, LocationAddressText,
SupplementalLocationText, GNISCityCode,
LocationStateCode, LocationZipCode,
LCONCode, TribalLandCode, FacilityDescription,
FacilityTypeOfOwnershipCode,
RegistrationNumber, SmallBusinessIndicator.
```

Parameters:

Name	Type	Required	Occurance	Descriptor	
AirFacilityID	string	No	Multiple		Remove
fromDate	date	No	One		Remove
toDate	date	No	One		Remove
<input type="text"/>	string	No	One		Add

Properties:

Name	Value	
<input type="text"/>	<input type="text"/>	Add

UPDATE
DELETE
TEST
CANCEL

Partners Using VES

- Hualapai Tribe: WQX production flow
- California Air District: Production submission of Air Facility, Compliance Monitoring and Annual Certification data
- Alabama: Successful submissions of Air Facility and Air Program data to ICIS-AIR TEST Developing more data families for ICIS-AIR
- Georgia: Building ICIS AIR dataflows for data families and Emissions Inventory System (EIS)
- South Dakota: TRI-OUT dataflow using virtual exchange services
- Maine: Looking into ICIS Data Synchronization with state database

Data Exchange Support

- AQS 3.0
- ICIS-AIR
- FACID v3.0 (FRS)
- eBeaches
- EMTS v3.0
- ENDS v2.0
- ICIS-NPDES (DMR only)
- ICIS OUT (data synchronization)
- TRI (OUT)
- UIC
- WQX v2.0
- CROMERR (submission only)
- OWIR_ATT (under development)
- RCRA (under analysis)
- SPCC v1.1 (Region 1)

Demo Virtual Exchange Services

- Define a node
- Import a service
- Test a service
- View processing reports

Questions

Chris Clark

U.S. Environmental Protection Agency

202.566.1693

clark.chris [at] epa.gov

<http://www.exchangenetwork.net/virtual-exchange-service>