RCRAInfo Overview

09.29.2004

State Perspective - Overview

- New process – everyone involved is learning
  - New technologies
  - New business processes
  - New relationships
- Multiple parties – no true Project Lead or Authority
  - Competing priorities
  - Resource restrictions
- Beta states should expect more changes/rework as schema is tested, modified, and finalized
- Positive Note - this is progress. Future projects should benefit from our efforts.

RCRA Network Exchange Introduction

- RCRAInfo Modules ↔ Schemas
  - Handler
  - Permitting
  - Compliance, Monitoring, and Enforcement
  - Corrective Action
  - Waste Activity
- Document Structure
  - Single Header to Multiple Payload (module)
- Schema Structure
  - Hierarchal structure
  - De-normalized data

RCRA Network Exchange Introduction

- Payload Operation Models
  - Transactional Processing (by record)
  - Full Replace (by module)
  - Full Replace By Handler
- Primary Flow Method: Submit
- Other Flow Data Services
- Sequential Transaction Processing

RCRA Network Exchange Process Diagram

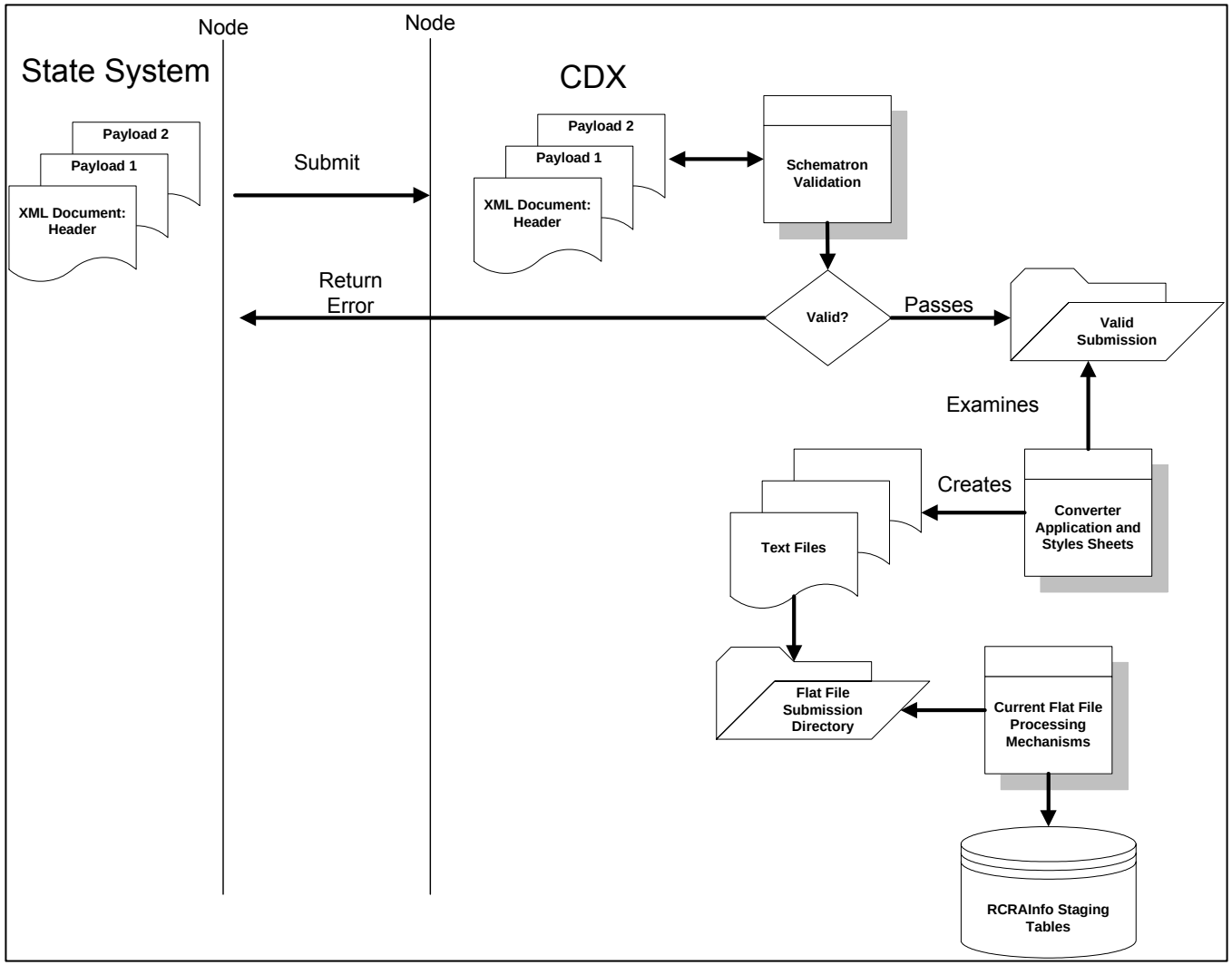

Figure taken from **RCRA Network Exchange Flow Configuration Document (FCD)** v0.92; Prepared by Windsor Solutions, Inc.

RCRA Network Exchange Validations

- Validation Procedures – at what stage and to what degree
  - State
  - Schema
  - Schematron
  - RCRAInfo XML to Flat File Converter
  - RCRAInfo Pre-Production Processor
- Feedback Procedures – Developing Network Exchange standards across multiple flows

RCRA Implementation Challenges – the Flow

- Implementer of Record (IOR)
- Primary Keys - Staying in Synch
- Business Data and Composite Keys
- Look-Up Code Maintenance
- Data Conversion
- Gaps in Data Validation (for historical data)
- Developing additional RCRA exchange process flows
  - Data sharing and synchronization services
  - Get Handler ID; Get *x* by Handler

Note: Detailed information related to RCRAInfo schema usage and RCRA exchange challenges can be found in the **RCRA Network Exchange Flow Configuration Document (FCD)**

RCRA Implementation Challenges – the Project

- Transfer of Knowledge
  - Business team and Technical team
  - Contractors and Internal Resources
  - EPA and State team
- Project Phases with schema fluctuations require flexible relationships with resources (internal and external staff)
- Grant constraints create tension with project goals
  - Satisfying time and financial constraints could lead to tension between broad goals of network exchange and immediate scope decisions
- Disparate Parties
  - Identify the appropriate expert resources and decision makers
  - Communication standards for implementers (from IPT) is evolving

RCRA Implementation Challenges – the Project

- What are the affects of Schema changes?
  - Optional fields, element names, namespace
  - Structural modifications and mandatory fields
- Identify phases that cause schema changes – determine navigation path
  - Drafting schema, Translator Design and Build, State Mapping, State/Pilot Testing, Production
  - Timing of activities and parties involved in the activities can affect schema stability
- Other Factors – Source and Target system modifications need to be monitored

RCRA Implementation – Project Phases (MDEQ)

Phase	Notes
Source System Assessment	▪Data elements and system functionality ▪Design → Development → Testing ≈ 1 month
Node Readiness Assessment	▪Basic Node web methods ▪Connection to source system and business logic for RCRA Exchange ▪≈1-2 weeks
Data Mapping	▪Source system to target schema ▪≈ 2-3 weeks
Source System relationship to RCRA Exchange Requirements	▪PK's, Composite Keys, Handler IDs, Operational Models ▪Simultaneous with mapping phase
Data Conversion Analysis and Implementation	▪TBD
Development Phase	▪Source system, data extraction, and node modifications ▪≈ 2-3 months
Unit, Integration, System Testing Phases	▪Internal – may not involve full flow of data to target system ▪≈ 2-4 weeks (Dependent on schema/module usage)

Coordination Network Exchange Partners and Resources

MDEQ RCRAInfo Project Status - Current

Phase	Notes
Adjust to schema and translator upgrade	▪Assess impact of schema changes ▪Design any necessary modifications ▪Build and test ▪Involve 3rd parties
Full System Testing Phase – with flow to EPA	▪Involve EPA (and other parties if necessary) and test flow through to target system

- Adjust MDEQ RCRAInfo mapping software to Schema V1.0 & FCD 0.92
- CME on hold until stable target is reached

RCRAInfo Project Schedule

Activity Description	Projected Date
EPA testing State Handler data	October 6, 2004
EPA testing State Permitting data	October 20, 2004
Target Production for flowing State Handler data	November 1, 2004
Target Production for flowing State Permitting data	TBD
Draft Design of RCRAInfo CM&E version 3.0 module	October 1, 2004
Final Design of RCRAInfo CM&E version 3.0 module	December 2004
Implementation of RCRAInfo CM&E version 3.0	June 2005
Schema for RCRAInfo CM&E version 3.0	No official task in place

Corrective Action module on similar schedule to Permit data

State Perspective - Benefits

- Allows access to more current information
- Reduce current reporting burden – MS currently duplicates entry into State system and RCRAInfo and anticipates savings of .5 FTE once flow is implemented
- Provides for more timely, reliable, standardized and consistent data exchanges between Partners
- Sets the stage for the broader exchange of information to include other regulatory and non-regulatory partners