

Modernized Fed-State E-File "101"

State Steps toward Fed/State
Implementation

FTA e-File Symposium
Minneapolis
April 28, 2008



Seven Major Tasks

- Register with FTA and pay program fees
- Build Communication Gateway
- Develop State Schemas
- Define Business Rules
- Develop Backend System Interfaces
- Develop Viewing System
- Administrative Matters with IRS



Register with FTA



- FTA tracks participation in all programs
- Fees support contracted technical assistance
 - Maintain web site
 - Miscellaneous schema maintenance
 - First cut state schema reviews
- For Fed/State 1040, FTA will track the states' progress through the seven steps

Communication Gateway



- Gateway to/from IRS
 - Receive returns
 - Send acknowledgements
 - Obtain status information
- Specifications controlled by IRS
 - Concept of Operations
 - Interface Control Document
 - Documents obtained from IRS with MOU

Communication Gateway



- Based on web services protocols
 - Request and response
 - 24/7 interactive transmissions
 - No more batch “drains”
 - Pull down 100 returns at a time, as often as state wants
 - “Receipt” sent back for every return
 - Acknowledgements sent back to IRS to be posted for transmitters to pick up.

Communication Gateway



Zip Archive

Zip Entry: /manifest/manifest.xml

Submission Manifest

One Required

Zip Entry: /xml/submission.xml

Submission XML Data

One Required

Zip Entry: /attachment/name.pdf

Binary Attachment

Zero or More

Zip Entry: /irs/xml/submission.xml

IRS Submission Info

Zero or One

Zip Entry: /irs/attachment/name.pdf

IRS Binary Attachment

Zero or More

Communication Gateway



- Security measures specified by IRS
- Currently system-id and strong password
- Strong authentication
 - Required January 2009 (November 2008 ATS)
 - Corporate and Partnership first
 - Requires use of digital certificate registered with IRS.
 - Specifications and sample code provided.

Communication Gateway



- Analysis of receipt pattern and size
 - Need to handle milliseconds on timestamps to distinguish returns
 - Returns may be large in spite of zipping
 - Medium-sized states are seeing the need for 15 terabytes of storage just for pdf attachments for Corporate filings
 - Need for separate systems for Business and Individual traffic

State Schemas



- TIGERS Role
 - Maximize uniformity across the program while meeting states' individual business needs
 - Develop standard schemas and schema structures
 - Develop common “building blocks” for state use in building schemas
 - Develop Best Practices
 - Review all states' schemas
 - Must comply with Standards
 - Comply with Best Practices as business needs allow

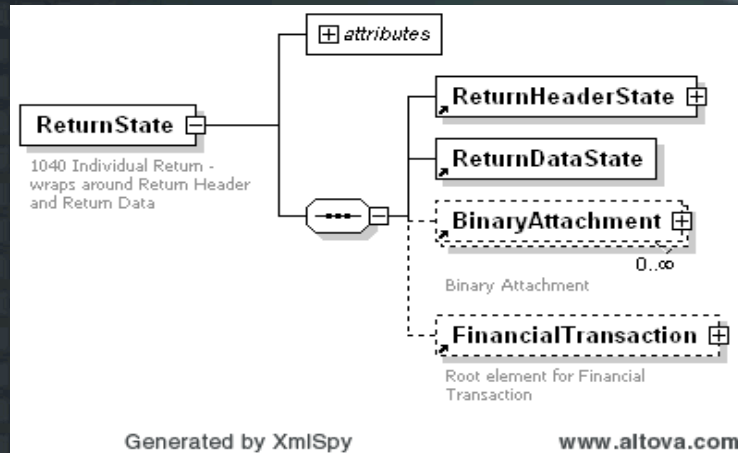
State Schemas



- XML Recap
 - All data elements are “tagged”
<TaxpayerName>John Smith</TaxpayerName>
 - Not a flat file
 - Nested “tree” structures of sub-elements
 - Repeating elements and structures
 - Easier to read dump of incoming file
 - Schemas specify the data structures

State Schemas

Return Structure:



State Schemas

- State's job is to build ReturnDataState
- Separate schemas for state forms and schedules
- Combined according to business rules, eg an EZ form can't have a Schedule A.
- Data elements logically grouped within forms
- Standard tag name formation

State Schemas



- Need to go through all forms and schedules line by line, field by field
 - Mandatory vs optional
 - Numeric vs alpha
 - Field lengths
 - Lists of permissible values for a field
 - Edits built into schemas
 - Needs both technical and business input
 - Be careful what you ask for!!

State Schemas



- Resources on www.statemef.com
 - Schema sets
 - Common
 - StateBusiness
 - StateIndividual
 - Written standards document
 - Best Practices (draft)
 - efileTypes inventory
 - Tag names inventory
 - MeF 101 document

Define Business Rules



- Schemas are only part of the story!
- Industry Manual/ERO Manual must still be created
- Use Approved TIGERS Format
- Post on state website along with the XML schema set
- Goal is to make it easy for industry to support the state

Define Business Rules




- Edits for the XML data that are not coded in the schemas
 - Math rules
 - “Soft” edits that do not reject a return
- Required pdf attachments and naming conventions
- Payment rules for the program
- Due dates and resubmission windows

Define Business Rules




- Error and Reject codes
 - Must be clearly worded
 - Many XML parsers throw incomprehensible error messages!
 - Use of XPath in error acknowledgments
- Compromise
 - Industry prefers that states use back-end business rules and not reject XML
 - States want to maximize schema validation to ensure clean code reaches back end system

Develop Backend System Interfaces



- Receiving Submissions
- Create Receipts
- Parse Submissions
- Move Data to Back-end Corporate, Partnership, or Individual Processing System
- Create Acknowledgements
- Transmit Acknowledgments back to IRS

Develop Backend System Interfaces



- Can processing system accept XML, or must it be translated into legacy format?
- How will original XML files be stored?
How about any attached pdf files?
- How quickly can acknowledgments be turned around?
- Effort dependent on state architecture and level of expertise with the technologies

Develop Viewing System



- Need ability for agency personnel to view the electronic return, same as in current legacy Fed/State 1040
- One option is to translate XML to legacy format and use existing viewer
- Preferred option is to develop new viewer which can render the XML

Develop Viewing System



- Two alternative technologies
- XSLT – eXtensible Stylesheet Transformation
 - Transforms XML document with HTML capabilities
 - IRS provides stylesheets for federal return forms and schedules
 - IRS provides “as-is” viewer for stylesheets
 - State has to develop stylesheets for state form and schedule schemas

Develop Viewing System



- Second alternative to use Adobe products
- Adobe products consume XML and produce pdf document for display or print
- Agency must develop Adobe templates for each state form and schedule, and map the XML elements into these templates.
- Documents in pdf form can be permanently stored if desired.

Administrative Matters



- Each state must sign new MOU
- New ETIN for MeF
 - Separate ETINs for MeF and Legacy eFile
 - Can use same ETIN for MeF 1040, 1120, 1065
- Must register system-id(s) with IRS
 - Can have any number of systems
 - Each system can run five concurrent sessions
- Authorized delegates
 - Must pre-authorize anyone who may need to communicate with IRS Help Desk
 - State should have several delegates for coverage

Administrative Matters



- Application process must be completed
- Test vs Production status
 - State is added in test status
 - Must provide advance notice to IRS when ready to move to production
- IRS contact:
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Questions??



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