



Standardizing and Streamlining NIBRS Submissions

New Technology Options
Accelerating the Submission Cycle



Collaboration

ASUCRP

THE ASSOCIATION OF STATE UNIFORM CRIME REPORTING PROGRAMS

**Working Together:
Can Emerging Technologies
Help Improve Timeliness
and Efficiency?**



IJIS Institute

Perspectives, Tools, Skills:

- Industry Providers – RMS and State Program System providers
- Cross-state perspective on NIBRS Adoption
- Experience with other info-sharing solutions

Focus On:

- Change management (APB, state mandates)
- Meet State reporting requirements
- (Some) Locals transitioning to NIBRS
 - Training
 - Certification
 - Local reporting capability (RMS)



Objectives:

- Faster turnaround
- Error feedback and resolution
- Multiple options for submissions:
 - Accommodate varying levels of technology investment;
 - Provide a path forward

Timeliness

Time-Gaps in the Submission Cycle:

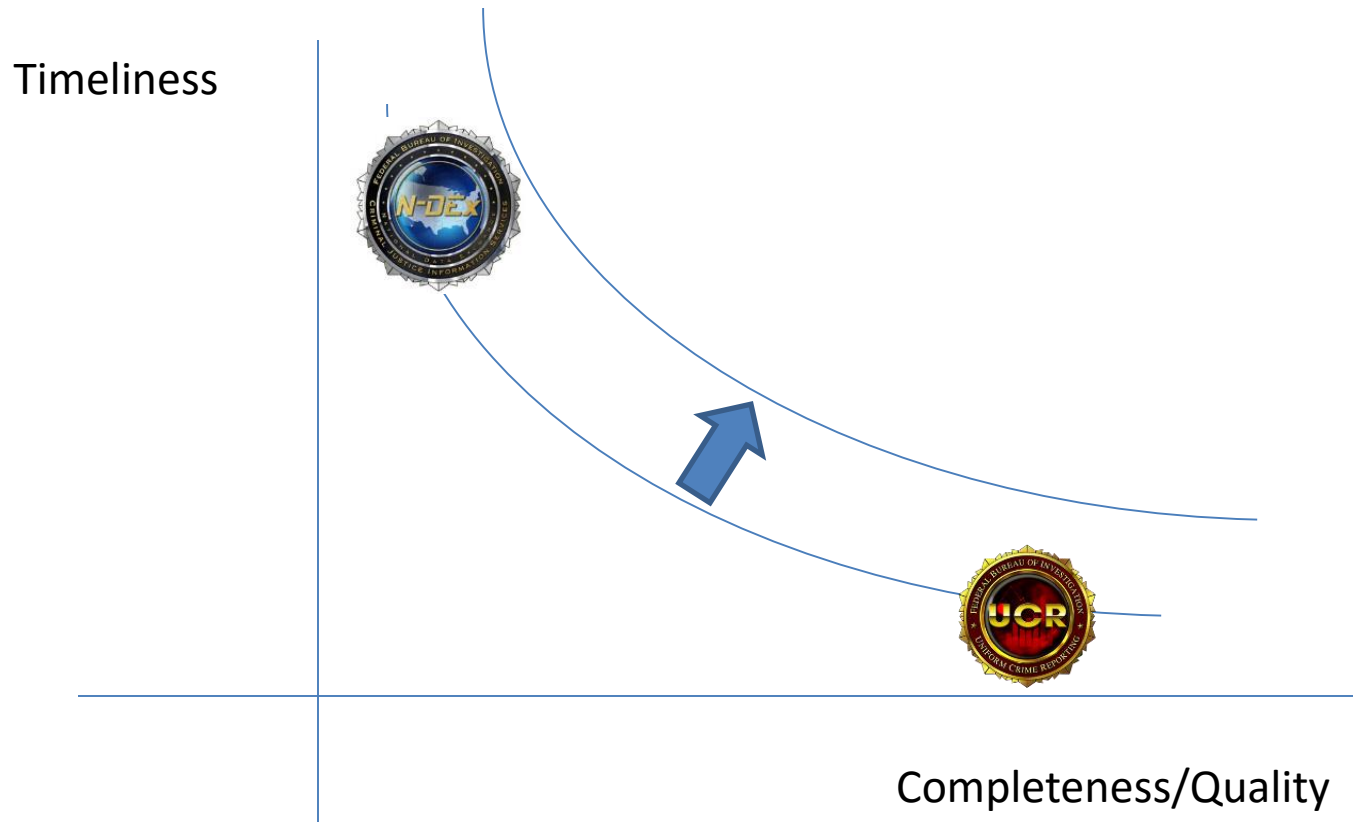
- Monthly batch submissions to State Program.
- Validations, error reporting from Repository to Locals.
- Monthly batch submissions to FBI.
- Error Data Set returned from FBI to State Program.
- Correct Errors or Forward to Submitter.
- Semi-annual Suspect Data Conditions.

Efficiency

How much effort does it take to:

- Manage your State-Specific Data Requirements?
- Separate the NIBRS elements from State-Specific?
- Manage Error Data reports from FBI:
 - Parsing-out to Local Submitters?
 - Correcting errors?
 - Tracking down error corrections from locals?
 - Dealing with QC issues found by the FBI?
- Change specs and system functions for:
 - FBI-mandated changes?
 - State-mandated Changes?

An Aside: The Tradeoff of Timeliness for Completeness

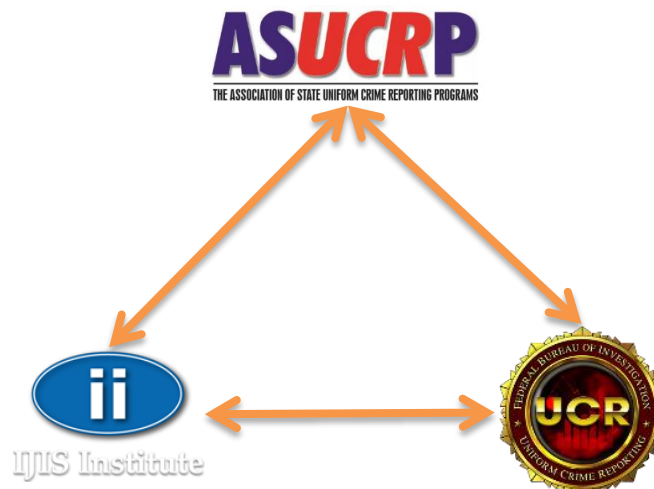


OK - You are moving to NIBRS...

... so what technology are you going to use?

You have options:

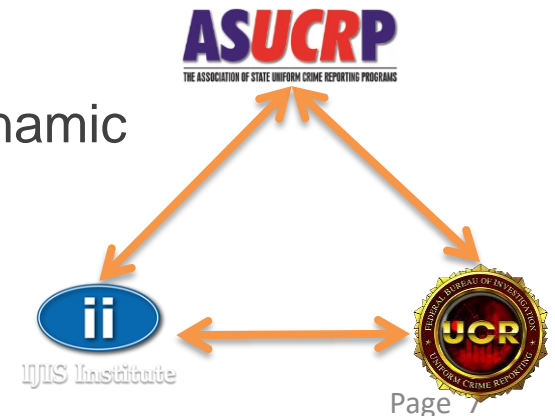
- Monthly processing of flat text files;
- But, you may also plan for...



...Emerging Technologies.

Unprecedented opportunity to take advantage of new technology that will help you:

- Reduce costs of local implementation and ongoing updates by standardizing state implementations
- Support state-specific extensions without needing to re-invent
- Improve timeliness by automating data collection and feedback
- Improve quality with faster feedback while it's fresh
- Shorten the cycle for implementing ongoing changes – newer technologies are more dynamic
- Provide opportunities to integrate with other systems (e.g. courts, corrections)



Emerging Technologies

➤ Standardized information structure

- XML
- NIEM – National Information Exchange Model
- NIBRS IEPD – Information Exchange Package Definition

➤ Machine-to-machine communication

- Web Services
- DOJ's Global Reference Architecture (GRA)

➤ Batch vs Transactional

```
</nc:Incident>
- <j:Offense s:id="Offense1">
  <!-- Element 6, Offense Code -->
  <nibrs:OffenseUCRCode>64A</nibrs:OffenseUCRCode>
  <!-- Element 12, Type Criminal Activity/Gang Information -->
  <nibrs:CriminalActivityCategoryCode>N</nibrs:CriminalActivityCategoryCode>
  <!-- Element 8A, Bias Motivation -->
  <j:OffenseFactorBiasMotivationCode>NONE</j:OffenseFactorBiasMotivationCode>
  <!-- Element 10, Number Of Premises Entered -->
  <j:OffenseStructuresEnteredQuantity>1</j:OffenseStructuresEnteredQuantity>
  <!-- Element 8, Offender(s) Suspected Of Using -->
- <j:OffenseFactor>
  <j:OffenseFactorCode>N</j:OffenseFactorCode>
</j:OffenseFactor>
  <!-- Element 11, Method Of Entry -->
- <j:OffenseEntryPoint>
  <j:PassagePointMethodCode>F</j:PassagePointMethodCode>
</j:OffenseEntryPoint>
  <!-- Element 13, Type Weapon/Force Involved -->
- <j:OffenseForce>
  <j:ForceCategoryCode>11A</j:ForceCategoryCode>
</j:OffenseForce>
  <!-- Element 7, Attempted/Completed -->
  <j:OffenseAttemptedIndicator>>false</j:OffenseAttemptedIndicator>
</j:Offense>
  <!-- Element 9, Location Type -->
- <nc:Location s:id="Location1">
  <j:LocationCategoryCode>13</j:LocationCategoryCode>
</nc:Location>
- <nc:Item>
  <!-- Element 14, Type Property Loss/etc Substituted for nc:ItemStatus -->
```


NIBRS IEPD

- Defined by the FBI for delivery of NIBRS data
- NIBRS IEPD Version 4.0 forthcoming
- Full definition of NIBRS
 - Offenses, offenders, victims, properties, arrests
 - Fields and permitted values
 - Conditional logic

Toward Standardizing State Collections

- ASUCRP, IJIS Research

FBI STANDARDS					WV SPECIFICATIONS				
LEVEL	DATA ELEMENT NUMBER	DATA ELEMENT	GROUPING OCCURS		LEVEL	DATA ELEMENT NUMBER	DATA ELEMENT	GROUPING	
1 - Administrative		Segment Length			1 - Administrative		Record Descriptor Word (RDW)		
		Segment Level					Segment Level		
		Segment Action Type					Segment Action Type		
		Month of Submission					Month		
		Year of Submission					Year		
		City Indicator					City Indicator		
	1	ORI Number				1	ORI Number		
	2	Incident Number				2	Incident Number		
	3	Incident Date				3	Incident Date		
	3	Report Date Indicator				3	Report Date Indicator		
	3	Incident Hour				3	Incident Hour		
	4	Cleared Exceptionally				4	Cleared Exceptionally		
	5	Exceptional Clearance Date				5	Exceptional Clearance Date		
	6	Exceptional Clearance Offense Code		10		6	UCR Offense Code		
	2A	Cargo Theft				4 CHAR	WW01 Reporting Agency ID		
						5 CHAR	WW02 Reporting Officer ID		
							WW03 Lighting		
							WW04 Weather		
							WW05 Entry		
							WW06 Exit		
							WW07 Security		
							WW08 Tools Used for Entry		
							WW09 Was Evidence Obtained		
							WW10 Vehicle Type		
							WW11 Vehicle Make		
							WW12 Vehicle Style		
							WW13 Vehicle Model		
							WW14 Vehicle Year		
							WW15 Keys in Vehicle		
							WW15 Vehicle Locked		
2 - Offense Segment		Segment Length			2 - Offense Segment		Record Descriptor Word (RSW)		
		Segment Level					Segment Level		
		Segment Action Type					Segment Action Type		
		Month of Submission					Month		
		Year of Submission					Year		
		City Indicator					City Indicator		
	1*	ORI Number				1*	ORI Number		
	2*	Incident Number				2*	Incident Number		
	6	UCR Offense Code				6	UCR Offense Code		
	7	Offense Attempted/Completed				7	Offense Attempted/Completed		
	8	Offender(s) Suspected of Using		3		8	Offender(s) Suspected of Using		
	9	Location Type				WW16	Location Type		
	10	Number of Premises Entered				10	Number of Premises Entered		
	11	Method of Entry				11	Method of Entry		
	12	Type Criminal Activity/Gang Information		3		12	Type Criminal Activity/Gang Information		
	13	Type Weapon/Force Involved		3		13	Type Weapon/Force Involved		3

Can XML Help Standardize?

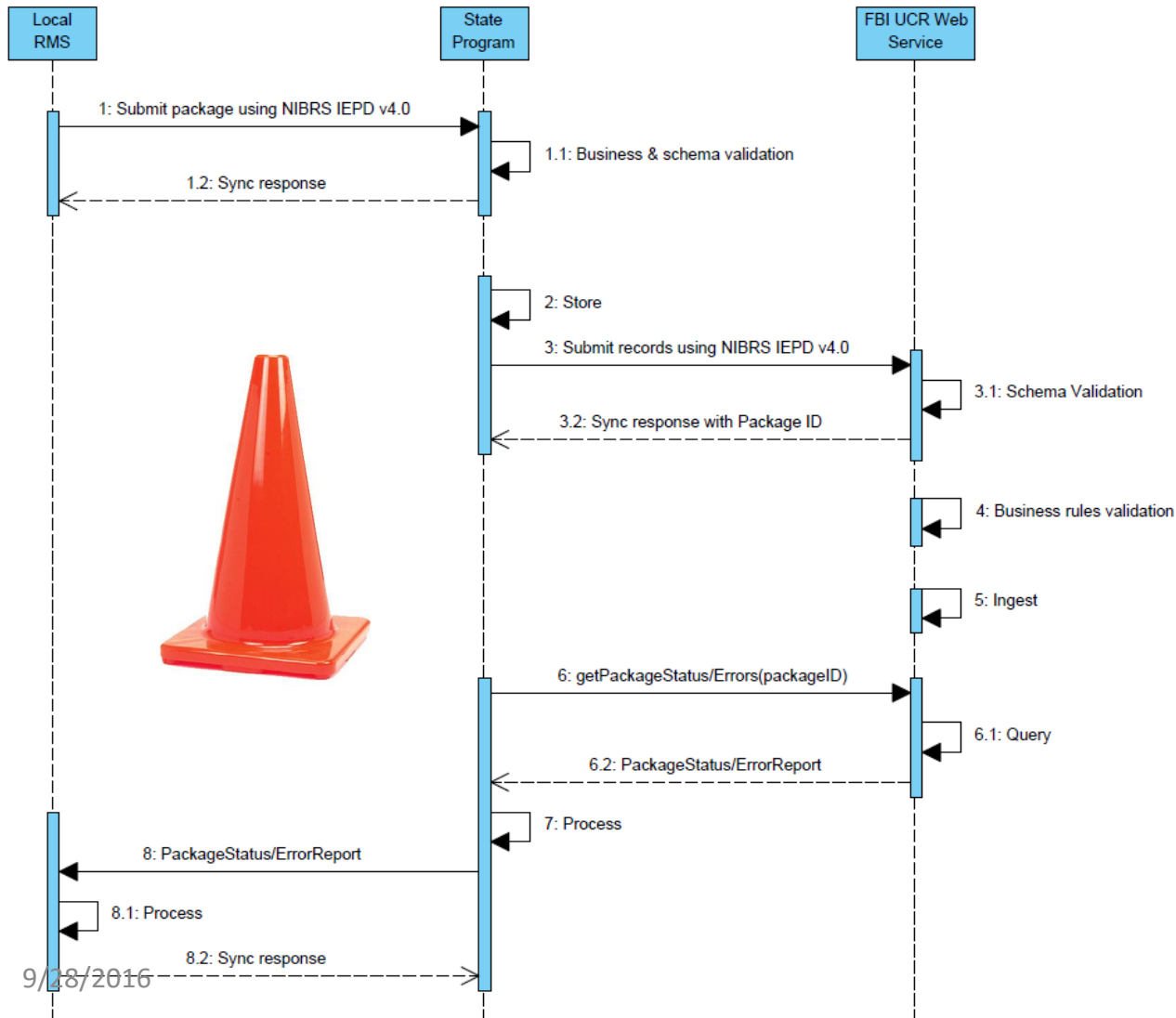
- A Standard Approach:
 - Additional Segment
 - Additional code values
 - Use xml and store in an *extension schema*
- NIBRS IEPD -- Extensible in a standard way
 - Each State may have its own extensions
 - Use the NIBRS IEPD, and include state- or local-specific fields in an *extension schema*.
 - RMS vendors will be able to port state-to-state

Web Services

- Direct machine-to-machine communication
 - Agency to State
 - State to FBI
- Automated feedback
 - Adherence to validation rules (edits)
 - XML has built-in constraints that allow immediate validation of *some* (not all) rules
 - Separate *Methods* can be built to return errors, submission status
- Frequency – Options, based on State requirements:
 - Monthly batch (as current approach)
 - Weekly/daily
 - Transactional (as each record is validated in the RMS)
 - **Discussion Point to be Resolved:** Can one submitter provide both batch and transactional?

“Machine-To-Machine” Communication

NIBRS Sequence Diagram (Async Response)



Work in Progress



shutterstock · 46645555

No decisions; only recognition that this presents opportunities to change the business process:

- Shorten the submission time frame
- Automate, accelerate error reporting and correction

Building a Future-Proof NIBRS Program

Things to consider when building your program

1. Starting from scratch vs extending an existing program
2. Do you have/need a text-based tech spec?
3. Can your RMS vendors produce NIBRS XML?
4. What Options will you provide for agencies without an RMS?
5. Do you have a NIBRS-XML compliant repository?
6. Are you able to submit NIBRS data to the FBI?
7. How are your state-specific fields managed?
8. How do you handle APB updates?
9. How do you feed errors back to your agencies?
10. How frequently should updates be applied?

Thank you!

Chris Bonyun

CEO

Beyond 2020

613.762.5904

chris.bonyun@beyond2020.com

Melissa Winesburg

Criminal Justice Practice

Director

Optimum Technologies

614.785.1110

Melissa@otech.com

Kyle Comer

Missouri CJIS Program Manager

ASUCPR-UCR Liaison

636.300.2800 ext. 3339

Kyle.Comer@mshp.dps.mo.gov

Jim Pingel

Integration Practice Director

URL Integration

CPAC-UCR Chair

608.628.1558

Jim.pingel@urlintegration.com