Exchange Network

National Meeting

New Orleans, LA, April 24

Designing Stateless Data Exchange

WINDSOR SOLUTIONS, INC.

Session Overview

- Stateless Design?
- Basic Assumptions
- Implementation Examples
- Major Principles
- Q&A

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“Stateless Design”

- Application, not geopolitical state
- Complete, self-contained, identities
- Sequence independent exchanges
- Transaction-less messaging

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Basic Assumptions

- One-directional data exchanges (state or tribe to national system)
- Well-defined data ownership (specifically in relation to the master record ownership)
- Impacts both, the schema and data service definition

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Implementation Example – RCRA

- For illustration only, not criticism!
- Sequential - processes submissions in a serial manner. Out of order messages will result in error
- Requires sender to have a knowledge of data in target system (exchange history & record state)
- Transactional data processes requiring tight coupling on module level

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Illustration - RCRA

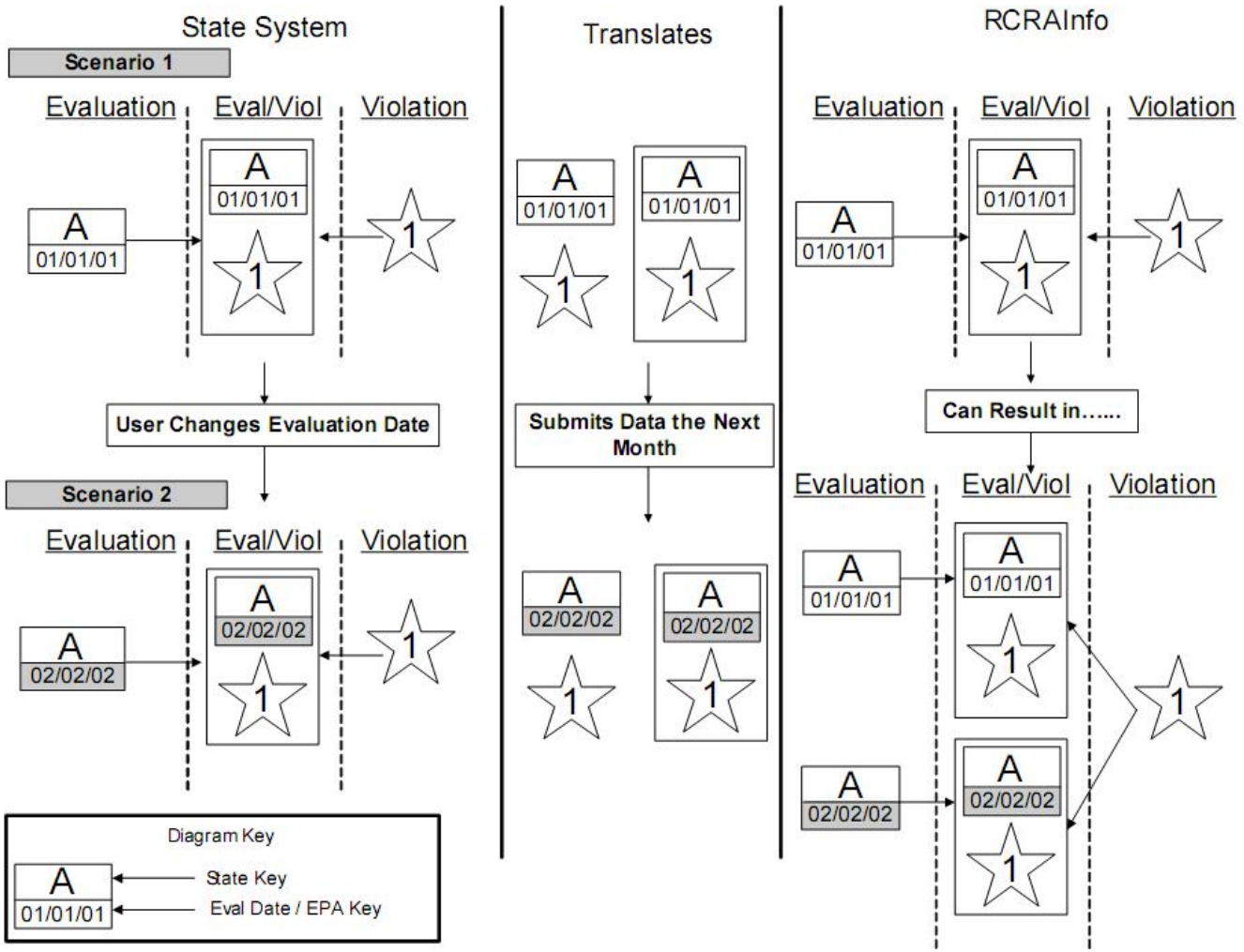

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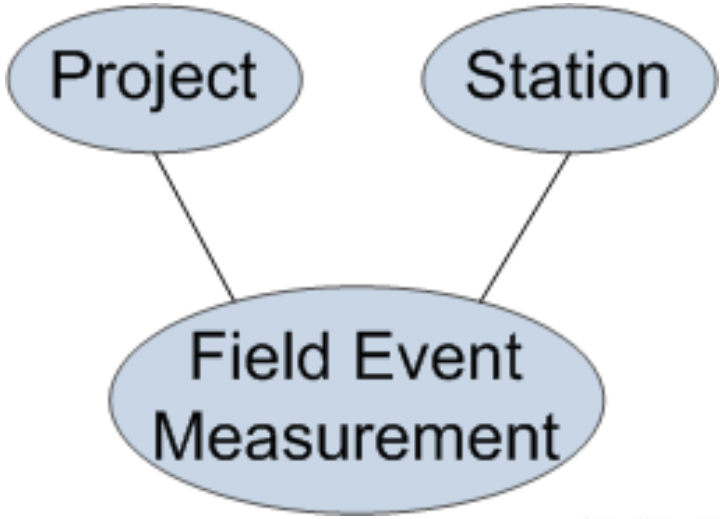
Illustration – PNW/WQX

- Data flow is based on exchange of complete, self-contained identities
- Data services and associated processes are sequence independent
- Individual payloads can stand on their own and are purpose-agnostic
- Data exchanges are durable and self-healing



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Session Review

- Find the right level of granularity between message completeness and ease of data management
- Avoid transaction-based reporting whenever possible
- Augment message with Network Document (Header) to provide message purpose specific information
- Provide high level of service argument granularity
- Whenever possible opt for Just-In-Time Data Access (JITDA) instead of data replication

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Question & Answers

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