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RTI INTERNATIONAL

Dusting off the Frame

FedCASIC 2018

An open-source computing approach to high quality frame cleaning

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Travis Taniguchi

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Topics

- Background
- Frame Cleaning
- Application Design
- Technology
- AWS role in development

Acronyms!

LECS

Law **E**nforcement **C**ore **S**tatistics

ARMS

Agency **R**ecords **M**anagement **S**ystem

LEAR

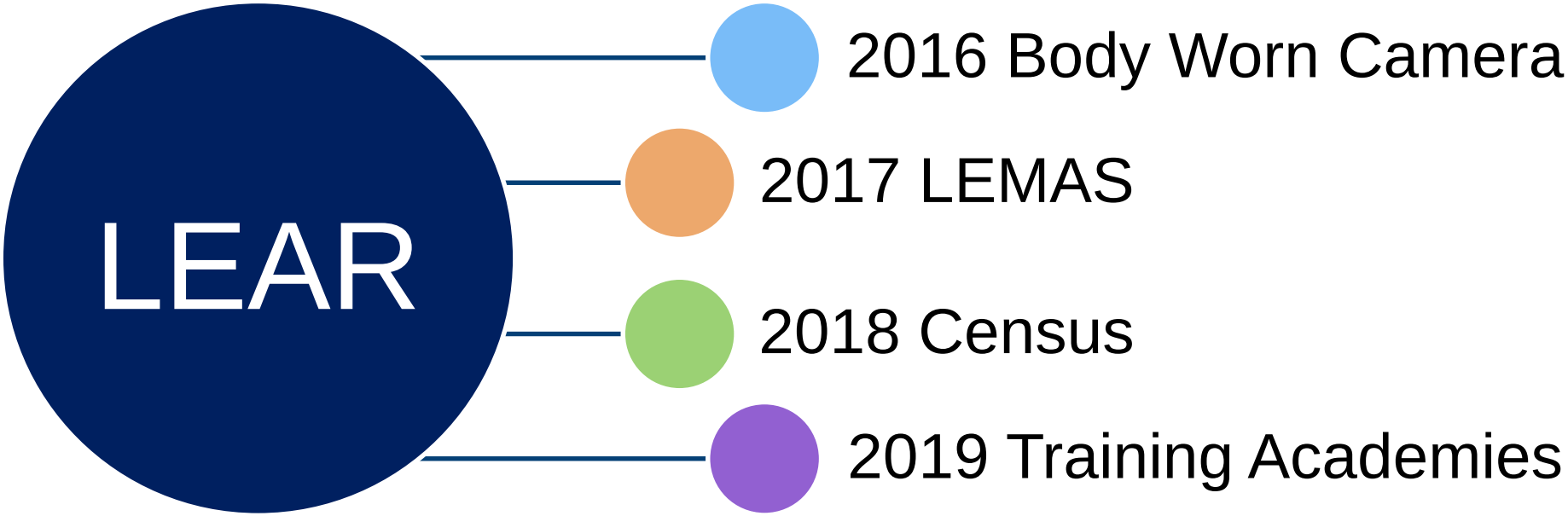
Law **E**nforcement **A**gency **R**oster

BJS

Bureau of **J**ustice **S**tatistics

LEAR – Law Enforcement Agency Roster

- 22,000+ Law Enforcement Agencies
- Primary means of identifying an agency
- Updated after survey completion
- Facilitates longitudinal data analysis

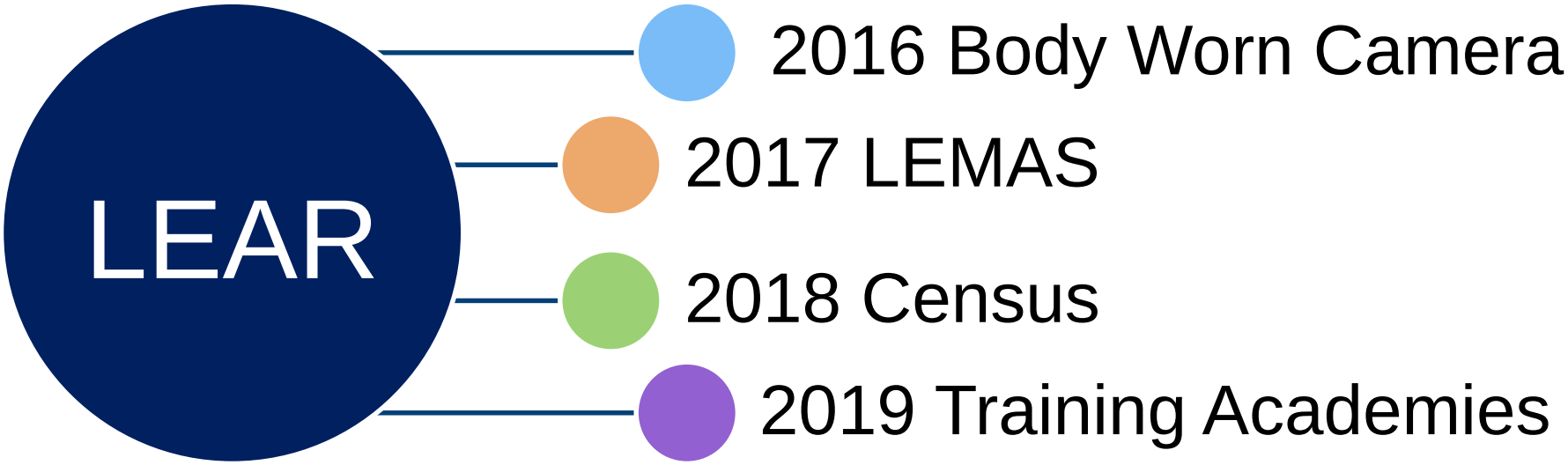


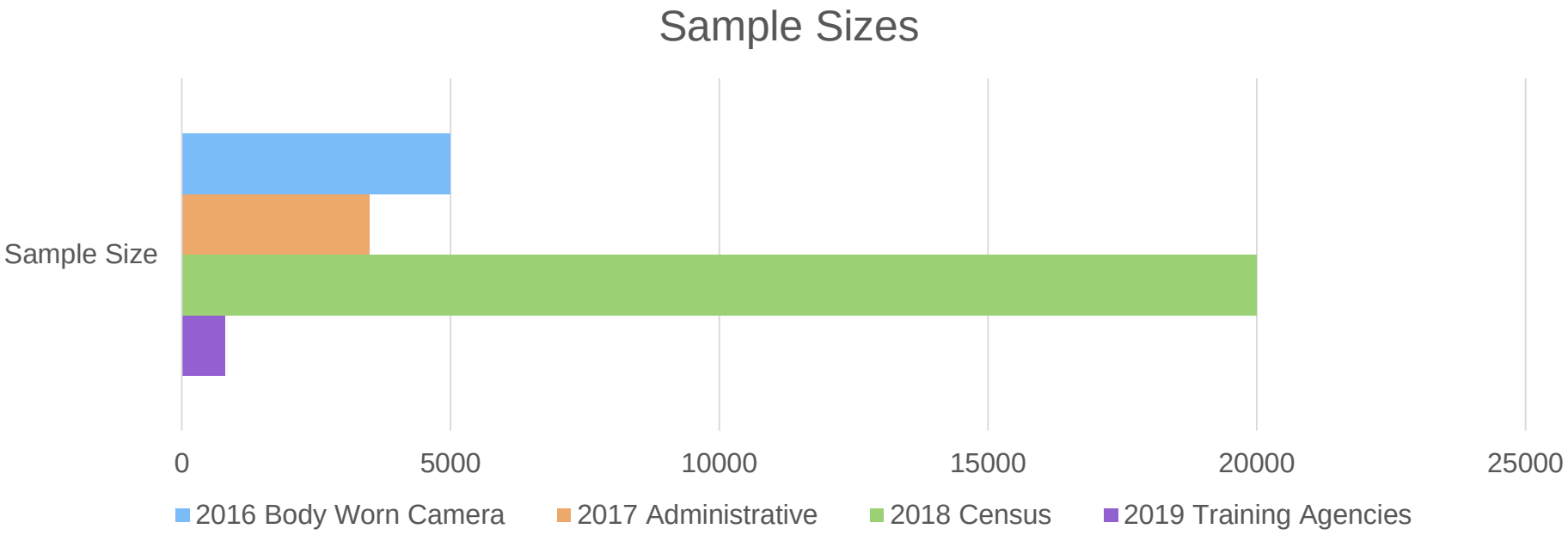
LEAR – Law Enforcement Agency Roster

Why do we maintain this roster?

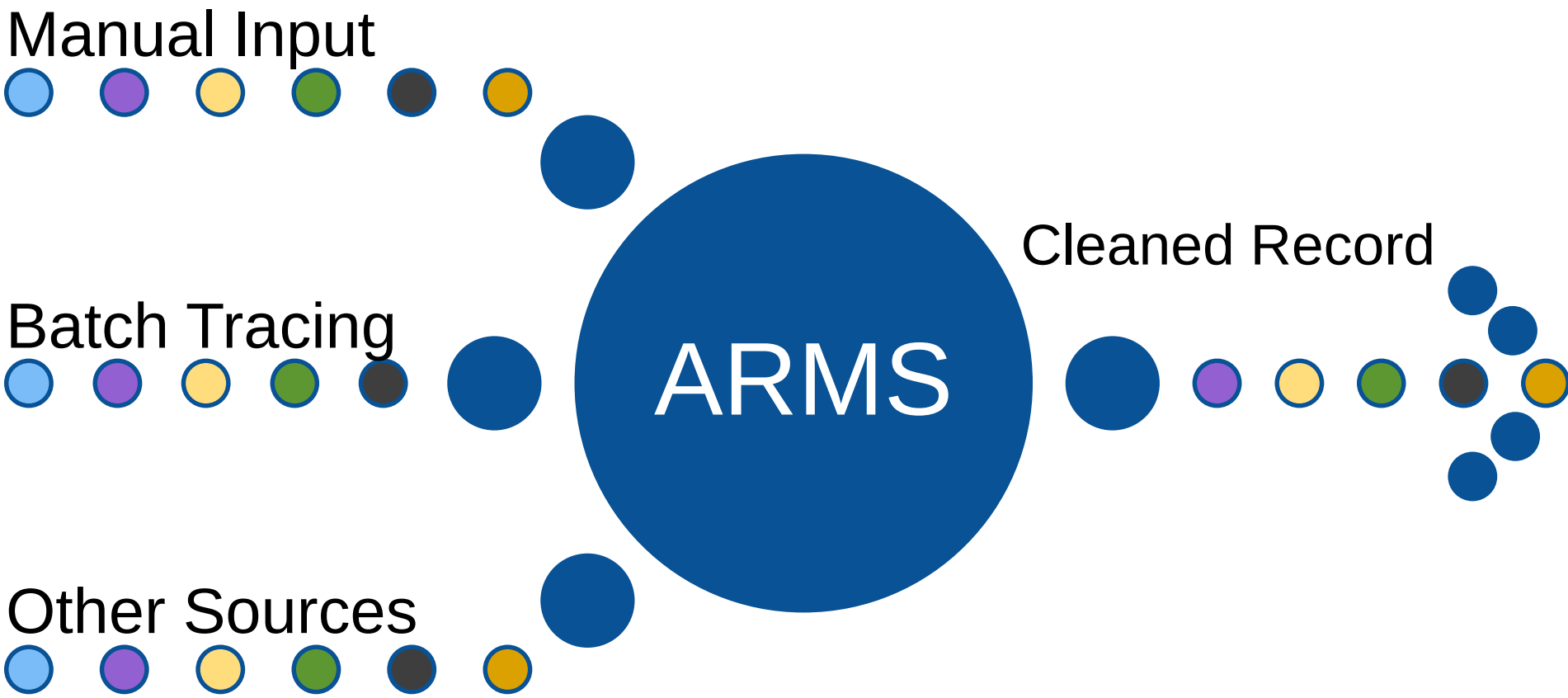
- Eligibility and Scope Tracking
- Agency Identity
- Facilitates Longitudinal Analysis

What is Frame Cleaning?

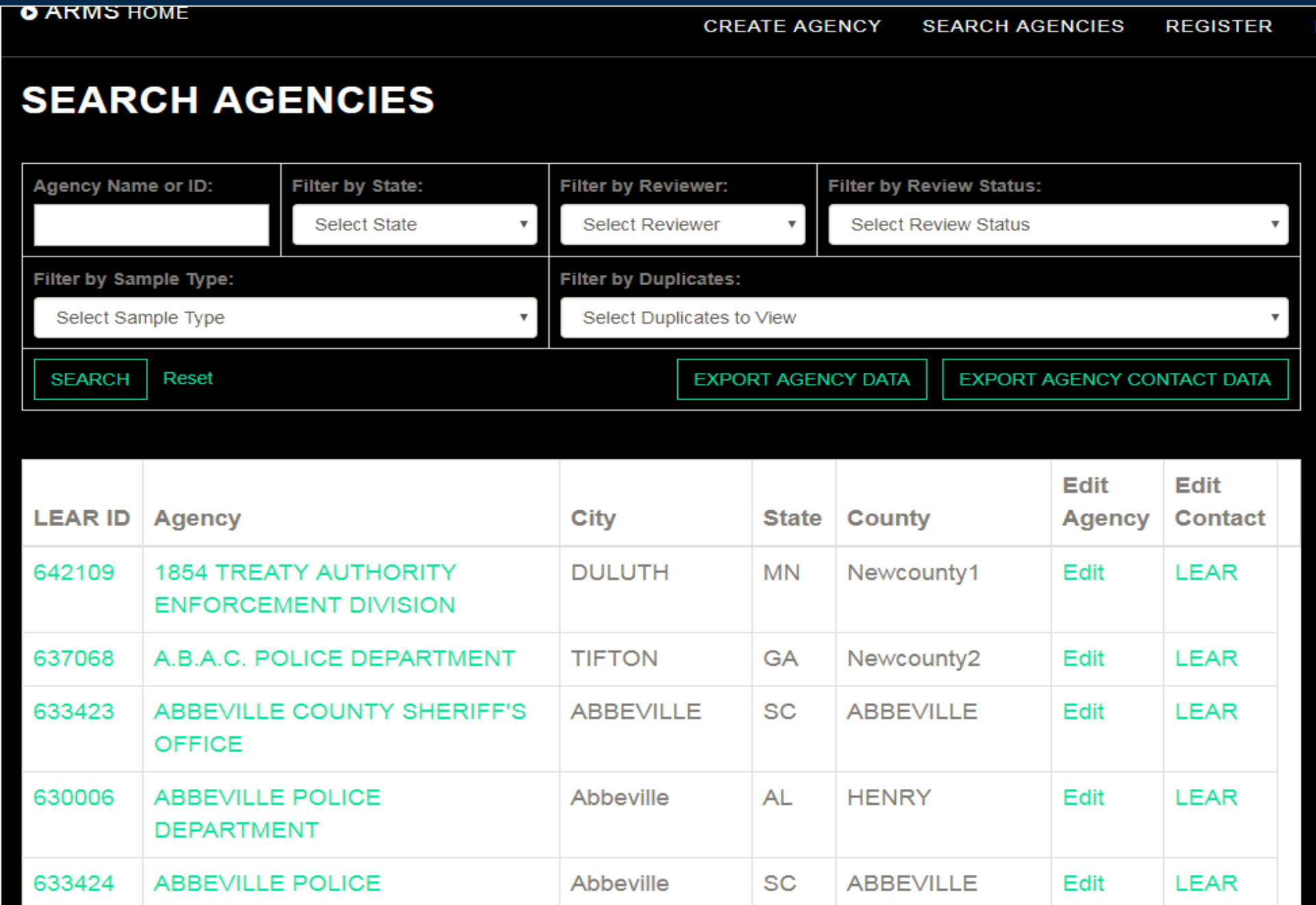




What is Frame Cleaning?

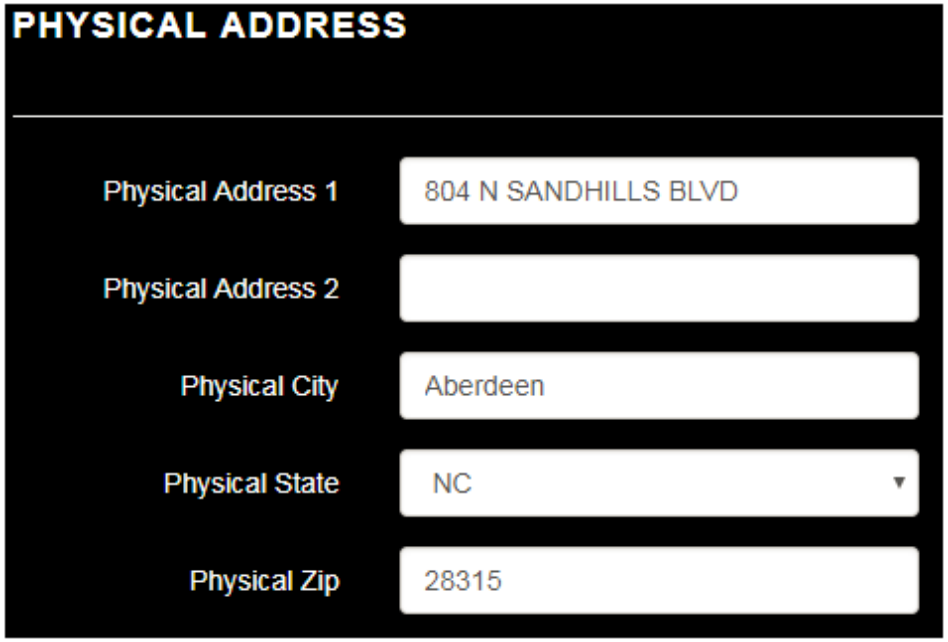


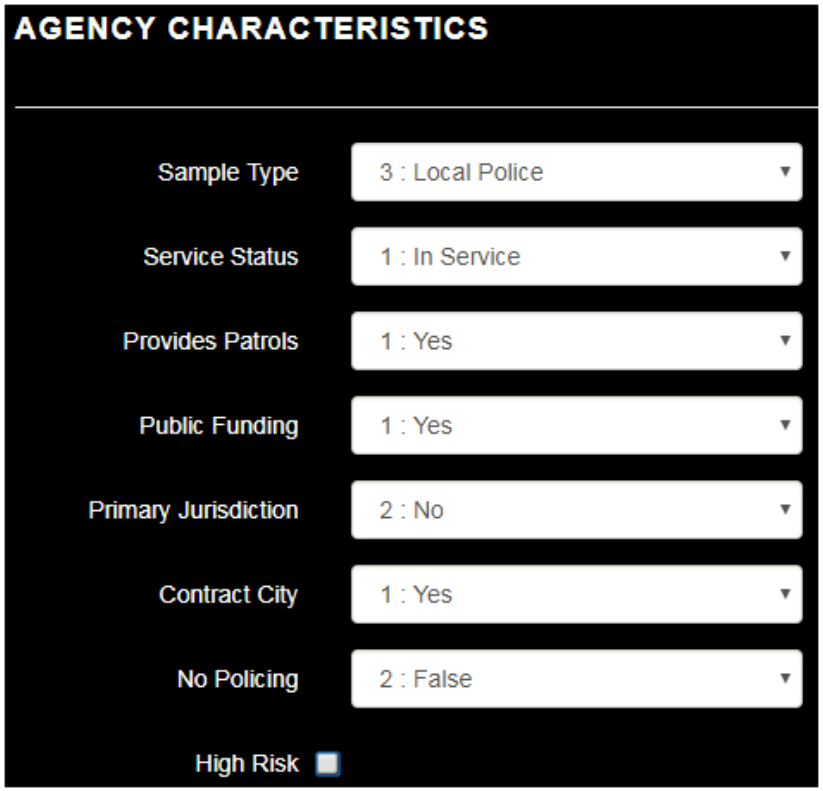
Application Design: UI



Application Design: UI

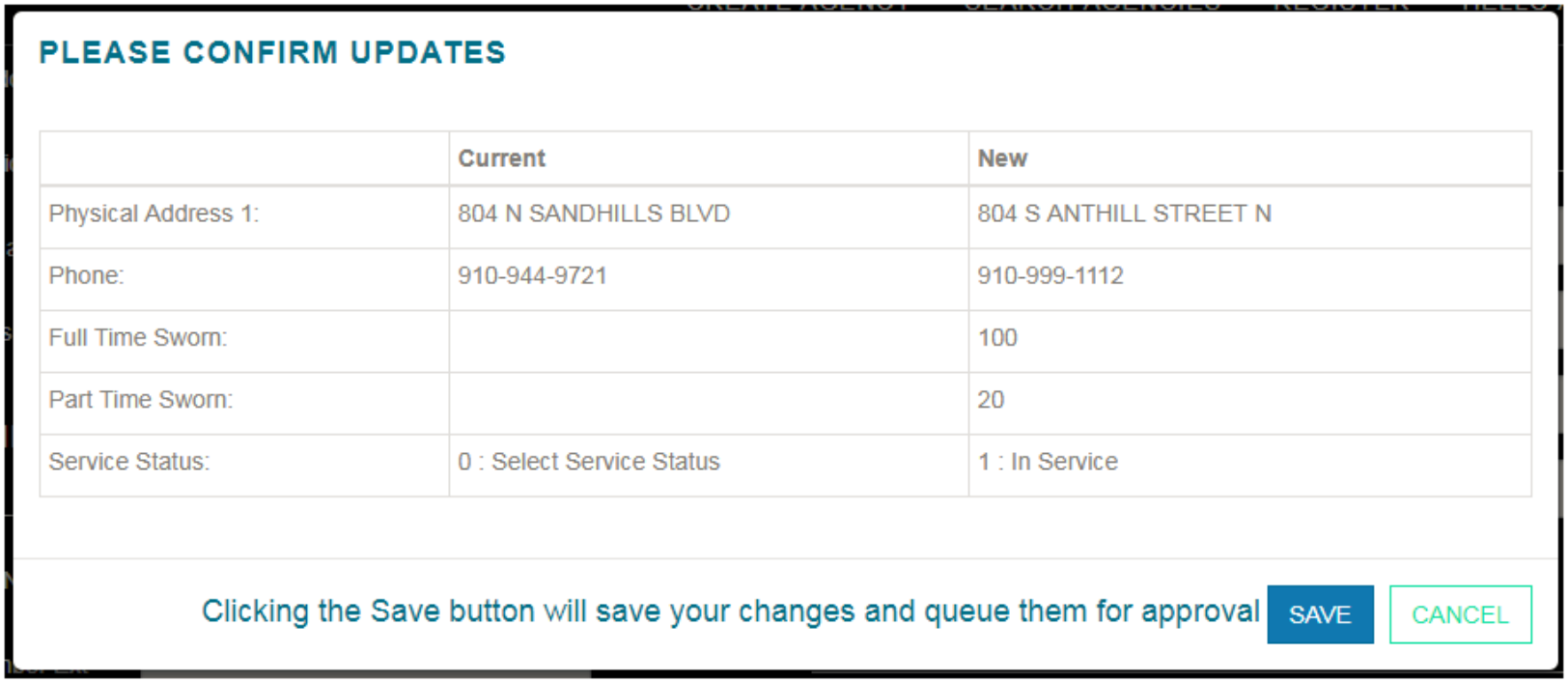
- Updates to agency data are done on a single page
- All edits are tracked historically





Application Design: UI

- Update confirmation for all pending changes
- Viewable history for each modification



Agency Physical Addresses	Created On	Created By
804 S ANTHILL STREET N Aberdeen NC 28315	3/19/2018 4:18:48 PM	Admin
804 N SANDHILLS BLVD Aberdeen NC 28315	9/26/2017 11:10:39 AM	sample_load

Application Design: Approvals

Application Design: Approvals

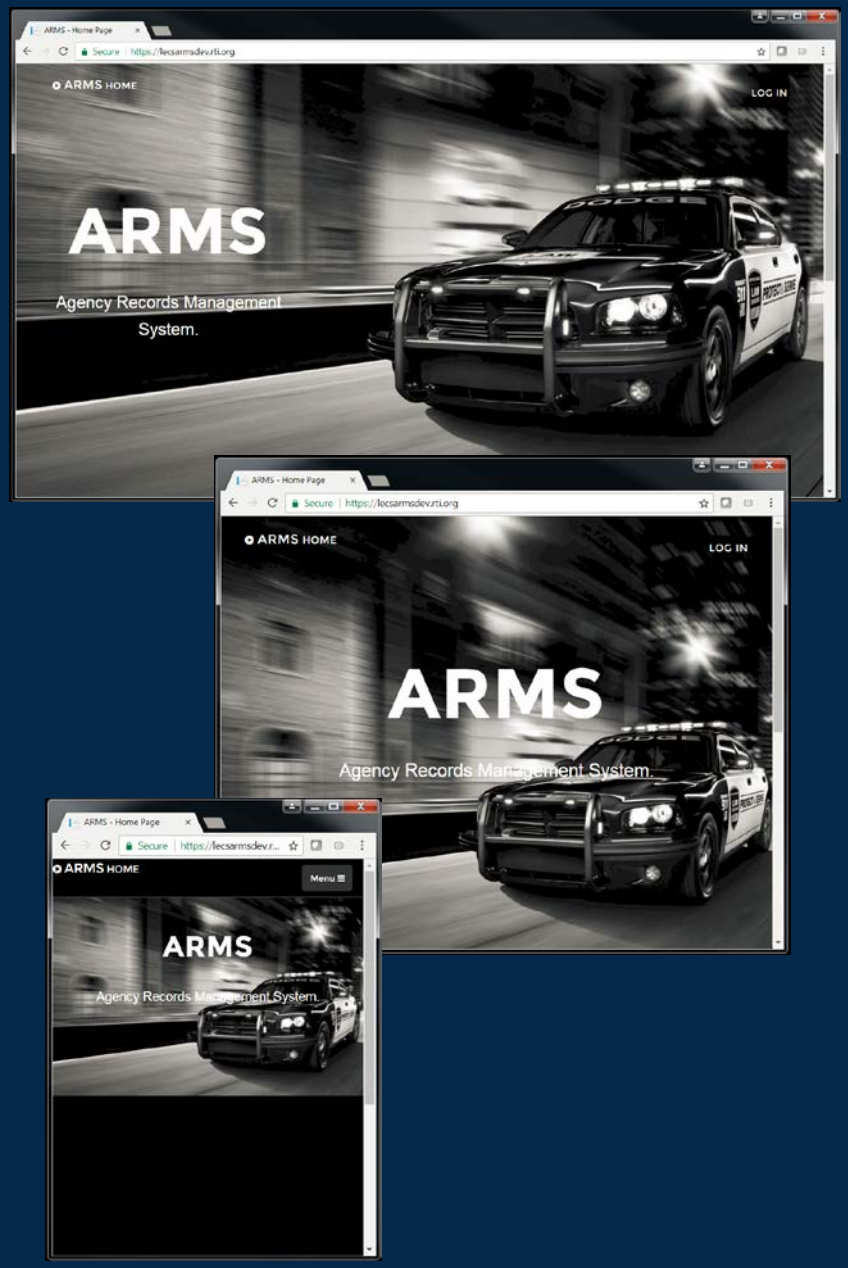
- Bulk Approval function summarizes changes to agency data
- Allows for quick adjudication of all changes

Field Changed	Old Value	New Value
Agency Approvals		
Phone Number	205-254-1700	(205) 254-1765
Phone Ext		
Comments	http://police.birminghamal.gov/ LEAR Agency Comments:Address info from BWC survey.	
Agency Contact Approvals		
Contact Name	A.C Roper	A.C. ROPER
Contact Phone Number	205-254-1700	(205) 254-1765
Contact Phone Ext		
Edit	Details	Approve All

Technology: UI Design

Bootstrap

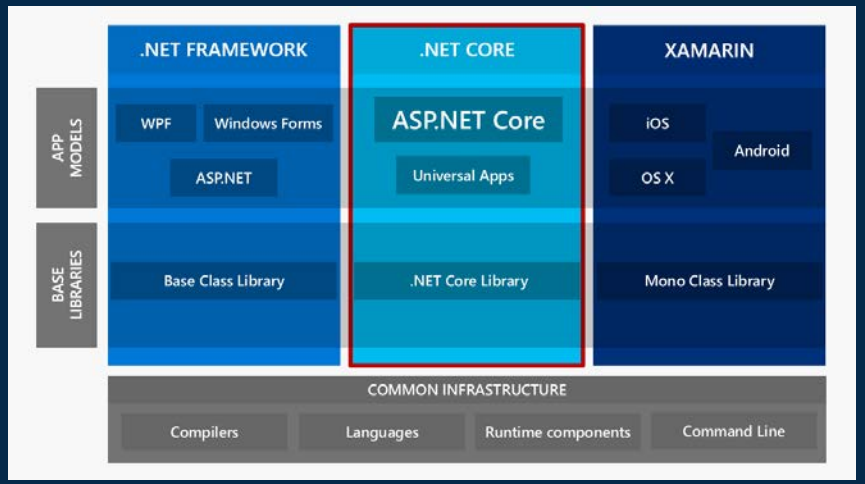
- Responsive Design
- Free and Open Source
- Free templates available



.NET Core

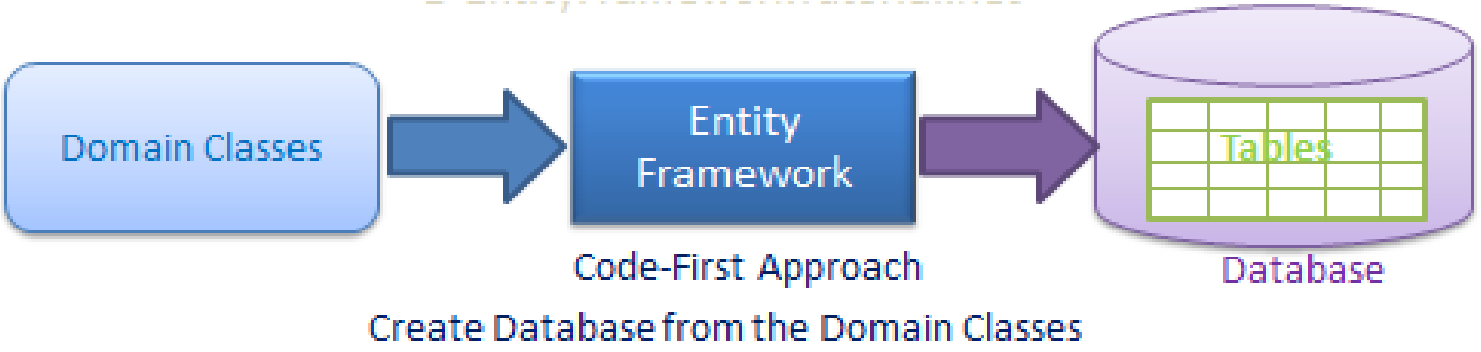
- Microsoft’s response to open-source, open-framework.

- .NET "stripped to the core"
  - Open Source
  - Additive package manager
  - MVC paradigm
  - Entity Framework Core
  - Cross-platform (Windows/Linux/MacOS)
  - Cloud friendly



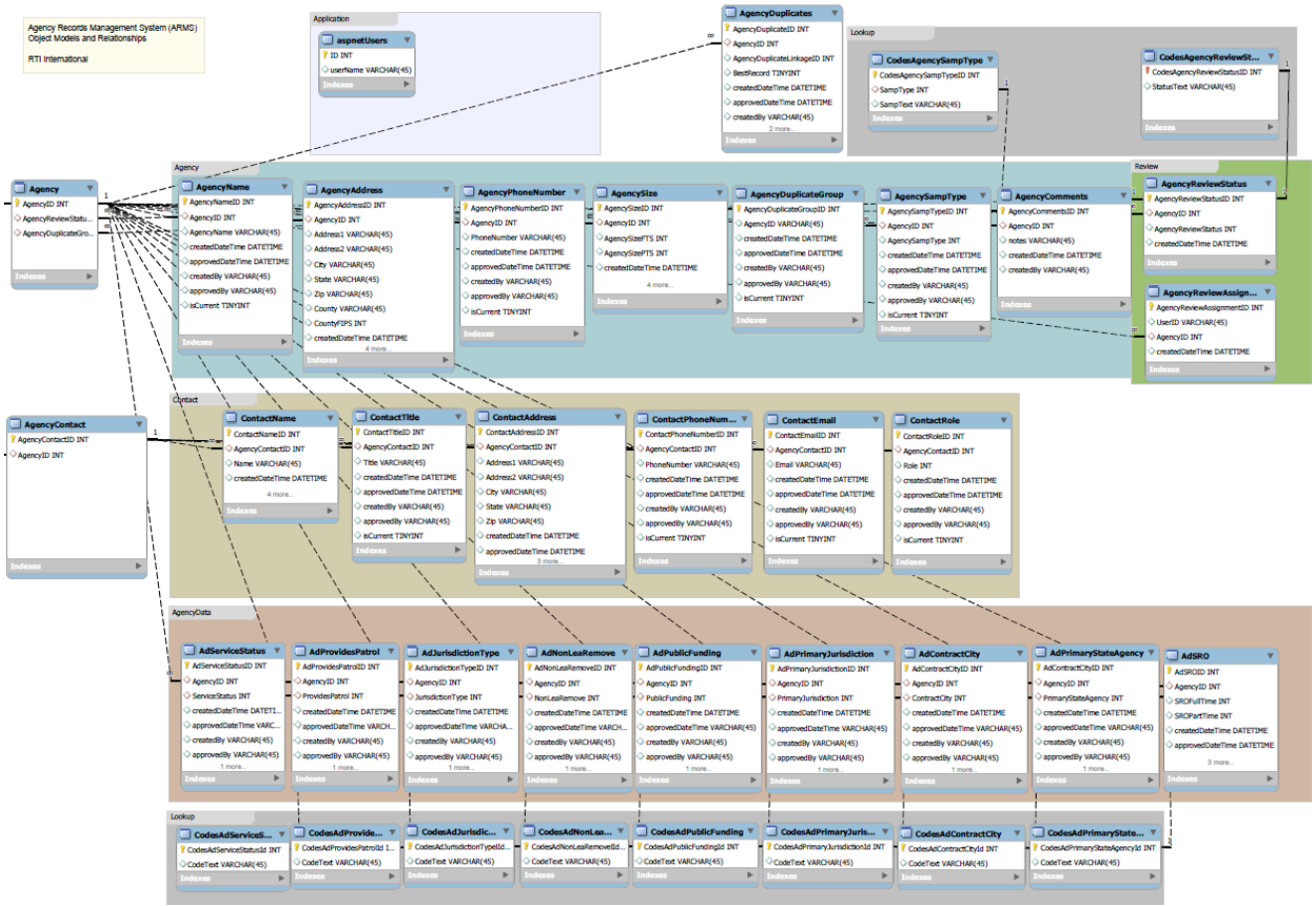
Entity Framework Core

- Code first
  - Create data classes in your code
  - Run migration scripts to create/update database objects



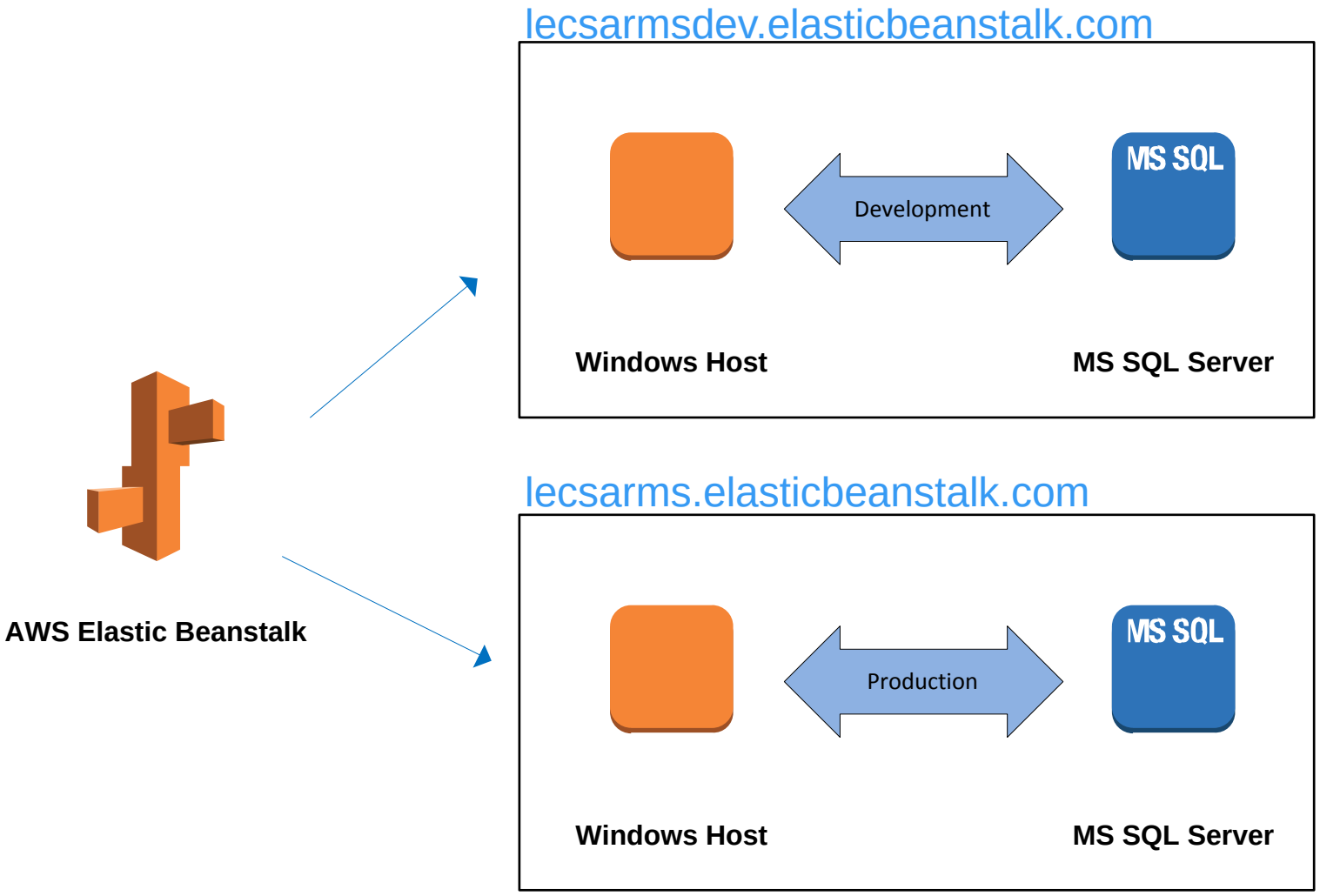
Entity Framework Core

- Rapid deployment of the application and database



Deploying to Amazon Web Services

Elastic Beanstalk



Conclusion

- ARMS has increased frame cleaning productivity
- Support for phone outreach is available
- Multi-user and approval design has increased the quality of the frame

More Information

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