#### **SAE INTERNATIONAL**

#### **DSSAD DATA COLLECTION FOR CHINA**

Don Floyd 07.06.2022



#### **AGENDA**

- China Specified DSSAD Event Data Recorder and Downloading Requirements
- SAE Proposal for DSSAD Event Data Collection
- Benefits from the SAE Proposal
- Example Data Collection and Data Processing
- Questions

# CHINA SPECIFIED DSSAD EVENT DATA RECORDER AND DOWNLOADING TOOL REQUIREMENTS

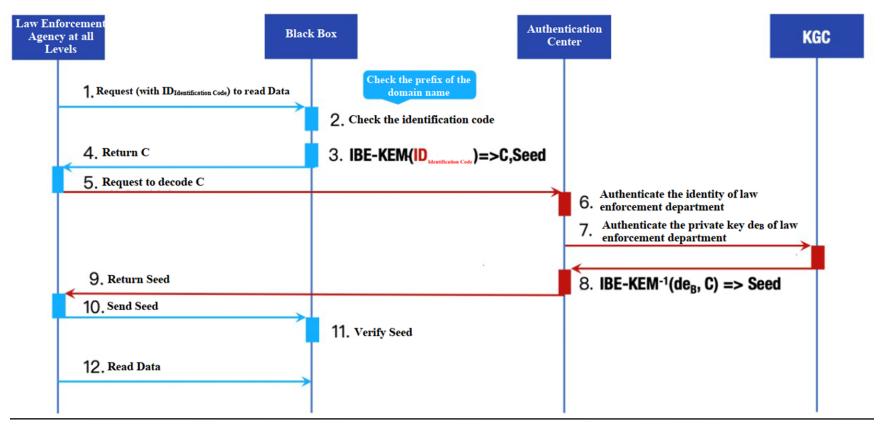
#### DSSAD Event Data Recorder Requirements

- The China specified DSSAD module is being required to:
  - Support new data communication protocols
  - Record new data elements
  - Record large quantities of data for long periods of time
  - Survive crash, electrical, and other environmental conditions
  - Conduct identity authentication for external data extraction tools

#### DSSAD Event Downloading Tool Requirements

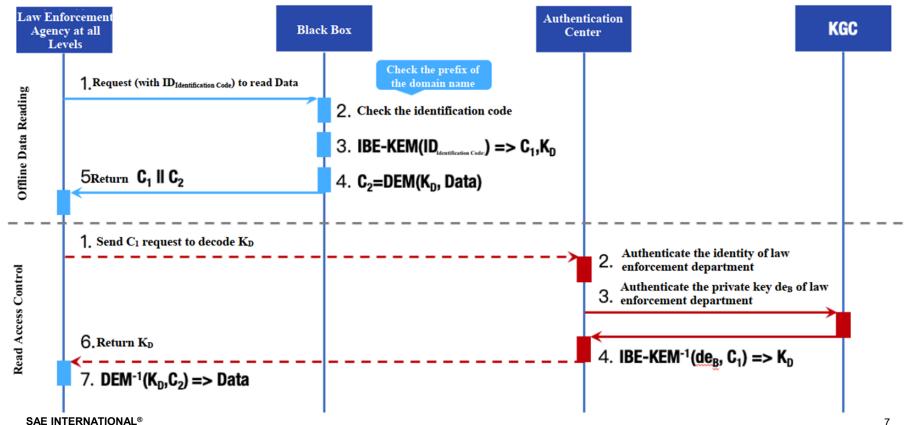
- The China specified DSSAD data collection tool is being required to:
  - Download and save DSSAD event data
  - Support new data communication protocols
  - Clear old DSSAD event records
  - Provide functions such as user registration, identity certification, authentication for initial user profile setup
  - Provide username, password, and user identity identification once initial user profile has been setup

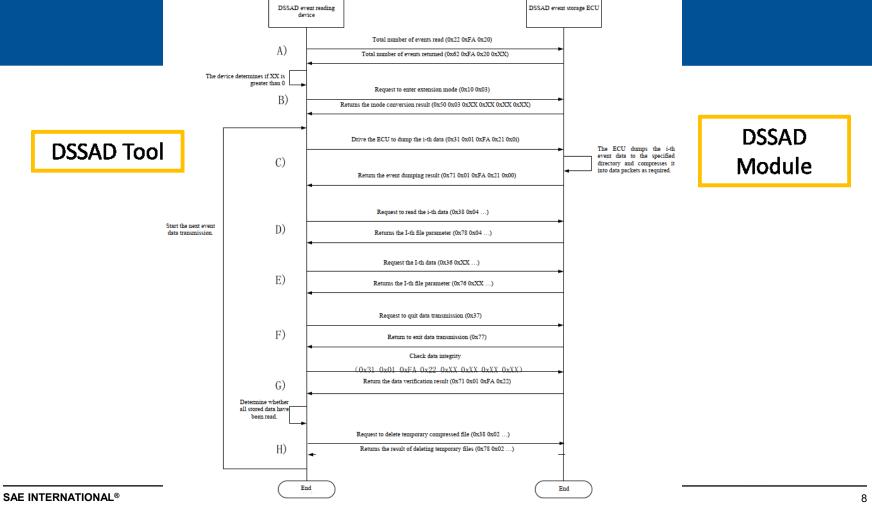
#### Online DSSAD Event Data Collection



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#### Offline DSSAD Event Data Collection





## SAE PROPOSAL FOR DSSAD EVENT DATA COLLECTION

- Ensure the DSSAD can perform its functions unencumbered by additional processing overhead.
- Ensure access to the DSSAD event data for only those who are authorized.
- Ensure data privacy and security are maintained.

- The DSSAD module would encrypt the event data being requested to be downloaded but the stored event data would not be encrypted. This would eliminate unnecessary computations at data recording time.
- The downloading tool should accommodate various protocols and physical interfaces to communicate with the DSSAD module.
- There should not be any special interfaces or hardware required to communicate with the DSSAD module. This would help keep the DSSAD system costs down.

- The encryption method would be specified by a government agency.
- The data extraction tool would be able to download the encrypted event data without having restrictions built into the DSSAD module or downloading tool.
- The downloaded encrypted event data could then be uploaded to a government website where the data could be unencrypted, translated, and stored.

- To get access to the unencrypted event data, one would need to setup a user account and request access through the government website. The government would control access to the data and maintain control of its distribution.
- Only authorized account holders would have access to the unencrypted/translated DSSAD event data.
- This would ensure data privacy and data security are maintained.

## BENEFITS FROM THE SAE PROPOSAL

#### Benefits from the SAE Proposal

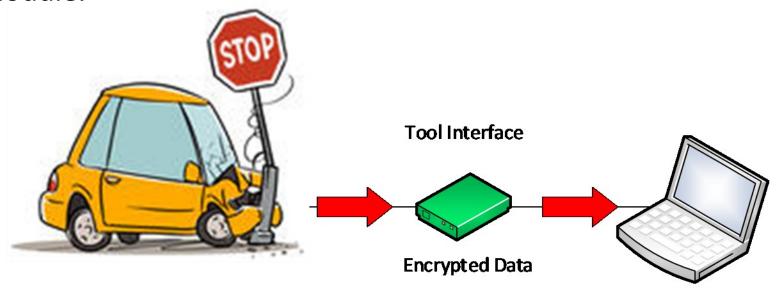
 Access to the world's largest and most complete collection of DSSAD event data.

 The data could be used for research by the government and other data scientists.

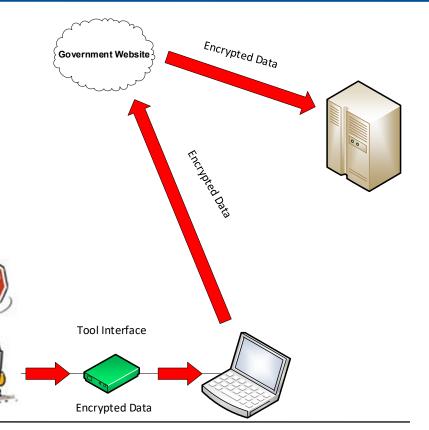
DSSAD data privacy and security are maintained.

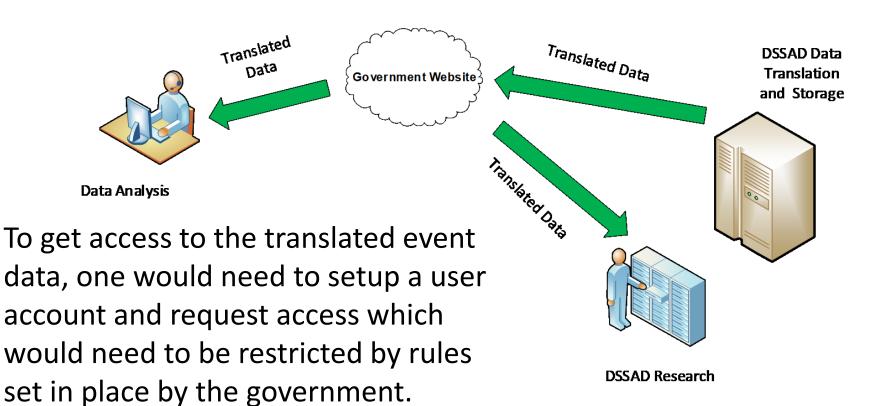
## EXAMPLE DATA COLLECTION AND DATA PROCESSING

After an event, the DSSAD event data could be extracted by a downloading tool, in an encrypted format from a DSSAD module.

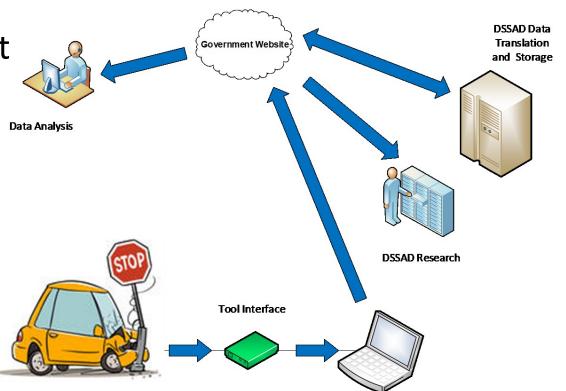


The encrypted event data could be uploaded to a government website where it could be unencrypted, translated, and stored.





The translated event data would be available only to authorized users.



### QUESTIONS