1.0 Current Systems Overview

The North Carolina Department of Information Technology hosts and manages a set of **IBM z/OS mainframes** that run mission-critical and non-mission-critical business applications used by state and local governments and school systems.

NCDIT's mainframe hosts more than 20,000 distinct users working at 30 different state agencies. These systems have exceptionally fast I/O, which enables the Department of Information Technology- Transportation (**Division of Motor Vehicles' Systems**) to quickly process a high volume of database transactions by a myriad of users simultaneously. The mainframe system also offers tremendous availability (99.99%), reliability (built-in redundancy), business recovery, and security.

1.1 Features:

z/OS System Features

- NCDIT manages the mainframes and everything that runs on them, including backup and recovery services.
- Most independent service vendor (ISV) software running on the mainframe and CICS, IMS and Db2 transaction applications that agencies build is sharable. This enables your organization to minimize costs.
- An average of 27 million encrypted transactions are processed daily.
- Virtual disk and tape storage provide batch or real-time job streams.
- IOGen, control units, HMC and thin client consoles are included.
- Technical support:
    - File transfer: sftp, FTPS and Connect:Direct
    - CSSMTP (mainframe email)
    - Maintenance of the latest supported encryption level
    - Monitoring
        - Alerts sent by email and text
        - Infrastructure internal and external network connections
        - Daily system batch and online processes
        - Microsoft's Windows-based event monitoring solution, which enables event correlation within your corporate computing environment
    - Analysis
        - Reviews the network infrastructure to ensure the proper design for disaster recovery and customer needs
        - Ensures encryption requirements are met
        - Handles z/OS upgrade/migration requirements proactively
        - Manages hardware configurations: HMC, control units and thin client consoles
    - Service level agreements
        - Ensures supported software to n-1 levels
        - Resolves customer incident and service request tickets in a timely manner

Software Features

- COBOL
    - RESTful Java™ Script Object Notation (JSON) services with traditional XML web services

  - Native UTF-8 enables COBOL applications to efficiently communicate across applications via RESTful APIs and to directly process UTF-8 data
  - AMODE 64 (64-bit) batch applications development, which supports processing large data tables over 2 GB
- z/OS Db2 12
  - Provides database management using SQL
  - Extends Db2's scalability, security, reliability and efficiency, and supports cloud, mobile and analytics applications
  - Processes up to 11.7 million inserts per second and 256 trillion rows per table

Job Scheduling Features – Zeke Scheduler

- Dynamically schedules automated jobs, dispatches events, and monitors every aspect of your job schedule using functions such as:
  - System command scheduling
  - Automatic variable calculation and substitution
  - Step-level condition code validation
  - Workload balancing
  - Schedule forecasting and simulation
  - SAF security, optional SMP/E support
  - Simultaneous support for multiple JCL libraries
  - Electronic vaulting capabilities
  - Prebuilt calendars and other utilities
- Creates schedules, performs backups and maintains calendars without interrupting service
- Manages enterprise-wide scheduling
- Schedules and manages from one location to an infinite number of systems, across operating systems worldwide or just across the room
- Displays on one screen all the schedule information for every supported platform and highlights all exceptions (e.g., abends, late jobs)
- Supports concurrent schedules within the same job names (versioning)
- Provides perpetual calendars that allow you to define dates as far into the future as needed
- Monitors all aspects of job schedules continuously, and responds to messages automatically
- Uses the IBM system management facility to check the step-level condition code, and allows job cancellation based on condition codes

Performance Features

NCDIT's Capacity Management team ensures that resource and workload capacity is performing sufficiently to meet your current and future needs. This includes data management and manipulation, storage capacity planning, performance management, availability management, revenue analysis and reporting.

Capacity management processes are divided into two services:

- Workload capacity management, which monitors and controls the performance of the customer's IT services by examining relevant data
- Resource capacity management for monitoring the performance of components within the IT infrastructure

Transaction Services (CICS, IMS & MQSeries) Features

NCDIT's Transaction Services team manages customer configuration, troubleshooting and support, system installation and maintenance. The team ensures that the applications running on the z/OS platform are available for all state agencies. This includes tracking and accessing z/OS online applications written and supported by various North Carolina state agencies.

Online processing time for Customer Information Control System (CICS) and Information Management System (IMS) is available by the minute and online through web and Middleware Services running under z/OS.

Mainframe Disaster Recovery Features

- The Hitachi Universal Replicator mirrors data to NCDIT's disaster recovery center to minimize mainframe recovery time.
- Mainframe data is mirrored asynchronously in 5 minutes or less, 24/7.
- Data is encrypted to secure its transmission between data centers.

1.2 Overview of Existing DMV Services

The Division of Motor Vehicles (DMV) has many functions that require application support on the state's mainframe platform. These critical business functions include but are not limited to vehicle registration, issuance of credentials, traffic records (crashes), voter applications, car inspections and emissions, vehicle insurance, medical certifications, and more.

State Titling and Registration System (STARS)

STARS provides automated titling and registration services for all motor vehicles registered in the State of North Carolina. STARS was designed and built for DMV to facilitate registration and titling as well as management of special registration and inventory management of titling. It is one of North Carolina's largest systems and requires a high level of support and maintenance.

The main functions of STARS:

- Provide fully automated title and registration services
- Facilitate branch office services
- Provide over the counter or third-day receipt of title
- Ensure proper handling of fiscal activities for titling and registration services
- Support inventory management
- Provide special dealer transaction processing
- Validate sticker/registration documentation processing
- Facilitate correspondence process
- Automate forms for titling and registration
- Maximize management of special registration
- Allow proper validation of VINs and addresses
- Promote effective interface with external system

STARS supports NC DMV's over 128 license plate agencies where registration and titling services are transacted, 18K internal users, private institutions, and state and federal agencies. STARS currently manages the following number of vehicle-related artifacts:

- Total Vehicles: 41,147,053
- Total Titles: 95,205,534
- Active Titles: 31,362,717
- Cancelled Titles: 61,977,424
- Active Registrations: 10,536,952

The STARS system has mainframe and Internet components and complies with the North Carolina Statewide Architecture guidelines, http://www.NCSTA.gov.

STARS Code Repository Stats:

In the table below please find the Type and Number of Development Artifacts that comprise the STARS Mainframe Application, as well as the Total Lines of Code. Note: All code metrics were generated by the Application Intelligence Analytics and Standards (AIAS) Team using data compiled from the CAST Software's Application Intelligence Platform.

Type	No. of Artifacts
COBOL Online	610
Cobol Batch	745
Assembler Program	24
Easytrieve Programs	94
Job Control Language	1017
Control Cards, CICS Files etc.	1981
CICS Transactions	691
COBOL Copy Books	1815
DB2 Tables	190
Total Number of LOC: 2,596,043	

STARS Cross System Interactions:

The Table below represents all the cross systems interactions originating from STARS within the DMV Mainframe System Applications.

Source System	Target System	Type of Interaction	No. of Interactions
STARS	SADLS	JCL → CTL Card	3
STARS	SADLS	Cobol Prog → Cobol Prog	38
STARS	SADLS	Cobol Prog → Cobol Copybook	110
STARS	SADLS	Cobol Prog → CTL Card	92
STARS	LITES	CICS Trans → Cobol Prog	2
STARS	LITES	Cobol Prog → CTL Card	2
STARS	LITES	Cobol Prog → Cobol Copybook	73
STARS	LITES	Cobol Prog → Cobol Prog	73
STARS	Emissions	Cobol Prog → Cobol Prog	30
STARS	Emissions	Cobol Prog → Cobol Copybook	28
STARS	Emissions	CICS Trans → Cobol Prog	88
STARS	IRP	Cobol Prog → Cobol Prog	57
STARS	IRP	Cobol Prog → Cobol Copybook	335
STARS	IRP	CICS Trans → Cobol Prog	146

STARS interfaces with external systems including but not limited to the following:

- AAMVA Programs: State-to-State verification service, Commercial Driver License Information System, Problem Driver Point System
- Finalist: Pitney Bowes mailing address management and verification system
- X/PTR (report storage)

The STARS Internet components utilize CICS WEB Services to interface with the mainframe, including:

- Registration Renewal – allows citizens to request the renewal of vehicle registrations via the Internet
- Duplicate Registration – enables citizens to request duplicate vehicle registrations via the Internet
- Special/Personalized Plate Reservation and Inquiry – allows citizens to request special and personalized plates via the Internet

Batch job scheduling is managed using ASG Zeke.
RACF is used to provide access control and auditing functionality.

State Automated Drivers License System (SADLS)

SADLS provides for the issuance and adjudication of North Carolina driver licenses and identification (ID) cards. SADLS was designed and built for the DMV's Driver License Section to facilitate the issuance of North Carolina driver licenses and to assist in the efficient and consistent adjudication of driver license records that reflect convictions and moving violations. SADLS supports the NC DMV's 120 Driver License offices and 700 internal users. Additionally, SADLS web-based interfaces support approximately 6 million NC citizens seeking driver license services.

SADLS interfaces with external systems, including the following:

- NLETS (National Law Enforcement Telecommunications System)
- X/PTR (report storage)
- SADLS Code Repository Statics:
- In the Table below please find the Type and Number of Development Artifacts that comprise the SADLS Mainframe Application, as well as the Total Lines of Code. *Note: All code metrics were generated by the Application Intelligence Analytics and Standards (AIAS) Team using data compiled from the CAST Software's Application Intelligence Platform.*

Type	No. of Artifacts
COBOL Online	921
Cobol Batch	1346
Assembler Program	2
Easytrieve Programs	211
Job Control Language	996
Control Cards, CICS Files etc.	2809
CICS Transactions	2564
COBOL Copy Books	3107
DB2 Tables	358
Total No. of LOC: 3,500,160	

SADLS Cross System Interactions:

The Table below represents all the cross systems interactions originating from SADLS within the DMV Mainframe System Applications.

Source System	Target System	Type of Interaction	No. of Interactions
SADLS	STARS	JCL → Cobol Prog	14
SADLS	STARS	CICS Trans → Cobol Prog	1
SADLS	STARS	Cobol Prog → Cobol Prog	26
SADLS	STARS	Cobol Prog → Cobol Copybook	64

Source System	Target System	Type of Interaction	No. of Interactions
SADLS	LITES	CICS Trans → Cobol Prog	2
SADLS	LITES	Cobol Prog → Cobol Copybook	3
SADLS	Emissions	Cobol Prog → Cobol Prog	1
SADLS	Emissions	Cobol Prog → Cobol Copybook	4
SADLS	IRP	Cobol Prog → Cobol Prog	1

Liability Insurance Tracking Enforcement System (LITES)

LITES provides automated processing and tracking of vehicle insurance for all motor vehicles registered in the State of North Carolina. LITES was designed and built to track and enforce vehicle liability insurance and economic responsibility requirements per NC statute for the Division of Motor Vehicles. In North Carolina, the registered owner of a motor vehicle must have the proper level of liability insurance coverage provided by an insurance company authorized to do business in the State.

The main functions of LITES:

- Accept and process new insurance notifications from insurance companies
- Accept and process terminated insurance notifications from insurance companies
- Accept customer responses
- Establish an interface between Vehicle Registration services and Liability Insurance services.
- Allow inquiry on Liability Insurance data
- Process and track prima facie requests
- Accept and track hearing requests
- Process and track insurance lapses
- Provide administrative services

LITES supports 2000 internal users, primarily in the DMV's Liability Insurance (LI) Unit, which is responsible for ensuring that all licensed vehicles registered in the State of NC maintain continuous liability insurance coverage, along with the proper level required by General Statute. It also supports various other internal and external entities, such as Contract License Plate agencies, insurance companies, and collection agencies. The performance of the current LITES application is variable today due to several factors including network latency, external interfaces, system utilization, transaction volumes, etc.

The LITES system has mainframe and Internet components. The main frame components are written primarily in Sapiens eMerge, COBOL, and CICS using DB2 as the database repository. The mainframe batch and online components operate under the IBM ZOS operating system. The LITES Internet components are written in .NET and Java and utilize CICS web services and CICS Transaction Gateway to interact with the mainframe.

LITES interfaces with external systems including the following:

- Finalist: Pitney Bowes mailing address management and verification system
- X/PTR (report storage)

Batch job scheduling is managed using ASG Zeke.

RACF is used to provide access control and auditing functionality.

LITES Code Repository Stats:

In the table below please find the approximate Type and Number of Development Artifacts that comprise the LITES Mainframe Application, as well as the Total Lines of Code.

Type	No. of Artifacts
COBOL Online	51
Cobol Batch	132
Assembler Program	350
Easytrieve Programs	0
Job Control Language	160
Control Cards, CICS Files etc.	652
CICS Transactions	0 (Access through STARS and Sapiens)
COBOL Copy Books	178
DB2 Tables	105
Total Number of LOC: 346,076	

LITES Cross System Interactions:

The Table below represents all the cross systems interactions originating from LITES within the DMV Mainframe System Applications.

Source System	Target System	Type of Interaction
LITES	STARS	JCL to → Cobol Prog
LITES	STARS	Cobol Prog to Cobol Prog
LITES	STARS	Sapiens Module to Cobol Prog
LITES	STARS	Cobol Prog to Cobol Copybook
LITES	SADLS	Cobol Prog to Cobol Copybook
LITES	SADLS	Cobol Prog to Cobol Prog
LITES	IRP	JCL to Cobol Prog
LITES	IRP	Cobol Prog to Cobol Copybook

North Carolina Electronic Transmittal System (NCETS)

NCETS provides IT applications to support DMV License and Theft in managing the North Carolina Vehicle Inspection program and providing data to STARS to support the renewal of a vehicle. The Emissions system and STARS exchange data to meet NC inspection requirements.

NCETS Emissions system provides the following major functions:

- Provides vehicle inspection status information to STARS that allows or blocks vehicle registrations using a CICS linked program.
- Sets ‘R’ exemptions for vehicles using a CICS linked program.
- Manages the assignment of control numbers for technicians with out-of-state driver licenses utilizing a CICS user interface.

- Provides DMV License and Theft program staff and Call Center representatives with access to inspection status information and the ability to manage exceptions and special inspection exemptions using the CICS user interfaces.
- Provides inspection facility and location information to the NCDOT web team using FTP.
- Processes civil penalties for permanent plate vehicles using mainframe batch processes.
- Provides maintenance for civil penalties using a CICS user interface.
- Provides penalty notifications using a batch process that utilizes the mainframe correspondence system in SADLS.
- Provides data to the SADLS delinquent accounts system via mainframe batch processes accessing the DB2 tables.
- Hearings for Emission penalties – schedules and decisions are maintained via CICS user interfaces. Notification letters are produced utilizing the SADLS correspondence system.
- Manages the Daily Activity reporting for DMV staff using CICS user interfaces.
- Provides statistical reports for Daily Activity reporting that are requested via a CICS user interface, created using mainframe batch processes, and are available for viewing by the user via NCXPTR.
- Extracts inspection exemptions issued by the user for reporting in Daily Activity by using a mainframe batch process.

Physical and Topological Details

The NCETS Emissions system is hosted on the IBM mainframe at ITS. The DMV License and Theft users, the DMV License Tag Agents, and some STARS users access the system via a secure 3270 Host-On-Demand connection to the legacy ITS mainframe EM40 CICS transaction. This method allows the users to inquire on and maintain the NCETS Emissions system data. The system also prints correspondence and reports on printers at DMV Headquarters and on local LAN printers.

The application resides on the mainframe and utilizes CICS as the user interface. The exchange of inspection data to NCETS is via a CICS-linked program called the COBOL program in batch.

NCETS interfaces with external systems including the following:

- Finalist: Pitney Bowes mailing address management and verification system
- X/PTR (report storage)

Batch job scheduling is managed using ASG Zeke.
RACF is used to provide access control and auditing functionality

NCETS (Emissions) Code Repository Statics:

The table below shows the approximate Type and Number of Development Artifacts that comprise the NCETS Mainframe Application and the Total Lines of Code. Note that the Application Intelligence Analytics and Standards (AIAS) Team generated all code metrics using data compiled from *CAST Software's Application Intelligence Platform.*

Type	No. of Artifacts
COBOL Online	150
Cobol Batch	226
Assembler Program	112

Type	No. of Artifacts
Easytrieve Programs	39
Job Control Language	117
Control Cards, CICS Files etc.	433
CICS Transactions	174
COBOL Copy Books	1535
DB2 Tables	71
Total Number of LOC: 690,239	

NCETS(Emissions) Cross System Interactions:

The Table below represents an estimate of all the cross systems interactions originating from NCETS within the DMV Mainframe System Applications.

Source System	Target System	Type of Interaction	No. of Interactions
Emissions	STARS	JCL →JCL Proc	6
Emissions	STARS	Cobol Prog → Cobol Prog	52
Emissions	STARS	Cobol Prog → Cobol Copybook	355
Emissions	STARS	Assembler → Assembler	3
Emissions	SADLS	Cobol Prog → Cobol Prog	128
Emissions	SADLS	JCL → Cobol Prog	11
Emissions	SADLS	Cobol Prog → Cobol Copybook	300
Emissions	LITES	CICS Trans → Cobol Program	2
Emissions	IRP	Cobol Prog → Cobol Copybook	2

International Registration Plan (IRP) / Motor Carrier

IRP/Motor Carrier provides automated processing of interstate and intrastate vehicles registered in the State of North Carolina. IRP/Motor Carrier is a registration reciprocity agreement among 48 states of the United States, the District of Columbia, and Provinces of Canada providing for payment based on fleet distance operated in various jurisdictions.

IRP/Motor Carrier supports 600 internal users, and state and federal agencies, including the Department of Revenue, the federal Unified Carrier Registration (UCR) system, the Federal Motor Carrier Safety Administration (FMCSA) systems, state counties, and other public and private entities. It also supports insurance companies and truckers. Performance of the current IRP/Motor Carrier application is variable today due to several factors, including network latency, external interfaces, system utilization, transaction volumes, etc.

The IRP/Motor Carrier solution has mainframe and Internet components. The IRP/Motor Carrier system comprises of Mainframe and Internet modules. The mainframe components of IRP/Motor Carrier/Motor Carrier are written primarily in COBOL and CICS using DB2 as the database repository. The mainframe batch and online components operate under the IBM ZOS operating system. The IRP/Motor Carrier Internet components are written in Java and utilize CICS Transaction Gateway (CTG) to screen scrape the mainframe screens. IRP/Motor Carrier today utilizes a Db2 database.

IRP/Motor Carrier interfaces with external systems including the following:

- Finalist: Pitney Bowes mailing address management and verification system
- X/PTR (report storage)

The IRP/Motor Carrier Internet components utilize CICS Transaction Gateway (CTG) Services to screen scrape the mainframe screens.

Batch job scheduling is managed using ASG Zeke.

RACF is used to provide access control and auditing functionality.

IRP/Motor Carrier Code Repository Statics:

In the table below please find the approximate Type and Number of Development Artifacts that comprise the IRP/Motor Carrier Mainframe Application, as well as the Total Lines of Code.

Type	No. of Artifacts
COBOL Online	170
Cobol Batch	288
Assembler Program	31
Job Control Language	147
Control Cards, CICS Files etc.	976
CICS Transactions	170
COBOL Copy Books	2971
DB2 Tables	105
Total Number of LOC: 1,021,699	

IRP/Motor Carrier Cross System Interactions:

The Table below represents an estimate of all the cross systems interactions originating from IRP/Motor Carrier within the DMV Mainframe System Applications.

Source System	Target System	Type of Interaction	No. of Interactions
IRP	STARS	JCL to Cobol Prog	10
IRP	STARS	Cobol Prog to Cobol Program	273
IRP	STARS	Cobol Prog to Cobol Copybook	1660
IRP	STARS	Assembler to Assembler	4
IRP	SADLS	JCL to Cobol Prog	2
IRP	SADLS	Cobol Prog to à Cobol Prog	2
IRP	SADLS	Cobol Prog to CTL Card	11
IRP	SADLS	Cobol Prog to Cobol Copybook	7
IRP	LITES	Cobol Prog to Cobol Prog	23
IRP	LITES	Cobol Prog to Cobol Copybook	56
IRP	Emissions	Cobol Prog to Cobol Copybook	1

1.3 Online Processing Information

Mainframe – CICS Transactions

We currently process approximately 5,205,171 DMV transactions per day. Of that average, we process approximately 2,582,154 SADLS transactions and 2,623,017 STARS/LITES/IRP/ENFORCEMENT transactions. This transaction count is representative of April 23, 2025.

CICS Region	SYSID	#Trans	Trans/Sec	Avg Resp Time Secs / Systems
ZSANCMV	SYSB	2623017	10.1197	0.03 / STARS/IRP/LITES/ENFORCEMENT
ZSANCMD	SYSB	2450830	9.0771	0.04 / SADLS
ZSANCMI	SYSB	12889	0.0477	6.87 / SADLS
ZSANCIN	SYSB	118435	0.7833	0.35 / SADLS

1.4 Batch Processing Information

Critical Batch Print Volumes

Batch Job Types and Volumes		
Description	**Freq**	**Volume (Rcds)**
Processing trigger records e.g. court convictions	Daily	5,000
Vehicle renewal notices – mail	Monthly	800,000
Vehicle renewal notices – eMail	Monthly	100,000
Vehicle Registration Cards	Daily	15,000
Dealer Renewals	Monthly	1,0000
Driver License renewal notices -- mail	Monthly	95,000
Driver License renewal notices – email	Monthly	95,0000
Miscellaneous correspondence e.g., compliance letters	Monthly	400,000
Driving Records	Daily	10,000
IRP Cab Cards	Daily	200
IRP Renewal Notices	Monthly	1,000
Insurance Termination Notices	Daily	2,500

Current Batch Integration Categories

Batch Integration Categories	
Method	**Comments**
sFTP via USS	Interfaces with various organizations using the Unix Systems Services on the mainframe.
FTPS	Integration with insurance companies.
NDR	through AAMVANET / File 98
Finalist - Batch	Executes a vendor-provided application executed in batch to process address standardization and delivery point validation
Mailstream Plus	Software to optimize mailing using barcodes.

Current Batch Data and Report / Printed Output Handling

Print Stock - Special forms/card stocks include:

- Titles: Pre-printed paper stock
- Vehicle Renewal Notices
- Vehicle Registration cards:
- Driver License Renewal Notices
- IRP Stickered Cab Cards
- Perforated 3 equal sections
- Card stock Envelopes
- Labels

1.5 Current Integrations and Interfaces

Legacy Middleware Services:

- MQ Series
- SOAP Web Services
- RESTFul Web Services
- CICS Transaction Gateway (CTG)
- DB2 Connect
- SFTP

Customer Flow Management Application (Q-Flow)

The ACF provided QFlow application provides touch screen kiosks at DMV locations where customers or Facilitators can print tickets specific to the service the customer is requesting. Every ticket comes up with a ticket ID and case ID on it and automatically the ticket gets enqueued in the QFlow web application. Examiners use QFlow web application at workstations and call the enqueued tickets to serve customers. Examiners will key in case ID on Mainframe application to link the QFlow ticket with customer's application. The QFlow application interfaces with MVN (Must View Networks) application to display printed ticket IDs and commercials and to call out audio prompt on large TVs at DMV offices. The URL for QFlow Web application is https://queuing.services.ncdot.gov/QFlow/SignIn.aspx

Online Appointment Scheduling (OAS)

DMV provides an online appointment booking application developed and supported by vendor ACF that offers appointment scheduling features to customers to book appointments for various DMV offered services. Customers can use the public facing web application to select the desired service and search for appointments available in all DMV locations across NC and select any office to book an appointment. The URL for OAS Web application is https://skiptheline.ncdot.gov

Automated Testing System (ATS)/Know to Drive (K2D)

This is a DMV provided service to take knowledge tests for various types of driver's licenses. The K2D application is developed and supported by the vendor, ITI Inc. The DMV examiners are authenticated by the K2D web application using Active Directory (AD) accounts. Examiners will search for customer information on K2D app and initiate knowledge test on a testing station. Customers will take knowledge tests on touch screen testing station for the DL type they have applied for. All the testing information will be saved to database which will be later retrieved by the mainframe application by examiner to issue customer's DL. The URL for K2D Examiner Web application is https://ncats.dot.nc.net/ncinquick.html

Secure Image Management System (SIMS)

The Secure Image Management System (SIMS) is provided and supported by an external Contractor (CBN) that is used to issue and distribute North Carolina Driver's Licenses and Identification Cards to the citizens. SIMS is a standalone custom developed solution. SIMS utilizes web services to exchange necessary data between DMV backend systems and the

CBN card printing and processing facility. This includes interfaces to the image database via SIMS.

DMV Splunk

Splunk is DMV's enterprise SIEM solution. The State security policy requires the storing of audit records in a repository separate from the audited system or system component to ensure that a compromise of the system being audited does not also result in a compromise of the audit records. The DMV Splunk SIEM serves this purpose as well as the required capability to centrally review and analyze audit records from multiple systems in a single platform.

DMV Secure Apps

Intranet / Extranet applications

Transit Notification System (TNS)

Businesses can monitor their drivers and if drivers have any conviction the business will get correspondence that the driver has received a conviction.

DCI, CJLEADS and NCIC

DMV mainframe systems interface with the NC Division of Criminal Investigation (DCI) and the Criminal Justice Law Enforcement Automated Data Services (CJLEADS) for providing driver and vehicle related information. In addition, DMV receives information related to stolen vehicles and plates from the National Crime Information Center (NCIC).

AAMVANet (American Association of Motor Vehicle Administrators)

A variety of interfaces supporting various motor vehicle related functions including driver licensing and identification (examples include NDR, CDLIS, CSTIMS, Social Security Verification, DLDV, SPEX, Electronic Record Exchange, etc.)

Tek Data Systems

New and used car prices for retrieval of vehicle valuations.

NMVTIS (National Motor Vehicle Titling Information System)

The National Motor Vehicle Title Information System (NMVTIS) is designed to protect consumers from fraud and unsafe vehicles and to keep stolen vehicles from being resold.

Enterprise Data Architecture

Data sourced from DMV

IRP Data Repository

IRP account, fleet, vehicle, and fee data.

VINtelligence

VIN-decoding information for passenger cars, light trucks, trailers, and motorcycles

ELT

Electronic Lien and Titling system interfacing with an external vendor

USPVS - U.S. Passport Verification Service (AAMVA) – REAL ID

SAVE - Systematic Alien Verification for Entitlements

Address Verification Services:Pitney Bowes/Finalist

North Carolina Department of Health and Human Services

Receive Substance Abuse assessment completion data.
Receive Death data from Vital Records Unit.
Integration to support customer and Vehicle information

Online Dealer Vendors

This interface provides a means for North Carolina dealerships to issue vehicle title and registration cards, metal license plates and stickers at the point of sale.

Administrative Office of the Courts

Integration to support vehicle seizures with DWI and other violations.
Receive conviction, suspension, and other events.

MV Solutions

Vehicle insurance verification system using sFTP and Web Services.

NC Department of Revenue

Integration to support IRP audits

Remittance Processing - AQUIRIT

Integration to support mail-in transaction processing for renewals.

AQURIT is a custom off the-shelf software system integrated with the STARS system. It is used to process vehicle registration renewals received by mail at the Division of Motor Vehicles and paid by check. The Remittance Processing (RTP) Unit uses AQURIT (AQ2) to scan the coupons and checks, and create the data files that are sent to First Citizen Bank. AQUIRIT also sends the payment information to STARS.

North Carolina State Board of Elections

Voter Registration integration support

NCDOR Vehicle Tax System

Solution for supporting collection of vehicle property taxes.
Quarterly data of Driver and Address is sent to NCDOR.

Insurance Companies

Submission of insurance initiation and termination documents for North Carolina vehicles. Provide Bulk Driver's data to several of them.

iNovah – Credit/Debit Payment Card Collections

iNovah Point of Sale system is a commercial off-the-shelf software system implemented by the North Carolina Division of Motor Vehicles (NCDMV) in August 2013. This system enables the processing of card-present credit and debit card transactions at over 300 NCDMV service locations across the state. iNovah captures payments for services including Titling and Registration (LPAs), International Registration Plan (IRP), and Motor Carrier (MC). The system is integrated with the NCDMV's primary mainframe systems

(STARS, IRP, MC, SADLS) and associated payment processing components to facilitate payment collection and data management.

Number of Card Present Payments Collected (July 2023 – June 2024)

Vehicle Registration	Driver's License	IRP	Total
3,649,050	1,373,811	16,805	5,039,666

Enterprise Content Management

NCDOT's Enterprise Content Management System (ECMS) is composed of two main commercial off-the-shelf (COTS) products: OpenText Capture, which handles document capture, and SharePoint. Together, these platforms form a powerful enterprise solution for streamlining the entire document lifecycle—from capture to secure management and collaboration.

Paper documents are captured using ScanPlus with a scanner at the DMV Scan Center. This automated process captures documents using a batch cover sheet (to separate batches using a barcode) and document cover sheets with a barcode (generated from STARS) for automatic indexing and transporting the images to the storage process. Once documents are captured and established as a batch in the InputAccel application, the documents are indexed and exported to the DMV SharePoint repository.

Both OpenText Capture and SharePoint offer a wide range of features, including the following:

OpenText Capture:

- Serves as the front-end intake system, handling high-volume document capture, including scanning, importing, classification, and data extraction using OCR and intelligent recognition. It ensures that documents—whether paper-based or digital—are efficiently ingested and pre-processed for downstream use.
- Provides both direct (native) and RESTful APIs that enable developers to integrate custom document intake workflows, apply metadata tagging, implement validation logic, and configure routing rules. These APIs also support automation of capture processes and integration with external systems such as RESTful web services, databases, and cloud platforms.
- Includes reporting features that provide visibility into capture performance, batch processing, exception handling, and system throughput—helping administrators monitor operations and optimize efficiency.
- Supports Windows Authentication, SAML, and integration with enterprise identity providers (e.g., Active Directory, Azure AD), enabling secure, role-based access to capture services.
- Supports flexible deployment options, including on-premises and cloud environments. Its modular architecture makes it easy to scale capture capacity independently from storage or workflow components.

Microsoft SharePoint

- Serves as the core content management platform, offering centralized document storage, permission management, version control, and workflow support. It allows users across the organization to securely access, manage, and collaborate on content, with tight integration into the Microsoft 365 ecosystem..
- Offers an extensive set of REST APIs, Graph API (via Microsoft 365), and CSOM/JSOM (Client and JavaScript Object Models). These enable advanced content

manipulation, workflow automation, permissions management, and tight integration with Microsoft services like Teams, Power Automate, and Power Apps.

- Includes reporting features that provide visibility into site activity, document usage, workflows, and user interactions. When used with tools like Power BI, these insights can help teams better understand how content is managed and used across the organization.
- Supports secure, token-based authentication through Azure Active Directory and OAuth 2.0 in Microsoft 365 environments. For on-premises setups, it can also work with authentication methods like Kerberos, NTLM, or federated identity systems.

Supports both on-premises (e.g., SharePoint Server) and cloud-based (SharePoint Online) deployment models. It integrates with other Microsoft 365 services and supports hybrid configurations for gradual cloud adoption.