System Redesign
Working Group Update

Facilitator:
Russ Nordstrom, Director, Motor Vehicle Division, Oklahoma Tax Commission

Presenters:
Lana Shelley, Assistant Commissioner/Deputy CIO, Virginia Department of Motor Vehicles
Boyd Dickerson-Walden, Director, Motorist Services Florida Department of Highway Safety & Motor Vehicles
Terrence Samuel, Director, Office of Motorist Modernization Florida Department of Highway Safety & Motor Vehicles
Linda Cone, Executive Assistant, DL Redesign Project, Tennessee Department of Safety and Homeland Security
System Redesign starts long before the first line of code is written for a new system. This session discusses the business process analysis, procurement, design, development, database migration and purification, testing, implementation, and maintenance of a system modernization effort as well as lessons learned. Also, learn about the newest AAMVA Working Group efforts and hear what the members are developing in best practices, lessons learned, etc.
Virginia Department of Motor Vehicles

Legacy Modernization

Lana Shelley, Assistant Commissioner/Deputy CIO,
Virginia Department of Motor Vehicles
Not everything Old is Obsolete

- Music career spanning more than 4 decades
- 1972 First album released
- 2014 18th album released
- Top ten grossing concert tour in 2013
- Average attendance at 2013/2014 tour was 27,804
Mainframe continues to support the core application economy

April 2014 marked the 50th Anniversary of the IBM 360
- 97 of the top 100 banks
- 23 of the top 25 retailers
- 60% of all data
- More mainframe transactions daily than web pages served
- 30 billion transactions processed every day

Fastest and most reliable computing platform
Why Modernize?

It's not about the capability of the platform.
Technology Support Gap

- Average age of mainframe professional is 58.6 years old
- Mainframe programming languages and database skills not taught in college programs
- Companies cannot attract young professionals unless they have the latest technologies
- Organizations must modernize to move forward
What did we do?

Agency tried the BIG BANG approach

- Several protracted efforts at defining every possible system change needed
  - Detailed requirements definition process
  - Extended effort to document all business rules embedded in Natural code
  - Hundreds of sessions with the users to get their “wish lists” documented
  - Expended funds on both software licenses and hardware
  - Worked on integration efforts to make purchased software packages work

- The Problem
  - Size and complexity of DMV applications
  - Level of customization needed
  - Application FREEZE during the effort
DMV Business Environment

- 75 Customer Service centers
- 9 Training Centers
- 5 Mobile units
- 54 DMV Select locations
- Online/Internet presence
End-of-Life Technology through disparate systems

- Multiple Customer Interfaces that are business and channel specific
- Business Logic exists in multiple layers throughout DMV channels
- Databases exist in ADABAS, SQL Server, Oracle DBS
- System of record for all DMV processing Natural / ADABAS
  - Implemented in the early 1990’s
  - Supports DMV, external and system-to-system use

System Maintenance and Enhancements Costly

- Change requests can result in coding in multiple systems and multiple platforms
- Employees and customers need to manage multiple logins
Provide a system architecture and set of processes by which DMV can develop, evolve, scale and maintain software that is flexible and meets the changing needs of our customers and employees in a cost-effective manner.
Goals and Objectives

- Leverage Investment in previous project investments and commitments
- Simplify Business through Technology
- Create and Support an Enterprise Architecture that is Adaptable and Industry-Standard
- Deliver measurable value, frequently
- Broken First
- User Interface tier is moved to the new architecture first
- Business Logic is addressed next in multiple groups
- Data moved last
- Delivers value frequently to the broadest user base
- Highest level of user involvement and commitment
- Reduces mainframe expense with each Business Logic transformation group
- Does not require data synchronization
- Lowest risk approach

The FACE Solution
The FACE Solution
Program Management

- Program Management
  - Defined in terms of goals that will be met through the execution of myriad projects
  - Each project will be independently approved and will deliver measurable value
  - Supports a flexible, goal-oriented model that allows the agency to adapt to changing demands and environment

- Adoption of Agile development methodology
  - Supportive and adaptable to changing business priorities
  - Determine agency product priorities and implementation solutions
  - Deliver real value to the agency at frequent intervals
  - Working software is the highest priority
  - Collaborative
Customer Service Transformation

- Early win! Front line employees transformed
- DMV system being designed by DMV employees for DMV employees
- Project completed in 14 months
- Provides a 360° view of the customer to enhance the customer service experience
- Resulted in $793,000 in annual savings through retirement of obsolete technology
Legacy “green screens” replaced with …..
Modernized Customer Service Application

CUSINF - CUSTOMER PRIMARY INFORMATION

CUST NO: T64206795 NAME: KUBICAN, GANGA, YOUNG
BIRTH: 07/15/1957 SEX: M CUST NAME TYPE: I
SSN: 993319988 DECEASED: N
RTRN CHK: N
UPDT DT: 03/31/15
**** CUST NOTES EXIST **** NO PERSONAL CHECKS: N
**** PRESS PF10 TO VIEW **** ORGAN DONOR: Y
PRIMARY MAILING ADDRESS: EFF: 03/25/15 LOC: 530
AD1: 3579 BERRYHILL DR DP REVOCATION: N
CITY: ROANOKE ST: VA ZIP: 240184403 CTRY:
JURIS: RICHMOND CITY SOURCE: CUSTOMER
ADDR EXCEPTION: EXP DATE:
DWELLING LOCATION: EFF: 03/25/15 LOC: 530
AD1: /
CITY: ST: ZIP: 240184403 CTRY:
SOURCE: CUSTOMER

If additional information required, please enter Choice:
A. Y DRIVER E. PRIVACY I. N VEH STOPS M. N EVENTS
B. N CUSTOMER STOPS F. Y VEH OWNERS J. N INS MON N. N LEGAL NAME
C. N ID CARD G. N PERMITS K. Y NUMBER HISTORY
D. Y PRIOR NAME/ADDR H. N USE AGREE L. N ORDERS
PF5=CHGADR PF6=TRMNEN PF7=LTRPRT PF8=PNTINQ PF9=DLHIST PF10=NOTES
PF11=ALTADR PF12=ID/LP/RES/SSN PF13=R22INQ PF14=DRELIG PF15=HAZMAT PF16=CUST#
Common Integration Services

- Supports transfer of data between DMV service channels and partners
- Reusable components
- Foundation that facilitates “Commonwealth Credential Integration” projects
  - Department of Game and Inland Fisheries: Hunting and Fishing Licenses and Registrations
  - Department of Health: Vital Records Certificate Issuance (Birth, Death, Marriage and Divorce)
  - Department of Transportation: Ez-Pass Issuance and account maintenance
  - Supreme Court of Virginia: Delinquent Court Fees and Fines payable at DMV Customer Service Centers
Vital Records Issuance

- Over 100,000 Birth Certificates issued in year 1!
- Expands walk-in certificate issuance from 1 VDH location to an additional 80 DMV locations
- Real-time data exchange between Department of Health and Motor Vehicles
- Certified certificate issuance on secure paper
- Leverages significant facility investment
Correspondence Transformation

- 30,000 letters issued weekly (1.56 m annually)
- Legacy solution SAS/Script at end of life
- High maintenance cost and IT involvement

Adobe solution supports business independence for correspondence changes

Reduce time and effort for implementing changes i.e. Effort to complete the Commissioner signature change in legacy system is over 300 hours reduced to 30 minutes with approvals in Adobe system and requires no IT intervention

Greater control over fonts, capitalization and general look and feel
**Start Anywhere Transaction**

- Customer starts the transaction through DMVNow at home, the office or anywhere with a mobile device
- Customer completes the application information
- The details are saved in a pending status and available through the in-person customer service
- Customer gets priority service when they arrive at any Customer Service Center
Customer Service Representative is notified of the pending transaction through the “alerts” section of the console.

One-click on the green arrow and all data completed on the web is transferred to the transaction.

Needed documents are verified and the customer is on their way.
Complete the *mySelect* roll-out for all HQ users
Complete a UI solution for external users
Retire 3270 connections
Retire legacy third-party software and interfaces
Transformation of Business Logic from Natural to .net
Transformation of Data from ADABAS to Oracle
Transformation goal: Mainframe independence by July 2017
Thank You

Lana Shelley, Assistant Commissioner/Deputy CIO, Virginia Department of Motor Vehicles
Florida Modernization
June 24, 2015
Boyd Dickerson-Walden
MoMo – Business Side Perspective

- Concept
- Stakeholders
- Commitment
- Communication
- Documentation
MoMo - Concept

- Current System
- Organizational Change
- Breaking the cycle

- Done it before (do it again, go, fight, win)
MoMo - Stakeholders

- Environment
- Early and often
- Buy in
- Legislative Support
MoMo - Commitment

- Leadership
- Resources
- Funding
- Priority
Governance
Decisions
Successes
Challenges
MoMo - Documentation

- Procedures
- Programs
- Repository
Commitment
Florida Modernization

June 24 2015

Terrence Samuel
Office of Motorist Modernization (OMM)

- Created in June 2012
- Leads the Modernization initiative
- Staff dedicated to Modernization effort
• Driver Related Issuance & Vehicle Enhancements (DRIVE)
  ➢ Electronic Filing System (EFS)
  ➢ Capture
TEAMWORK
coming together is a beginning
keeping together is progress
working together is success

- Henry Ford
Resources

• Office of Motorist Modernization (OMM)
  ➢ Utilizes team approach with Business & IT resources
  
  ➢ Recruitment of DL Examiners and Managers
APPROACH

Driver Licenses
- DL Issuance
- DL Portal
- MV & DL Renewal System
- DL Fee Engine

Motor Vehicles
- MV Issuance
- MV Portal
- Mobile Home Installer
- Dealer License
- Fleet Management
- Consumer Complaints
- MV Fee Engine

Back-End Systems
- Distribution & Refunds
- Accounting
- Call Center Expert System
- Notification for Salvage Dealers
- Other Reporting Functions

Phase 1
- Driver Licenses

Phase 2
- Motor Vehicles

Phase 3
- Back-End Systems
OBJECTIVES

- Create a Single View of the Customer
- Implement Self-Service Capabilities
- Utilize Real-Time Interfaces
- Streamline Data Input
- Meet Legal Requirements
- Track Transaction Accountability
- Design a System that Can Grow
- Improve Service Delivery
OVERSIGHT

3 Baseline Assessments
OVERSIGHT

2 Monthly Assessments
The image presents a risk state assessment of the MM Program (Phase I) with a focus on program governance, benefit realization, and sustainability as of 03 April 2015.

**Risk state with trending**

- Indicates that the area being assessed has critical issues that will result in significant risk to the project most likely resulting in either the inability to achieve the outcomes, inability to meet the projected schedule, or a significant cost over-run. Requires immediate action.
- Indicates that the area being assessed has issues that need to be resolved; inefficiencies exist. Current process/method can be used with refinement.
- Indicates that the area being assessed did not have significant issues to report. Continued monitoring should be performed.
- Indicates that the area being assessed has incomplete information available for a conclusive finding or is not applicable.

Program governance:
- Benefit realization and sustainability
- Capability and maturity
- Complexity profile
- Decision framework
- Business case integrity
- Performance management
- Organizational change management
- Compliance and regulatory
- Governance effectiveness
- Methodology and development
- Requirements engineering and design
- Security, BC and DR
- Data management
- Cutover and support
- Testing and validation
- Technical infrastructure
- Sustainability model
- Controls
- Project management
- Processes, controls, and predictability
- Technical solution
- Requirements development, quality and transition

**Risk state of the MM Program (Phase I)**

As of 03 April 2015, the risk state of the MM Program (Phase I) is assessed across various domains such as program governance, project management, human resource management, and technical solution. Each domain is subdivided into specific areas with associated risk states indicated by symbols and text descriptions.

- Red circle: Critical issues with high risk.
- Yellow square: Issues requiring refinement or resolution.
- Green square: No significant issues reported; ongoing monitoring.
- Light gray cube: Incomplete information or not applicable.
Risk state of the MM Program (Phase I)

- **Program governance**
  - Benefit realization and sustainability

- **Scope management**
  - G1

- **Business case integrity**
  - G2

- **Decision framework**
  - G3

- **Organizational change management**
  - G4

- **Performance management**
  - G5

- **Benefits design and realization**
  - G6

- **Compliance and regulatory**
  - G7

- **Technical infrastructure**
  - G8

- **Governance effectiveness**
  - G9

- **Complexity profile**
  - G10

- **Governance framework**
  - G11

- **Requirements development, quality and transition**
  - G12

- **Risk state with trending**

As of 12 June 2015

Program governance

- **Program governance**
  - Benefit realization and sustainability

- **Scope management**
  - G1

- **Business case integrity**
  - G2

- **Decision framework**
  - G3

- **Organizational change management**
  - G4

- **Performance management**
  - G5

- **Benefits design and realization**
  - G6

- **Compliance and regulatory**
  - G7

- **Technical infrastructure**
  - G8

- **Governance effectiveness**
  - G9

- **Complexity profile**
  - G10

- **Governance framework**
  - G11

- **Requirements development, quality and transition**
  - G12

Indicators:

- **Critical issues**
  - Indicates that the area being assessed has critical issues that will result in significant risk to the project most likely resulting in either the inability to achieve the outcomes, inability to meet the projected schedule, or a significant cost over-run. Requires immediate action.

- **Issues needing resolution**
  - Indicates that the area being assessed has issues that need to be resolved; inefficiencies exist. Current process/method can be used with refinement.

- **No significant issues**
  - Indicates that the area being assessed did not have significant issues to report. Continued monitoring should be performed.

- **Incomplete information**
  - Indicates that the area being assessed has incomplete information available for a conclusive finding or is not applicable.
## OVERSIGHT

### SCHEDULE DATA

<table>
<thead>
<tr>
<th>Metric</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned Start Date</td>
<td>November 1, 2013</td>
</tr>
<tr>
<td>Planned End Date</td>
<td>June 27, 2019</td>
</tr>
<tr>
<td>Actual / Projected End Date</td>
<td>June 27, 2019</td>
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</tbody>
</table>

### OVERALL PROJECT STATUS

- **Low**: 100%
- **Medium**: 90%
- **High**: 80%
- **Very High**: 70%

### KEY PROJECT PERFORMANCE INDICATORS

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Scope</td>
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<tr>
<td>Cost</td>
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<tr>
<td>Schedule</td>
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<tr>
<td>Risk Management</td>
<td>88%</td>
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<tr>
<td>Issues</td>
<td>90%</td>
</tr>
</tbody>
</table>
Governance

Tier 3 Approves projects that meet any of the following:
- $1M or greater
- Grant Funded/Legislative Funding
- Enterprise initiatives
- Integration with external entities or other agencies
- Confidential information will be shared with external entities or agencies
- Large multi-year
- Critical timelines

Tier 2 Approves project requests that meet any of the following:
- $200,000 to $1M
- Fully Funded
- Software Enhancement requests (Quarterly Releases)

Tier 1 Approves project requests that meet all of the following:
- Under $200,000
- Fully funded, supported and integrated within Tier 1 business unit

Tier 3 Executive Governance Committee (Executive Management)
- Establishes strategic vision
- Determines project priorities
- Assist with identification of funding (if needed)

Tier 2 Agency Business Leaders & PMO Managers from each division (appointed by Executive Management)
- Reviews and Prioritizes:
  - Software enhancement requests (Quarterly Releases)
  - Project requests elevated to the next level review meeting requirement
  - Recommends priorities

Tier 1 Division Level Governance Bodies (ISA, DAS, MS, FHP, OED)
- Reviews and Prioritizes:
  - Business Unit initiatives that will be elevated to the next level review.
Stakeholder Management

Stakeholder Identification

Stakeholder Analysis

Stakeholder Communication

Stakeholder Engagement

Umbrella designed by Jardson Araujo
• Communication and Engagement
  - “Visioning” Sessions
  - Office Visits
Thank you!

Terrence Samuel
Change is Good – You Go First
Working Group Update
June 24, 2015

Linda Cone, Executive Assistant, DL Redesign Project, Tennessee Department of Safety and Homeland Security
Change is good, however most Agencies prefer to exercise caution when analyzing what to change and when to make the change.
Solution – Best Practices Working Group!

Our purpose is to gather, organize and share information from available resources with the AAMVA Community related to all phases of System Modernization.
These Best Practices include information related to the procurement, development, design, testing, deployment and maintenance of modernized and/or redesigned driver license and vehicle systems.
• System Redesign Working Group Update

  – First working session held in St. Louis in April.

  – Diverse group of Industry Professionals

  – Participants from all Regions, 16 total
The group began by asking questions – lots of questions!!!
Out of these questions asked within the group, 23 specific areas were identified for further discussion.
Determining Direction was the next goal for our group.
Planning a multiple destination “trip”, the Group divided themselves and the work into smaller groups.
With assignments in hand, contact information available and our next meeting planned – We are ready for LIFT OFF!!!!
Thank You.