



**Colorado Automated Child Support Enforcement System
(ACES) Modernization Needs Assessment**

Book One:

Volume I: Assessment Results

Volume II: Requirements and Evaluation Criteria

May 4, 2010



Valdez International Project Team:

Bob Haycock, Haycock Strategies LLC

Matthew Richkus, MEGA NA Inc.



Table of Contents

Table of Figures	x
Revision History.....	xi
Acronym Glossary (A-Z)	xii
1.0 Executive Summary.....	1
1.1. Project Purpose	2
1.2. Process.....	2
1.3. Selected Findings	3
1.3.1. Critical Needs	4
1.3.2. Architectural Recommendations	6
1.4. Observations.....	7
1.5. Project Results.....	9
1.5.1. Work Products	9
1.6. Document Summary	12
2.0 Project Overview.....	14
2.1. Purpose.....	14
2.2. Objectives	15
2.2.1. Utilize An Enterprise Architecture Approach That Focuses On The Needs Of The Business	15
2.2.2. Establish CSE Strategic Vision and Program Needs	15
2.2.3. Establish Clear Linkages Between CSE Strategic Vision and Program Needs and the Features of a Future System.....	15
2.2.4. Develop Conceptual Target Architecture for the Modernized ACSES.....	16
2.2.5. Develop System Requirements for the Modernized ACSES.....	16
2.2.6. Develop Criteria for Solution Evaluation.....	16
2.3. Approach	16
2.3.1. Methodologies	16
2.3.2. Initiatives	17
2.3.2.1. Establish ACSES Strategic Context.....	17
2.3.2.2. Identify System Strategic Goals and Objectives	18
2.3.2.3. Examine ACSES Current Environment.....	18
2.3.2.4. Develop Target Business, Information, and Solution Architecture.....	18
2.3.2.5. Develop Target System Requirements and Evaluation Criteria.....	19
3.0 Program Environment.....	20
3.1. Stakeholder Descriptions and Relationships	20
3.1.1. Colorado Children and Their Parents.....	20
3.1.2. Colorado Child Support Enforcement Program (CSE)	20
3.1.3. Colorado Counties.....	20
3.1.4. Colorado Department of Human Services (CDHS)	20
3.1.5. Office of Information Technology	21
3.1.6. Colorado Legislature.....	21
3.1.7. U.S. Department of Health and Human Services (DHHS)	21
3.1.8. Other States	21
3.2. Organizational Relationships and Roles	21
3.2.1. Relationship of CSE Program Staff and OIT Technical Support Staff.....	22
3.2.2. Relationship of State CSE Program Staff and County Administrative Staff.....	22



3.3. System Interfaces	24
3.3.1. Federal Interfaces.....	26
3.3.2. Colorado State Interfaces	26
3.3.3. Judicial System Interfaces.....	26
3.3.4. Private Institution Interfaces.....	26
3.3.5. Outsourced Application Interfaces.....	27
3.3.6. CSE Internal Interfaces.....	27
3.4. Drivers and Mandates	27
3.4.1. Drivers	27
3.4.1.1. Support for Colorado’s children.....	27
3.4.1.2. Promoting self-sufficiency and stability for Colorado families.....	27
3.4.1.3. Reimbursement of Public Assistance	28
3.4.1.4. Collaboration with other CDHS programs	28
3.4.1.5. Legislative Action.....	28
3.4.1.6. The needs of Colorado counties.....	28
3.4.2. Mandates	28
3.4.2.1. The Social Security Act (Public Law 81-734), Title IV-Part D.....	28
3.4.2.2. The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) (Public Law 104-193).....	28
3.4.2.3. Colorado Revised Statutes Title 26, Part 13: Administrative Procedure for Child Support Establishment and Enforcement	29
3.4.2.4. Colorado Revised Statutes, Title 14, Part 14: Child Support Enforcement Procedures	29
3.4.2.5. Colorado Revised Statutes, Title 24, Article 85, Section 101; Title 24, Article 37.5, Section 202i: Information Technology Access for Individuals Who are Blind or Visually Impaired.....	29
3.4.2.6. Colorado House Bill 09-1285.....	29
3.4.2.7. The OCSE System Certification Guide.....	29
4.0 Vision	30
4.1. Operating Model.....	31
4.1.1. Background of CSE Operating Model.....	31
4.1.2. Current CSE Operating Model.....	33
4.1.2.1. Business Process Standardization.....	33
4.1.2.2. Data Integration	34
4.1.3. Target CSE Operating Model	34
4.1.3.1. The Coordination Model	35
4.1.3.2. The Unification Model	35
4.1.3.3. Projected System Architecture.....	35
4.2. CSE Performance Framework	35
4.2.1. Performance Framework Diagrams.....	38
4.3. Strategic Vision	45
4.3.1. Performance Gaps	45
4.3.1.1. Gap G1 – Excessive complexity and tight integration.....	45
4.3.1.2. Gap G2 – Limited number of subject-matter experts.....	45
4.3.1.3. Gap G3 – Limited searching and reporting capability	45
4.3.1.4. Gap G4 – Limited identity management capability	45
4.3.1.5. Gap G5 – Limited functions for statewide cases	46
4.3.1.6. Gap G6 – Limited integration with intrastate court systems	46
4.3.1.7. Gap G7 – Limited interstate functions	46
4.3.1.8. Gap G8 – No electronic forms capability.....	46
4.3.1.9. Gap G9 – Inadequate Access to ACSES Functions and Capabilities by Persons with Disabilities	46
4.3.1.10. Gap G10 – Limited hours of operation.....	46



4.3.1.11.	Gap G11 – No double-entry accounting capability	46
4.3.1.12.	Gap G12 – Manually-maintained financial ledgers	47
4.3.1.13.	Gap G13 – Decentralization of CSE financial management	47
4.3.2.	Strategic Improvement Opportunities.....	47
4.3.2.1.	Strategic Opportunity SO1 – Improve the ease of use of the system	47
4.3.2.2.	Strategic Opportunity SO2 – Implement the new system in conjunction with the legacy system.....	48
4.3.2.3.	Strategic Opportunity SO3 – Restructure ACSES into a more modular architecture.....	48
4.3.2.4.	Strategic Opportunity SO4 – Provide users with a graphical user interface.....	48
4.3.2.5.	Strategic Opportunity SO5 – Support a statewide case.....	48
4.3.2.6.	Strategic Opportunity SO6 – Refresh information in near-real-time	48
4.3.2.7.	Strategic Opportunity SO7 – Enhance online help and knowledge management capability	48
4.3.2.8.	Strategic Opportunity SO8 – Provide for advanced document management.....	49
4.3.2.9.	Strategic Opportunity SO9 – Provide electronic forms capability	49
4.3.2.10.	Strategic Opportunity SO10 – Add a web-based self-service capability	49
4.3.2.11.	Strategic Opportunity SO11 – Add a separate business rules capability.....	49
4.3.2.12.	Strategic Opportunity SO12 – Build into the new system the capability to capture, store, manipulate, and report on key operational and programmatic performance indicators	49
4.3.2.13.	Strategic Opportunity SO13 – Incorporate enhanced data management and protection capability	49
4.3.2.14.	Strategic Opportunity SO14 – Build into the new system enhanced audit and analysis capabilities	49
4.3.2.15.	Strategic Opportunity SO15 – Automate interface services to process data and transactions	49
4.3.2.16.	Strategic Opportunity SO16 – Incorporate business intelligence and dashboard capabilities	50
4.3.2.17.	Strategic Opportunity SO17 – Enhance ad hoc reporting capabilities.....	50
4.3.2.18.	Strategic Opportunity SO18 – Create a more effective means for performing data searches.....	50
4.3.3.	Strategic Improvement Alignment.....	50
4.4.	System Vision	52
4.4.1.	Key Characteristics of the Modernized ACSES	52
4.4.1.1.	User Focus.....	52
4.4.1.2.	Distributed Decision Making.....	53
4.4.1.3.	Real-time Information Exchange and Data Availability	53
4.4.1.4.	Network-Enabled Information Access	53
4.4.2.	Key Capabilities of the Modernized ACSES.....	54
4.4.2.1.	Statewide case architecture	54
4.4.2.2.	Concurrent Processing	54
4.4.2.3.	Enhanced Search and Retrieval of Information	54
4.4.2.4.	Electronic document generation, management, and storage.....	55
4.4.2.5.	Industry-standard double-entry accounting processes	55
4.4.2.6.	Accurate and reliable information exchange tools	55
5.0	ACES Current Architecture	56
5.1.	CSE As-Is Business Functions and Activities	56
5.1.1.	Business Function: Case Initiation (CI).....	58
5.1.2.	Business Function: Order Establishment and Modification (OEM)	58
5.1.3.	Business Function: Locate (LO).....	59
5.1.4.	Business Function: Case Management (CM).....	59
5.1.5.	Business Function: Collection Payment Processing (CP)	60
5.1.6.	Business Function: Collection Account Management (CA)	60



5.1.7.	Business Function: Financial Reconciliation and Settlement (FR)	61
5.1.8.	Business Function: Order Enforcement (OE)	61
5.1.9.	Business Function: Register Cases and Orders (State Case Registry) (RC)	62
5.1.10.	Business Function: State Directory of New Hires (SD)	62
5.1.11.	Business Function: Program Monitoring (PM)	63
5.1.12.	Business Function: Support (SP)	63
5.2.	CSE Value Chain	64
5.2.1.	Program Level	64
5.2.2.	Business Process Value Chains	65
5.3.	CSE Application Services	69
5.3.1.	IT Service: ACSES Chronology	69
5.3.2.	IT Service: ACSES Security	69
5.3.3.	IT Service: Alerts and Calendar Reviews	69
5.3.4.	IT Service: Archive Data	69
5.3.5.	IT Service: Case Initiation	69
5.3.6.	IT Service: Case Maintenance	70
5.3.7.	IT Service: Child Support Enforcement Network (CSENET)	70
5.3.8.	IT Service: ACSES Document Generation Service (DOCGEN)	70
5.3.9.	IT Service: Employer Maintenance	70
5.3.10.	IT Service: Enforcement	70
5.3.11.	IT Service: Establishment and Modification	70
5.3.12.	IT Service: Family Support Registry Customer Service (FSR)	71
5.3.13.	IT Service: Federal, Program and Operational Reporting	71
5.3.14.	IT Service: Financial Reconciliation	71
5.3.15.	IT Service: Interstate Network	71
5.3.16.	IT Service: Ledger / NIVD Account / Financial History Management	71
5.3.17.	IT Service: Locate	71
5.3.18.	IT Service: Payment and Disbursement Processing	71
5.3.19.	IT Service: State Case Registry/Federal Case Registry	71
5.3.20.	IT Service: State Directory of New Hires	72
5.3.21.	IT Service: Table Maintenance	72
5.4.	Architecture Component Relationships	72
5.4.1.	Activities	73
5.4.2.	Business Functions	74
5.4.3.	Performance Goals, Objectives And Metrics	74
5.4.4.	Strategic Improvement Opportunities	74
5.4.5.	Performance Gaps	75
5.4.6.	Indicators	75
5.4.7.	Requirements	75
5.4.8.	IT Services	76
5.5.	City Plan Diagrams	76
5.5.1.	Case Initiation	78
5.5.2.	Order Establishment and Modification	80
5.5.3.	Locate	82
5.5.4.	Case Management	84
5.5.5.	Collection and Payment Processing	86
5.5.6.	Collection Account Management	88
5.5.7.	Financial Reconciliation and Settlement	90
5.5.8.	Order Enforcement	91



5.5.9.	Register Cases and Orders.....	94
5.5.10.	State Directory of New Hires	96
5.5.11.	Program Monitoring.....	97
5.5.12.	Support	100
5.6.	Observations and Implications	103
5.6.1.	System Functions	103
5.6.2.	Staff and SMEs.....	104
5.6.3.	System Documentation.....	104
5.6.4.	External Application Systems	104
5.6.5.	External Interfaces.....	105
5.6.6.	Worker Training.....	105
5.6.7.	Irrelevant Reporting	105
5.6.8.	Menu Structure.....	106
5.6.9.	Productivity Applications	106
5.6.10.	Application Services	106
5.7.	Conclusions	107
5.7.1.	Design with a Process Approach	107
5.7.2.	Reduce Complexity.....	107
5.7.3.	Reduce Staff Risk.....	108
5.7.4.	Reduce Data Exchange Complexity	108
5.7.5.	Improve Data Access	108
6.0	ACES To-Be Architecture	109
6.1.	Introduction To-Be Architecture	109
6.2.	Performance Gap Analysis	109
6.2.1.	Gap G1: Excessive Complexity and Tight Integration.....	110
6.2.2.	Gap G2: Limited Number of Subject-matter experts.....	112
6.2.3.	Gap G3: Limited Searching and Reporting Capability	114
6.2.4.	Gap G4: Limited Identity Management Capability	116
6.2.5.	Gap G5: Limited Functions for Statewide Cases	117
6.2.6.	Gap G6: Limited Integration With Intrastate Court Systems	119
6.2.7.	Gap G7: Limited Interstate Functions	121
6.2.8.	Gap G8: No Electronic Forms Capability	123
6.2.9.	Gap G9: Inadequate Access to ACSES Functions and Capabilities by Persons with Disabilities	124
6.2.10.	Gap G10: Limited Hours of Operation	126
6.2.11.	Gap G11: No Double-Entry Accounting Capability	128
6.2.12.	Gap G12: Manually-Maintained Financial Ledgers	129
6.2.13.	Gap G13: Decentralization of CSE Financial Management.....	131
6.3.	Strategic Improvement Opportunity Analysis	133
6.3.1.	Strategic Opportunity SO1: Improve the Ease-of-Use of the System.....	134
6.3.2.	Strategic Opportunity SO2: Implement the New System in Conjunction With the Legacy System.....	136
6.3.3.	Strategic Opportunity SO3: Restructure ACSES Into A More Modular Architecture	138
6.3.4.	Strategic Opportunity SO4: Provide Users With A Graphical User Interface	139
6.3.5.	Strategic Opportunity SO5: Support A Statewide Case.....	141
6.3.6.	Strategic Opportunity SO6: Refresh Information In Near-Real-Time	142
6.3.7.	Strategic Opportunity SO7: Enhance Online Help And Knowledge Management Capability.....	144
6.3.8.	Strategic Opportunity SO8: Provide For Advanced Document Management.....	146



6.3.9.	Strategic Opportunity SO9: Provide Electronic Forms Capability.....	147
6.3.10.	Strategic Opportunity SO10: Add A Web-Based Self-Service Capability	149
6.3.11.	Strategic Opportunity S11: Add A Separate Business Rules Capability.....	151
6.3.12.	Strategic Opportunity S12: Build Into The New System The Capability To Capture, Store, Manipulate And Report On Key Operational And Programmatic Performance Indicators.....	152
6.3.13.	Strategic Opportunity SO13: Incorporate Enhanced Data Management And Protection Capability	154
6.3.14.	Strategic Opportunity SO14: Build Into The New System Enhanced Audit And Analysis Capabilities	156
6.3.15.	Strategic Opportunity SO15: Automate Interface Services To Process Data And Transactions.....	157
6.3.16.	Strategic Opportunity SO16: Incorporate Business Intelligence And Dashboard Capabilities	159
6.3.17.	Strategic Opportunity SO17: Enhance Ad-Hoc Reporting Capabilities.....	162
6.3.18.	Strategic Opportunity SO18: Create A More Effective Means For Performing Data Searches	164
6.4.	New CSE Activities	165
6.4.1.	Federal Timeframe Tracking.....	166
6.4.2.	Manage Interstate Cost Ledgers	167
6.4.3.	Enhance Financial Reconciliation	168
6.4.4.	Manage Manual Locate Activities.....	168
6.5.	New IT Services	169
6.5.1.	Web-Based Self-Service Service.....	169
6.5.2.	Records and Document Management Service	170
6.5.3.	Identity Management Service.....	172
6.5.4.	Medical Support Enforcement Service.....	173
6.5.5.	Electronic Forms Service.....	174
6.5.6.	Financial Accounting Service.....	175
6.5.7.	Financial Reporting Service.....	177
6.5.8.	Business Intelligence Service.....	178
6.5.9.	Financial Data Mart Service	180
6.5.10.	Case Management Data Mart Service.....	181
6.5.11.	Locate Data Mart Service	182
6.5.12.	Enforcement Data Mart Service.....	183
6.5.13.	Locate Management Service.....	183
6.5.14.	NIVA Application Fee Service	184
6.5.15.	Interstate Cost Recovery Service	185
6.5.16.	Specific-Amount Medical Service.....	185
6.5.17.	Multiple County Foster Care Service.....	186
6.5.18.	Emancipated Child Current Maintenance and Arrears Due Tracking Service	188
6.5.19.	Customer Relationship Management (CRM) Service	188
6.5.20.	Issue Management Service.....	189
6.5.21.	Data Management Service.....	190
6.5.22.	Automated Data Exchange Service	192
6.5.23.	Caseload Management Service.....	193
6.5.24.	Judicial Order Management Service.....	194
6.5.25.	Performance Indicator Management Service	195
6.5.26.	Federal Timeframe Tracking Service	196
6.5.27.	Data Access Services	198



6.6. As-Is and To-Be City Planning Areas	198
6.6.1. Case Initiation.....	199
6.6.1.1. New CSE Activities	199
6.6.1.2. New CSE Services.....	199
6.6.2. Order Establishment and Modification	201
6.6.2.1. New CSE Activities	202
6.6.2.2. New CSE Services.....	202
6.6.3. Locate.....	203
6.6.3.1. New CSE Activities	203
6.6.3.2. New CSE Services.....	203
6.6.4. Case Management	204
6.6.4.1. New CSE Activities	205
6.6.4.2. New CSE Services.....	205
6.6.5. Collection Payment Processing.....	206
6.6.5.1. New CSE Activities	207
6.6.5.2. New CSE Services.....	207
6.6.6. Collection Account Management.....	208
6.6.6.1. New CSE Activities	209
6.6.6.2. New CSE Services.....	209
6.6.7. Financial Reconciliation and Settlement	210
6.6.7.1. New CSE Activities	210
6.6.7.2. New CSE Services.....	210
6.6.8. Order Enforcement.....	212
6.6.8.1. New CSE Activities	213
6.6.8.2. New CSE Services.....	213
6.6.9. Register Cases and Orders.....	214
6.6.9.1. New CSE Activities	214
6.6.9.2. New CSE Services.....	215
6.6.10. State Directory of New Hires	216
6.6.10.1. New CSE Activities	216
6.6.10.2. New CSE Services.....	216
6.6.11. Program Monitoring.....	218
6.6.11.1. New CSE Activities	218
6.6.11.2. New CSE Services.....	218
6.6.12. Support	220
6.6.12.1. New CSE Activities	221
6.6.12.2. New CSE Services.....	221
6.7. ACSES Modernization Solution Architecture Approaches.....	221
6.7.1. N-Tiered Application Architecture.....	221
6.7.2. Application Modularity	223
6.7.3. Interoperability and Legacy Migration.....	224
6.7.4. Infrastructure Middleware	225
6.7.5. Service-Oriented Architecture	226
6.7.6. Logical Data Model	227
6.8. ACSES Modernization Solution Architecture Recommendations	229
6.8.1. Loose Coupling of ACSES Major Business Functions	230
6.8.2. Logical And Physical Separation Of Application Layers.....	230
6.8.3. Off-the-Shelf Application Components.....	230
6.8.4. Online Help and Knowledge Management	230
6.8.5. Discrete Service Components for Data Exchange.....	231
6.8.6. Business Intelligence Data Warehouse and Data Marts	231
6.8.7. Graphical User Interface.....	231



7.0 Conclusion	232
7.1. Needs Assessment Results Summary	233
7.1.1. Organizational Relationships and Roles.....	233
7.1.2. ACSES System Interfaces.....	233
7.1.3. CSE Operating Model.....	233
7.1.4. CSE Performance Framework.....	234
7.1.5. Performance Gaps and Strategic Improvement Opportunities	234
7.1.6. System Vision	235
7.1.7. Business Functions and Activities and IT Services	236
7.1.8. Architectural Component Relationships	237
7.2. Current Architecture Observations	237
7.2.1. System Functions	238
7.2.2. Staff and SMEs.....	238
7.2.3. System Documentation.....	238
7.2.4. External Application Systems	238
7.2.5. External Interfaces.....	238
7.2.6. Worker Training.....	238
7.2.7. Irrelevant Reporting	239
7.2.8. Menu Structure.....	239
7.2.9. Productivity Applications	239
7.2.10. Application Services	239
7.3. Target Architecture Conclusions and Themes	239
7.3.1. Design with a Process Approach	239
7.3.2. Reduce Complexity.....	240
7.3.3. Reduce Staff Risk	240
7.3.4. Reduce Data Exchange Complexity	240
7.3.5. Improve Data Access.....	241
7.4. ACSES Modernization Solution Architecture Approaches	241
7.4.1. N-Tiered Application Architecture.....	241
7.4.2. Application Modularity	241
7.4.3. Interoperability and Legacy Migration.....	241
7.4.4. Infrastructure Middleware	242
7.4.5. Service-Oriented Architecture	242
7.5. ACSES Modernization Solution Architecture Recommendations	242
7.5.1. Loose Coupling of ACSES Major Business Functions	242
7.5.2. Logical And Physical Separation Of Application Layers.....	242
7.5.3. Off-the-Shelf Application Components.....	242
7.5.4. Online Help and Knowledge Management	243
7.5.5. Discrete Service Components for Data Exchange.....	243
7.5.6. Business Intelligence Data Warehouse and Data Marts	243
7.5.7. Graphical User Interface.....	243
7.6. Overarching Observations	243
7.6.1. Modernization has Broad Implications	243
7.6.2. ACSES Provides and Supports the Required CSE Business Functions	244
7.6.3. ACSES Modernization is Necessary.....	244
7.6.4. Collaboration and Co-location are Beneficial.....	245
7.6.5. The CSE Program and ACSES are Complex.....	245
7.7. Closing Comment	246



8.0	Epilogue.....	247
8.1.	Rationale for Modified Approach	247
8.2.	Modernization Planning	248
8.2.1.	High-Level Modernization Planning	248
8.2.2.	Detailed Modernization Planning.....	248
8.3.	Using the Needs Assessment.....	249
	Appendix A: CSE Performance Framework.....	250
A.1	Overview.....	250
A.2	Customer Results Measurement Area	251
A.3	Human Capital Measurement Area	252
A.4	Business Results Measurement Area.....	252
A.5	Processes and Activities Measurement Area	253
A.6	Technology Measurement Area.....	255
	Appendix B: Federal Timeframe Requirements	257
B.1.	Timeframe Summary	257
B.2.	Timeframe Detail	259
	Appendix C: ACSES-Generated Reports.....	266
C.1	Report Definitions.....	266
C.2	Current ACSES Reports	267
C.3	Discontinued Reports	286
	Appendix D: External Applications.....	289
D.1	External Application Systems	289
D.2	Productivity Applications.....	290
	Appendix E: Summary of Work Products	291
E.1	Final Documentation	291
E.2	System Scope and Strategic Context.....	292
E.3	Strategic Goals, Objectives, and Vision.....	292
E.4	Current (As-Is) Architecture	293
E.5	Conceptual Target (To-Be) Architecture.....	294
E.6	Requirements and Evaluation Criteria	296