# A APPENDIX A - GLOSSARY

The following terms and definitions are presented for general information. In the event of a conflict, the language in the RFP shall govern.

| Term or Acronym | Glossary Definition |
|---|---|
| ABH | Advanced Behavioral Health, the developer of DHS's CCFH CEDARR system |
| Ad Hoc Report | A report not specified in the RFP, produced for a particular purpose and not intended to become a permanent reporting requirement |
| ACS | Affiliated Computer Services, Inc. – a contractor company working for DHS |
| ADAP | AIDS Drug Assistance Program – administered by the Dept. of Health |
| APD | Advance Planning Document |
| BENDEX | Beneficiary Data Exchange System - a file containing data from the Federal government regarding persons receiving benefits from the Social Security Administration |
| BI | Business Intelligence – the process of gathering business information including standard database reports and OLAP output. |
| Business Days | Official hours of operation based on a five-day workweek, excluding Saturdays, Sundays, and official State holidays |
| CAH | DHS Center for Adult Health |
| CCFH | DHS Center for Child and Family Health |
| CEDARR | Comprehensive Evaluation, Diagnosis, Assessment, Referral and Reevaluation services and supports – a one-stop source of information for Rhode Island families |
| CHOICES | Citizenship, Health, Opportunities, Interdependence, Choices, Environments, and Supports – a statewide systems change initiative for supporting individuals with developmental disabilities |
| CMS | Centers for Medicare and Medicaid Services (formerly HCFA) – the agency within the United States Department of Health and Human Services responsible for administering Medicaid |
| CMS Certification | CMS certification requirements outlined in the State Medicaid Manual. |
| CQI | Continuous Quality Improvement |
| Contract | The written, signed agreement resulting from the RFP for design, development, implementation, operation, and maintenance of the CHOICES MMIS Module |
| Contractor | Vendor with whom the State has successfully executed a contract under this RFP |
| Cube | Used in a data warehouse context, refers to a collection of multi-dimensional data. E.g. Clients or Claims. |
| Data Mining | Information extraction software that analyzes databases and uncovers hidden facts within the data |

| Term or Acronym | Glossary Definition |
|---|---|
| Data Warehouse | A database with integrated information from multiple data sources to allow users to do analysis and reports. Compared to traditional reporting systems, a data warehouse offers ease of use, speed, security, and a transparent published list of kinds of data contained in the system. |
| Days | Calendar days unless otherwise specified |
| DBA | Database Administrator |
| DBMS | Database Management System |
| DCYF | State of Rhode Island Department of Children, Youth, and Families |
| DD | Developmental Disabilities |
| DDD | State of Rhode Island Division of Development Disabilities – a division of the Department of Mental Health, Retardation, and Hospitals |
| DDI | Design, Development, and Implementation |
| DEA | State of Rhode Island Department of Elderly Affairs |
| Dimension | Used in the data warehouse context, refers to ways the data can be analyzed in a cube. E.g. for a client cube, a dimension could be a person's gender. Dimensions can be thought of data attributes such as gender used to organize the OLAP measure data. |
| DIS | Detailed Implementation Schedule for CMS |
| DMHRH (also called MHRH) | State of Rhode Island Department of Mental Health, Retardation, and Hospitals |
| DHS | State of Rhode Island Department of Human Services |
| DOH | State of Rhode Island Department of Health |
| DoIT | State of Rhode Island Department of Information Technology, formerly known as OLIS |
| DOT | Dept. of Transportation |
| DSS | Decision Support System |
| DUR | Drug Utilization Review Board |
| ECU | DHS Rite Share Employer Contact Unit |
| EDS | Electronic Data Systems Corporation |
| EHR | Electronic Health Records |
| EPSDT | Early and Periodic Screening, Diagnostic and Treatment |
| ETL | Extract, Transfer, & Load – a term to describe the software used to move data from multiple data sources, reformat/cleanse it, and load it into another database. |
| FA | Fiscal Agent |
| FEIN | Federal employee identification number |
| FFP | Federal Financial Participation |
| FTE | Full-Time Employee |
| GUI | Graphical User Interface - a "point and click" interface to a program, composed of menus, dialog windows, push-buttons, etc. |

| Term or Acronym | Glossary Definition |
|---|---|
| HCBS | Home- and Community-Based Services |
| HCFA | See CMS definition |
| HCPCS | Healthcare Common Procedure Coding System |
| HI | Hospital Insurance |
| Hierarchy | Used in the data warehouse context, refers to the organization of dimension data into a tree structure. E.g. the time state fiscal year dimension can have hierarchies of year, quarter, and month |
| HRIC | Human Resource Investment Council |
| InRhodes | The State of Rhode Island's automated eligibility system |
| JAD | Joint Application Design |
| JCAHO | Joint Commission on Accreditation of Healthcare Organizations |
| Katie Beckett | A type of medical assistance eligibility program to help certain children under the age of 18 that may be eligible for Medical Assistance if they have a disability and live at home. |
| LAN | Local Area Network |
| LTC | Long Term Care Subsystem |
| MAR or MARS | Management and Administrative Reporting Subsystem |
| MBE | Minority Business Enterprise |
| MBI | Medicare Buy-In |
| MDS | Minimum Data Set – an assessment to determine a client's degree of functionality |
| Measure | Used in the data warehouse context, refers to numeric data stored in a cube. E.g. client counts or budget dollars. |
| Medicaid | The joint State/Federal medical assistance program established by Title XIX of the Social Security Act |
| Medicare | The federal health insurance program authorized by Title XVIII of the Social Security Act |
| MHRH | See DMHRH |
| MITA | Medicaid Information Technology Architecture – document from CMS |
| MMA | Medicare Modernization Act – federal legislation |
| MMIS | Rhode Island's federally-certified Medicaid Management Information System |
| Must | Indicates a mandatory requirement or conditions to be met; see "Shall" and "Will" |
| NDC | National Drug Code - a generally accepted system for the identification of prescription and non-prescription drugs available in the United States |
| OHHS | State of Rhode Island Office of Health and Human Services – the secretariat containing the following five agencies: DCYF, DEA, DHS, DOH, and MHRH |
| OIG | Office of Inspector General |

| Term or Acronym | Glossary Definition |
|---|---|
| OLAP | OnLine Analytical Processing – a term to describe data warehouse technology |
| OLIS | Old name of DoIT – stood for Office of Library & Information Services |
| OLTP | OnLine Transactional Processing – a term describing databases used in data entry and retrieval of transactions |
| Omnia | Synergy Software's Omnia software – to intake assessment data and to allow customization of assessments |
| OMR | DHS's Office of Medical Review |
| On-Line | Use of a computer terminal with visual display to immediately access computer files |
| Optional | Additional Operational Functions also called "Optional" - additional MMIS functionalities to be bid upon as specified in the RFP |
| PA | Prior Authorization |
| PARI | People Actively Reaching Independence |
| PASRR | Pre-Admission Screening and Resident Review |
| PCCM | Primary Care Case Management |
| PCI | Personal Capacities Inventory |
| PDP | Prescription Drug Plan |
| PERS | Personal Emergency Response System |
| PHI | Protected Health Information - any information in the medical record or designated record set that can be used to identify an individual and that was created, used, or disclosed in the course of providing a health care service such as diagnosis or treatment. |
| POS | Pharmacy Point-Of-Sale – a pharmacy benefit management option. Also stands for Provider of Service |
| PRO | The state's Peer Review Organization |
| ProDUR | Prospective Drug Utilization Review |
| QMB | Qualified Medicare Beneficiary |
| RDBMS | Relational Database Management System |
| RFP | Request for Proposal |
| RHIO | Regional Health Insurance Organization |
| RICHIST | Rhode Island Children's Information System under DCYF |
| RIPAE | Rhode Island Pharmaceutical Assistance to the Elderly program administered by DEA |
| RIte Care | Rhode Island's health insurance program for children and families provides comprehensive health care in one of three participating Health Plans (United Healthcare, Neighborhood Health Plan, and Blue Chip). RIte Care is part of RI's Medical Assistance Program. |
| RIte Share | A health insurance plan Premium Assistance Program for children and families eligible for Medical Assistance (based on income and family size) and whose employer offers an approved health insurance plan. |

| Term or Acronym | Glossary Definition |
|---|---|
| SAMS | Synergy Software's (Essex Junction, VT) Social Assistance Management System (SAMS) software used by DEA. www.synergysw.com |
| SCHIP | State Children's Health Insurance Program |
| SDX | State Data Exchange System - the Social Security Administration's method of transferring SSI entitlement information to the State |
| Shall | Indicates a mandatory requirement or condition to be met: see "must" and "will" |
| SLMB | Specified Low Income Beneficiary |
| SMI | Supplemental Medical Insurance |
| SOA | Service Oriented Architecture – a technical architecture of shared services that allows data communication between two entities via the web and through a mutually-understood data transport mechanism such as XML. |
| SQL | Structured Query Language - for the definition, organization, and retrieval of data in a database management system, including the tools for transaction, management, data integrity, and data administration |
| SSA | Social Security Administration – an agency of the Federal government |
| SSDI | Social Security Disability Insurance |
| SSI | Supplemental Security Income |
| State | State of Rhode Island |
| Subcontractor | Party contracting with the Contractor and approved by the State |
| SUR or SURS | Surveillance and Utilization Review Subsystem |
| Title XVIII | Federal health insurance for the aged and disabled - Medicare legislation |
| TPL | Third Party Liability |
| TrOOP | True Out of Pocket – a Medicare provision. Includes a TrOOP data interchange mechanism to assure proper interaction with the primary plan from the PDP. |
| TRW | Company that formerly owned Northrup Grumman - a contractor company working for DHS |
| UCAT | The Uniform Client Assessment Tool used by DEA. This assessment is a shorter version adapted from the MDS. |
| UI | Unemployment Insurance. Also can mean User Interface in a software application sense. |
| WAN | Wide Area Network |
| WBS | Work Breakdown Structure |
| Will | Indicates a mandatory requirement or condition to be met: see "must" and "shall" |
| XML | eXtensible Markup Language |

# B APPENDIX B - DOCUMENT LIBRARY GENERAL INFORMATION

The following documents are available in the Document library:

## General Information

1. Advance Planning Document
2. 1915(c) Waiver Information
3. Information on DDD's Informix system, including screen shots and reports
4. Information on the Enhanced Home Health Reimbursement program
5. Reports from the State's Peer Review Organization (PRO)
6. Reports from the DUR Board

# C APPENDIX C – DOCUMENT LIBRARY FORMS AND SELECTED REPORTS

The following forms/reports are included in the Document Library

**Core:** Forms and the selected reports listed as Core functionality in the noted RFP section

1. SF-36 (Brief Health Assessment) – Section 5.5
2. CP-1 (DHS Eligibility Assessment: Level of Care) – Section 5.5
3. CP-5 (DHS Individual Plan of Care) – Section 5.5
4. OMR Case Management Assessment – Section 5.5
5. Form CP-12 (Notification of Recipient Choice) – Section 5.5
6. Form #150M-SLA (SLA termination notice) – Section 5.5
7. Form #117A (Parent Subsidy Aid Program Certification of Parent Applicant) – Section 5.5
8. Form #117D (Parent Subsidy Aid Program Recertification) – Section 5.5
9. Abbreviated version of the Minimum Data Set (MDS) for Home Care – Section 5.5
10. ConnectCARRE Program Referral Form and ConnectCARRE Individual Baseline Profile – Section 5.5
11. Reports on program measures for ConnectCARRE, including functional status, acute care utilization, flu and pneumonia immunization, smoking cessation, and specific indicators for diabetes, congestive heart failure, chronic obstructive pulmonary disease, asthma, sickle cell, and depression – Section 5.8
12. Reports for tracking timeliness – to check the time between referral and enrollment, complaints to resolution – Section 5.8
13. Quarterly ConnectCARRE program reports – Section 5.8
14. Department of Health Continuity of Care Form - from provider agencies – Section 5.9

**Optional:** Forms listed as Optional functionality in the noted RFP section

1. DDD Application for Services – Section 5.4
2. DDD (5) different versions of cover letter for application – Section 5.4
3. DDD Eligibility Contact Sheet – Section 5.4
4. DDD Cover letter for release of confidential information – Section 5.4
5. DDD Authorization for Release of Confidential Information form – Section 5.4
6. DDD (5) different versions of receipt letter notifying applicant regarding status of application, including a notice that certain documentation has not been received. – Section 5.4
7. DDD eligibility approval/denial letters (7 letters total - 3 for approvals and 4 for denials) – Section 5.4
8. DDD Situational Assessment – Section 5.5
9. Personal Capacities Inventory (PCI) – Section 5.5
10. DDD Confidential Incident Report– Section 5.8
11. DDD Provider Quality Improvement Plan (an incident follow-up) – Section 5.8
12. DDD Health Care Quarterly Report – Section 5.9

13. DDD Mortality Reporting and Review Form – Section 5.9
14. Caseload Update by Agency Form
15. Caseload Update by Social Worker Form
16. MR/DD Form 118-a (Certification/Recertification for Title XIX Waiver) – Section 5.5
17. DDD Information Update Sheet – Section 5.5 – no information available
18. Form 118-b (Plan of Care) – Section 5.6
19. Form 118-f (Respite Authorization) – Section 5.6
20. Provider applications (DDD and Enhanced Home Health Reimbursement) – Section 5.7
21. W-9 – Section 5.7
22. Generate notices to persons/consumers regarding the status or resolution of their complaint, grievance, or appeal – Section 5.8. Forms included are:
    a. DDD eligibility appeal letters.
23. Application for Access Independence II program, including cover letters, letters regarding status of application, denial letters, and letters approving the application – Section 5.10. Forms included are:
    a. Application
    b. Access Independence program letters

# D APPENDIX D - HARDWARE/SOFTWARE

DHS EDS/MMIS

SERVERS

| Server | Function |
|---|---|
| RisunP: Sun Enterprise 6500 – 4 GB memory, 8 - 464 MHz CPU's, 1125 GB disk | Production Processing, Print Server |
| Risun1: Sun Enterprise 5500, 4 GB memory, 8 - 400 MHz CPU's, 325 GB disk | Development & Testing, Tape, Network Server |
| Risun2: Sun Enterprise 5500, 4 GB memory, 8 - 400 MHz CPU's, 250 GB disk | Ad-Hoc, Sur, Bus. Objects Terminal Application Server |
| Risun4: Sun Enterprise 250, 450 MHz CPU, 512 MB Memory, 36 GB disk | POS, Distributed Tuxedo Server |
| Risun5: Sun SparcClassic | Brixton SNA PU2/5 Server |
| Risun6: Sun SparcStation 10 Central Data 16-port SCSI Terminal Server Modems: 4-UDS Motorola 28.8 baud | ECS server |
| Risun7: Sun SparcStation 10 Central Data 16-port SCSI Terminal Server | VIKING Data Entry Server |
| Risun8: Sun Enterprise 250, 450 MHz CPU, 512 MB Memory, 36 GB disk | Backup Server |
| Risun3: Ultra 5 333 MHz CPU, 256 MB Memory, 9 GB disk | E-trust Unix test server |
| 2-Sun Ultra-10 Servers, 440 MHz proc, 256 MB, 18 GB | OLD DHS Web Firewalls |
| (17)-Dell 2650 Servers, 2-PXeon 2.4 GHz, 2.5 GB, 72.8 GB. (1)-Dell 2650 Server, 2-PXeon 2.4 GHz, 1.0 GB, 182GB. (2)-Dell 1650 Server, 2-PIII 1.4 GHz, 512 MB, 72.8 GB | Citrix Metaframe XP Farm |
| RINTVRS: 1- IntervoiceBrite VRS Proprietary System, 1-UltraFlex 40max CD drive | Voice Response Unit |
| 1-Dell 1750 Server | Filenet Prod02 |
| 1-Dell 2850 Server | Filenet Prod01 |
| 1-Dell 2650 Server | Filenet Dev01 |
| 2-Dell GX270 Workstations | Filenet Wks, prod & devel |
| 2- Dell 2850 Servers | Etrust Servers |
| 1- Dell 2850 Server | SNA Gateway Server |
| 7- Dell 2850 Servers | WEB Servers |
| 1- Dell 1650 Server + Zoom 8-Port Modem | WEB RAS Server |
| 3-IBM 5000R Servers, 2-PIII 500 MHz proc, 512 MB, 27 GB | OLD Web Servers |

## INPUT & OUTPUT EQUIPMENT

Tapes:

| | |
|---|---|
| Qualstar 20-tape jukebox with 2-Sony AIT drives | Database & System backup |
| Qualstar 40-tape jukebox with 3-Sony AIT drives | LAN & WEB backup |

Printers:
1 Xerox Phaser 5500 Laser Printer
1 Printronix P9212 Line Printer
1 Standard Register burster/trimmer

Keyboard Video Mouse Switches:

| | |
|---|---|
| 2-Dell 16 Port units | Dell Hosts |
| 1-Outlook 8 Port unit | Misc Hosts in Dell Racks |
| 1-Avocent Autoview 2000 16-port | Dell Hosts |
| 1-Avocent Autoview 200/400 8-port | Sun Hosts |

| | |
|---|---|
| 5-APC Netshelter VX Racks | Dell, Web, Citrix, Comm |
| 3-Dell Racks | Misc. & Sun |

Uninterruptible Power Systems:
1 APC Symmetra 40 KVA system

Air Conditioning:
2 APC 8-Ton Redundant systems

## COMMUNICATIONS & SUPPORT EQUIPMENT

| | |
|---|---|
| 2-ICC 96-port Hub | Lan Cabling |
| 8-Cisco 2924 Catalyst Switches | Hub Upload |
| 1-Cisco 3548 Catalyst Switch | Lan Access |
| 1-Cisco Catalyst 4503 with 48 RJ45 and 6-Fibre | Lan Access |
| | |
| 1-Cisco 2912 Catalyst Switch | Outside Circuit Connectivity |
| 1-Cisco 1700 Router | Web Vault ISP |
| 1-Cisco 2610 Router | HIPAA Translator |
| 1-Cisco 3800 Router | RI State Network |

State of RI Gateway
1-Cisco 2924 Catalyst Switches
1-Cisco 4240 IPS – Intrusion Prevention System
1-Cisco PIX 515E Firewalls with failover duplication

Web Vault
1-Cisco 2924 Catalyst Switches
1-Cisco 4215 IDS – Intrusion Detection
2-Cisco PIX 515E Firewalls with failover duplication
4-Cisco 2940 Cisco Switches

WAN Comm lines:

1-T1 to Auburn Hills
2-T1 to ISP for Web Vault
1-T1 to Maximus
1-T1 to Heritage
1-56K to Web MD
1-56K to EDS Building Access Security

## SOFTWARE

| Software Group | Host Systems | Software Name |
|---|---|---|
| Operating Systems | Risun5-7 | Sun Solaris 2.6 |
| | RisunP, 1, 2, 8,4 | Sun Solaris 9 |
| | IBM Servers | Microsoft Windows NT 4.0 SP 6.0a Server with BackOffice |
| | IBM Servers | Microsoft Win 2000 Standard Server SP3 |
| | IBM PC 500 | IBM OS/2 Warp |
| | Dell Servers | Microsoft Win 2000 Standard Server SP2 |
| | Dell Servers | Microsoft Win 2003 Standard Server V5.2 |
| | PC's | NT 4.0 / Win 2000 / WinXP |
| | PC's | Office 2000 / Office 2003 / Office XP |
| Systems Software | Sun 1, 2, P | Sun Volume Manager |
| | Sun 6, 7 | Sun SunLink FDDI |
| | Sun 1, 2, P | Opt-Tech Sort |
| | Sun 2, 5 | Brixton Systems SNA Emulation |
| | Sun 1, 2, P | MicroFocus Cobol[1] |
| | Sun 1, 2, P | Sun Forte "C" compiler[1] |
| | Sun 1, 2, 8, P | CA_Ingres Database System |
| | Dell 2650's | Citrix XP FR2.0 |
| | Dell 1650's | Citrix Nfuse FR2.0 |
| Application Software | Sun 1, 2, 8, P | IMC Tuxedo Transaction Processing Sys V6.5.[2] |
| | Sun 1, 2, 8, P | CA Autosys Job Scheduler V3.5[3] |
| | Sun 1 | Legato NetWorker V7.0 |
| | Sun 7 | Viking Data Entry V3.8 |
| | Sun 6 | COM/MENT BBS for EMC |
| | Sun P | First Data Bank |
| | Dell Various | FileNet Content Mgr & Capture |
| | Dell 1650 | RRI Formworks: Imaging |

[1] 4 versions on RISUN1 and 1 versions on RISUNP, RISUN2
[2] RISUN8 has the server software and the other servers have client software
[3] RISUNP has the server software and the other servers have client software

| Software Group | Host Systems | Software Name |
|---|---|---|
| Application Software | IBM PC 500 | Imaging Automation CRLD |
| | Intervoice VRS | InterVoice VRS |
| | IBM PC 500 | IBM DB/2 |
| | Shiva Lan Server | Shiva Netware Manager |
| | Web Servers | Checkpoint VPN-1 Firewall |
| | Web Servers | IBM DB/2 Database |
| | Web Servers | IBM Websphere |
| | Web Servers | WebTrends |
| | Web Servers | Microsoft Internet Information Server |
| | Imaging | Minolta MIMS |
| | Imaging | Eastman Imaging for Windows |
| | Imaging | Ivue IMGPRO |

| APPLICATION SOFTWARE ON VARIOUS PC'S | COPIES |
|---|---|
| Iview | 37 |
| Business Objects | 39 |
| CA Innolulate IT | EDS Global |
| CA Ingres Open-Road | unlimited |
| Co-Mand CRLD | unlimited |
| Datastorm ProComm+ for Windows | 2 |
| Hummingbird Bi/Query | 11 |
| IBM Personal Communications | EDS Global |
| Microsoft Internet Explorer | EDS Global |
| Microsoft Front Page | 8 |
| Microsoft Word | EDS Global |
| Microsoft Excel | EDS Global |
| Microsoft Powerpoint | EDS Global |
| Microsoft Project | EDS Global |
| Microsoft Access | EDS Global |
| Microsoft Visio | EDS Global |
| Microsoft Visual Basic | 2 |
| Microsoft Publisher | 3 |
| CA Brightstore Backup | 1 |
| Sybase PowerBuilder | 2 |
| Spinnaker Calendar Creator Plus | 2 |
| WRQ Reflection | 80 |

## DHS Technical Environment (InRhodes – DoIT and Northrup Grumman)

**Mainframe**

IBM 9672-R24 Processor.
IBM 3745 FIP.
IBM 3590 & 3480 tape units.
Amdahl Spectris Platinum Subsystem.

Communications is supported through 31 lines (Frame relay and SDLC), and provides access to approximately 1,100 authorized DHS InRhodes users.

**Mainframe System Software**

OS/390, VTAM, CICS, COBOL, TSO, RACF, Job Track and Connect Direct.

**InRhodes Application Software**

ADABAS, Natural, Natural Security, Predict, Super Natural, Easytrieve and
Entire Connection.

**Wide Area Network Support**

37 office locations.
Approximately 1,100 users on the InRhodes system.
3270 terminals and Personal Computers using emulation software for InRhodes access.

**Users Supported**

450-500 DHS Users (approx.)
380 Field Office Users (approx.)
63 Thin Client Users

**Future Supporting**

400 Thin Client Devices, Monitors and Printers, Users (each) (approx.)
11 Thin Client Servers

**LAN Software:**

Novell Netware
GroupWise 5.5
Z.E.N. Software for LAN Management
Windows 9x, 2000
Windows 2000 Server
Windows Terminal Services
Host Integration 2000
Metaframe XPA
ConnectDirect
ArcServe
McAfee
MS Office 2000
Attachmate
Reflection
Business Object
Pathway
Internet Explorer
Netscape

**LAN Software (continued):**

RISAIL
Adobe Acrobat
Faxserve
WinZIP

**Hardware Supported**

11 Servers
450-500 PCs & Monitors (approx.)
400-450 Printers (approx.)
68 Thin Client Devices, Monitors, and Printers (each) including 5 training devices
8 Thin Client Servers including 1 Development Server

**Local Area Network (LAN):**

The Rhode Island Department of Human Services' Local Area Network, (LAN), provides communication, file sharing, Internet access and mainframe access applications to three agency locations at the Howard Center with a total of 450-500 users. Five servers are located in the Aime J. Forand building. Two are also located in the Louis Pasteur Building. The Benjamin Rush building is connected to the Louis Pasteur building via fiber optic cabling. One server is located in Providence. Another server is located at the Vets Home.

# E APPENDIX E – CHECKLIST OF VENDOR KEY SUBMITTAL ITEMS

Note: The below notable submission information has been extracted from the RFP – which is the authoritative source of bidding information. It is not meant to be an exhaustive list, but as a checklist for a vendor to ensure that certain key items have been included in an RFP submittal. There may be other notable items that a vendor may choose to submit as directed by the language of the RFP.

A. Separate Cost Proposal including (please see RFP for details):

| Included | # | Item (in no particular order) |
|---|---|---|
| | 1 | RIVIP - Bidder Certification Cover Form (All 3 Pages) |
| | 2 | Completed and signed W-9 |
| | 3 | Bid Surety |
| | 4 | Letter of Transmittal |
| | 5 | All offers must contain bid surety, in the amount of $50,000. |
| | 6 | Subcontractors statements, if applicable |
| | 7 | Document Table of Contents with page numbers |
| | 8 | The data mining core feature total cost information has been clearly separated from the core cost information. |
| | 9 | Optional features cost information is clearly separated from the core cost information. |
| | 10 | Spreadsheet: Appendix J (Cost Proposal) |

B. Separate Technical Proposal including (please see RFP for details):

| Included | # | Item (in no particular order) |
|---|---|---|
| | 1 | RIVIP - Bidder Certification Cover Form (All 3 Pages) |
| | 2 | Completed and signed W-9 |
| | 3 | Bid Surety |
| | 4 | Letter of Transmittal |
| | 5 | Bid meets hosting facility site specifications of RFP |
| | 6 | Bid covers Sections 1-6 and applicable areas of Section 7 of the RFP |
| | 7 | Document Table of Contents with page numbers |
| | 8 | Financial Statements |
| | 9 | If applicable, vendor should provide information on offeror's status as a Minority Business Enterprise (MBE), certified by the Rhode Island Department of Economic Development, and/or a subcontracting plan that addresses the State's goal of ten percent (10%) participation by MBEs in all State procurement. |
| | 10 | Spreadsheet: Appendix I (Staffing Hours) |

# F APPENDIX F - MMIS AUTHORIZATION FILE

The Vendor PA Extract file contains the PA data necessary for submitting an electronic PA into the system. The file is submitted to EDS through the MMIS Bulletin Board. The data is then entered into the system as an electronic PA.

**PA Extract Record Layout**

| DATA TYPE | PA Extract FIELD NAME | FIELD LENGTH | START POSITION | STOP POSITION |
|---|---|---|---|---|
| **HEADER:** | | | | |
| a/n | ACTION CODE (H) | 1 | 1 | 1 |
| a/n | DATE | 8 | 2 | 9 |
| a/n | TIME | 6 | 10 | 15 |
| a/n | FILE NAME | 10 | 16 | 25 |
| a/n | VERSION NUMBER | 4 | 26 | 29 |
| a/n | NUMBER OF RECORDS | 4 | 30 | 33 |
| | FILLER | 117 | 34 | 150 |
| **DETAIL:** | | | | |
| a/n | ACTION CODE (1,2) | 1 | 1 | 1 |
| n | RECIPIENT MID | 9 | 2 | 10 |
| n | PA EXTERNAL NUMBER | 9 | 11 | 19 |
| n | PA NUMBER ITEM | 2 | 20 | 21 |
| a/n | PA NMPR INDICATOR | 1 | 22 | 22 |
| a/n | REQUESTING PROVIDER NUMBER | 7 | 23 | 29 |
| a/n | PERFORMING PROVIDER NUMBER | 7 | 30 | 36 |
| a/n | PA NPRD INDICATOR | 1 | 37 | 37 |
| n | PA START DATE (YYYYMMDD) | 8 | 38 | 45 |
| n | PA STOP DATE (YYYYMMDD) | 8 | 46 | 53 |
| a/n | PA TYPE CODE | 2 | 54 | 55 |
| a/n | PA SERVICE CATEGORY CODE | 2 | 56 | 57 |
| a/n | PA DIAGNOSIS BEGIN CODE | 5 | 58 | 62 |
| a/n | PA DIAGNOSIS END CODE | 5 | 63 | 67 |
| a/n | DRUG MFG BEGIN | 5 | 68 | 72 |
| a/n | DRUG CODE BEGIN | 4 | 73 | 76 |
| a/n | DRUG PKG BEGIN | 2 | 77 | 78 |
| | **OR** | | | |
| a/n | PROCEDURE BEGIN | 5 | 68 | 72 |
| | FILLER | 6 | 73 | 78 |
| | **OR** | | | |
| a/n | REVENUE BEGIN | 3 | 68 | 70 |
| | FILLER | 8 | 71 | 78 |
| a/n | DRUG MFG END | 5 | 79 | 83 |
| a/n | DRUG CDE END | 4 | 84 | 87 |
| a/n | DRUG PKG END | 2 | 88 | 89 |
| | **OR** | | | |

| DATA TYPE | PA Extract FIELD NAME | FIELD LENGTH | START POSITION | STOP POSITION |
|---|---|---|---|---|
| a/n | PROCEDURE END | 5 | 79 | 83 |
| | FILLER | 6 | 84 | 89 |
| | **OR** | | | |
| a/n | REVENUE END | 3 | 79 | 81 |
| | FILLER | 8 | 82 | 89 |
| a/n | PROCEDURE MODIFIER 1 | 2 | 90 | 91 |
| a/n | PROCEDURE MODIFIER 2 | 2 | 92 | 93 |
| a/n | PROCEDURE MODIFIER 3 | 2 | 96 | 105 |
| n | PA UNITS REQUESTED | 9 | 96 | 105 |
| n | PA UNITS AUTHORIZED | 9 | 105 | 113 |
| n | PA DOLLARS REQUESTED | 9 | 115 | 122 |
| n | PA DOLLARS AUTHORIZED | 9 | 123 | 131 |
| n | PA OCCURRENCES SERVICES REQUESTED | 9 | 132 | 150 |
| n | PA OCCURRENCES SERVICES AUTHORIZED | 9 | 151 | 159 |
| | FILLER | 1 | 150 | 150 |
| **TRAILER:** | | | | |
| a/n | ACTION CODE (T) | 1 | 1 | 1 |
| a/n | DATE (YYYYMMDD) | 8 | 2 | 9 |
| a/n | TIME | 6 | 10 | 15 |
| a/n | FILE NAME | 10 | 16 | 25 |
| a/n | VERSION NUMBER | 4 | 26 | 29 |
| a/n | NUMBER OF RECORDS | 4 | 30 | 33 |
| | FILLER | 117 | 34 | 150 |

## Field Descriptions

**Action Code** - The code that specifies how to process the record. This field is required. Valid values are: 1-Add, 2-Change, H-Header Record, and T-Trailer Record.

**Date** - Date file was created in YYYYMMDD format

**Time** - Time file was created

**File Name** - The file name assigned to the vendor. Each vendor has their own assigned name. Only the assigned name is a valid value for this field. **The valid value for must be set up for the submitter**

**Version Number** - This is a file version number used to identify the file.

**Number Of Records** - The number of records a file contains.

**MID -** The recipient Medical Assistance Identification number. This field is required. The MID must be in the MMIS and the corresponding recipient must be eligible.

**PA External Number -** The prior authorization number assigned by an external source. It is used to identify any necessary changes to current PA's that are on the Medicaid Management Information System (MMIS). This field is required and must be numeric.

**PA Number Item -** This item number is combined with the PA external number to uniquely identify a specific instance of prior authorization. This field is required and must be numeric.

**PA NMPR Indicator -** The indicator to show if the requesting provider is enrolled in Medicaid. Valid values are: M-Medicaid and N-Non Medicaid. This field is required.

**Provider Number -** The identification number of the provider requesting the PA. This field is required, and the provider must exist on the MMIS.

**Performing Provider Number -** The identification number of the provider performing the services associated with the prior authorization. This field is required, and the provider must exist on the MMIS.

**Nprd Indicator -** The indicator to show if a National Drug Code (NDC), Procedure, Revenue Code or Diagnosis was entered on a prior authorization. Valid values are: N-National Drug Code, P-Procedure, R-Revenue and D-Diagnosis. Since AMS will be submitting PA's based on Procedure code, The NPRD INDICATOR would be P.

**PA Start Date -** The first date of service on which the particular PA can be billed. This field is required.

**PA Stop Date -** The last date of service on which the particular PA can be billed. This field is required

**PA Type Code -** The prior authorization type as it appears on the Prior Authorization Master Data Store. This is a required field. Each Vendor has an assigned Code. **A code must be assigned for the submitter**.

**PA Service Category Code -** The prior authorization service category as it appears on the Prior Authorization Master Data Store. T he service category groups types of service into general related groups. This is a required field. Each Vendor has an assigned Code. **A code must be assigned for the submitter.**

**Diagnosis Begin Code -** The beginning code in the diagnosis range requested by the PA. This field is not required but must contain only valid data.

**DRUG MFG/DRUG CODE/DRUG PKG BEGIN -** The beginning NDC in the range requested by the PA. This field is not required but must contain only valid data.

**Procedure Begin Code -** The beginning procedure code in the range requested by the PA. This field is not required but must contain only valid data.

**Revenue Begin Code -** The beginning revenue code in the range requested by the PA. This field is not required but must contain only valid data.

**Diagnosis End Code -** The ending diagnosis code in the range requested by the PA. This field is not required but must contain only valid data.

**Procedure End Code -** The ending procedure code in the range requested by the PA.

**Revenue End Code -** The ending revenue code in the range requested by the PA. This field is not required but must contain only valid data.

**Procedure Code Modifier 1/2/3 -** The procedure code modifiers that relate to the procedure code range. These fields are not required but must contain only valid data.

**PA Units Requested -** The number of units of service or product requested by a provider on the particular item to be prior authorized for a recipient. This is a required field.

**PA Units Authorized -** The number of units actually prior authorized on the item for a recipient. This is a required field when prior authorizing units of service or product.

**PA Dollars Requested -** The dollar amount that is requested by a provider to be prior authorized for a recipient. This field is not required but must contain only valid data.

**PA Dollars Authorized -** The dollar amount actually prior authorized for the requested item/service. This field is not required but must contain only valid data.

**PA Occurrences Requested -** The number of occurrences of a service or an item that is requested by a provider to be prior authorized for a recipient. This field is not required but must contain only valid data.

**PA Occurrences Authorized -** The number of occurrences of a service or item actually prior authorized for a recipient. This field is not required but must contain only valid data.

**REPORTS:**

Each Vendor that submits electronic PA's has their own Summary Report of the PA's transmitted.

**PAKRxxx Report**

The PAKRxxx report is a listing of the Vendor Electronic PA transactions submitted.

```
PAKRXXX                              RHODE ISLAND MEDICAID MANAGEMENT INFORMATION SYSTEM
PAGE      1
RUN DATE: MM/DD/YYYY                                    VENDOR PA UPDATE TRANSACTIONS
PERIOD: MM/DD/YYYY

TRAN ID    RECIPIENT       TRANSACTION SPECIFIC DATA
   X                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX


   X      XXXXXXXXX       XXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

   X      XXXXXXXXX       XXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

   X     XXXXXXXXX       XXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

X     XXXXXXXXX       XXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX


   X                       XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



 TOTAL VENDOR PA TRANSACTIONS:     XXXXX

                                                    * * * END OF REPORT * * *
```

Sample PAKRXXX Report:

```
 PAKRXXX                              RHODE ISLAND MEDICAID MANAGEMENT INFORMATION SYSTEM
PAGE      1
RUN DATE: 10/02/1996                                    VENDOR PA UPDATE TRANSACTIONS
PERIOD: 10/01/1996

TRAN ID    RECIPIENT       TRANSACTION SPECIFIC DATA
   H                       19960930181249AMPAIN.DAT00010069


   1       055556011
07864301001M90065234100001P19960923199610051505000000000099010000000990100000000000000000000500000
00
                           01200000000000000000000000000000000000000


   1       055552165       07867500501M90005154100005
19960920199609301505000000000000000000000000000000000000000000000005000000
                           01100000000000000000000000000000000000000


   1       055556521       07867501101M70050274100005
19960920199610021505000000000000000000000000000000000000000000000010000000
                           01300000000000000000000000000000000000000


   2       055551895
07867501501M41000074100007P19960920199610021505000000000099010000000990101000000000000000000600000
00
                           01300000000000000000000000000000000000000


   2       055557921       07868300601M70016264100009
19960923199610021505000000000000000000000000000000000000000000000002000000
                           01000000000000000000000000000000000000000


   2       055552737       07869400201M90066024100007
19960925199610011505000000000000000000000000000000000000000000000005000000
                           00700000000000000000000000000000000000000


    T                       19960930181249AMPAIN.DAT00010069



 TOTAL VENDOR PA TRANSACTIONS:     8
```

* * * END OF REPORT * * *

**PAXPxxxd dataset – Vendor File Submission Report**

The PAXPxxx dataset can be retrieved by the Vendor through the MMIS Bulletin Board. The Vendor will submit their extract file and will then retrieve the file submission report for the previous days submittal. The naming convention for Vendor's file is ampaXXXX.rpt, where XXXX is the date (MMDD)

```
RUN DATE: MM/DD/YYYY   VENDOR FILE SUBMISSION REPORT                                  PAGE   1
                                                        FOR PRIOR AUTHORIZATION

 FILE NAME / VERS            DATE/TIME RCVD          TOT TXNS    TOT ADD    TOT REJ
 ----------------                                ---------------                        --------
-------            -------

 AMPAIN.DAT  9999          YYYYMMDDHHMMSS       9999              9999            9999


     VENDOR  UPDATES
     SUCCESS RATE:  999.99 %

     ERROR RATE BY TYPE:
          UPDATE REC USED                999.99 %
          RECIP NOT ELIGIBLE             999.99 %
          MID NOT FOUND                  999.99 %

                                                        *** END OF REPORT ***
```

**PAXPxxxc Dataset - Error Report**

The PAXPxxxc dataset can be retrieved by the Vendor through the MMIS Bulletin Board. The Vendor will submit their extract file and will then retrieve the error report for the previous days' submittal. The naming convention for the Vendor's file is ampaXXXX.err, where XXXX is the date (MMDD) for that submittal.

**File Layout**

| DATA TYPE | FIELD NAME | FIELD LENGTH | START POSITION | STOP POSITION |
|---|---|---|---|---|
| a/n | ERROR CODE | 4 | 1 | 4 |
| a/n | ACTION CODE (D) | 1 | 5 | 5 |
| n | RECIPIENT MID | 9 | 6 | 15 |
| n | PA EXTERNAL NUMBER | 9 | 15 | 23 |
| n | PA NUMBER ITEM | 2 | 24 | 25 |
| a/n | PA NMPR INDICATOR | 1 | 26 | 26 |
| a/n | REQUESTING PROVIDER NUMBER | 7 | 27 | 33 |
| a/n | PERFORMING PROVIDER NUMBER | 7 | 34 | 40 |
| a/n | PA NPRD INDICATOR | 1 | 41 | 41 |
| n | PA START DATE (YYYYMMDD) | 8 | 42 | 49 |
| n | PA STOP DATE (YYYYMMDD) | 8 | 50 | 57 |
| a/n | PA TYPE CODE | 2 | 58 | 59 |
| a/n | PA SERVICE CATEGORY CODE | 2 | 60 | 61 |
| a/n | PA DIAGNOSIS BEGIN CODE | 5 | 62 | 66 |
| a/n | PA DIAGNOSIS END CODE | 5 | 67 | 71 |
| a/n | DRUG MFG BEGIN | 5 | 72 | 76 |
| a/n | DRUG CODE BEGIN | 4 | 77 | 80 |
| a/n | DRUG PKG BEGIN | 2 | 81 | 82 |
| | **OR** | | | |
| a/n | PROCEDURE BEGIN | 5 | 72 | 76 |
| | FILLER | 6 | 77 | 82 |
| | **OR** | | | |
| a/n | REVENUE BEGIN | 3 | 72 | 74 |
| | FILLER | 8 | 75 | 82 |
| a/n | DRUG MFG END | 5 | 83 | 87 |
| a/n | DRUG CDE END | 4 | 88 | 91 |
| a/n | DRUG PKG END | 2 | 92 | 93 |
| | **OR** | | | |
| a/n | PROCEDURE END | 5 | 83 | 87 |
| | FILLER | 6 | 88 | 93 |
| | **OR** | | | |
| a/n | REVENUE END | 3 | 83 | 85 |
| | FILLER | 8 | 86 | 93 |
| a/n | PROCEDURE MODIFIER 1 | 2 | 94 | 95 |
| a/n | PROCEDURE MODIFIER 2 | 2 | 96 | 97 |
| a/n | PROCEDURE MODIFIER 3 | 2 | 98 | 99 |
| n | PA UNITS REQUESTED | 9 | 100 | 108 |
| n | PA UNITS AUTHORIZED | 9 | 109 | 117 |
| n | PA DOLLARS REQUESTED | 9 | 118 | 126 |
| n | PA DOLLARS AUTHORIZED | 9 | 127 | 135 |

| | | | | |
|---|---|---|---|---|
| n | PA OCCURRENCES SERVICES REQUESTED | 9 | 136 | 154 |
| n | PA OCCURRENCES SERVICES AUTHORIZED | 9 | 155 | 153 |
| | FILLER | 1 | 153 | 154 |

ERROR CODES

| Code | Error Message |
|---|---|
| 100 | MID NOT FOUND |
| 110 | RECIP NOT ELIGIBLE |
| 150 | DATE ERROR |
| 200 | DIAG NOT REQ PA |
| 210 | PROC NOT REQ PA |
| 220 | DRUG NOT REQ PA |
| 230 | REV NOT REQ PA |
| 300 | REQ PROV MCD NOT FOUND |
| 320 | REQ PROV NMCD NOT FOUND |
| 400 | PERF PROV NOT FOUND |
| 410 | PERF PROV NOT ELIGIBLE |
| 500 | UPDATE REC NOT FOUND |
| 510 | UPDATE REC USED |
| 515 | UPDATE REC CHANGED |
| 520 | ADD REC FOUND |
| 600 | INVALID ACTION CD |
| 605 | INVALID MID |
| 610 | INVALID REQ PROV |
| 615 | INVALID PERF PROV |
| 620 | INVALID PA EXT NUM |
| 630 | INVALID PA NUM ITEM |
| 640 | INVALID PA NMPR IND |
| 650 | INVALID NPRD IND |
| 660 | INVALID PA START DATE |
| 670 | INVALID PA STOP DATE |
| 672 | PA DTE REVERSED |
| 675 | PA SPANS YEAR |
| 680 | INVALID PA TYPE CDE |
| 690 | INVALID PA SVC CTG CDE |
| 692 | OVERLAP SVC |
| 700 | INVALID PA UNITS RQST |
| 710 | INVALID PA UNITS AUTH |
| 800 | INVALID PA DIAG BEG |
| 810 | INVALID PA DIAG END |
| 812 | INVALID PA DIAG RANGE |
| 820 | INVALID PA NPRD BEG |
| 830 | INVALID PA NPRD END |
| 832 | INVALID PA NPRD RANGE |
| 834 | OVERLAP NPRD |

| | |
|---|---|
| 840 | INVALID PROC MOD 1 |
| 850 | INVALID PROC MOD 2 |
| 860 | INVALID PROC MOD 3 |
| 862 | INVALID PROC MODS |
| 870 | INVALID PA DOLLARS RQST |
| 880 | INVALID PA DOLLARS AUTH |
| 890 | INVALID PA SVC RQST |
| 900 | INVALID PA SVC AUTH |

# G APPENDIX G – CORE SOURCE DATA INFORMATION FOR THE DATA WAREHOUSE

The various data sources for the data warehouse are categorized into three groups: Core, Optional, and Future. The Core and Optional data sources are to be bid specifically in the proposals requested from the vendors. "Future" data sources are not within the scope of this RFP.

Appendix G lists additional details of the Core data sources to provide the vendors with proposal information in order to produce an informed submittal.

Please see Exhibit 5.2 of RFP for a summary matrix chart of the nine core data sources. A listing of core data source database background details and sizing parameters follows:

## 1. InRhodes

The DHS InRhodes production database is Adabas Version 7.4.2 published by Software AG. The database is administered by Northrup Grumman, a contractor for DHS.

The DHS Adabas database is a non-relational hierarchical database management system. The InRhodes production database is composed of 121 physical files that are viewed and managed through 482 user views of the data. The InRhodes database contains 14,721 data elements with the production database consuming 103.1 GB of hard disk space.[4]

The five largest production files are:

| File Name | Description | Number of Records |
|---|---|---|
| LOG-file | Child support case log data | 19,300,000 |
| MED-file | Medical Eligibility data | 19,500,000 |
| FIN-file | Financial data for FS/FIP/MA/GPA | 14,800,000 |
| STA-file | Benefits status for FS/FIP/MA/GPA | 15,700,000 |
| EHR-file | EBT – History file | 32,300,000 |

DHS uses an Oracle database to hold information entered from a Child Care web enrollment application. The Oracle data is periodically loaded into the InRhodes Adabas database.

There are a number of fixed width text file exports regularly done from the InRhodes Adabas database and will be the most likely source of data for a data warehouse. Many InRhodes fields are exported daily to the MMIS database; so much InRhodes information is attainable from the MMIS Ingres database. There will be additional fields required for export from InRhodes that will be determined during the data warehouse Analysis phase of the project.

[4] Per Northrup Grumman information as of July 6, 2005

## 2. DHS MMIS Ingres Database

The Ver. 2.6 Ingres database is published by Computer Associates. Selected Ingres database table information follows:

| #* | Table Name | Table Description | Row count | Row width |
|---|---|---|---|---|
| 1 | t_ap | The accounts payable table contains payout information set up for an account. The data is created when a payout transaction is entered manually or through the system. | 103,101 | 89 |
| 2 | t_ar | The account receivable table contains recoupment information set up for the account and monies applied. The data is system generated when a recoupment is set up or a refund applied. | 2,830,717 | 111 |
| 3 | t_cash_transaction | The cash transaction table contains setup information for the financial transaction. The source of the data is the financial transaction entry screen. | 5,381,863 | 153 |
| 4 | t_cl_drug_dtl | The drug claim detail contains detail information about a drug claim only. | 25,201,751 | 324 |
| 5 | t_cl_inst_dtl | The institutional claim detail table contains detail information for institutional UB claim details only. | 10,850,276 | 196 |
| 6 | t_cl_inst_hdr | The institutional claim table contains claim header information that is specific to institutional claims only. | 2,912,014 | 509 |
| 7 | t_cl_instx_dtl | The institutional claim detail table contains detail information for institutional crossover (Medicare) claim details | 4,355,271 | 234 |
| 8 | t_cl_instx_hdr | The institutional claim table contains claim header information that is specific to institutional crossover (Medicare) claims | 824,253 | 567 |
| 9 | t_cl_locator | This table contains core claim information | 127,018,812 | 77 |
| 10 | t_cl_nurs_hm_dtl | The nursing home claim detail table contains detail information specific to nursing home claim details only. | 2,449,702 | 212 |
| 11 | t_cl_nurs_hm_hdr | The nursing home claim table contains data elements that are specific to a nursing home claim only. | 2,448,672 | 270 |
| 12 | t_cl_prof_dtl | This table contains information about a claim for professional services | 28,361,308 | 322 |
| 13 | t_cl_prof_hdr | The claim header table contains all of the common header information for each claim type. If there is header information that applies to certain claim types, it will be maintained on another table. | 38,093,686 | 222 |
| 14 | t_cl_profx_dtl | The claim professional detail table contains all of the common detail information for professional claim types (Medical claims, Dental claims and Crossover claims). If there is detail information that applies to other claim types, it will be maintained | 7,041,827 | 260 |
| 15 | t_cl_profx_hdr | The claim professional crossover header table contains all of the common header information for professional crossovers. | 4,499,645 | 374 |

| #* | Table Name | Table Description | Row count | Row width |
|---|---|---|---|---|
| 16 | t_disp_claim_spcfc | The AR claim specific table lists claim information associated with the recoupment. The source is from the recoupment transaction disposition screen area. | 4,947,011 | 70 |
| 17 | t_elig_segment | The ELIGIBILITY SEGMENT table contains all periods of eligibility a recipient has ever had together with the exact State assigned category of assistance for each period. Source of this data is batch InRhodes transactions and on-line updates. | 1,963,895 | 35 |
| 18 | t_head_of_house | The HEAD OF HOUSEHOLD table contains basic address and geographical information defining where all recipients belonging to the household are located. Source of this data is batch InRhodes transactions and on-line updates. | 295,331 | 127 |
| 19 | t_medcr_id | The MEDICARE ID table contains all Medicare ID's assigned by the Social Security Administration to recipients maintained within the MMIS, an indicator to show which ones are current, and the unique ID of the recipient to whom it belongs. | 85,728 | 30 |
| 20 | t_person_name | The PERSON NAME table contains a persons full name, the date that name became effective on the MMIS data store, and the unique ID of the person to whom it belongs. Multiple names will be on the data store for some people. | 584,507 | 48 |
| 21 | t_pmt | The source of this data is the payment cycle. The table stores all payment information for an account. | 1,644,962 | 40 |
| 22 | t_pr | The Provider table contains basic information associated with all providers on the database. It is the base record of the Provider Subsystem. Every provider has one of these records. | 20,604 | 159 |
| 23 | t_pr_address | The Provider Address table contains address information and full name of the provider located at that address. | 72,554 | 148 |
| 24 | t_pr_status | The Provider Status table contains the current and historical enrollment status of specific providers. The status code with associated effective and end dates are stored on this table. | 29,210 | 32 |
| 25 | t_recipient | The Recipient table contains basic information about a recipient. The source of this data is batch InRhodes transactions and on-line. | 482,395 | 77 |
| 26 | t_pa | The PRIOR AUTHORIZATION table contains basic information about each prior authorization on file. The source of this data is batch transactions from the State's PRO and on-line updates. | 542,264 | 148 |
| 27 | t_pa_chlog | The PRIOR AUTHORIZATION CHANGE LOG table is used to store the last change date and clerk number for each screen upon which general prior authorization data may be changed. This table is updated whether the data is updated on-line or batch. | 545,216 | 21 |

| #* | Table Name | Table Description | Row count | Row width |
|---|---|---|---|---|
| 28 | t_pa_ln_item | The PRIOR AUTHORIZATION LINE ITEM table may contain up to ninety-nine (99) items related to each prior authorization. The prior authorization number together with the PA item number combine to form the entire PA number against which claims will pay. | 793,703 | 101 |
| 29 | t_pa_range | Identifies Diagnosis Code Ranges associated with or without Procedure Code Ranges, Drug Code Ranges, or Revenue Center Ranges allowed by a Prior Authorization. | 793,857 | 45 |
| 30 | t_schip_cap | Contains SCHIP (State Children's Health Insurance Program) information by re_unique_id | 1,392,325 | 42 |
| 31 | t_schip_claims | Contains SCHIP (State Children's Health Insurance Program) information by claim detail. | 688,640 | 74 |

* Note – the table number has no special significance. It is provided for reference purposes only.

### 3. DHS ConnectCARRE Excel Data

The ConnectCARRE program now has about 210 people though is due to rise to twice that number in the near future. Algorithm chooses approx 10,000 potential eligibles from the MMIS data. People who meet the program's criteria are drawn from that list and their basic data is stored in an Excel spreadsheet in one worksheet. For additional information, please see:

http://www.dhs.state.ri.us/dhs/Connect%20CARRE.htm.

## 4. Rhode Island Department of Mental Health, Retardation and Hospitals (MHRH) Division of Developmental Disabilities Synopsis of Major Informix Tables

| Table Name | Description | Row Size | No. of Rows | No. of Columns |
|---|---|---|---|---|
| caseload | Basic demographic data on consumers served by the Division of Developmental Disabilities (DDD) | 1084 | 6887 | 156 |
| contacts | Information on persons of interest to DDD consumers, Links to caseload table using ssn | 166 | 17141 | 12 |
| dhs_elig | Data on the entire State of Rhode Island SSI recipient caseload – this system is no longer viable and is out of date | 305 | 291,230 | 37 |
| home_mods | Modifications to individual homes to enable persons to remain at home | 530 | 302 | 72 |
| incident2 | Data related to unusual incidents involving the Division's client population, this is mandated by statue | 2142 | 15522 | 228 |
| inventory | Information concerning household appliances and equipment for distribution of group homes – this system is no longer in use | 93 | 279 | 5 |
| mortality | Information relating to consumers who have died while in the care of the Division | 1608 | 206 | 166 |
| providers | Providers of services to DDD consumers | 358 | 502 | 22 |
| referrals | Individuals in the process of being determined eligible for Division of Developmental Disabilities services | 1551 | 4483 | 118 |
| sum_costs | Summary of servapp2, authorization and attendance tables | 99 | 51325 | 22 |
| servapp2 | Production financial table containing data relating to authorization of services to DD consumers | 346 | 14488 | 52 |
| authorization | Production financial table containing data relating to authorization of services to DD consumers | 74 | 27895 | 14 |
| attendance | Production financial table containing data relating to authorization of services to DD consumers | 172 | 6367 | 31 |
| eds_demographic | Consumer demographic component of EDS recipient data | 149 | 6633 | 20 |

| Table Name | Description | Row Size | No. of Rows | No. of Columns |
|---|---|---|---|---|
| eds_medicaid | Medicaid component of EDS receipient data | 27 | 14943 | 9 |
| eds_medicare | Medicare component of EDS receipient data | 36 | 62387 | 12 |
| eds_patientliab | Patient liability component of EDS receipient data | 41 | 7947 | 11 |
| eds_rehab | Rehabilitation component of EDS receipient data | 44 | 9846 | 12 |
| eds_waiver | Waiver component of EDS receipient data | 30 | 5331 | 10 |

## 5. DHS CEDARR System

Currently has a file size of approximately 3,500 KB in a Microsoft Access database. The system now contains about 3,000 clients. The data includes client demographics, eligibility information, diagnoses, and service information.

The CEDARR program has data submitted by the CEDARR providers, includes eligibility and service information such as Name, MID, ISN, Address, diagnosis, and service data. For additional information on the initiative, please see:

http://www.dhs.state.ri.us/dhs/dcedarr.htm

## 6. Rhode Island Department of Elderly Affairs (DEA) - SAMS

Overview of Synergy SAMS2000 and Omnia Software/Databases

Synergy Software (www.synergysw.com) is a vertical market software company located in Essex Junction, VT just outside of Burlington. Synergy's flagship product is SAMS (Social Assistance Management System.) also known as SAMS2000 in the latest version of the software. SAMS is primarily oriented towards organizations that social services to the senior community of people. Synergy's customers tend to be the AAA's (Area Agencies on Aging) in the larger states and smaller states like Rhode Island that have a statewide system. Synergy has customers in 30 states across the country as well as their overseas customers.

DEA opted for Synergy's ASP (Application Service Provider) service in order to have one database hosted centrally by Synergy itself. The database is available over the web and allows Rhode Island Case Management Agencies (CMA's), Nutrition Centers, and Adult Day Care Centers (ADC's) to access the data over the web. These organizations are all located outside of the state firewall and therefore cannot use the WAN as the data exchange protocol.

The ASP utilizes Citrix thin client technology to provide sophisticated application functionality that is displayed through the Internet Explorer web browser. The Citrix thin client necessitates a one-time installation per user. After the original installation, a user must log into the system twice in order to provide the needed security control for the data and to uphold HIPAA standards.

In rolling out SAMS, the Rhode Island DEA combined 25 databases into one Microsoft SQL Server 2000 database. Reporting is done over the web via Crystal Reports functionality embedded in the SAMS product. Crystal Reports offers the ability to print out reports, but it also allows any report output to be exported to various file formats such as Excel, tab-delimited text, Word, Adobe PDF's, and many other formats.

However, any exported data includes extra information such as headers, pages numbers, and the like in the output. Therefore a utility called the Import/Export Utility can be used to strip out the extraneous information so the data alone is exported. This would be the preferred method to export data from SAMS to another data source. The most flexible option for potential use by the CHOICES MMIS Module is to utilize Import/Export XML output format. The XML format contains all of the exportable data from SAMS and has the "self-describing" functionality of XML so the appropriate field data can be "cherry picked" into a Rhode Island-wide data warehouse database.

DEA has also used Synergy's Omnia product to allow assessments to be done. Case workers use assessments to ask a wide variety of questions of a client concerning their health, finances, and other personal information. The DEA used the Omnia Designer product to design a customized Rhode Island assessment format after extensive collaboration between DHS and DEA. Omnia Analyzer is used to provide reports on the assessment data.

Although the Omnia product appears to be a separate product, it actually operates inside of SAMS2000 so the SAMS user is not aware of a separate Omnia product. Omnia previously was a separate stand-alone product, but the overriding need for integration caused Synergy to include Omnia as part of SAMS. The assessment information is saved in a separate SQL Server database called a "Repository" apart from the SAMS SQL Server database, but the two are linked through the SAMS software via common field ID's.

Case workers may need the ability to use a laptop so data can be directly entered into a laptop computer on a field visit. Synergy licenses a stand-alone product called the "Omnia Interviewer". Upon return to the office, a user can upload the data stored into the Omnia Interviewer into the central SAMS database.

Any export of data from the SAMS database will need to occur after the DEA SAMS administrator has arranged for a username and password to be utilized by the person doing the exporting for the CHOICES MMIS Module. There may be two usernames and passwords needed to effect the data export. Any export of data should also be aware of the downtimes of the Synergy-hosted database since maintenance must be done at least weekly.

The SAMS database contains information on approximately 38,000 DEA clients going back to January 1, 2000. It contains data from two phases of the SAMS installation. The first phase utilized a client/server SAMS application installed in most DEA-contracted case management agencies, nutrition centers, and adult day care centers. In November 2004 the second phase started with all of the multiple field databases combined into one. Duplicate client information was "de-duped" to combine all the provided services under the one de-duped client. The 38,000 count reflects the de-duped number of DEA clients and includes active and inactive consumers.

DEA utilizes the SAMS2000 Administrator product in order to provide the needed Rhode Island customization and to provide the required security. One last Synergy product used by DEA is the "NAPIS Reporter" – this product produces a customized report for the federal government at the end of the federal fiscal year.

Please see the Synergy website www.synergysw.com for additional information.

Major SAMS SQL Server 2000 Database Tables

**Overall Synergy Software Database Approximate Sizes**
SAMS 2000 1,100 MB
Omnia Assessments 275 MB

Synopsis of Major SAMS Tables

| Table Name | Description | Field Data Types | No. of Rows | No. of Columns |
|---|---|---|---|---|
| Client | Production client table with basic demographic data | many variable width character fields | 38,000 | 23 |
| Consumer | One-to-one relationship to Client table. Contains additional client demographic data | many variable width character fields | 38,000 | 50 |
| Consumer_Ethnic_Group | One-to-one relationship to Client table. Client ethnic data | unique ids and date/time data types | 38,000 | 9 |
| Location | Geographic locations of clients | unique ids and variable width character fields | 65,000 | 24 |
| Locus_Care_History | Statuses and dates of care for client | unique ids and date/time data types | 38,000 | 16 |
| Service_Delivery | Data on when, where, how much, and why a client was served – done by months | unique ids, date/time data types, integers, float | 142,000 | 22 |
| Service_Delivery_Detail | One-to-one relation to Service_Deliver with data on daily service delivery | unique ids and date/time data types | 141,000 | 36 |
| Various Lookup Tables | There are many lookup tables to translate the various codes. Tables have logical names to identify themselves. | | Small tables | Few fields |

Synopsis of Major Omnia Tables in the SQL Server 2000 database. Omnia is the Assessments Database linked to the main SAMS database via the Client ID. Approximately 4,000 of the clients in the SAMS database presently have an assessment. The number of clients will increase since DEA has recently required this information to be collected in SAMS.

| Table Name | Description | Field Data Types | No. of Columns |
|---|---|---|---|
| Clients | Client table with basic demographic data. Client ID primary key | 4 Unique ID fields, 3 datetimes, 5 varchars, 1 float, 1 bit | 23 |
| Event_List_Responses | | 4 Unique ID fields, 4 datetimes, 1 small integer, 2 varchars | 11 |
| Icd9_Code_Responses | | 4 Unique ID's, 2 datetimes, 1 small integer, 3 varchars | 10 |
| Med_List_Responses | | 4 Unique ID's, 2 datetimes, 1 small integer, 5 varchars, 1 float | 13 |
| Multi_Choice_Responses | | 4 Unique ID's, 2 datetimes, 2 small integer | 8 |
| Responses | | 4 Unique ID's, 2 datetimes, 1 small integer, 1 tiny integer, 2 varchars | 10 |
| Sessions | | 4 Unique ID's, 4 datetimes, 5 varchars, 1 long text | 14 |

**7.** US Census Population data – based on vendor's recommendation of a reliable and maintainable source of census data containing relevant client geographic and demographic information. Data shall include the most recent census data available and population projection figures. The system designed by the contractor shall include a user-friendly means to update the census data on a regular basis.

**8.** Federal Medicare Data – Data in flat table format in a Microsoft Access database. PASRR Historical Medicare claim database is provided in an elaborate CMS data structure. Data now de-duped and scrubbed, output to flat file/SAS format, and loaded into SQL Server database. Data now available for 1999-2001. More years of data may be available later.

**9.** RIPAE Client Data – now stored in the same Ingres database used by the MMIS system. Approximately 15,000 active clients. The RIPAE clients have not been de-duplicated with the MMIS clients, so there are duplicate client records that will need to be de-duplicated before insertion into the data warehouse.

10. Data from the Consumer Supports Management application to be developed through this RFP.

# H Appendix H – Rhode Island Service Oriented Architecture

**To:** **Whom it may concern**

**From:** **Tracy Williams, State CIO**

**Subject:** **Proposal addendum - Service Oriented Architecture**

**Date:** **Sunday, March 19, 2006**

To Prospective Information Technology Partners:

The use of technology at the State of Rhode Island is transforming. Our current installed base of systems represents a broad and diverse set of applications . These applications typically stand alone, reflecting individual point solutions. They are built using a variety of technologies, ranging from legacy COBOL/ISAM, Informix, client/server applications, n-tier applications to stand alone desktop PC databases. As the state looks to consolidate and integrate services and business processes over the next several years, many of these systems will need to interoperate. To do this the state will be moving toward a service oriented architecture and implementing an enterprise service bus.

This is a great time to consider being a technology partner with the State of Rhode Island. We are currently choosing our standard of tools, products, and standards for the exciting new world of SOA.

In this proposal please present your solution that fit to our business requirements but throughout your response please also answer these very important questions. How does your proposal assist us in moving our current application/technology standards to SOA? How do you as a vendor fit in? How will you help move our skills from our legacy platforms to your new proposed platform? Why is your solution and company best for us?

**Service Oriented Architecture**

**SOA Goals:**

Our primary goals for adopting a service oriented approach are:

- Improve system **interoperability.** Simplify our ability to integrate disparate systems, reducing the time and cost of integration efforts which will be necessary to support cross functional business processes and information sharing.

- Develop and leverage **common infrastructure**, including the integration tools and technologies necessary to insure proper messaging, delivery, transformation, and management of integrated information management systems.

- Implement a **common set of technology standards**, specifically web service technologies (XML, SOAP, WSDL, UDDI, etc) in order to reduce the complexity and the number of technologies necessary within the state technology infrastructure.

- Focus our investment into a **common skill set and methodology**, leveraging a common set of design principles, standards and technologies will reduce cost and the breadth of skills the state must maintain in order to support it's IT infrastructure.

**Definition of a service:**

When developing or procuring systems, our goal of interoperability implies that the system functionality is exposed for invocation or reuse via, a stable, well defined interface. To maximize ease of integration and reuse, and to leverage common infrastructure, we desire to expose this functionality as a service. A service is the encapsulation of a component of functionality with business value. A service is a function that is well-defined, self-contained, and does not depend on the context or state of other services. Simply put, a service is a program that can be interacted with via well-defined message exchanges.[5]

Services are built to last, while service aggregations and configurations are built for change. Services and their associated interfaces must remain stable, enabling them to be re-configured or re-aggregated to meet ever-changing business needs. Services interact through explicit message-passing over well-defined boundaries. If a service is web-service enabled, these interfaces are defined by SOAP and XML schemas, with published WSDL's defining these boundaries.[6] Services can encapsulate varying amounts of logic, from small very finely grained services, to broader more coarsely grained services which may encapsulate a number of sub-services or processes.[7]

**Principles of Service Oriented Architecture:**

SOA is a distinct architectural model based upon service orientation. Service Oriented has existed for some time, it has been used in different context and for different purposes. One constant has been that it represents a distinct approach for separating concerns. What this means is that logic required to solve a large problem can be better constructed, carried out, and managed if it is decomposed into a collection of smaller, related pieces. Each of these pieces addresses a concern or a specific part of the problem.[8]

What distinguishes a service-oriented approach to other architectural constructs is the manor in which it achieves separation. It is the way in which services are aggregated or used within an integrated environment. Although we encourage independence within individual services, there must be adherence to certain baseline conventions in order to

[5] The Four Tenets of Service Orientation, John Evdemon, Business Architecture and Standards, Microsoft Architecture Strategy Team. 2006.
[6] ibid.
[7] Service-Oriented Architecture: Concepts, Technology and Design," by Thomas Erl 2005.
[8] ibid.

insure interoperability and stability of the overall system. There are seven common principles to SOA:[9]

- **Loose coupling** – Services maintain a relationship that minimizes dependencies and only requires that they retain an awareness of each other.

- **Service contract** – Services adhere to a communications agreement, as defined collectively by one or more service descriptions and related documents. This service metadata should include:
  - The service endpoint
  - Each service operation
  - Every input and output message supported by each operation
  - The data representation model of each message's contents
  - Rules and characteristics of the service and it's operation

- **Autonomy** – Services have control over the logic they encapsulate.

- **Abstraction** – Beyond what is described in the service contract, services hid logic from the outside world.

- **Composablity** – Collections of services can be coordinated and assembled to form composite services.

- **Statelessness** – Services minimize retaining information specific to an activity.

- **Discoverability** – Services are designed to be outwardly descriptive so they can be found and assessed via available discovery mechanisms.

**Web Service Technologies and Standards:**

It is important to distinguish the technologies that can enable a SOA from the SOA design principles above. The state's desire is to leverage common, proven and standards based technologies ~ namely Web Services. Web Services technologies include:

- XML – for data schema and messaging format
- SOAP – as the primary message envelope
- WSDL – for service definition and contract management
- UDDI – for registration and publishing of service metadata

Additional standards would include:

- SAML – for security management
- BPEL – for process execution and service aggregation

[9] ibid.

To the extent that there are various "flavors' of industry specific XML schema's, vendors are requested to identify the standard, version and date, and level of compliance to said standard. Any proprietary extensions to industry accepted standards should be identified.

This addendum is intended to be attached to all information technology solicitations for system development, application development or the procurement of professional services related to the development of information management systems. Respondents are requested to identify how their particular proposals and / or solutions meet the design standards and principles as outlined below. It is critical that the state is provided with the information necessary to gain an understanding of the proposed system architecture, reusability of functionality, and interfaces for interoperability. Systems which are "closed" or non-compliant with SOA standards will be penalized in the scoring process.

We are excited to see the power of SOA at work for us and realize its benefits.

I thank you for your assistance and I look forward to your response.

Respectfully Yours,

Tracy Emerton Williams

# I APPENDIX I - STAFFING HOURS CHARTS

Please see the accompanying "Appendix I.xls" Excel spreadsheet file. The vendor is required to fill in the 2 worksheets of the spreadsheet.

# J APPENDIX J - COST SCHEDULES

Summary of Costs & Deliverables over the 5-Year Schedule. Please see the accompanying "Appendix J.xls" Excel spreadsheet file. The vendor is required to fill in the 4 worksheets of the spreadsheet.

# K APPENDIX K – DELIVERABLE SCHEDULES

## Appendix K – Schedule A - Deliverables Summary

**Summary of Milestone Groups and Deliverables Over Time**

Legend:

| | |
|---|---|
| | The gray shading indicates deliverables & payments are not expected in those years. |
| | The white shaded cells indicate years of expected deliverables and payments. |

| Milestone Group # | Milestone Groups | % of Project Total Amount | Year 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| 1 | Project Initiation Approvals per Appendix K, **Schedule B** | 7.5% | | | | | |
| 2 | Project Life Cycle - Analysis to Implementation per Appendix K, **Schedule C** and its 3 Milestones: 1) **Analysis** Completion, 2) **Design** Completion, and 3) **Implementation** Completion (per Component) | (Analysis) 7.5%<br>(Design) 15%<br>(Implement) 55% | | | | | |
| 3 | CMS Choices MMIS Module Certification | 15.0% | | | | | |
| 4 | Operations and Maintenance per Appendix K, **Schedule D** | * Per vendor proposal | | | | | |
| | | 100.0% | | | | | |

Notes.
* Operations and Maintenance amounts will be paid monthly based on the annual amount.

Appendix K – Schedule B – Milestone Group 1

**Deliverables of Milestone Group 1 - Project Initiation**

| # | **Milestone Group 1 Deliverables Include:** |
|---|---|
| 1 | Request for Approval of Key Personnel including any Changes in Key Personnel |
| 2 | Request for Approval of Proposed Local Facilities |
| 3 | Initial Project Plan |
| 4 | Issue Tracking Procedures |
| 5 | Change Control Process |
| 6 | Systems Development Methodology/Standards |
| 7 | Request for Approval of All Subcontracts including any Revisions/Changes to Existing Subcontracts |
| 8 | Define Configuration Management Procedures and submit to the State for approval; procedures to include description of environments/directories/libraries, processes for managing versions, migration/promotion procedures, back off procedures, and quality control process. |

Appendix K – Schedule C – Milestone Group 2

**Milestone Group 2 - Analysis to Implementation Milestone Deliverables**
Core Components

Legend:

Blackened cell means deliverable not applicable to that Choices MMIS component

| # | Deliverables of Milestone Group 2 Include: | Data Warehouse | Community Support Mgmt |
|---|---|---|---|
| **A** | **Analysis Milestone Deliverables Include:** | | |
| 1 | Identify & obtain all available documentation | | |
| 2 | Interview business experts & Stakeholders | | |
| 3 | Document Interviews with Following Deliverables: | | |
| 4 | Current Process | | |
| 5 | Current Data Components | | |
| 6 | Notes/Minutes, Summaries | | |
| 7 | Analyze all gathered information | | |
| 8 | Complete Required Gap Analysis Documents | | |
| 9 | Complete Application Summary Document | | |
| | | | |
| **B** | **Design Milestone Deliverables Include:** | | |
| 1 | Develop Application Overview Deliverable Document (Why Build it?) | | |
| 2 | Review Application Overview w/ Stakeholders | | |
| 3 | Develop ETL Workflow Diagram & Narrative | | |
| 4 | Develop Data Element Inventory | | |
| 5 | Develop Application Requirements Document including software, hardware | | |
| 6 | Review Application Requirements w/ Stakeholders | | |
| 7 | Develop Functional Requirements Documents - General & Detailed | | |
| 8 | Design ETL Process Flow & Business Rules | | |
| 9 | Design Databases | | |
| 10 | Develop Data Models | | |
| 11 | Design Website Screens | | |
| 12 | Design Website and Data Access Security | | |
| 13 | Design Administrative Components | | |
| 14 | Design Queries & Reports | | |
| 15 | Develop Detailed Design Documents | | |
| 16 | Define ETL Source Databases Conversion Details | | |
| 17 | Design Data Mining for RI | | |
| 18 | Design Predictive Modeling for RI | | |
| 19 | Initial Prototype Completion | | |
| | | | |
| **C** | **Implementation Milestone Deliverables Include:** | | |
| 1 | Develop ETL Process Flow & Business Rules | | |
| 2 | Develop Databases | | |

| # | Deliverables of Milestone Group 2 Include: | Data Warehouse | Community Support Mgmt |
|---|---|---|---|
| 3 | Integrate Databases with ETL | | |
| 4 | Develop Website & Menu Security | | |
| 5 | Develop Website Application Functional Security | | |
| 6 | Develop Data Access Security | | |
| 7 | Develop Code specifications | | |
| 8 | Develop Web/GUI Forms | | |
| 9 | Develop Middle Tier Components | | |
| 10 | Develop Reporting Segment | | |
| 11 | Develop Administrative Components | | |
| 12 | Develop Data Mining | | |
| 13 | Develop Predictive Modeling | | |
| 14 | Develop Security System | | |
| 15 | Develop Acceptance Test Plan (jointly developed by state and contractor) | | |
| 16 | Implementation Checklist | | |
| 17 | Develop Training Plan | | |
| 18 | Conversion and Initialization Plan | | |
| 19 | Backup/Disaster Recovery Plan and Archive Plan | | |
| 20 | Privacy and Confidentiality Plan and Procedures | | |
| 21 | Facility and Data Security Plan and Procedures | | |
| 22 | Operations Documentation | | |
| 23 | Pilot/Working Prototype readied | | |
| 24 | Review Functionality with Stakeholders | | |
| 25 | Test Entire Security System | | |
| 26 | Complete Unit testing (Q/A Layer 1) | | |
| 27 | Complete System Testing (Q/A Layer 2) | | |
| 28 | Complete Business Expert testing (Q/A Layer 3) | | |
| 29 | Summary of Test Results | | |
| 30 | Develop Training Plan, Methodology, Aids & Materials | | |
| 31 | Conduct User training | | |
| 32 | Compile Problem/Enhancement Tracking List for Rollout sites | | |
| 33 | Assign Priorities to Problem/Enhancement List Items | | |
| 34 | Scope, schedule, develop, & implement Problem/Enhancement Tracking List changes | | |
| 35 | Complete General Rollout | | |
| 36 | Certification of System Readiness to Implement | | |
| 37 | Post-implementation Report | | |

Appendix K – Schedule D – Milestone Group 4

| # | **Deliverables of Milestone Group 4 Include:** |
|---|---|
| 1 | Periodic Project Status Reports per schedule |
| 2 | Ongoing Invoices with any Required Documentation |
| 3 | Updated Project Plan Throughout Project |
| 4 | Periodic Issue Tracking Reports |
| 5 | Regular and Ad hoc CHOICES Reports |
| 6 | Help Desk Procedures |
| 7 | Monthly Help Desk Statistics |
| 8 | Monthly Downtime Report |
| 9 | Change Request Procedures |
| 10 | Periodic Change Request Status Reports |
| 11 | Ongoing updates to System and User Documentation |
| 12 | Ongoing updates to Operations Documentation |
| 13 | Updates to training materials |
| 14 | Updates to Change Control Procedures, Configuration Management Procedures, Backup/Disaster Recovery Plan, Archive Plan, Privacy & Confidentiality Plan/Procedures, Facility & Data Security Plan/Procedures, and other system-wide documents requiring updates. |
| 15 | Turnover Plan |
| 16 | Turnover Inventory |
| 17 | Turnover Documentation |
| 18 | Turnover Training Materials |
| 19 | Turnover - Transferred Hardware/Hardware Maintenance Leases/Agreements and Software Licenses |
| 20 | Final Turnover Report |