

**SERIAL 07127 SS      BULL GCOS 8 APPLICATION CONVERSION TO MICROFOCUS COBOL ON  
UNIX**

**DATE OF LAST REVISION: October 23, 2007      CONTRACT END DATE: October 16, 2008**

**CONTRACT PERIOD BEGINNING 10/17/2007  
ENDING 10/16/2008**

**TO:                      All Departments**

**FROM:                  Department of Materials Management**

**SUBJECT:              Contract for **BULL GCOS 8 APPLICATION CONVERSION TO  
MICROFOCUS COBOL ON UNIX****

**Please note: Price Agreement Purchase Orders (PG documents) may be generated using  
the information from this list. Use NIGP CODE 9204702.**

All purchases of product(s) listed on the attached pages of this letter are to be obtained from the  
listed contractor(s).



# Maricopa County

**Re-engineering VisualAge Pacbase-generated on-line programs**

**from**

**Bull GCOS8**

**to**

**Microfocus COBOL on UNIX**

Presented October, 2007 by



e-Application Solutions Group, Inc.

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Re-engineering VisualAge Pacbase programs from Bull GCOS8 to Microfocus COBOL on UNIX		

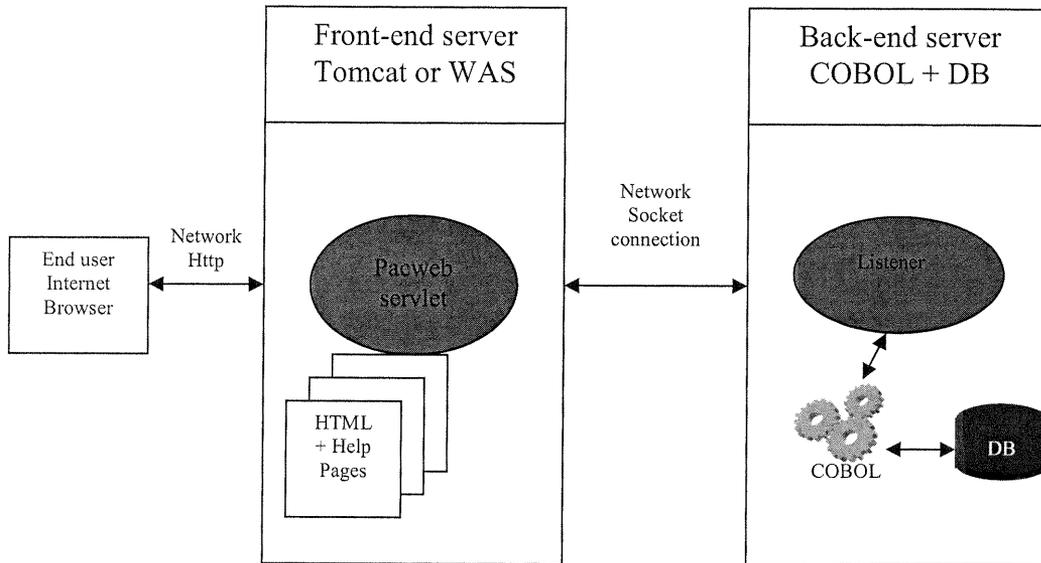
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# 1 Architecture

Users access the application using a Web browser. e-ASG will deliver, in addition to the backend VisualAge Pacbase transactions to be generated and compiled with Microfocus, one HTML page for each converted screen. Default pages are automatically generated from the repository and together with the middleware delivered, provide a Web-enabled application. The architecture is described in the diagram below.



Note: “front-end” and “backend” servers can physically be one and the same machine if desired.

The Web-enabled application is fully customizable and automatically include drop-down list boxes and toggle buttons for fields with values, buttons for navigation, popup error messages, help pages generation, etc.

Maricopa County will need to setup an application server (Tomcat or WAS).

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## 2 Scope Analysis

### 2.1 Programs to be converted

The programs to be converted are composed of the programs making up the “Civil” and “Security” applications. In VisualAge Pacbase, these programs reside in the DCP and SEC libraries

The list of programs by application (Civil and Security) together with a delivery schedule can be found in Appendix A.

Macro-structures used in the programs will be either converted or replaced as necessary.

References to MSF calls will be commented out.

Maricopa County assumes all responsibility for the testing of The Civil Systems Interactive Voice Response system (CVXVOX Extract TPR) functions.

### 2.2 Data Accesses and files

IDS accesses on BULL will be converted to relational SQL accesses in the UNIX environment, targeting a DB2 database.

	Task	Responsibility
1	Migrate data definition to Relational in VisualAge Pacbase	e-ASG
2	Create target database in e-ASG test environment	e-ASG
3	Extract data from Bull/IDSII and export to sequential delimited files	Maricopa County
4	Import data in e-ASG DB2 environment using database utilities	e-ASG
5	Setup e-ASG Web environment for new application based on existing Web architecture	e-ASG
6	Migrate program logic including database accesses from Bull/IDSII to Db2, generate and test programs	e-ASG
7	Setup Maricopa test environment (db2, Cobol compiler, etc.), import test data, etc.	Maricopa County
8	Setup Maricopa Web environment for new application (e-ASG will provide instructions)	Maricopa County
9	Deliver VisualAge Pacbase transactions to be incorporated into Maricopa Repository	Maricopa County
10	Import transactions in VisualAge Pacbase, generate and compile components	Maricopa County
11	Acceptance testing	Maricopa

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		County
12	Final data conversion for production turn-over	Maricopa County

### 2.3 Change Control

While a module (Security or Civil for example) is being converted, changes required by maintenance of the Bull application will be frozen and should be carefully noted so that they can be later applied to the migrated application. These changes will be performed by Maricopa County on the UNIX version once received, rather than by e-ASG during conversion.

Modules can be further subdivided upon mutual agreement in order to reduce the “freezing period” if desired. Only a module (or sub-module) being worked on would be frozen at any given time

### 2.4 Web browser interface

The Web browser interface delivered is fully customizable. e-ASG will deliver the default Web interface generated with IBM VisualAge Pacbase Web generator (Pacbase Web Connection). e-ASG also has significant experience in enhancing Pacweb generated interfaces and could, as part of a separate engagement, assist Maricopa County with these enhancements. Among possible enhancements that could be of interest:

- Color and font customization using cascading style sheets (CSS)
- Popup calendar for date fields, popup calculator for amounts
- Choice of code or associated label for drop-down lists (select boxes), or popup lookup drop-down with labels (users keep the ability to type the code manually)
- Empty lines removed dynamically from repetitive lists based on rows to display
- Merging of 2 or 3 line repetitive headers into one cell
- Tooltip over repetitive cells
- Double-click record selection to detail screen from list (when applicable)
- Auto-tab to next field when typing (at end of field)
- Uppercase/lowercase management
- Highlight required fields on screen
- HTML syntax optimization for ease of customization / maintenance
- Several other features: navigation history, save user logon information, timeout options, etc.

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### 3 Deliverables

- VisualAge Pacbase transactions to be imported in Maricopa VisualAge Pacbase repository
- HTML pages and any customized middleware components (standard components are provided by IBM as part of Pacbase Web Connection software)
- Instructions to set up Web environment (Tomcat or WAS)

### 4 Cost

The total cost for the deliverables listed above is a fixed price of \$88,000

The fixed cost allows for a reasonable expansion in the list of programs to be converted: should the final list of programs to be converted differ by 5% or less from the original list used as a basis for this proposal, the cost would remain the same.

Additional support for tasks excluded from the deliverables is available on a Time and Material basis at an hourly rate of \$125 / hour when working remotely; on-site support will add Travel and Living expenses that will be charged based on actual disbursements. Pre-approved expenses will be invoiced along with the Time and Material labor charges. **All travel costs will be submitted in accordance with the Maricopa County Travel Policy.**

### 5 Payment schedule

The payment is as follows (contents for each deliverable are listed in Appendix A):

- 20% at Completion of deliverable #1, Security Module: required Online and Batch.
- 20% at Completion of deliverable #2, Security Module: ancillary Online and Batch.
- 20% at Completion of deliverable #3, Civil Module: required Online and Batch.
- 20% at Completion of deliverable #4, Civil Module: ancillary Online and Batch.
- 20% 30 days after final delivery or at completion of acceptance testing, whichever occurs earlier.

Additional services, if requested, will be billed on a Time and Material.

Travel is not required for this engagement.

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## 6 Signature page

IN WITNESS WHEREOF, the parties hereto agree to the terms and conditions set forth herein:

ACCEPTED FOR  
Maricopa County

ACCEPTED FOR  
e-ASG

H Mabilais

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Name (Please Print)

Henri Mabilais  
\_\_\_\_\_  
Name (Please Print)

**MARICOPA COUNTY**

BY: \_\_\_\_\_  
DIRECTOR, MATERIALS MANAGEMENT

\_\_\_\_\_  
DATE

BY: \_\_\_\_\_  
CHAIRMAN, BOARD OF SUPERVISORS

\_\_\_\_\_  
DATE

**ATTESTED:**

\_\_\_\_\_  
CLERK OF THE BOARD

\_\_\_\_\_  
DATE

**APPROVED AS TO FORM:**

\_\_\_\_\_  
DEPUTY MARICOPA COUNTY ATTORNEY

\_\_\_\_\_  
DATE

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## 7 Appendix A: list of deliverables and estimated delivery schedule

### 7.1 Deliverable #1, Security Module: required Online and Batch

Delivery timeframe: 30 to 45 business days from start of engagement (corresponding to receipt of a Purchase Order and receipt of a refreshed VisualAge Pacbase backup PC file, if needed – if no changes have been made to these applications since e-ASG received the environment for estimation purposes, e-ASG does not need a new backup file)

#### Online

SEU010	Lid Maintenance
SEU020	Command Maintenance
SEU030	Userid Maintenance
SEU031	User Verification Questions Maintenance
SEU050	Logon Screen
SEU060	Password Change
SEU070	Logical Print Destination
SEU090	Command and Form Cloning
SEU100	User Verification
SEU110	Update User Verification Questions
SEU330	Userid Lock Maintenance
SEL010	LID/Command Maintenance
SEL020	Userid/Command Maintenance
SEL030	Forms Maintenance
SEL040	LID/Logical Forms Maintenance
SEL050	Command/LID Maintenance
SEL060	Command/Userid Maintenance

#### Needed for F81ER Processing

SEABRT	Database Abort Screen
SEERRR	Database Error Screen

#### Batch

ASVSEC	Security Validation (called subprogram in every TPR)
ASXLOC	Get LID Location/Userid Name (called subprogram in many TPRs)

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## 7.2 Deliverable #2, Security Module: ancillary Online and Batch

Delivery timeframe: 5 to 10 business days from the delivery of Deliverable #1

### Online

SEM010 Application Security Main Menu  
SEM030 LEJIS System Main Menu  
SEQ030 Security Command List  
SEQ050 Personalized Menu  
SEQ070 Lid Information Display  
SEU080 Secret Transaction Screen  
SEU091 Command and Form Cloning (Modified copy of SEU090 that checkpoints)

### Batch

SER010 Security System LID Report  
SER020 Security System Command Report  
SER030 Security System Userid Report  
SER040 Security System Form Report  
SER050 Logical Destination Report  
SER100 Userid Report

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### 7.3 Deliverable #3, Civil Module: required Online and Batch

Delivery timeframe: 10 to 15 business days from the delivery of Deliverable #2

#### Online

CVU001 DOCKET ENTRY  
CVU002 DOCUMENT STATUS ENTRY  
CVU003 COMMENTS ENTRY/MAINTENANCE  
CVU004 CASE NUMBER MAINTENANCE  
CVU010 CASH & FEES ENTRY  
CVU011 CHARGES ENTRY  
CVU012 FINANCIAL ADJUSTMENTS  
CVU013 CHECK RECONCILIATION  
CVU014 BANK BALANCING WORK PAGE  
CVU015 OPEN/CLOSE OF BUSINESS DAY  
CVU017 PRINT CHECKS  
CVU018 TOTAL FEES TO TREASURER  
CVU020 BILLING MAINTENANCE  
CVU030 RETIRE CHECKS OVER 90 DAYS  
CVU031 PAY TREASURER FOR RETIRED  
CVU040 MISC DOCUMENT TEXT MAINTENANANCE  
CVU100 COMMON BILLING UPDATE  
CVU110 ACCOUNT CODE UPDATE  
CVU113 DEPOSIT RECONCILIATION  
CVU120 DOCUMENT TYPE UPDATE  
CVU130 OFFICER MAINTENANCE  
CVU131 BEAT MAINTENANCE  
CVU200 FUNDS FROM TREASURER  
CVU300 DOCUMENTS TO PRINT  
CVU301 DOCKET MAINTENANCE  
CVU302 DOCUMENT STATUS MAINTENANCE  
CVU311 PAPERS RECEIVED MAINTENANCE  
CVU321 DOCKET ENTRY CONT'D  
CVU500 LAST NUMBER UPDATE

#### Batch

CVXVOX CIVIL VOX EXTRACT TPR

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#### 7.4 Deliverable #4, Civil Module: ancillary Online and Batch

Delivery timeframe: 20 business days from the delivery of Deliverable #3

##### Online

CVM010 CIVIL SYSTEM MAIN MENU  
CVM020 DOCKETING MENU  
CVM021 DOCKETING MENU CONTINUED  
CVM030 FINANCIAL PROCESS MENU  
CVM031 FINANCIAL PROCESS MENU CONTINUED  
CVM040 SUPERVISORY FUNCTIONS MENU  
CVM041 SUPERVISORY FUNCTIONS CONTINUED  
CVM050 CIVIL CODES MENU  
CVQ001 CHECK DETAIL RECORD  
CVQ002 TRANSACTION INFORMATION  
CVQ003 ACCOUNT INFORMATION  
CVQ005 DAILY TRANSACTION INQUIRY  
CVQ006 CHECKS TO BE WRITTEN  
CVQ007 DOCKET FINANCIAL TRANSACTIONS  
CVQ008 DOCUMENTS PROCESSED  
CVQ009 OFFICER WORK SHEET REQUEST  
CVQ010 COMMENTS INQUIRY  
CVQ011 MISC DOCUMENT INQUIRY  
CVQ012 COMMON BILLING INQUIRY  
CVQ013 PRINT OVERDRAWN ACCOUNTS  
CVQ015 NUMBERS INQUIRY  
CVQ018 DOCUMENT STATUS  
CVQ019 CLOSED CASES INQUIRY  
CVQ020 OVERDRAWN ACCOUNTS  
CVQ021 BILLS OUTSTANDING  
CVQ022 DOCKET NAME INQUIRY  
CVQ023 COMPANY NAME INQUIRY  
CVQ024 CASE NUMBER INQUIRY  
CVQ025 HAND POSTED CHECKS INQUIRY

##### Batch

CVR010 OFFICER'S WORK SHEET REPORT (subprogram)  
CVR020 CHECK PRINT PROGRAM  
CVR030 CHECK ROSTER  
CVR040 ONLINE BILLING REPORT (subprogram)  
CVR100 DAILY JOURNAL  
CVR105 ATTEMPTS TO SERVE DOCKET REPRT  
CVR110 MONTHLY ACTIVITY REPORT  
CVR115 MONTHLY SERVED/UNSERVED REPORT

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CVR120 CHECK ROSTER  
CVR125 MONTHLY MILES BY DOCKET REPORT  
CVR130 BEAT RECAP  
CVR140 BILLING REPORT  
CVR141 BILLING REPORT  
CVR143 90 DAY BILLING RPT  
CVR150 MASTER CONTROL  
CVR180 OVERDRAWN ACCOUNTS  
CVR181 COUNTY COUNSEL REPORT  
CVR190 UNSECURED FUNDS REC REPORT  
CVR220 PRINT UNSERVED LETTERS  
CVR230 PRINT IN-STATE SERVED  
CVR240 WRITS SATISFIED/UNSATISFIED  
CVR250 OUT-OF-STATE SERVED DOCUMENTS  
CVR260 PRINT MAILING LABELS  
CVT120 FEES TO TREASURER  
CVT200 ERASE PRINT RCDS (CV59)  
CVT800 DOCKET PURGE  
CVT810 CHECK PURGE  
CVT820 BILLS WRITTEN OFF  
CVX020 Check List Extract  
CVX200 EXTRACT PRINT  
CVX210 FEES TO TREASURER EXTRACT  
CVX212 DOCKETS TO COUNTY COUNSEL  
CVX215 MILES BY DOCKET EXTRACT  
CVX220 MONTHLY ACTIVITY EXTRACT  
CVX230 CHECK ROSTER EXTRACT  
CVX240 BEAT/ZIP/OFFICER RECAP EXTRACT  
CVX250 OUTSTANDING BILLS EXTRACT  
CVX251 OUTSTANDING BILLS EXTRACT X VE  
CVX252 OUTSTANDING BILLS - VERSION 3  
CVX253 DOCKETS WITH THREE BILLINGS  
CVX260 MASTER CONTROL EXTRACT  
CVX270 LIST PAPERS OUTSTANDING  
CVX280 OVERDRAWN ACCOUNTS EXTRACT  
CVX290 UNSECURED FUNDS RECEIVED  
CVX300 SPECIAL WRITS EXTRACT  
CVX999 BUILD 3 SELECTION FILES (AD74)