

*Virgin Islands Paternity Enforcement
Reporting System
(VIPERS)
Scope of Required
Independent Verification & Validation
Assessment Report*

December 4, 1998



*U.S. Department of Health and Human Services
Administration for Children and Families
Office of Child Support Enforcement*

EXECUTIVE SUMMARY

An Independent Verification and Validation (IV&V) assessment of the Virgin Islands Paternity Enforcement Reporting System (VIPERS) was conducted on October 19, 1998. The purpose of the assessment was to determine the extent of IV&V required on the VIPERS system. This report presents the findings of that review.

Summary of Findings and Recommendations

Scope of Required IV&V

Because of time limitations and the current status of the project, the review focused mainly on planning and management issues. There were sufficient deficiencies in the planning and management area, gaps in the historical records of the project, and Territory dissatisfaction with system documentation and functionality to lead the team to conclude that all areas of the project would benefit from Independent Verification and Validation. See the Recommendations section for a more detailed description of the scope of these requirements.

IV&V Provider

The Territory must acquire Independent Verification and Validation services. These services can be obtained from a contractor via an approved RFP or from a Territory agency independent of the Paternity and Child Support Division.

High-Level Territorial Government Involvement

The success of the VIPERS project depends on continued high-level Territorial interest and support. Project staffing and resources must be maintained and vendors must receive timely payment.

IV&V REPORT OF THE Virgin Islands VIPERS PROJECT

1. Introduction

As a result of missing the October 1, 1997 deadline for achieving federal certification for system modification to meet the requirements of the Family Support Act of 1988, the Territory of the Virgin Islands automated Child Support Enforcement Systems became subject to mandatory provisions of 45 CFR 307.15(b)(10). These provisions require an entity independent of the Territory to review all technical and managerial aspects of the project. (See OCSE-AT-98-26 included in the briefing material provided to the Governor and IV-D staff.) ACF requested a review of the current documentation of the system, as well as historical data on the project, so it could make recommendations on the extent of the IV&V services that the Territory will be required to obtain.

1.1 BACKGROUND

The last APDU received from the Territory (August 1995), called for the development of VIPERS based on the transfer of the West Virginia OSCAR system. VIPERS was planned to be ready for certification by October 1995. Network Six Inc. (NSI) was the Implementation Contractor. KPMG Peat Marwick was initially the Monitoring Contractor, with responsibility for assisting in managing the project, assessing project progress, making recommendations to the Territory regarding conduct of the project, and reviewing deliverables submitted by NSI. ACF performed a Functional Review of the system in March 1997 and reported functional deficiencies that would prevent the system from being certified. As of October 1998, the system was still uncertified, triggering this IV&V assessment.

The ACF collected data for its IV&V assessment of VIPERS on October 19, 1998 at the Virgin Islands Paternity and Child Support Division, Department of Justice (PCSD) office in St. Thomas, V.I.. Because of the short time frame of the visit and the project's status, data collection concentrated on project planning and management. The data collection team consisted of

Mike Fitzgerald ACF DCSIS

Tom Mahony	ACF DCSIS
Brian Mitchell	ACF Region II
Willmour Daniel	PCSD – Vipers Project Manager

A VIPERS status meeting was also held on October 20, 1998 at the PCSD office. The following people attended the status meeting:

Alva Swan	Deputy Attorney General VI Department of Justice
Pamela Tepper	Deputy Solicitor General VI Department of Justice
Aurjul Wilson	Director PCSD
Willmore Daniel	VIPERS Project Manager
Donna Guido	VP Information Systems NSI
Eileen Cerbarano	Project Manager NSI
Eriel Ramos-Pizzaro	Senior Manager KPMG
Lilia Torres	Manager KPMG
Jens Feck	ACF Region II
Mike Fitzgerald	ACF DCSIS
Tom Mahony	ACF DCSIS
Gary Irwin	ACF Region II
Brian Mitchell	ACF Region II

1.2 METHODOLOGY

Historical data on the project (including plans, proposals, status reports, test reports) was collected and examined. Some work products (including system requirements and test results) were briefly examined. Willmour Daniel, the VIPERS Project Manager was interviewed. The reviewers mainly concentrated on understanding the historical data and reports, in order to determine what factors caused the project to miss its development deadlines. Comments from the October 20, 1998 status meeting were evaluated and included in the IV&V assessment.

The documents collected and examined are detailed in Table 1.

Table 1. Collected Documents

Document	Originator	Date
Certificate Of Conversion Completion Pre-Deliverable	<i>PCSD</i>	<i>Undated</i>
Contract for Professional Services No. PCDJ01695	<i>VI DOJ</i>	<i>October 24, 1994</i>
Contract for Professional Services No. PCDJ01695 - Amendment	<i>VI DOJ</i>	<i>October 17, 1997</i>
Conversion Test Results Report St. Croix	<i>PCSD</i>	<i>Undated</i>
Functional Review Report	<i>ACF OCSE</i>	<i>August 27, 1997</i>
Implementation Advanced Planning Document	<i>PCSD</i>	<i>November 1994</i>
Implementation Advanced Planning Document	<i>PCSD</i>	<i>July 1995</i>
Integration Test Report - Wage Withholding Interface Enhancement	<i>PCSD</i>	<i>March 12, 1996</i>
Master Test Plan – Final	<i>PCSD</i>	<i>Undated</i>
Necessary Changes To Software/Documentation Required To Make System Capable Of Level I Certification	<i>PCSD</i>	<i>Undated</i>
Operating Procedures And Guides	<i>PCSD</i>	<i>Undated</i>
Operations Status Report For December 1995	<i>PCSD</i>	<i>December 1995</i>
Operations Status Report For January 1996	<i>PCSD</i>	<i>January 1996</i>
Regression Testing Final Report	<i>KPMG</i>	<i>November 14, 1995</i>
St. Thomas/St. Croix Data Consolidation/Reconciliation Plan Pre-Deliverable	<i>PCSD</i>	<i>Undated</i>
Status Report	<i>NSI</i>	<i>April 5, 1995</i>
Status Report	<i>NSI</i>	<i>December 5, 1994</i>
Status Report	<i>NSI</i>	<i>February 5, 1995</i>
Status Report	<i>NSI</i>	<i>January 5, 1995</i>
Status Report	<i>NSI</i>	<i>July 28, 1995</i>
Status Report	<i>NSI</i>	<i>June 29, 1995</i>

Status Report	<i>NSI</i>	<i>June 7, 1995</i>
Status Report	<i>NSI</i>	<i>March 21, 1995</i>
Status Report	<i>NSI</i>	<i>October 9, 1995</i>
Status Report	<i>NSI</i>	<i>September 6, 1995</i>
Subsystem Test Results Report - Security And Primary Menu Structures	<i>PCSD</i>	<i>Undated</i>
System Build Report	<i>PCSD</i>	<i>Undated</i>
System/Acceptance Test Results Report	<i>PCSD</i>	<i>Undated</i>
Unit Test Results Report-Enforcement	<i>PCSD</i>	<i>Undated</i>
Unit Test Results Report-Reporting	<i>PCSD</i>	<i>Undated</i>
VIPERS Project Review	<i>KPMG</i>	<i>May 30, 1995</i>
Virgin Islands Paternity Automated Child Support Enforcement System Request for Proposals (RFP)	<i>VI DOJ</i>	<i>August 1994</i>
Miscellaneous correspondence between PCSD, DOJ, KPMG, NSI		

2. Findings

Project Planning and Management

Although Federal law requiring development of statewide systems was enacted in 1988, the Territory did not sign a contract with NSI until late 1994. PCSD did not receive or did not retain adequate project reports after 1995. The lack of reporting probably contributed to misunderstandings between the Territory and the implementation contractor. KPMG's contract expiring contributed to this lack of reporting.

The project lacked clear standards for work products. The Territory has no information system standards¹ and no standards were specified in the RFP. This lack of standards caused or contributed to disagreements over the contents of the Detailed Design Database and the appearance of the Graphical User Interface (GUI). NSI and the Territory were in a formal dispute resolution process by June 1995.² The aggressive development schedule planned in the 1995 IAPDU did not allow for this much disagreement.

There was apparently no formal process for change control in place as late as June of 1995, as shown by NSI's request for all changes to be received in writing.³ This was close to the scheduled end of the implementation project.

Even after disagreements were resolved, it appears that new project schedules were not developed based on the results. The lack of an updated, reliable project schedule and reliable dates for deliverables caused a lack of coordination between project activities.⁴

Project Estimating and Scheduling

¹ Interview with PCSD Computer Manager Willmour Daniel

² Letter of June 14, 1995 to VIPERS Project Manager Dean Wallace from NSI Project Manager John O'Cassidy

³ Letter of June 12, 1995 to Felipe Alonso of KPMG from NSI VP Constance Brines

⁴ VIPERS Project Review KPMG May 30, 1995.

The original schedule for the project was aggressive⁵, with only 11 months for system transfer modifications and implementation. If the project had begun earlier, there would have been less risk of failing to meet the October 1995 deadline.

The RFP called for equipment installation, system build, and testing to occur simultaneously.⁶ It is very difficult to manage this many interdependent tasks simultaneously.

The contract provision requiring Territorial approval of products within seven days of submission⁷ was unrealistic considering the personnel resources of the project. This lack of adequate review time contributed to Territorial personnel feeling they had lost control of the project.

Project Personnel

There were not enough project staff to monitor the project, especially after the KPMG contract expired. Throughout much of the project there was only one Territory systems person reviewing deliverables.⁸ The Territorial staff was given a limited time frame to review and approve deliverables. Deliverables not approved in time contractually became approved by default.⁹ The Territory is currently planning to hire more people, but there are serious concerns that the Territory pay scale is not adequate to attract qualified personnel.

Managing Contractors

Late payment of invoices submitted by the contractor contributed to delays. According to Donna Guido of NSI, there are still outstanding invoices from NSI over a year old. Deputy Attorney General Alva Swann agreed that the Territory had late payments, but had never failed to pay an invoice.

The failure to renew the contract of KPMG, the quality assurance contractor and contractor monitor, could only have had an adverse effect on work quality.

⁵ RFP page 3-91

⁶ RFP page 3-91 Figure 3-12

⁷ Contract for Professional Services No. PCDJ01695 Addendum 1 C(5)

⁸ Contract for Professional Services No. PCDJ01695 Amendment 3/12/96 – Statement of Work page 3

⁹ Interview with PCSD Computer Manager Willmour Daniel

Disputes and misunderstandings, both technical and managerial, between NSI, KPMG and the Territory were not resolved in a timely fashion.¹⁰ NSI complained about the absence of the VIPERS project management from the project site and felt it necessary to formally request a written description of the structure and membership of the project management team.¹¹ The VIPERS project manager felt he was available and complained about miscommunication.¹² Failure to resolve disagreements and to establish and maintain good communications led to project delays, inadequate products and frustration on all sides.

Summary

Many factors contributed to the failure of the VIPERS project to achieve federal certification: unclear contractual obligations, an insufficient number of qualified Territorial personnel to supply direction and decisions, insufficient resources and personnel assigned to the project by the implementation contractor, and inadequate communication.

Territorial funding of the VIPERS project was initially adequate but apparently was not sustained after 1995. Unpaid invoices contributed to disputes with and delays by the implementation contractor. The project staff was chronically short of qualified personnel. The Project Steering Committee was no longer meeting as of the date of this review.

KPMG's monitoring contract was not renewed, which contributed to the loss of Territorial oversight of the project. NSI has not yet provided a certifiable system, as the contract requires.¹³

The project made so little progress after 1995 that the extension of the Federal deadline made no difference. The reviewers were unable to accurately reconstruct project history for 1996 and 1997, but deficiencies noted in the KPMG Regression Testing Final Report in November of 1995 were still not fixed at the time of the ACF Functional review in March 1997. Deficiencies found in the West Virginia OSCAR functional review were also never fixed in VIPERS.

¹⁰ VIPERS Project Review KPMG May 30, 1995

¹¹ Letter of June 12, 1995 to Felipe Alonso of KPMG from NSI VP Constance Brines

¹² Letter of June 14, 1995 to NSI VP Constance Brines from VIPERS Project Manager Dean Wallace

¹³ Contract No. PCDJ01695 9(a)

3. Recommendations

The Territory must acquire Independent Verification and Validation services. These services can be obtained from a contractor via RFP or from a Territory agency independent of PCSD. If a contractor is used, the RFP and contract (or similar documents if IV&V is performed by another State agency) must be submitted to ACF for prior approval, regardless of the cost or thresholds. The contract must include the names and skills of key personnel who will actually perform the IV&V analysis. The Territory must submit an APD Update to include IV&V activities and costs eligible for Federal financial participation at the 80 or 66 percent matching rate.

The IV&V provider must provide the following services:

- 1) Develop a project management plan.
- 2) Review and make recommendations on both the management of the project, both State and vendors, and the technical aspects of the project.
- 3) Consult with all stakeholders and assess the user involvement and buy-in regarding system functionality and the system's ability to meet program needs.
- 4) Conduct an analysis of past project performance sufficient to identify and report on recommendations for improvement.
- 5) Provide a risk management assessment and capacity planning services.
- 6) Develop performance metrics, which allow tracking of project completion against milestones set by the State.

The IV&V provider must supply all plans, reports and recommendations to ACF Central and Regional Offices at the same time that they are supplied to the Territory

These IV&V recommendations cannot make up for lack of commitment and funding from the Territory or for contractor non-performance. They will, however, provide for independent oversight and reporting on the project, which is intended to enhance communications and provide all parties with a common understanding of what the project needs to accomplish.

The analysis of past project performance will provide more insight into the reasons for the projects failure to meet the federal deadlines. The recommendations on

management will help insure that sufficient personnel and resources are assigned to the project.

The consultation with user and stakeholders and the verification of system requirements will help nail down the system definition and make the scope of work clearer for all parties involved.

This risk management and performance monitoring recommendations will ensure that project risk and project progress is visible and understood by all parties involved. Communications should be enhanced, problems identified earlier and resolved more quickly.