

**VIRGINIA RETIREMENT SYSTEM**

**REPORT ON AUDIT  
FOR THE YEAR ENDED  
JUNE 30, 2008**

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***APA***

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**Auditor of  
Public Accounts**

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**COMMONWEALTH OF VIRGINIA**

## AUDIT SUMMARY

Our audit of the Virginia Retirement System for the year ended June 30, 2008, found:

- the financial statements are presented fairly, in all material respects;
- certain matters that we consider to be significant deficiencies in internal control; however, we do not consider them to be material weaknesses;
- no instances of noncompliance with applicable laws and regulations or other matters that are required to be reported; and
- one risk alert which we believe should be reported to management.

We have audited the basic financial statements of the Virginia Retirement System as of and for the years then ended June 30, 2008 and 2007, and issued our report thereon, dated November 19, 2008. Our report is included in the Virginia Retirement System's Comprehensive Annual Financial Report that it anticipates releasing on or around December 15, 2008.

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## RISK ALERT

During the course of our audits, we encounter issues which are beyond the current scope of the audit, but may require action of management in the near future. The following matter represents a risk to the Virginia Retirement System (Retirement System) which we believe warrants management's attention.

### Perform a Cost Benefit Analysis of Information Technology Hosting Services

The Retirement System has recently undertaken a major systems development initiative, known as the Modernization Project, to improve the processes and applications that support the various retirement and employment benefits they administer. Through the Modernization Project, the Retirement System will move from a main-frame computer environment, hosted by the Virginia Information Technologies Agency (VITA), to a client-server environment. Current project plans indicate that the Retirement System intends to host this new environment outside of VITA.

The Commonwealth has recently adopted new policies and standards for security of information technology assets including data, which requires agencies to provide levels of security which correspond to the criticality and sensitivity of the data the agency manages. These security standards are the Commonwealth Chief Information Officer's response to statutory changes about security and comply with industry best practice for this type of information. VITA's infrastructure partnership with Northrup Grumman sets a minimum level of physical as well as logical security, which already meets these standards and in many instances far exceeds most hosting environments that individual agencies can reasonably afford to duplicate or match.

Based on these new standards, management will dramatically increase the level of risk it assumes as it moves to hosting applications and hardware internally or through a third party provider. Internal hosting may also introduce significant and unanticipated costs to the organization in order to create and support long-term an appropriately secured facility.

We recommend that the Retirement System study these computer security policies and standards and assess how they will impact their new environment. With this understanding the Retirement System should then undertake a comprehensive cost benefit analysis concerning various hosting options, including hosting the environment internally, through VITA, or through another third-party service provider.

Management should not only consider internal start up and ongoing maintenance costs that the Retirement System would incur if it internally hosted the application, but also the economies of scale that utilizing a third-party service provider could provide. Management will also need to consider a number of other costs such as disaster recovery services, server refreshes, human resource requirements, and operating environment needs such as physical access and related fire protection. Management has indicated their willingness to undertake such a study.

In providing adequate information security, Management should use the results of these studies to make and document future policy decisions about its approach to the Modernization Project. Through this process, Management will, thereby, acknowledge their willingness to accept as well as manage the risks that these decisions will bring.

## INTERNAL CONTROL FINDINGS AND RECOMMENDATIONS

### Improve Information System Security Program

While the Retirement System generally practices good information security controls, we found certain components in its information security program that Management can further develop and document in order for its program to fully comply with the Commonwealth's information security standard and industry best practices. Due to the sensitivity of these controls, we have communicated the details of our findings to Management separately, and in this report provide a summary of the identified information security components.

- Security Awareness Training
- Incident Response
- Logical Access Control
- System Configuration Review

The Retirement System should further develop its Information System Security Program and documentation of its information technology infrastructure in the areas listed above to minimize risks to the confidentiality, integrity, and availability of its sensitive data. We recommend that Management provide the resources needed to improve its information technology security policies and procedures, and ensure their implementation as documented.

### Improve Written Policies and Procedures over Financial Reporting

The Retirement System has documented some, but not all, of its policies and procedures for the preparation of its annual financial report. The lack of detailed written policies and procedures increases the risk of error in financial statement preparation as well as the exclusion of important financial disclosures. Further, without well documented procedures, there exists a high risk that, in the event of turnover of key personnel, the Retirement System could not produce timely financial information and statements.

We recommend the Retirement System improve the documentation of the financial reporting procedures to include detailed items such as specific reports and tables, analyses performed, roles and responsibilities, levels of reviews, and timing of events required for the creation of their annual financial report. These procedures should also address the Retirement System's submissions to the Department of Accounts for reporting in the Commonwealth's annual financial report.



# Commonwealth of Virginia

Auditor of Public Accounts  
P.O. Box 1295  
Richmond, Virginia 23218

**Walter J. Kucharski, Auditor**

November 19, 2008

The Honorable Timothy M. Kaine  
Governor of Virginia

The Honorable M. Kirkland Cox  
Chairman, Joint Legislative Audit  
And Review Commission

Board of Trustees  
Virginia Retirement System

## INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS

We have audited the basic financial statements of the **Virginia Retirement System** as of and for the years ended June 30, 2008 and 2007, and have issued our report thereon dated November 19, 2008. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States.

### Internal Control Over Financial Reporting

In planning and performing our audit, we considered the Virginia Retirement System's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Virginia Retirement System's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Virginia Retirement System's internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in preceding paragraph and would not necessarily identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control over financial reporting that we consider to be significant deficiencies.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the entity's financial statements that is more than inconsequential will not be prevented or detected by the entity's internal control over financial reporting. We consider the deficiencies entitled "Improve Information Systems Security Program" and "Improve Written Policies and Procedures over Financial Reporting," which are described in the section titled "Internal Control Findings and Recommendations," to be significant deficiencies in internal control over financial reporting.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by the entity's internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in the internal control over financial reporting that might be significant deficiencies and, accordingly, would not necessarily disclose all significant deficiencies that are also considered to be material weaknesses. However, we believe that none of the significant deficiencies described above is a material weakness.

#### Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Virginia Retirement System's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

The Virginia Retirement System's response to the findings identified in our audit is included in the section titled "Agency Response." We did not audit the Virginia Retirement System's response and, accordingly, we express no opinion on it.

#### Report Distribution and Exit Conference

The "Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters" is intended solely for the information and use of the Governor and General Assembly of Virginia, Board of Trustees and management, and is not intended to be and should not be used by anyone, other than these specified parties. However, this report is a matter of public record and its distribution is not limited.

We discussed this report with management at an exit conference held on December 4, 2008.


AUDITOR OF PUBLIC ACCOUNTS

JBS/



**MEMORANDUM**

TO: Walter J. Kucharski  
Auditor of Public Accounts

FROM: Robert P. Schultze   
Director

DATE: December 5, 2008

SUBJECT: Response to APA's - VRS Report on Audit for the Year Ended June 30, 2008

**RISK ALERT**

**Perform a Cost Benefit Analysis of Information Technology Hosting Services:**

The Retirement System has recently undertaken a major systems development initiative, known as the Modernization Project, to improve the processes and applications that support the various retirement and employment benefits they administer. Through the Modernization Project, the Retirement System will move from a main-frame computer environment, hosted by the Virginia Information Technologies Agency (VITA), to a client-server environment. Current project plans indicate that the Retirement System intends to host this new environment outside of VITA.

The Commonwealth has recently adopted new policies and standards for security of information technology assets including data, which requires agencies to provide levels of security which correspond to the criticality and sensitivity of the data the agency manages. These security standards are the Commonwealth Chief Information Officer's response to statutory changes about security and comply with industry best practice for this type of information. VITA's infrastructure partnership with Northrup Grumman sets a minimum level of physical as well as logical security, which already meets these standards and in many instances far exceeds most hosting environments that individual agencies can reasonably afford to duplicate or match.

Based on these new standards, management will dramatically increase the level of risk it assumes as it moves to hosting applications and hardware internally or through a third party provider. Internal hosting may also introduce significant and unanticipated costs to the organization in order to create and support long-term an appropriately secured facility.



We recommend that the Retirement System study these computer security policies and standards and assess how they will impact their new environment. With this understanding the Retirement System should then undertake a comprehensive cost benefit analysis concerning various hosting options, including hosting the environment internally, through VITA, or through another third-party service provider.

Management should not only consider internal start up and ongoing maintenance costs that the Retirement System would incur if it internally hosted the application, but also the economies of scale that utilizing a third-party service provider could provide. Management will also need to consider a number of other costs such as disaster recovery services, server refreshes, human resource requirements, and operating environment needs such as physical access and related fire protection. Management has indicated their willingness to undertake such a study.

In providing adequate information security, Management should use the results of these studies to make and document future policy decisions about its approach to the Modernization Project. Through this process, Management will, thereby, acknowledge their willingness to accept as well as manage the risks that these decisions will bring.

**VRS Response:**

The Modernization Program provides an important opportunity for the VRS to implement improved, customer-focused business processes enabled by modern technology. Over the next few years, we will replace our aging legacy pension administration system with modern systems that provide a wide range of new services for our customers and enable our staff to provide outstanding customer service. These new systems will be server-based, allowing extensive integration with other software applications that provide previously unavailable capabilities in electronic knowledge support, content management, and customer relationship management.

The VRS is committed to ensuring the security, integrity and availability of our systems and safeguarding customer information. Over the past year we have spent considerable effort bringing our current environment and existing security practices into compliance with the new policies and standards issued by the Commonwealth Chief Information Officer. We understand the importance of those policies and standards as we design and develop our future environment, and agree that it is appropriate to examine all potential hosting options for the new environment. The VRS will undertake a comprehensive cost benefit analysis of the available hosting options to guide us in selecting the appropriate strategy for continuing to ensure the security of all VRS systems and customer information.

## **INTERNAL CONTROL FINDINGS AND RECOMMENDATIONS**

### **Improve Information System Security Program:**

While the Retirement System generally practices good information security controls, we found certain components in its information security program that Management can further develop and document in order for its program to fully comply with the Commonwealth's information security standard and industry best practices. Due to the sensitivity of these controls, we have communicated the details of our findings to Management separately, and in this report provide a summary of the identified information security components.

- Security Awareness Training
- Incident Response
- Logical Access Control
- System Configuration Review

The Retirement System should further develop its Information System Security Program and documentation of its information technology infrastructure in the areas listed above to minimize risks to the confidentiality, integrity, and availability of its sensitive data. We recommend that Management provide the resources needed to improve its information technology security policies and procedures, and ensure their implementation as documented.

### **VRS Response:**

The VRS has consistently maintained an effective information systems security program, and appreciates your acknowledgement that we generally practice good information security controls. Since much of what APA identified was an issue of improving the documentation of our current security practices, we believe the risk was minimal. We are committed to ensuring the security, integrity and availability of our systems and safeguarding the information that is in our custody, and have already implemented several of your recommendations. Implementation of the remaining recommendations is in process and will be completed in the near future. We appreciate the thoroughness and competence of Karen Ashby in her review of our technology security, and are confident that her suggestions will assist us in continuing to maintain a security approach that complies with Commonwealth policies and standards and reflects best practices.

### **Improve Written Policies and Procedures over Financial Reporting:**

The Retirement System has documented some, but not all, of its policies and procedures for the preparation of its annual financial report. The lack of detailed written policies and procedures increases the risk of error in financial statement preparation as well as the exclusion of important financial disclosures. Further, without well documented procedures, there exists a high risk that, in the event of turnover of key personnel, the Retirement System could not produce timely financial information and statements.

We recommend the Retirement System improve the documentation of the financial reporting procedures to include detailed items such as specific reports and tables, analyses performed, roles and responsibilities, levels of reviews, and timing of events required for the creation of their annual financial report. These procedures should also address the Retirement System's submissions to the Department of Accounts for reporting in the Commonwealth's annual financial report.

**VRS Response:**

As noted by APA, the Virginia Retirement System's Finance Division staff has documented some but not all of the policies and procedures for the preparation of the System's annual financial report. The documentation update was initiated in conjunction with the replacement of the System's financial accounting system and the related changes to the processes for accumulating information for the annual financial statements.

In FY 2008, the VRS Finance Division staff started using features of the new accounting system to capture the year-end accruals and adjustments within the accounting system. Previously, the accruals and adjustments were recorded in manual workpapers prepared as part of the year-end processes for the financial statements and development of the assets by employer for the annual actuarial valuation. Use of the automated system provides a more structured approach to statement preparation, reduces the opportunity for errors, and ensures consistency between the financial data in the System's annual financial statements and the asset information provided to the VRS actuary.

This documentation with the enhanced policies and procedures will be developed during FY 2009 and will be used for June 30, 2009 fiscal year-end processes. In addition to enhancing the documentation of our internal process for the annual financial report, we will be addressing the System's annual submissions to the Department of Accounts. This will include documentation of the processes surrounding preparation of the financial and statistical information included in their standard year-end data requests. The enhanced documentation will reduce the risks associated with turnover of key staff and the impact such turnover might have on the timely preparation of the System's financial information and annual financial report.

If you have any questions concerning the above items, please call me at 344-3120.

c: VRS Board of Trustees

VIRGINIA RETIREMENT SYSTEM

BOARD MEMBERS  
As of June 30, 2008

A. Marshall Acuff, Jr  
Chairman

John M. Albertine  
Vice Chairman

Edwin T. Burton III	Robert L. Greene
Judith Ewell	Mitchell L. Nason
Palmer P. Garson	Paul W. Timmreck
Raymond B. Wallace, Jr.	

Robert P. Schultze  
Director