Review of the Feasibility Plan for Coordinating Operations of the North Carolina Research and Education Network and the State Network Infrastructure

**Final Report to the Joint Legislative
Program Evaluation Oversight Committee**

Report Number 2012-09

July 17, 2012

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Senator Fletcher L. Hartsell, Jr., Co-Chair, Joint Legislative Program Evaluation Oversight Committee
Representative Julia Howard, Chair, Joint Legislative Program Evaluation Oversight Committee

North Carolina General Assembly
Legislative Building
16 West Jones Street
Raleigh, NC 27601

Honorable Co-Chairs:

Session Law 2010-31 directed the Office of Information Technology Services (ITS) and the Microelectronics Center of North Carolina (MCNC) to study the feasibility of coordinating operations of the North Carolina Research and Education Network and the State network infrastructure to identify efficiencies and cost savings through increased cooperation and elimination of duplicative efforts. The law also directed the Program Evaluation Division verify the identified efficiencies and cost savings.
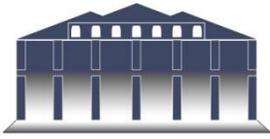
I am pleased to report that ITS and MCNC cooperated with us fully during the review.

Sincerely,

John W. Turcotte
Director

Review of the Feasibility Study for Coordinating Operations of the North Carolina Research and Education Network and the State Network Infrastructure

Summary

The General Assembly directed the Office of Information Technology Services (ITS) and the Microelectronics Center of North Carolina (MCNC) to study the feasibility of coordinating operations of the North Carolina Research and Education Network and the State network infrastructure to identify efficiencies and cost savings through increased cooperation and elimination of duplicative efforts by May 1, 2010.[1] The General Assembly further directed the Program Evaluation Division and Fiscal Research Division to verify the efficiencies and cost savings identified in the feasibility study. Subsequent legislation extended the report deadline to December 1, 2010.[2]

In December 2010, ITS concluded that further coordination with MCNC would hamper current efforts to improve efficiencies in information technology. As a result, no further collaboration between ITS and MCNC is being pursued at this time. Instead, the two entities have continued working jointly on six projects for Fiscal Year 2011–12.

The Program Evaluation Division has no recommendations.

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[1] 2009 N.C. Sess. Laws 2009-451, Section 6.13
[2] 2010 N.C. Sess. Laws 2010-31, Section 6.13

Purpose and Scope

The General Assembly directed the Program Evaluation Division to review the feasibility study for coordination between the Office of Information Technology Services (ITS) and the Microelectronics Center of North Carolina (MCNC).[3]

Data for this review were gathered from the following sources:

- feasibility study;
- interviews and meetings with ITS and MCNC administrative staff;
- review of agency documents; and
- North Carolina statutes and session laws.

Background

The Office of Information Technology Services and the Microelectronics Center of North Carolina were established with different missions, goals, and serve different customers within state government. The Office of Information Technology Services (hereafter ITS) is a state government agency that provides technology services to state agencies, local governments, and educational institutions across North Carolina. ITS is located in the Office of the Governor, and the Governor appoints the State Chief Information Officer (CIO). The State CIO provides direct management over ITS operations and has statewide information technology responsibilities, including technical architecture, procurement, project management, and security. With the exception of the Information Technology Fund, the office is funded by fees for services.[4]

The Microelectronics Center of North Carolina (hereafter MCNC) is a private, non-profit organization initially funded by the General Assembly in 1980 as a catalyst for technology-based economic development. Since 1985, MCNC has operated the North Carolina Research and Education Network (NCREN) to provide Internet, video, audio, data, and computing network services to North Carolina's public and private colleges and universities, community colleges, and K–12 institutions.

ITS and MCNC work jointly through service agreements. Several joint projects between ITS and MCNC are either in progress or have been established since 2009. The six service agreements in place during Fiscal Year 2011–12 cover these services

- Internet;
- wide area network (WAN);
- video access; and
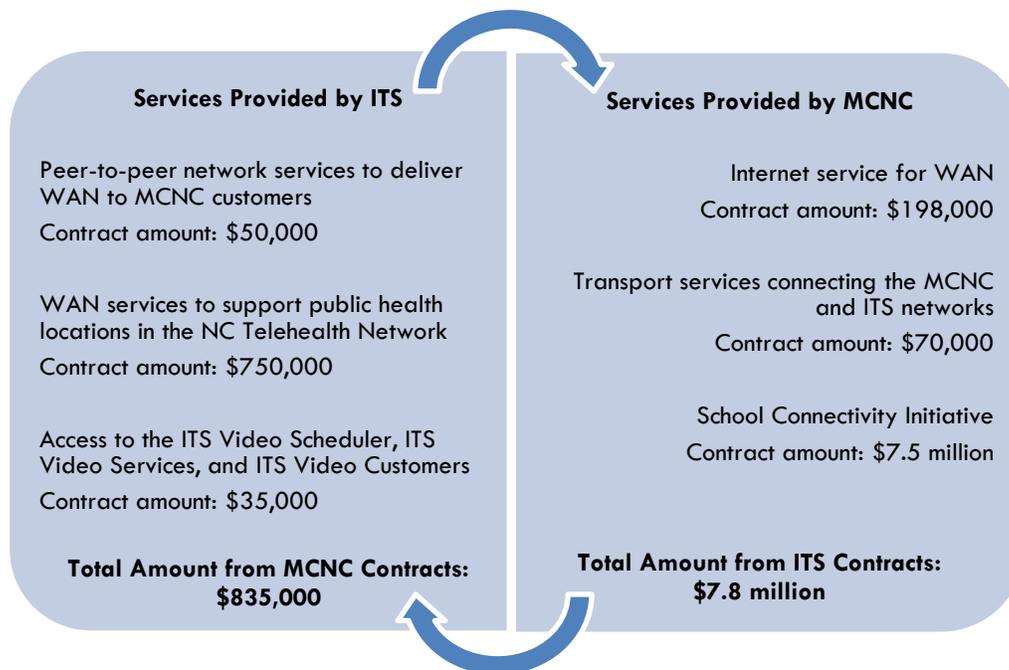- peer-to-peer network support.

Exhibit 1 provides more detail on the scope and costs of these agreements.

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[3] 2009 N.C. Sess. Laws 2009-451, Section 6.13 and 2010 N.C. Sess. Laws 2010-31, Section 6.13
[4] N.C. Gen. Stat. § 147-33.72H

Exhibit 1: Service Agreements between ITS and MCNC for Fiscal Year 2011-12

Services Provided by ITS

Peer-to-peer network services to deliver WAN to MCNC customers
Contract amount: $50,000

WAN services to support public health locations in the NC Telehealth Network
Contract amount: $750,000

Access to the ITS Video Scheduler, ITS Video Services, and ITS Video Customers
Contract amount: $35,000

Total Amount from MCNC Contracts: $835,000

Services Provided by MCNC

Internet service for WAN
Contract amount: $198,000

Transport services connecting the MCNC and ITS networks
Contract amount: $70,000

School Connectivity Initiative
Contract amount: $7.5 million

Total Amount from ITS Contracts: $7.8 million

Source: Program Evaluation Division based on documents from the Office of Information Technology Services.

Review and Conclusion

In May 2010, ITS and MCNC issued a report detailing the results of the feasibility study of increased collaboration between the two organizations.[5] MCNC and ITS initially identified five broad areas to consider for the study: security, identity management, network, video services, and data centers. After preliminary work, ITS and MCNC concluded that security and identity management services provided limited opportunities for greater efficiency.

- **No overlap in security services.** ITS policies and services have been developed to meet legislative requirements for security. As a non-profit entity, MCNC is not governed by the same requirements.
- **Identity management requires upgrade.** ITS and MCNC agreed that no collaboration in this area could be pursued until after the upgrade to North Carolina's identity management system had been completed.

The feasibility study focused on three areas for potential collaboration between ITS and MCNC:
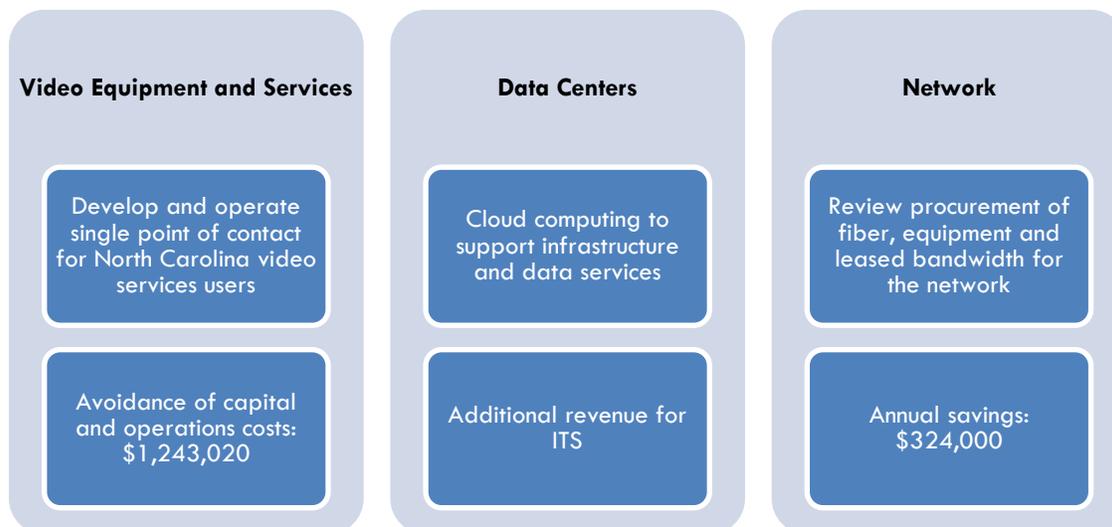- video equipment and services;
- data centers; and
- network.

The study also identified potential efficiencies through cost savings and avoidance, greater sharing of resources, and the elimination of duplication in services and infrastructure. Exhibit 2 displays the potential strategies to achieve efficiencies and the estimated cost savings for each area. As next

[5] Office of Information Technology Services (2010, May). *Potential for Increased Collaboration by ITS and MCNC*. Raleigh, NC.

steps to implement findings, ITS and MCNC agreed to develop business cases and coordination plans for their network infrastructure and video services and enter into detailed discussions about potential uses for the Western Data Center and the potential for a cloud computing initiative.

Exhibit 2: Three Collaboration Strategies Identified to Achieve Efficiency

Video Equipment and Services	Data Centers	Network
Develop and operate single point of contact for North Carolina video services users	Cloud computing to support infrastructure and data services	Review procurement of fiber, equipment and leased bandwidth for the network
Avoidance of capital and operations costs: $1,243,020	Additional revenue for ITS	Annual savings: $324,000

Source: Program Evaluation Division based on documents from the Office of Information Technology Services.

According to ITS officials, further collaboration with the MCNC could hamper the State's efforts to improve efficiencies in information technology. In December 2010, ITS informed the Joint Legislative Committee on Information Technology of its decision not to pursue additional areas of collaboration with MCNC. In the memo, ITS officials stated independently developing areas of additional cooperation with MCNC would be "inappropriate" because ITS had embarked on an independent evaluation of the state's information technology infrastructure, services, and costs within ITS and Executive Branch agencies to identify opportunities for efficiencies. This program, known as the IT Infrastructure Study and Assessment (INSA), was created in response to Governor Perdue's directive and included an examination of areas where there could be increased consolidation or outsourcing of information technology services. As a non-profit entity, MCNC would be eligible to apply for these contracts; thus, any collaboration with ITS may be viewed as a conflict of interest. Based on consultation with legal counsel, ITS concluded that it could not "in good conscience develop a plan to identify areas of cooperation that could well duplicate or conflict with the larger effort now underway." As a result, no further collaboration between ITS and MCNC is being pursued at this time.

The potential remains for additional opportunities for efficiencies. While the scope of feasibility study was limited to potential collaboration between ITS and MCNC, the study recommended that the State pursue consolidation of leased bandwidth and dark fiber, as recommended by the Government Performance Audit Committee (GPAC) in 1992. To date, no action has been taken on this recommendation.
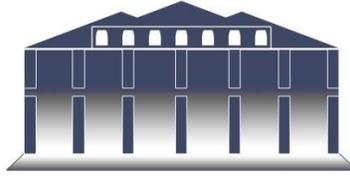
Recommendations

The Program Evaluation Division makes no recommendations for legislative action.

Program Evaluation Division Contact

For more information on this report, please contact the lead evaluator, Pamela L. Taylor at pam.taylor@ncleg.net.

John W. Turcotte is the director of the Program Evaluation Division.