ELECTRONIC COMMERCE TASK FORCE REPORT

REPORT TO THE
2008 REGULAR SESSION OF THE
2007 GENERAL ASSEMBLY OF NORTH CAROLINA

State of North Carolina
Office of the State Controller

Robert L. Powell, State Controller
April 30, 2008

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State of North Carolina
Office of the State Controller

Michael F. Easley, Governor

Robert L. Powell, State Controller

April 30, 2008

TO THE MEMBERS OF THE 2008 SESSION OF THE 2007 GENERAL ASSEMBLY

Pursuant to a special provision of the 2007 Appropriations Act (Section 6.14), the Office of the State Controller was charged with the task of evaluating the opportunities for efficiencies in state government through the use of electronic commerce as it relates to both disbursement and collection of funds, and to report the results of that evaluation to the 2008 Regular Session of the 2007 General Assembly. The provision also directed the State Controller to recommend proposed legislation that may be considered by the 2008 Regular Session of the 2007 General Assembly.

The provision required the Office of the State Controller to acquire input from various sectors of state government. This input was acquired by two primary means: 1) the creation of a statewide Task Force representing the various government sectors; and 2) the soliciting of input from the component entities of each sector via a comprehensive survey.

Attached for your consideration is a report prepared by the Office of the State Controller, based primarily from input from the Task Force and the surveys, as well as from research performed by the staff of the Office of the State Controller.

Respectfully submitted,

Robert L. Powell, State Controller

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II. Executive Summary

Pursuant to a special provision of the 2007 Appropriations Act (Section 6.14), the Office of the State Controller (OSC) was charged with the task of evaluating the opportunities for efficiencies in state government through the use of electronic commerce as it relates to both disbursement and collection of funds, and to report the results of that evaluation to the 2008 Regular Session of the 2007 General Assembly. The provision also directed the State Controller to recommend proposed legislation that may be considered by the 2008 Regular Session of the 2007 General Assembly.

Assessment of Current Environment

For the most part, a few state agencies have been very successful in implementing ecommerce programs since the beginning of the 21st century. In the area of disbursements, direct deposit of payroll and retirement benefits have been the most successful programs. In the area of receipts, the collection of taxes electronically has been the most successful. A few agencies have developed online systems for citizens to easily submit payments that may be due the State (DMV Registration, Secretary of State, Department of Revenue, DHHS Child Support, Employment Security Commission, Wildlife Resources, and several universities). Beyond these major programs however, the degree of success obtained by the various agencies has varied from moderate to none at all.

An assessment of the State's current ecommerce program indicates the statewide enterprise structure that was first envisioned by the 1998 E-Commerce Work Group has not fully developed. The various agencies, universities, and community colleges have all embarked down the road of ecommerce on rather separate courses, each developing their own systems for capturing transactions. While most use the master contracts established by the Office of the State Controller (OSC), and some use the Common Payment Service provided by the Office of Information Technology Services (ITS), for the most part, each agency operates differently in regards to how they have implemented their individual ecommerce programs.

Recognizing the fractured structure of state government and the separate statutory authority agencies operate under, statewide enterprise programs that may be developed must be structured in such a manner to accommodate the variety of operational needs unique to each government sector (general government, university, and community college), and to each entity within that sector. The study found that a more coordinated approach needs to be established to provide an ongoing function within the state government environment to ensure a strong and effective system for the orderly expansion of the utilization of ecommerce activity, incorporating the objectives of both the State's Cash Management legislation and the State's Electronic Commerce in Government legislation.

Recommendations pertaining to expansion of ecommerce

- The Office of the State Controller (OSC) should be the primary agency charged with the governance responsibility of establishing comprehensive standards, policies, and procedures to ensure a strong and effective system for the orderly expansion of the utilization of ecommerce activity.

- Other central oversight offices should be involved in the expansion of ecommerce, to include the Department of State Treasurer, Office of State Budget and Management, Office of Information Technology Services, UNC General Administration, and the NC Community College System.

- Management of each agency should be required to take an active role in identifying paper based payments that are potential candidates for converting to electronic payments, reporting to the OSC on a prescribed basis.

- An oversight and approval process should be established within OSC to ensure all new ecommerce applications desired to be implemented by an agency are consistent with statewide standards and policies that may be established.

- Policies developed should be conducive to the orderly expansion of ecommerce activities
    - Taking into consideration statutory requirements, industry requirements, best practices, cash management effects, security requirements, citizens needs; and
    - Established with the objectives of making it more conductive for citizens to remit payments electronically and increasing the number of payments the State makes to citizens electronically.

Recommendations pertaining to funding ecommerce

- Funding should be a priority for those agencies desiring to establish ecommerce functions that require modifications to their website infrastructure. These development costs are separate from the ongoing processing costs once a system is developed.

- Whenever it is determined that any ecommerce activity is economically beneficial to the State as a whole, the costs incurred should be considered as a "cost of doing business," without any expectation that the citizen should pay a convenience fee.

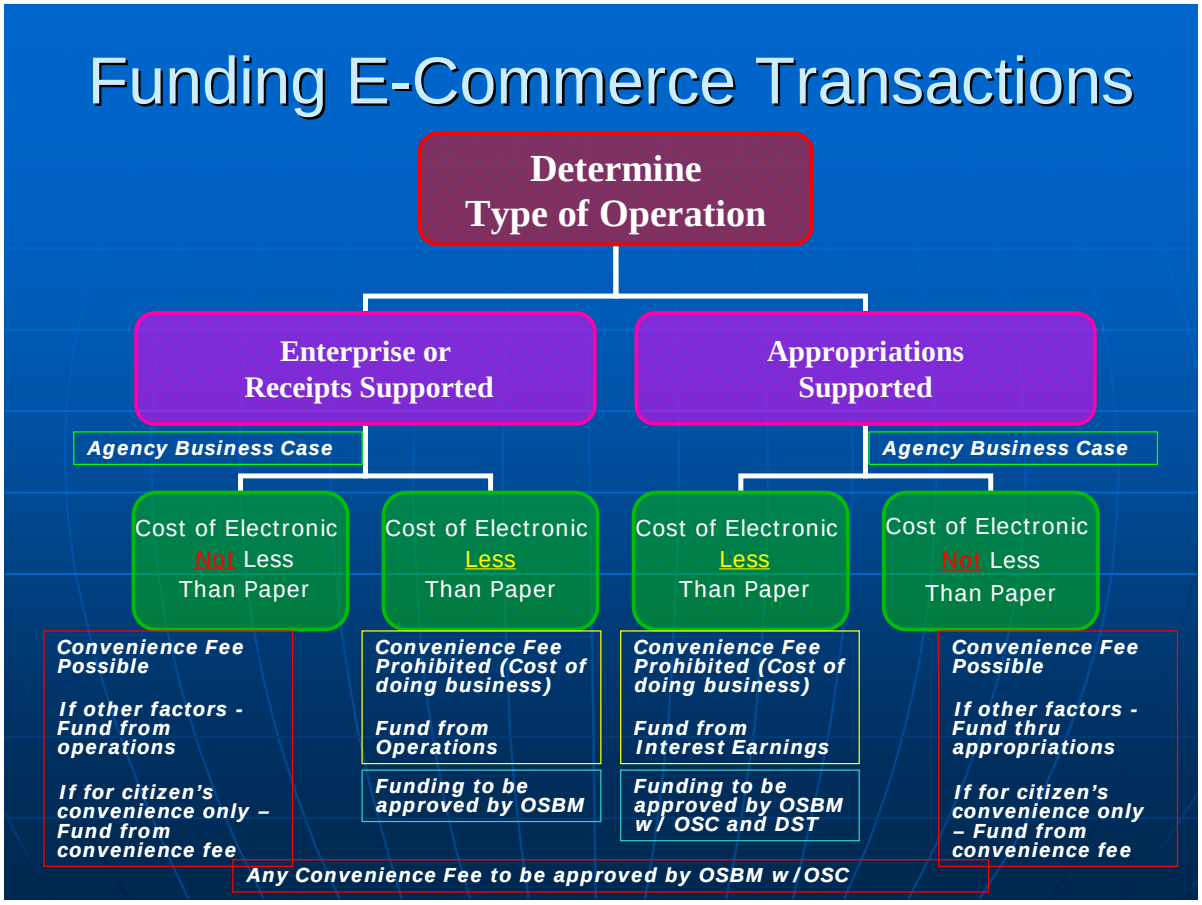
- Funding for ecommerce activities should be in accordance with the type of agency operation, as determined by the Office of State Budget and Management and based upon a business case for a particular agency.
    - "Enterprise or receipts supported" operation - Transaction costs should be paid for from the agency's enterprise or special fund.
    - "Appropriations supported" operation - Transactions costs may be paid for either by a direct appropriation or from the revenue account established to account for Interest on Treasurer's Investments, whenever that revenue account is the beneficiary of the increased availability of funds as a result of being collected electronically.

- Whenever it is <u>not</u> more efficient to process a transaction electronically, a convenience fee may potentially be levied against the payor, as approved by the Office of State Budget and Management in consultation with the State Controller, based upon the agency's submitted business case.

Recommendations pertaining to legislation

- Create a specific Chapter that ties the various elements of ecommerce pertaining to "electronic payments" together in one place, incorporating the objectives of both the State's Cash Management legislation (G.S. 147-86.10) and the State's Electronic Commerce in Government legislation" (G.S. 66-58). Suggested name of the new chapter is the "NC Electronic Commerce for Electronic Payments Act."

- Amend various existing statutes to remove conflicts between current general statutes and industry rules, and to accommodate the recommendations stated above.



Factors Considered for Absorbing Fees as a "Cost of Doing Business"

- Reduced transaction costs
- Speedier collections and availability of funds (increased interest earnings)
- Payment for service or product is considered "mandatory" (e.g., taxes)
- Acceptance of an electronic transaction would likely increase sales or revenue
- Payment is to satisfy a "delinquent" account or other type of payment that would not likely otherwise be collected
- Other factors deemed appropriate for a particular type of payment (e.g., convenience expectation of citizen)

Approval Processes

- Funding for Enterprise and Receipts Supported Operations – By OSBM
- Funding for Appropriations Supported Operations
    - If appropriated – By General Assembly
    - If from interest earnings revenue – By OSBM in consultation with OSC and DST
- Levy of convenience fee – By OSBM in consultation with OSC

Reporting of Convenience Fees

- To the General Assembly by OSC

III. Previous Studies

E-Government Report of 2001

A comprehensive report on the broader definition of E-Commerce, referred to as E-Government, was prepared by the Office of Information Technology Services (ITS) entitled, "*E-Government – Using Technology to Transform North Carolina's Governmental Service Operations in the Digital Age*." The report, prepared in February 2001, can be viewed at:
http://www.its.state.nc.us/News/EGovernment/_Docs/EGovernmentReport2001.pdf

The 2001 report was an update of an earlier report prepared in 1999 by the E-Commerce Work Group (ECWG), appointed by Lt. Governor Wicker in early 1998 and led by Secretary of State Elaine Marshall. The ECWG report was entitled, "*A New Way of Doing Business*." These two reports laid the groundwork for identifying the State's status regarding E-government at the turn of the century, as well as identifying the opportunities and challenges perceived at the time. E-Commerce, which incorporates the financial transactions aspects, is a vital component of E-government. The 2001 ITS report can be summarized by the executive summary, which stated:

> *Approaching the end of the twentieth century, North Carolina focused its attention and technology on preparing and eliminating the Year 2000 (Y2K) problem, which it successfully accomplished. Starting from a middle-of-the-pack position on e-government, through executive leadership, legislative sponsorship, and hard work, the State leaped to the forefront with its statewide portal receiving Government Technology magazine's "Best of the Web" award, signifying excellence in Internet-based initiatives among state governments nationwide. North Carolina is prepared to address the challenges and accomplish the tasks necessary to remain a leader in e-government so it can provide better and more cost-effective government for its businesses and citizens…*
>
> *For citizens, e-government offers simple, fast, convenient, and personal methods to access information, receive services, order permits and licenses, pay fees and taxes, and file information. For businesses, e-government means relief from costly and manually intensive filing and reporting duties. For government, e-government provides opportunities to achieve cost reductions through streamlined and combined processes; assists in improving program performance and results in areas such as law enforcement, education, and health care; fosters economic development and the resulting prosperity of citizens; and strengthens democracy through easier public participation.*

Statewide Electronic Commerce Status Report of 2007

In March 2007, the Office of the State Controller prepared a report entitled, "Statewide Electronic Commerce Status Report." This report provided a basic explanation of the various ecommerce programs the State had developed during the first seven years of the 21st century. The report focused on the statewide enterprise approach that was pursued as the result of Senate Bill 222 of the1999 General Assembly Session. The report revealed that the State had not been as successful as was envisioned. Based on the findings of the report, the General Assembly directed that a more thorough report be conducted, with recommendations being presented when the General Assembly reconvened in 2008. The March 2007 report should be considered a supplement to this report and can be viewed at: http://www.ncosc.net/SECP/SECPStatusReport-March2007.pdf

Efficiency Goals Identified

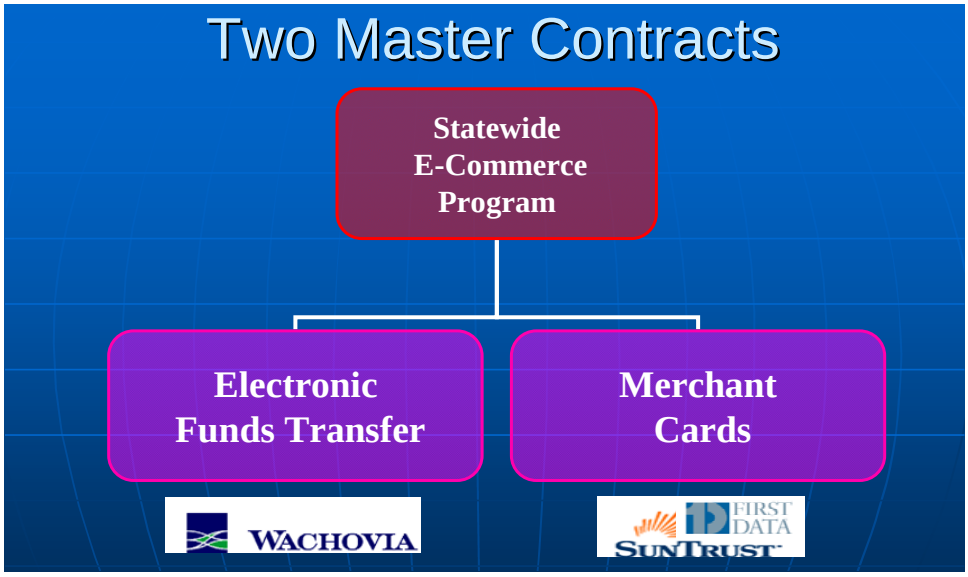
Both previously generated reports indicated that efficiencies associated with ecommerce are goals worthy of pursuing.

IV. Assessment of Current Environment

Purpose of Section
This section of the report is intended to provide an assessment of the current ecommerce environment within state government. It describes the two primary components of ecommerce (Electronic Funds Transfer and Merchant Cards). Examples of the different ecommerce applications being utilized by the agencies are given. Additionally, the degree of success that ecommerce has been implemented by the three governmental segments is shown.

Two Components – Statewide Enterprise Approach
As defined in G.S. 147-86.20(2a), the term "electronic payment" associated with ecommerce is deemed to have two components: 1) Electronic funds transfer (EFT); and 2) Merchant Cards (debit and credit cards). To support the two components, the services of third party vendors are required. Prior to the year 2000, the various agencies that had any type of ecommerce program had developed their program, securing the services of vendors on an individualized basis. Based on directives and authorizations provided in SB 222 of the 1999 session, OSC took the first steps in the development of a statewide enterprise infrastructure to accommodate electronic payments.

Master Services Agreements
To facilitate the enterprise approach, it was deemed appropriate for OSC to arrange for a "master services agreement" (MSA) with each of two service providers under which all state agencies could participate. Through a series of competitive bidding processes, two vendors were secured. Wachovia Bank was selected as the EFT vendor, while SunTrust Merchant Services (STMS) was selected as the merchant card vendor. In 2005 and 2006, renewed bidding processes resulted in the re-selection of the two vendors, with fees being reduced from what they were under the original contracts. In both cases, the per-transaction fees were reduced by more than one-half. While most agencies utilize the two master contracts available through OSC, some agencies have developed business cases to utilize alternate vendors.



Common Payment Service Gateway
In addition to the two service providers (Wachovia Bank and STMS), an agency offering payments to be made through the Web requires a "gateway" service in order to interact with the two vendors. To accommodate the statewide enterprise approach the State developed the Common Payment Service (CPS), which is offered through the Office of Information Technology Services (ITS). The stated goal of CPS was "*to establish a shared service that enables state applications to interface with and access through the Internet or interactive voice response unit, the payment processing services provided by the credit card vendor unit, the payment processing services provided by the credit card vendor.*"

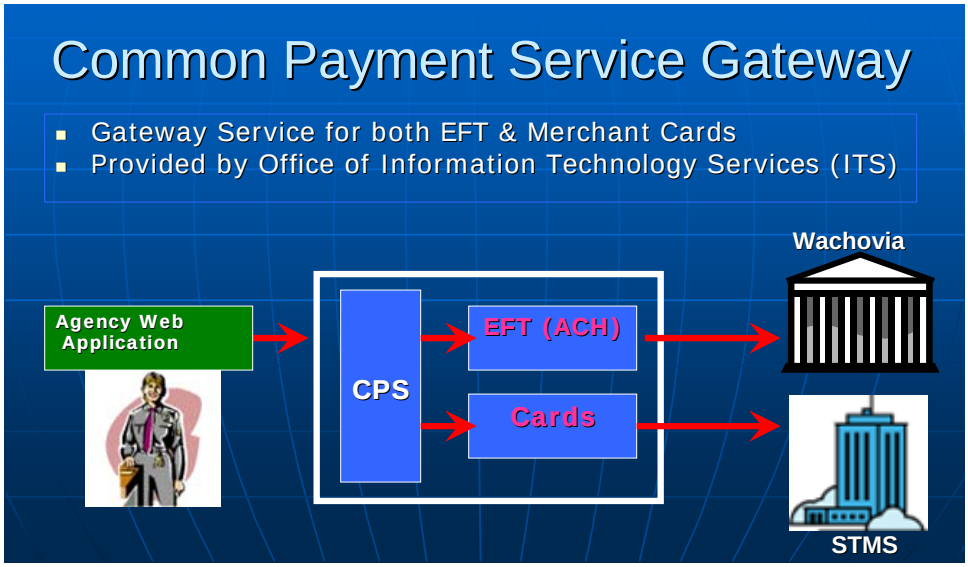
In the year 2000, ITS acquired and installed an Application Program Interface (API) that supports both merchant card transactions and EFT transactions. As is the case with EFT and card processing vendors, some agencies have developed business cases to utilize alternate gateway service providers.

During FY 2006-07, CPS processed 39% of the merchant card transactions (23% of the dollar volume), which represented most of the transactions that requires a gateway service for their Internet operations for the general government agencies. Fourteen of the sixteen universities do not use CPS as their gateway, but instead use a third-party gateway service that is compatible with the university Banner System (e.g., TouchNet). None of the community colleges utilize the CPS, with only a few currently needing a gateway service.

Agencies using point of sale (POS) terminals, instead of Internet applications, do not require a gateway service. During FY 2006-07, CPS processed 1.8 million merchant card transactions, totaling $124 million. By comparison the total of merchant card transactions <u>not</u> processed through CPS was 2.7 million, totaling $411 million. The average size CPS transaction was $70, while the average size non-CPS transaction was $152. The biggest user of CPS for merchant card processing is DMV Registration.

Additionally, CPS processes approximately 20% of the State's EFT transactions, nearly all transactions that require a gateway service. The other 80% of the EFT transactions do not require a gateway interface, as files are transmitted directly from the agency to the service provider (e.g., payroll). During FY 2006-07, CPS processed 1.65 million EFT transactions, totaling $5.2 billion. The biggest user of CPS for EFT is the Department of Revenue.

The CPS fee charged agencies for ACH processing is based on the monthly transaction volume, ranging from $.0258 to $.08 per item. The CPS fee for card processing was lowered by ITS in April 2008 from $.41 to $.35 per transaction.



Inter/Intra Governmental Transactions

In 2004, the OSC expanded the definition of the Statewide Electronic Commerce Program to include a third component, known as Inter/Intra Governmental Transactions. Such transactions involve the transfer of funds between agencies, each having an account with the State Treasurer. The system is available to general government agencies that use the North Carolina Accounting System (NCAS). During FY 2006-07, 17,398 NCAS disbursements totaling $394 million were made via the Inter/Intra Governmental Transfer method, representing 1.8% of the total number of NCAS transactions.

In 2006, the program was expanded again to allow certain inter/intra governmental transactions that could not be accommodated by the NC Accounting System (NCAS) to be facilitated through the State Treasurer's Core Banking System (CB$), using the Funds Transfer feature. The primary users of this feature are agencies (primarily Central Payroll and university payroll centers) remitting payments to the Retirement Systems Division and the Department of Revenue.

Vendor Payments - NCAS

The various general government agencies having access to the NC Accounting System (NCAS) can utilize the system to pay vendors via electronic funds transfer (EFT), provided the vendor has enrolled in the E-Pay Program. During FY 2006-07, twenty-four percent (224,566) of the 937,000 NCAS vendor payments were made by EFT. The dollar amount represented by these EFT transactions ($7.3 billion) was thirty-five percent of the $21.2 billion disbursed to the vendors.

Direct Deposit of Retirement Benefits and Payroll

While OSC took on the role of developing a Statewide Electronic Commerce Program as a result of Senate Bill 222 in 1999, North Carolina has been a leader in providing EFT as far back as the late 1970s. In 1977, State Treasurer Harlan Boyles implemented the State's first EFT program, offering direct deposit of Retirement benefits to retirees. Two years later, central payroll followed suit by offering direct deposit to active state employees. Over the next 20 years, the Department of State Treasurer spearheaded the expansion of direct deposit for the various payroll centers that disbursed funds comprised of state funds. This included payroll for the universities, the community colleges, and the local school systems. **The success of this expansion effort was due largely to the State Treasurer being able to pay for the EFT services from interest earnings, as opposed to each agency, university, college, or school having to pick up the tab**.

Mandatory Direct Deposit

The Retirement System implemented a mandatory direct deposit policy in 1994, for all new retirees going forward. The participation rate at that time was around 70%. Due to attrition, the rate has now reached 96%. As of December 2007, 200,000 of the 209,000 retirees were receiving their monthly retirement benefit by direct deposit. The savings associated with mailing costs alone is approximately $80,000 per month. The remaining 9,000 retirees receive their pay via the US mail, a number that continues to decline and will one day be nonexistent.

Although direct deposit has been offered by the State's Central Payroll operation since 1979, the participation rate for direct deposit had peaked at eighty percent. The prime reason for not achieving a higher participation rate was internal procedures that prevented employees that were paid in cycles other than the last day of the month from being able to participate in direct deposit. Additionally, temporary employees were not eligible. In 2007, in conjunction with the implementation of the new BEACON HR-Payroll System (Building Enterprise Access for NC's Core Operation Needs), OSC made both policy and procedural changes that now allows practically all 88,000 employees to be eligible for direct deposit. Similar to the Retirement System policy, direct deposit is now mandatory for all employees, unless a hardship case can be presented. This new policy and procedural changes have resulted in the participation rate rising to over 94% as of December 2007.

Payroll Cards

It is recognized that some employees are "unbanked," not having a bank account to accommodate direct deposit. Reasons for the unbanked vary, but most cannot obtain a bank account due to a history of writing bad checks or having a poor credit score. A small segment just does not want a bank account. In October 2007, employees paid through Central Payroll who were not enrolled in direct deposit began receiving their pay via US mail, with the check being mailed to their home address. Since the checks are not mailed until the employee's payday, the employee experiences a delay in receiving his/her pay, compared to employees enrolled in direct deposit.

To accommodate the unbanked employee, in mid 2008 the OSC plans to roll out a "Payroll Debit Card" program, as provided for under the master EFT contract the State has with Wachovia Bank. The majority of the costs of the program will be incurred by the State, with the employee being able to avoid any costs, depending upon how he/she uses the card. The card provides five free withdrawals per month from a Wachovia Bank ATM, and unlimited withdrawals use at merchants accepting Point of Sale (POS) transactions.

The State-issued payroll debit card program is deemed to be a better arrangement than debit card programs offered by most payroll card vendors, many only offering two free withdrawals per month. Some unbanked employees currently have their "direct deposit" going to prepaid debit card accounts they have obtained from issuers of Visa-branded debit cards, such as those offered by Wal-Mart Financial Services. Such prepaid debit cards typically cost the individual $9 for the card, $5 monthly maintenance, and ATM withdrawal fees.

Electronic Payments for Collections – Retirement System Division

In 1992, the Retirement System was the first agency to implement an EFT program for collections (inbound payments). The program, known as the "State Treasurer's Electronic Payments System" (STEPS) provided a mechanism for local units of governments, community colleges, and local school systems to remit their monthly retirement contributions (both employer and employee portions) electronically, using the ACH debit method. While the State Treasurer had implemented a system known as "Governmental Moneys Transfer System" (GMTS) in 1984 that provided for outbound payments to local units of government to be made electronically, STEPS was the first step in making inter-governmental payments a "two-way street."

Electronic Payments for Collections – Department of Revenue

In 1994, DOR implemented its version of an EFT program for the collection of taxes. This program offered the taxpayers two methods to initiate their EFT payments: 1) the ACH debit option via a third-party data collection center; and 2) the ACH credit option via its own bank. Over the years since 1994, DOR has periodically lowered the threshold required for mandatory participation, as well as offered EFT on a voluntary basis. Over 9,000 taxpayers are mandated to remit electronically, while another 111,000 taxpayers elect to remit voluntarily. During FY 2006-07, 1.9 million transactions, totaling $17.4 billion, were received electronically by DOR (66% of taxes received). While DOR has statutory authority to mandate certain taxpayers to remit payments electronically pursuant to G.S. 105-241, other agencies do not have such statutory authority. DOR also has unique statutory authority to levy a fee if the electronic payment is returned for non-sufficient funds or for non-existent account, pursuant to G.S. 105-357(b)(2).

DOR actually has two electronic payment programs, one primarily used by corporate taxpayers, which requires a pre-enrollment process, and one for individual taxpayers which does not require a pre-enrollment process. The program offered individual taxpayers offers two payment options – credit card and ACH bank draft.

DOR is an example of the benefits obtainable from a successful EFT program. In addition to reduced transaction costs, the big advantage is the speedier collection and quicker funds availability. This results in money being available for expenditure or for investment sooner than if collected by check.

Treasury consultants indicate that collecting funds by EFT eliminates two types of float – mail float and check float (typically 3 1/2 days). **During FY 2006-07, DOR's EFT program resulted in $8.7 million additional investment earnings for the State.**

Electronic Payments for Collections – Employment Security Commission

In the late 1990s', the Employment Security Commission (ESC) developed an electronic payment system for the collection of unemployment taxes (UI taxes), offering employers both the ACH credit and ACH debit method of making electronic payments. In subsequent years, the ESC expanded the program, offering the option to pay by credit card and by online ACH bank draft.

As is the case with most agencies, ESC's EFT program requires a pre-enrollment process. ESC is unique in that it contracts with Bank of America (BOA) for its EFT and card processing services, instead of using the master contracts established by OSC. The utilization of BOA is due primarily to the US Department of Labor's requirements relating to the segregation of UI taxes with a single depository. Since ESC's official designated depository bank is BOA, ESC has consistently tried to utilize the bank for as many electronic services as possible. In addition, BOA has been able to match the fees associated with the State Controller's master contract for all of the EFT services the bank provides ESC.

ESC's online card program utilizes a third-party gateway service. After entering its ESC-assigned account number on ESC's Website, the payor is redirected to a payment gateway service provided by CyberSource, where the credit card information is then entered and the transaction is completed. Merchant card transactions do not require a pre-enrollment process.

In 2007, ESC began offering employers the ability to pay by eCheck, which is similar to the ACH draft option previously offered, but does not require a pre-enrollment process. The eCheck program, supported by BOA, is still in the pilot phase. Similar to the merchant card program, an employer enters their ESC-assigned account number and payment amount on ESC's website and is then transferred to BOA's website to enter their checking account information.

Electronic Payments for Collections – DMV Registrations and Inspections

The DMV online registration program is perhaps the most well known electronic payment system available to the majority of the State's citizens. Via DMV's website, citizens can pay their vehicle registration renewal fees online. The system is limited however, in that the only payment option offered is credit card. Currently, the ACH bank draft is not offered as a payment option for online registrations. However, for the International Registration Plan (IRP) for the trucking industry, pre-enrolled payors can make payment via ACH bank draft.

Approximately 1.3 million transactions (of 9.6 million total DMV registration transactions), totaling over $40 million, are collected annually via the credit card method, making DMV the largest acceptor of credit card payments in state government. It is also the biggest user of the CPS gateway service provided by ITS. The $40 million collected via merchant card represents 12% of the $338 million total registration fees collected by DMV. The remaining 88% is collected largely by check or via the 130 DMV license plate agents across the State.

In the fall of 2008, DMV plans on rolling out a program for the 7,000 vehicle inspection stations to purchase their stock of inspection stickers (eStickers) via the Internet. The service will be provided by Verizon Business Services. By using a third-party service provider, DMV's system for paying for the eStickers online will allow the owners of inspection stations to have the option of paying by either credit card or ACH bank draft.

Electronic Payments for Collections – Child Support Enforcement

The Department of Health and Human Services (DHHS) is an example of an agency that accepts payments by offering a full range of electronic payment options, and by outsourcing the process to a

third-party [pursuant to G.S. 110-139(f)]. Two types of EFT related transactions are accepted, both ACH debits and ACH credits. An ACH debit transaction is where the payor (non-custodial parent) authorizes DHHS to draft his/her bank account. An ACH credit transaction on the other hand is where the payor initiates an EFT transaction against his/her bank account resulting in an electronic credit to DHHS's bank account, the method widely used by employers that withhold child support payments from the salaries of non-custodial parents. The third electronic payment option offered to the non-custodial parent by DHHS is the credit card option (merchant card method).

The electronic payment service offered by DHHS to non-custodial parents, and to employers withholding payments from wages, is facilitated through a website developed and maintained by a third party vendor responsible for the receipting of child support payments in North Carolina. To participate in the electronic program, the non-custodial parent or employer must pre-enroll. Approximately 480,000 electronic transactions totaling $96 million are collected annually. This represents 16% of all child support payments collected by DHHS, for subsequent disbursement to the custodial parent. The other 84% are collected via paper check. Funds are disbursed to the custodial parents entirely by electronic means, by either direct deposit or by a third party vendor debit card. (Debit cards are discussed in another section of this report.)

The benefit of the speedier collection of child support payments from non-custodial parents does not accrue to the State, but to the custodial parents, as funds are required by federal regulations to be disbursed within two days of being collected, regardless of method collected.

Electronic Payments for Collections – Secretary of State

The Department of the Secretary of State (SOS) is an example of an agency that has developed its own in-house system for processing electronic payments. In 1999, the SOS began developing an integrated system of business support applications. The Secretary of State Knowledge Base (SOSKB) system is licensed to fourteen other Secretary of State's Offices across the country. Due to the integration of the various business applications and the extensive use of reusable code, it is relatively easy for the SOS's own IT staff to apply electronic payment options to online fees and services. The SOSKB system accepts credit card and ACH payments from customers through online web services. Over-the-counter and through-the-mail payments are still limited to cash and checks.

The SOS's system is similar to several other agencies in that payors must be pre-enrolled in order to participate (in the case of ACH bank drafts). The SOS's system accepts both merchant cards and ACH bank drafts.

On an annual basis, the SOS's in-house website averages over five million web page views per month, with over 25% of its business transactions now coming from online services offering electronic payment options. Customers using the SOS's online payment options are accessed an additional "electronic payment convenience fee" of $2 per transaction to help pay the related service fees the Department incurs. However, in recent years, the Department has asked the General Assembly to increase the fees associated with <u>manual</u> filing for many documents filed with the Department. In many cases, the cost to the online customer is still less than the cost incurred by a manual filer, even with the $2 convenience fee being added to the online payment.

The SOS's practice of levying a convenience fee for an online transaction appears to be an exception to the general rule that convenience fees discourage online payments. The exception is due to the discounted cost of the online filing compared to the cost of a manual filing.

Electronic Payments for Collections – Wildlife Resources Commission

The North Carolina Wildlife Resources Commission (WRC) is an example of an agency utilizing a variety of electronic payment arrangements, and for a variety of programs. WRC accepts payments electronically for three areas of its business models: 1) Hunting/fishing license sales, 2) Vessel registrations and renewals; and 3) Merchandise sales.

The different arrangements accommodate payments received both directly by WRC as well as payments received through authorized agents (for hunting/fishing and vessel registrations and renewals). Merchant cards are accepted by WRC in a card-present environment (counter sales) as well as a card-not-present environment (website sales). Online payment options are limited to credit cards, as the ACH bank draft option is not offered.

In the case of the approximately 850 authorized agents throughout the State, the agents determine the forms of payments they will accept, which generally include merchant cards (debit or credit cards). The WRC agents can make this determination as they make their own banking arrangements for the depositing of the funds collected. Accordingly, the agents incur any banking related fees, including interchange fees associated with merchant card transactions. On a once-per-week basis, the WRC initiates ACH debits (bank sweeps) against the agent-owned bank accounts. Funds swept are net proceeds, with the agent retaining its sales commissions. The WRC arrangements are similar to the arrangements used by the NC Education Lottery Commission to collect funds from the authorized lottery ticket sales agents.

The WRC and the Lottery arrangements with their agents are different than the arrangements the DMV has with its license plate agents, which were established many years ago. In the case of DMV license plate agents, the agents deposit funds into bank accounts established by the State Treasurer on a daily basis, with the State Treasurer incurring any bank related fees. The DMV arrangement thus makes it difficult to accommodate the acceptance of merchant cards. This obstacle is related to the agent not being recognized by the card associations as a “merchant,” since the agent is not the owner of the bank account. If the DMV license plate agent arrangements were to be set up today, it is likely the arrangements would be set up more like those of the WRC and lottery agent arrangements.

The WRC is also an example of an agency that utilizes multiple payment gateways for its merchant card processing: 1) Common Payment Service gateway provided by ITS for the counter sales transactions; 2) PayPal gateway for the online web transactions; and 3) Yahoo! Small Business gateway for the merchandise sales.

On an annual basis, approximately 94% of all license sales, vessel registrations, and merchandise sales are collected by WRC electronically, for an approximate total of 1.05 million transactions and $29.3 million. (This includes the merchant card transactions accepted directly by WRC and the funds drafted from the agents on a weekly basis.) The remaining 4% totaling approximately 71,000 transactions and $2 million are processed in paper form by the WRC.

Electronic Payments for Collections - Universities

Like general government agencies, the various universities have all developed separate systems for conducting their ecommerce programs. Most of them use the master service agreements that the Office of the State Controller has with the EFT processor bank (Wachovia) and with the merchant card processor (SunTrust Merchant Services). However, the methods used by the universities to capture the transactions vary greatly.

While several universities use the Common Payment Service (CPS) gateway service provided by ITS, most have developed arrangements with third-party gateways to process their web transactions. Most use Touchnet as a provider, as Touchnet’s system is compatible with the Banner System and it offers a feature that allows for a convenience fee to be levied by the vendor, not the university.

NC State University (NCSU) is an example of a university that uses Nelnet, Inc. as its third party vendor to facilitate the collection of student tuition and fees via the web. This is a full-featured hosted option that provides student billing via e-mail, an online payment site, and a merchant site for NCSU staff to monitor daily activity. During FY 2006-07, 27,000 student payments totaling $40 million (non-financial aid) were collected electronically. Of the electronic payments, 9,000 (over $13 million) were

collected by credit card with the remaining 18,000 (over $26 million) collected via ACH. NCSU also allows for the online payment of parking permits, as well as student loans (performed by a third party processor). The NCSU College of Veterinary Medicine offers various services to veterinarians throughout the United States, collecting over 20,000 payments ($9.6 million) electronically on an annual basis.

UNC at Chapel Hill is an example of a university that has developed its own in-house system for capturing payments electronically via the web, interfacing with the Common Payment Service provided by ITS to process its merchant card payments.

Comparison of Major Agency Electronic Collections Systems
As can be seen above, there are both similarities and differences in the various programs. The follow charts provides some of the comparisons:

Comparison of Electronic Systems for Collections							
	Retirement	**Dept Revenue**	**ESC**	**DMV**	**Child Support**	**Sec of State**	**Wildlife**
Accepts payments via Web	No	Yes	Yes	Yes	Yes	Yes	Yes
Payment options offered citizens	ACH debits (Govt. units)	Cards; Bank Drafts; ACH credits; ACH debits	Cards; Bank Drafts; ACH credits; ACH debits	Cards only	Cards; ACH debits	Cards; Bank Drafts	Cards; Bank sweep from agents
Pre-enrollment Required	Yes	Yes for ACH; No for cards	Yes for ACH credits and debits; No for cards	No	Yes for all types	Yes for Drafts; No for cards	No for cards; Yes for agent sweeps
Vendor for Cards		STMS	BOA	STMS	STMS	STMS	STMS
Common Payment Service Use		Yes	No	Yes	Yes	Yes	Yes
3rd Party Gateway for Cards		No	CyberSource	No	No	No	PayPal
Yahoo Store Front	No	No	No	No	No	No	Yes
Vendor for EFT	Wach	Wach	BOA	Wach	Wach	Wach	Wach
Outsourced Processing	ADP				SMI		
Convenience Fee for Cards	N/A	Yes 2%	Yes $5	No	Yes $5	Yes $2	No
Convenience Fee for Bank Drafts		No	Yes $5		No (ACH debits)	Yes $2	
Specific Legislation Mandating EFT	No	Yes	No		No	No	No

Online Payments for Receipts

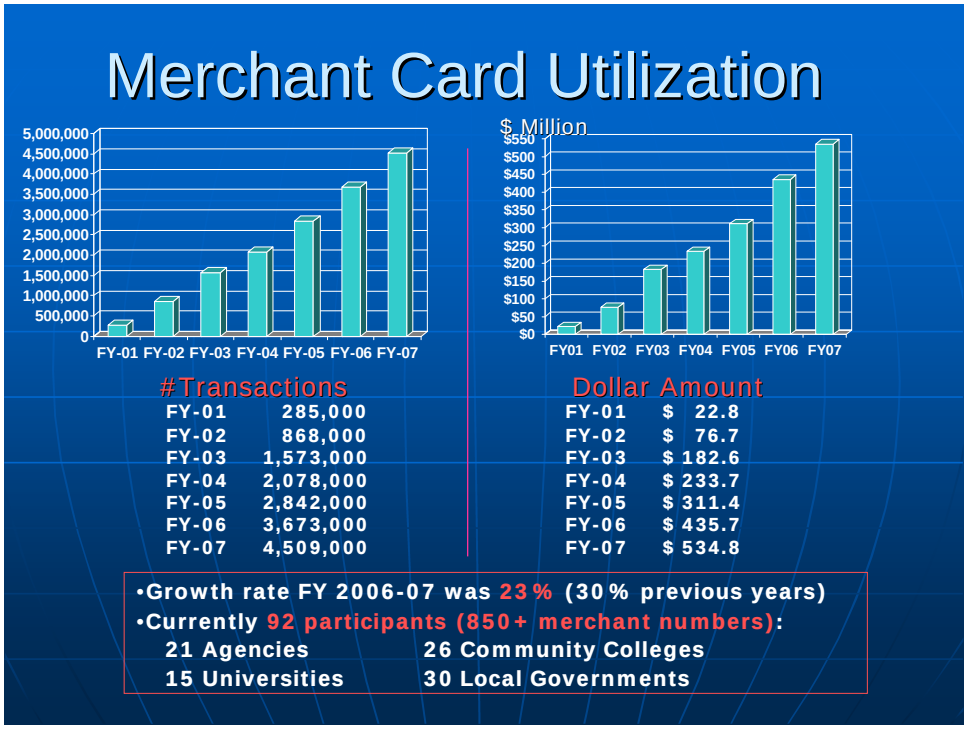
Agency	Options	Fee
DMV Registration	Cards only	No
Wildlife	Cards only	No
Yahoo Agencies	Cards only	No
Retirement	ACH draft only	No
Secretary of State	Cards & ACH	$2
Child Support	Cards & ACH	$5
ESC	Cards & ACH	$5
Dept Revenue	Cards & ACH	2%
Universities	Cards & ACH	2%

Merchant Cards Utilization for Collections

The definition of "electronic payments" includes credit and debit cards, which are commonly referred to collectively as "merchant cards." With the establishment of a Master Services Agreement (MSA) in the year 2000, agencies were provided the opportunity to participate in a statewide enterprise program, with SunTrust Merchant Services being the card processor. A few agencies were already operating under separate arrangements with various processors.

Nearly all general government agencies have elected to participate under the MSA, allowing for discounted volume pricing. Due to federal regulatory restrictions imposed upon the custody of unemployment taxes, the ESC provided a business case to utilize ESC's designated depository bank as its processor, which is Bank of America. Fifteen of the sixteen universities and 27 of the 58 community colleges utilize the MSA. Community colleges not utilizing the MSA normally acquire card processing services through their local depository bank. Thirty local units of government have voluntarily elected to utilize the MSA as well.

The establishment of the MSA in the year 2000 provided an impetus for the expansion of merchant card utilization in state government. The chart below shows the activity since inception. During FY 2006-07, 4.5 million card transactions, totaling $534.8 million dollars was collected via merchant cards. The growth rate has typically been around 30% each year.



The chart below shows the breakdown by segment of the utilization of merchant cards under the MSA (excluding entities not using the MSA). The bulk of the card activity is split almost evenly between the 21 general government agencies and the 15 universities, although the dollar volume of the universities is three times that of the general government agencies. This is due primarily to the large average dollar size of tuition payments. By far, the largest acceptor of merchant cards by state agencies is DMV Vehicle Registration, with 1.25 million transactions per year. The activity of the 26 community colleges participating under the MSA is only 161 thousand transactions per year. The chart also shows the average ticket size of card transactions, with the average being $119 ($54 for general government; $124 for community colleges; and $194 for universities).

Card Activity FY 2006-07

Segment	Transaction Volume	Dollar Volume	Avg. Ticket Size
General Govt.	1,967 M	$ 107,541 M	$ 54
Universities	1,797 M	$ 349,237 M	$ 194
Com. Colleges	161 M	$ 19,910 M	$ 124
Local Units	583 M	$ 58,006 M	$ 99
LEAs	1 M	$ 1 M	$ 112
Total	4,509 M	$ 534,807 M	$ 119

DMV Vehicle Registration largest volume
- 1.25 million transaction
- $ 39 million
- Represents 12% of $338 million DMV fees collected

Comparison of Collection Methods – Paper Versus Electronic

A survey was conducted by the E-Commerce Task Force to ascertain the degree of utilization of electronic payments by the various government sectors. The two charts below show the findings for "collections." One chart shows the number of transactions for each sector compared with the dollar volume of the transactions. The second chart shows the breakdown of the types of receipts (i.e., checks, cash, ACH, and cards) for all sectors combined.

The following chart shows that while only 39% of the transactions are collected via electronic means, 76% of the dollars are collected by electronic means. From the number of transactions perspective, the universities have had the best experience in ecommerce, with 53% of their total transactions being conducted electronically. From the dollar transactions perspective, the general government agencies have had the best experience in ecommerce, with 78% of the dollars being collected electronically. The community colleges have experienced less than 40% in both categories. The large percentage of dollars being collected electronically is very beneficial to the State's cash management program, while the low percentage of the number of transactions indicate that there is room for more efficiency in processing the collections.

Collections
Paper vs. Electronic

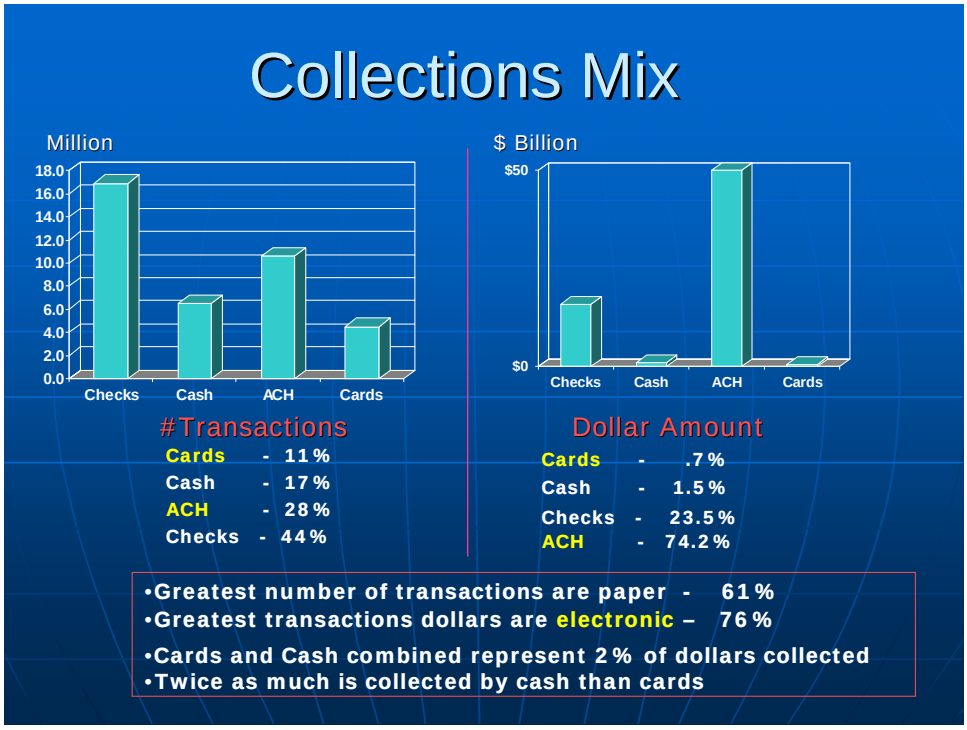
Transaction Volumes

Segment	Paper	E-based	Total	Percent Paper	Percent Electronic
General Govt.	21,625,918	13,004,050	34,629,604	62%	38%
Universities	1,538,990	1,758,656	3,297,646	47%	53%
Colleges	723,205	363,784	1,082,658	67%	34%
Total	23,888,113	15,126,490	39,009,908	61%	39%

Dollar Volumes

Segment	Paper	E-based	Total	Percent Paper	Percent Electronic
General Govt.	$14.8 Billion	$51.5 Billion	$66.3 Billion	22%	78%
Universities	$ 1.7 Billion	$ 2.2 Billion	$ 3.9 Billion	43%	57%
Colleges	$ .5 Billion	$ .3 Billion	$ .8 Billion	60%	40%
Total	$17.0 Billion	$54.0 Billion	$71.0 Billion	24%	76%

The following chart represents all three sectors of government. Transactions by check represent the greatest number of transactions, while transactions by ACH represent the greatest dollar volume of receipts. While considered an electronic transaction, cards only represent 11% of the transactions and less than 1% of the dollar volume. Twice as much money is collected by cash than by cards.



Breakdown of Paper-Base Receipts

The survey indicated that of the 23.9 million paper receipt transactions, 72% is by check and 28% is by cash. From a dollar volume perspective, 94% is by check and 6% is by cash. The community colleges experience the higher percentage of cash transactions, with 46% of the transactions being by cash, representing 18% of the dollar volumes. Just under $1 billion dollars in cash is collected annually by all three segments ($965 million).

Paper Base Receipts Checks vs. Cash

Transaction Volumes

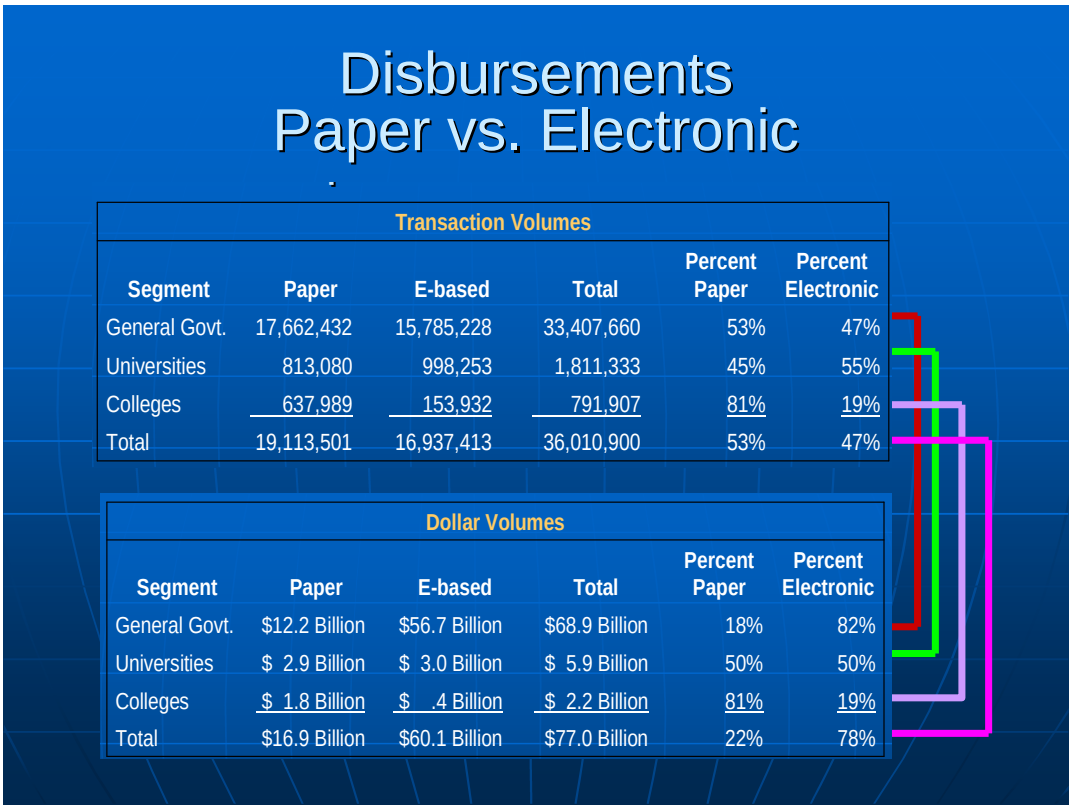
Segment	Checks	Cash	Total	Percent Checks	Percent Cash
General Govt.	15,432,476	6,033,891	21,466,367	72%	28%
Universities	1,073763	135,648	1,209,411	89%	11%
Colleges	394,763	333,549	723,193	55%	46%
Total	16,901,002	6,503,088	23,398,971	72%	28%

Dollar Volumes

Segment	Checks	Cash	Total Dollars	Percent Checks	Percent Cash
General Govt.	$13.8 Billion	$846.4 Million	$14.7 Billion	94%	6%
Universities	$ 1.7 Billion	$ 32.8 Million	$ 1.7 Billion	98%	2%
Colleges	$ .4 Billion	$ 85.6 Million	$ .5 Billion	82%	18%
Total	$15.9 Billion	$964.8 Million	$16.9 Billion	94%	6%

Comparison of Disbursement Methods – Paper Versus Electronic

The chart below shows the findings for "disbursements," comparing the number of transactions for each sector with the dollar volume of the transactions. The chart shows that while only 47% of the transactions are disbursed via electronic means, 78% of the dollars are disbursed by electronic means. From the number of transactions perspective, the universities have had the best experience in ecommerce, with 55% of their total transactions being conducted electronically. From the dollar transactions perspective, the general government agencies have had the best experience in ecommerce, with 82% of the dollars being collected electronically. The community colleges have experienced less than 20% in both categories. The trend for disbursements among the segments of state government is about the same as for collections. It is noted that the number of collection transactions of all types (39 million) is only slightly higher the number of disbursements (36 million).



Electronic Disbursements to Vendors

The figures for the general government agencies above reflect disbursements made through both the NC Accounting System (NCAS) provided by OSC, as well as through the agencies' "stand-alone" systems. Stand-alone systems include large accounts such as tax refunds, unemployment benefits, child support payments, and payroll. Disbursements made through NCAS are primarily vendor type payments, nearly one million payments per year. While the charts above show that 47% of all general government payments during FY 2006-07 were performed electronically, for the portion that represents NCAS disbursements, the percentage of electronic payments (primarily to vendors) was only 25%. This indicates that there are opportunities to convert paper check payments being made to vendors to electronic payments.

In the case of the federal government, vendors are required to be paid electronically. Comments from fiscal officers in the E-Commerce survey indicated varying opinions regarding mandating vendors to be paid electronically. Some indicated that the State should not mandate vendor payments be made electronically, especially since many such payments are one-time payments. Other fiscal officers

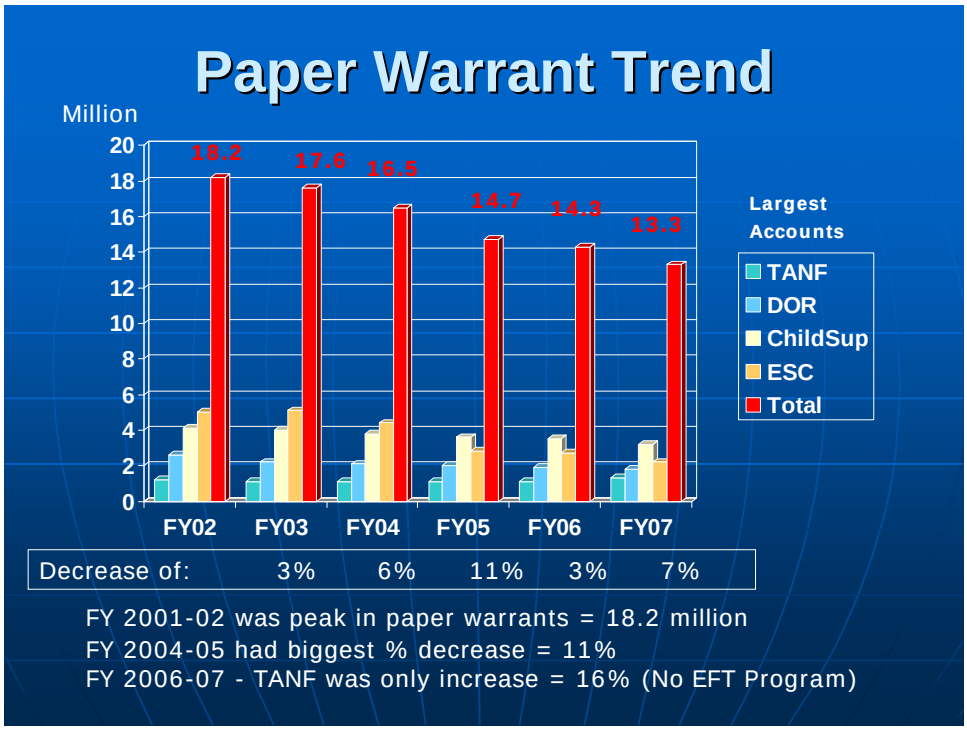
suggested that more effort could be made to enroll vendors in the electronic payment option. The suggestions included: 1) make electronic payments a requirement in the procurement process; 2) secure the services of an outside vendor/bank to enroll vendors; 3) provide an online enrollment system, replacing the current paper enrollment system.

Paper Check Trends - Disbursements

The majority of disbursements made by paper check (state warrant) are processed by the State Treasurer's Office, upon which the checks are drawn. The warrant system has allowed the State Treasurer to be issued a transit-routing number by the Federal Reserve Bank, just as the Federal Reserve Bank has for commercial banks. A few agencies use third-party vendors to disburse funds. The community colleges disburse funds from both the State Treasurer (for state funds), and from their local depository (for special funds). The average amount of a state warrant issued during FY 2006-07 was $1,828.00.

The chart below shows the trend of the number of state paper checks processed since FY 2001-02, which is the year the number peaked at 18.2 million. The number has declined steadily every year, reaching 13.3 million in FY 2006-07. This represents a 27% decrease over the past five years. This steady decline in paper state checks being issued is consistent with the national trend, as the Federal Reserve Bank has announced the consolidation of check processing centers within the Federal Reserve System due to the decline in checks being issued nationally.

The larger numbers of disbursement by paper check during FY 2007-07 were: Child Support Payments by DHHS (3.2 million); Income Tax Refunds by DOR (1.8 million); and Temporary Assistance to Needy Families (TANF) by DHHS (1.3 million). While the chart shows unemployment security checks at 2.2 million, beginning in FY 2007-08, ESC now only offers payments to be received by either direct deposit of by a branded debit card. This discontinuance of ESC checks will have a dramatic effect on the total volume of paper state checks issued in future years. The TANF program is the prime candidate for electronic payments, as no electronic payment program is currently offered.



Cost of Paper State Checks

The survey of the state agencies revealed that the cost of the issuance of a paper state check varied from agency to agency, dependent largely on the volume of checks issued. Agencies with smaller check volumes generally experience a higher per item cost. The chart below shows the results of the survey. It should be noted that the costs reported were based on a survey and not on a cost accounting study. The cost calculations include the costs incurred by the agency as well as the costs incurred by the Department of the State Treasurer functioning as the "bank" for the agencies (DST Internal costs = $.09; Federal Reserve Bank fees = $.02). General government agencies experience the lowest cost at $.54 per check, followed by the universities at $1.41, and then the community colleges at $2.22. The weighted cost for all three government sectors was $.74. The $.54 for general government agencies is lower due to several very high volume accounts.

Cost of Paper State Check

	Agency Cost	DST Cost	Total Cost
Gen. Govt. Agency	$ .43	$.11	$ .54
University	$1.30	$.11	$1.41
Community College	$2.11	$.11	$2.22
Weighted Average	$ .63	$.11	$ .74

Debit Cards for Disbursements – Food Stamp Program

The Department of Health and Human Services (DHHS) disburses food stamp benefits using the Electronic Benefits Transfer (EBT) card, a program that was implemented statewide in June 1999. The food stamp program involves the distribution of federal benefits under the requirements of the US Department of Agriculture (USDA) Food Nutrition Service. An EBT card is similar to a bank-issued debit card. The primary difference is that an EBT card is considered to be issued by a government, and is subject to the Quest Operating Rules, which are administered by the National Automated Clearing House Association (NACHA). EBT food stamp cards can only be used at point-of-sale (POS) terminals belonging to approved retailers, and only for the purpose of purchasing food.

DHHS currently contracts with eFunds Corporation, one of the EBT vendors that specialize in providing EBT services to the 50 states. The fee paid to the vendor is $.55 per case per month (reduced from $1.64 effective July 1, 2007). Funding of the card is made only after a purchase is transacted with a retailer, with the funding being made directly to the vendor by the USDA. Funds are never on deposit with the State Treasurer

Debit Cards for Disbursements – Child Support Enforcement Program

In FY 2007-08, DHHS implemented with SMI, its Child Support collections vendor, a program to disburse child support payments to custodial parents via a branded debit card, in addition to its method of distributing the payments via direct deposit (ACH). The program, which utilizes a branded debit card issued by JPMorgan Chase, is currently being implemented.

Debit Cards for Disbursements – Unemployment Benefits

The Employment Security Commission (ESC) administers the disbursement of unemployment benefits, in accordance with requirements of the US Department of Labor. ESC has been offering the direct deposit option since 2003, through its arrangement with Bank of America. This direct deposit option was in addition to the traditional option of receiving the benefits by paper check.

Beginning in January 2007, the policy of ESC was changed to now only issue employment benefits electronically, either by direct deposit or by stored-value cards (SVC). Stored-value means the card is supported by a prepaid funded account, instead of by a checking account. In 2006, ESC contracted with Affiliated Computer Services, Inc. (ACS), a vendor that specializes in providing stored-value card

programs to various state government programs. ESC selected the vendor through a competitive bidding process.

The branded debit card option is offered to those individuals not desiring to receive their funds by direct deposit, designed primarily for the "unbanked." When funds are disbursed by ESC, the funds are remitted electronically (via ACH credit file) from ESC's account with the State Treasurer to separate accounts administered by ACS at Comerica Bank. The cost per transaction in the ACH file is $.13, which is incurred by the State. While on deposit with the State Treasurer, interest earnings are subject to being remitted to the US Treasury, in accordance with the Federal Cash Management Improvement Act of 1990 (CMIA).

ESC clients can withdraw funds from their individual accounts administered by ACS by using the MasterCard branded stored-value debit card issued by Comerica Bank. The card is also referred to as a "North Carolina EPPICard," or a "North Carolina Debit MasterCard Card." Fees for using the card are paid by the client, not by ESC. Cardholders are assessed the following fees: $1.50 for successful ATM cash withdrawals after two free withdrawals per month; $5.00 for each replacement card issued; surcharges occur at most ATM's, except at Wachovia ATM locations (which are free); no fees for purchases made at retailer POS terminals.

Debit Cards for Disbursements – Universities

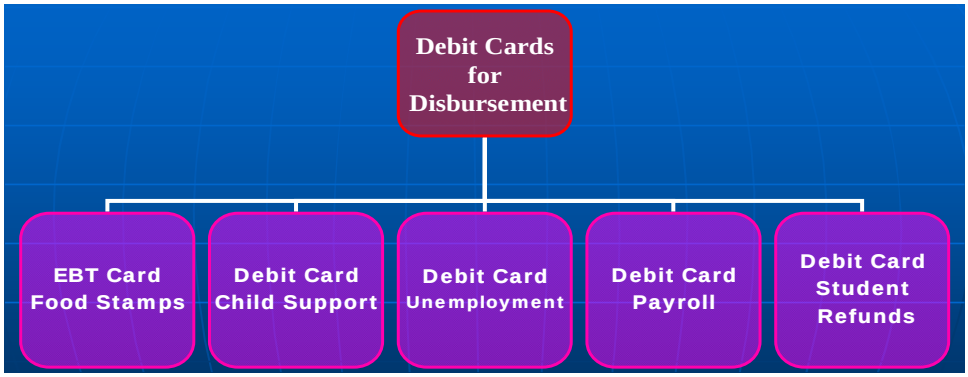
Several universities also use a debit card to disburse student refunds. Similar to the branded debit card program offered by the ESC, funds are remitted to a vendor that specializes in providing branded debit card programs to universities. Higher One, which uses a MasterCard branded debit card issued by Horizon Capital Bank, is the primary vendor used by the universities.

Debit Cards for Disbursements – Payroll

After the BEACON HR-Payroll System is fully rolled out in mid 2008, the Office of the State Controller (OSC) plans to begin offering a debit card program for employees paid through the new Central Payroll System. The program is administered under the EFT master services agreement that the State has with Wachovia Bank.

The payroll debit card option is offered to those individuals not eligible to receive their funds by direct deposit, designed primarily for the "unbanked" or the "under-banked." When funds are disbursed by OSC, the funds are remitted electronically (via ACH credit file) from OSC's account with the State Treasurer to separate accounts administered by Wachovia Bank. The cost per transaction for each payment in the ACH file is $.01, which is incurred by the State. The other costs incurred by the State is the one time cost for issuing the debit card ($4), plus a $2 per account maintenance fee.

The employee is able to avoid any costs, depending upon how he/she uses the card. The Visa branded card provides five free withdrawals per month from a Wachovia Bank ATM, and unlimited withdrawals use at merchants accepting point of sale (POS) transactions, with many of the merchants offering cash back.



Procurement Cards for Small Purchases

Procurement cards (also known as purchasing cards) enable agencies to make small purchases more quickly and efficiently by minimizing paperwork and processing time. Similar to credit cards, procurement cards can be processed by vendors just like personal charge cards.

A purchasing card transaction is not considered a form of "electronic payment" as defined by statute [G.S. 147-86.20(2a)], as it in itself does not effect movement of monies. Instead, it results in the creation of an "accounts payable" for the agency. On a monthly basis, when invoiced, the agency remits a single payment to the provider bank.

The State's procurement card program is administered by the Division of Purchasing and Contract within the Department of Administration, pursuant to provisions of the Administrative Code (01 NCAC 05B.1523). The bank providing the service is Bank of America (BOA). A benefit of the BOA procurement program is that BOA pays a rebate to the subscribing agency. The rebate varies depending upon the volume, but can be as much as 1.5%. Rebates paid to entities participating in the program for the year ended December 2007 was just shy of $1 million ($954,652.96).

The chart below is based on responses to the survey conducted by the E-Commerce Task Force, and does not reflect the activity of all users in the BOA program. The chart shows that the universities represent the largest segment using the card, with 55% of the annual 484,000 transactions. While the administrative code limits a single card transaction to $2,500, the average card transaction for all segments is $285. By comparison, during FY 2006-07, 13.2 million paper warrants (checks) were issued, with the amount of a paper check being $1,828.

Procurement Card Activity

Annual Volumes				
Segment	Trans	Percent #	Dollars	Percent $
General Govt.	140,530	29%	$ 68.4 Million	49%
Universities	265,510	55%	$ 60.5 Million	44%
Colleges	77,896	16%	$ 9.4 Million	7%
Total	483,936	100%	$138.3 Million	100%

Procurement Cards for Invoices

While the State has not pursued the concept, some corporate entities are using the procurement card concept to pay invoices submitted to the State (accounts payables), not just to make small dollar purchases. The driving force behind this concept is to benefit from the rebates offered by the issuing bank on larger dollar transactions. Some have suggested that this method of payment should be offered to those vendors that do not enroll to be paid by direct deposit. There are pros and cons for using the procurement card to pay invoices, and is a concept that deserves further attention.

E-Procurement System

The DOA Division of Purchase and Contract also operates the State's E-Procurement System. Established in 2001, the system utilizes a statewide vendor registration application, allowing agencies to submit bids for quotes for goods and services online to some 55,000 registered vendors. Responses (quotes) are received from bidding vendors with purchase orders being automatically generated. As in the case of the procurement card program, an e-procurement transaction is not considered a form of "electronic payment," as it in itself does not effect movement of monies. Instead, it results in the creation of an "accounts payable" for the agency. Payment must still be initiated separately, which may or may not be finalized electronically.

Statewide Enterprise Approach
A concept that the State recognized and attempted to embark upon beginning around the turn of the century was the enterprise approach to the E-government solutions and services. The enterprise approach was a concept that evolved from the E-Commerce Work Group (ECWG) formed in 1998 and implemented by the "Statewide E-Government Steering Committee," which was appointed by Governor Hunt and chaired by Secretary of Commerce Rick Carlisle in early 2000. The enterprise approach was further fostered by the Information Resource Management Commission (IRMC), chaired by State Auditor Ralph Campbell, as outlined in a report prepared in September 1999 entitled, "ITS Framework for Developing an E-Commerce–Enabled Technical Environment." The enterprise approach concept, as explained in the 2001 ITS Report is as follows:

> *The State is using an enterprise perspective for implementing e-government to build applications faster, more economically, and with better results. Where possible, individual agency and program needs are met by technology investments and resources that can be used by all. As a result, aggregation of demand lowers purchase prices and economies of scale reduce unit costs. In addition, specialized, scarce, and expensive resources that are not affordable by individual organizations or initiatives can be made available by combining funding sources and sharing resources.*
>
> *The aggregating of similar e-government transactions from all agencies through common technical resources spreads the fixed costs of this infrastructure over high volumes to reduce unit costs. In addition, reusable technical components are being used in all e-government applications to reduce redundancy and increase reliability of processing. Common business and technical models, best practices, and best procedures are being shared to the greatest extent possible to leverage past experiences and statewide knowledge.*

Senate Bill 222 of 1999
Senate Bill 222 of 1999 had several provisions that promoted the statewide enterprise approach (G.S. 143B-472.50 - 67). The statute stated in part that, "*The purpose of enterprise management is to create a plan and implement a State government-wide approach for managing distributed information technology assets… All state agencies covered by this Part shall use contracts for information technology required by the state agency that is provided by these contracts*." Although later repealed, the statute was replaced with similar legislation, giving the State's Chief Information Officer the authority to provide services on a statewide enterprise basis.

Based on directives and authorizations provided in SB 222, OSC proceeded with the development of a statewide enterprise infrastructure to accommodate "electronic payments." The development of the Common Payment Service (CPS) and the two master contracts for EFT and card processors served as the foundation for a statewide enterprise solution.

Organizational Structure Obstacle
A current evaluation of the State's ecommerce program indicates the statewide enterprise structure that was envisioned by the former E-Commerce Work Group has not fully developed. As can be seen above, the various agencies, universities, and community colleges have all embarked down the road of ecommerce on rather separate courses, each developing their own systems. While most use the master contracts established by OSC, and some use the Common Payment Service provided by ITS, for the most part, each agency operates differently in regards to how they have implemented their individual ecommerce programs.

The fragmentation is illustrated by the State's web portal, known as NC.gov.com. While there is a central web portal where citizens can access the various websites of the individual agencies, the portal is no more than a hub website containing links to the various agencies' websites. For the most part, each agency, university, and community college has developed its own website independently of each other.

This fragmented approach is due primarily to the organization of state government overall. Some agencies operate under management of an elected constitutional official, while others operate under a department head appointed by the governor. While there are overall policies that agencies must abide by, each agency not only has independent management, but each has specific statutes defining their operations.

The university system, which is comprised of sixteen universities (plus the School of Science and Math) has a similar organizational challenge. While the UNC General Administration provides overall policies the universities must follow, each university functions independently in the manner in which they operate. The same challenge applies to the community college system, which is comprised of 58 separate colleges.

Due to the segregation of management within the organization of state government, it is now recognized that fragmentation of ecommerce programs is inherent. Whatever statewide enterprise programs that may be developed by the central agencies (i.e., OSC and ITS), they must be structured in such a manner to accommodate the variety of operational needs unique to each government sector (general government, university, and community college), and to each entity within that sector. Comments from fiscal officers in the E-Commerce survey indicated that the agencies desired flexibility in developing their ecommerce systems, including the selection of vendors suitable for their particular operation. However, the comments indicated an overall approval of the electronic payment services currently being provided by the central agencies (OSC and ITS).

V. Best Practices in E-Commerce

Purpose of Section
The previous section of this report examined the current ecommerce environment within the government sector of the State of North Carolina. This section of the report is intended to: 1) examine the national trends; 2) identify the benefits of various ecommerce solutions; and 3) identify the "best practices" pertaining to ecommerce being utilized by other entities, both private industry and governments.

Collections

Advantages and Disadvantages Identified by GFOA - Collections
In February 2008, the Government Finance Officers Association (GFOA) released its report on "Electronic Commerce – Recommended Practice." The report made the following points:

- Moving funds electronically is both efficient and effective. Federal and state agencies are mandating the use of electronic payment for some tax receipts and payments to other governmental units.
- Increasingly, governments are now using the electronic movement of funds and information to take advantage of its efficiencies and to meet the growing demands of citizens and taxpayers for more ease and accessibility in government services.

Advantages of electronic payments for collections identified in the report included:

- Accelerated receipts and availability of funds
- Ease of payment for customer
    - 24 hour access to Web payments
    - reduced costs for envelopes and postage
    - instant acknowledgement of Web payment
    - opportunity to establish automated recurring electronic payment
- Reduced cashiering and accounts receivable costs
- Reduced return check processing cost

Disadvantages of electronic payments for collections identified in the report included:

- Electronic collection systems may have poor or no integration with accounts receivable systems
- Internal controls emphasis moves from manual posting of receipts to information technology control

Council of State Governments Report
The E-Commerce Task Force was fortunate in that the Council of State Governments (COSG) had recently completed a study that addressed the best practices used by State governments, as they relate to "collections." The study, entitled "Acceptance and Use of Electronic Payments for State Taxes and Fees" was published with a date of April 25, 2007. The study was the result of responses received from 37 different states. Following are excerpts from the COSG study:

Trends in E-Commerce - Collections

- In December 2003, the Federal Reserve announced that e-payment transactions had, for the first time, exceeded the number of check payments.

- According to statistics published by the National Automated Clearing House Association (NACHA 2005), the distribution of payment transactions in the U.S. has shifted over the past 20 years, from 96% checks and 4% electronic to 49% check and 51% electronic.

- Citizens will take advantage of electronic payment options if state government agencies accept electronic payments and establish policies and procedures which encourage and facilitate such payments.

- It appears that states, like private businesses are becoming increasingly supportive of the use of electronic media for the receipt of payments from citizens. This trend is supported by citizens as well as state governments as they improve the efficiency of the collection and accountability associated with the various sources of state revenues.

- ACH was the most commonly used electronic payment option for business-related taxes while credit cards were the most commonly used electronic means for individual income tax payments as well as licenses or permits.

- Of the responding states, 95% indicated that they provided citizens the option of paying some form of state taxes or fees with a credit card while 54% permitted debit card payments.

- While credit and debit card acceptance as a payment method has become virtually universal within the private sector, credit card use for payment for government services has lagged behind credit card usage in the consumer market. To allow government agencies to benefit from the cost advantages of electronic payments and to permit citizens to realize the benefits of credit card payments, government leaders and citizens have encouraged policy changes that permit greater acceptance of credit card payments by government agencies and encourage greater use of credit cards by citizens to pay their taxes and fees. The system or structure for credit or debit card payment of government taxes and fees are not very different from that of the private sector.

- One reason driving government acceptance of tax and fee payments by credit card is citizen preference for credit card payment. The literature suggests that citizen preferences for credit and debit card usage are driven by factors such as convenience, flexibility, speed of transaction, security and ability to reduce the volume of cash carried. Credit cards provide citizens with a secure, reliable and convenient means of payment. They are also a flexible payment method that allows citizens to avoid late payment fees while stretching their payments out as a means of managing their cash flows. Frequent-use awards and access to credit at the point-of-sale further encourages credit card use.

- States largely agree that ACH payments expedite deposits of payments, improve fund availability, and reduce the cost of collecting and processing payments. The most frequently cited reason for accepting credit cards was taxpayer preferences, followed by improved fund availability and reduced costs of payment processing. The respondent from Florida, for example, wrote that “the public expects this service and the next generation will be totally electronic-based. The age of pure checks or cash for most government services is in the decline.”

- Credit and debit cards are not yet widely used for payment of taxes and fees—comprising typically less than 1% of payment dollar volumes and less than 1.5% of the total number of payment transactions. Instead, ACH is the predominantly used electronic medium for payment of state taxes and fees, especially by corporations and businesses.

Benefits of E-Commerce for Collections

- One way to maximize net revenues is to enhance the efficiency of tax and revenue collection. Such efficiency can be enhanced by reducing the cost of collecting and processing payments and/or ensuring that all revenues are collected. Revenues can also be enhanced by processing funds into interest-bearing accounts sooner to maximize investment revenue.

- Many government organizations are attempting to meet these financial management goals by taking advantage of the digital revolution, moving away from traditional collections and processing structures based on cash and check payments toward electronic-based payments using such means as ACH, credit cards and debit cards.

- Studies suggest that citizens and businesses realize the benefits associated with electronic payments for products and services including the convenience and safety of such transactions. At the same time, governments, like businesses, are beginning to perceive the benefits associated with receiving revenues electronically. Such benefits include: (1) reduced transaction processing costs, (2) more immediate receipt and recording of revenue receipts, and (3) greater transparency and enhanced payment trails which can facilitate auditing and payment verification.

- The major reasons cited for accepting electronic payments were to expedite fund deposits and to reduce the time it takes for funds to be available, and to reduce the costs of collecting and processing payments.

- Cost savings were identified as the major reason for accepting payment by credit or debit cards although estimated cost savings varied considerably among the states that responded to this inquiry.

- Many of the benefits credit and debit cards offer government agencies are the same as those offered by other electronic payments. However, credit cards offer an additional benefit to citizens and taxpayers in the form of short-term credit. This credit option offers additional taxpayer relief by providing the opportunity for payment spreading and cash flow management for those who may otherwise face difficulties in paying large tax or fee payments at a particular point of time but who could otherwise manage payments spread over time. Debit cards also offer further advantages over credit cards. Because anyone with a checking account can obtain a debit card, accepting debit cards as a payment option serves a larger pool of potential users.

- Benefits to government agencies for allowing payment of taxes and fees by credit card can be divided into three categories: (1) collections, (2) processing, and (3) administrative. From a collections perspective, acceptance and use of credit cards may result in more timely payments, in addition to an increased certainty of tax and fee payments and the potential for increased collections. The increased certainty of collection is primarily due to immediate, real-time fund verification that ensures the credit card payment is valid. Greater use of credit cards to replace checks, therefore, is expected to reduce the occurrences of returned or defective funds. Credit card acceptance may also yield greater collections by improving collections of delinquent payments and increasing the consumption of government goods and services by citizens as credit cards allow illiquid consumers or those paying with future income to consume and pay for goods and services.

- A Washington, DC survey found that allowing citizens to use credit cards to pay by mail or by telephone was a major factor in reducing delinquent tax payments for some local and state governments. Among the benefits of credit card use cited by the cities, counties, states, and the federal government included increased sales of merchandise, more timely payments than

conventional methods, reduced interest and penalties for some taxpayers, reduced mail and processing float, improved fund availability, lower administrative costs, and less risk associated with defective checks (Kuhn 1992).

- Time and motion studies at USPS pilot test sites during the early stage of credit and debit card acceptance showed that credit or debit card transactions were processed more quickly than cash or check transactions, thus saving customers and postal workers time. At post office windows, a credit card transaction was processed in an average time of 52 seconds and a debit card transaction was processed in an average 32 seconds. In comparison, average processing times were 80 seconds for check and 43 seconds for cash. The credit/debit card program allowed postal clerks to complete transactions more quickly and made them feel safer and more secure as they no longer had to carry as much cash in their drawers (Green 1997).

- A follow-up study by Coopers and Lybrand found that the USPS card program produced significant financial benefits. The average handling and processing cost for a debit card transaction was determined to be 1.5 cents per dollar spent by the consumer and for a credit card transaction this cost was 4.0 cents per dollar. In comparison, the handling and processing cost for cash and check transactions were 4.8 cents and 2.7 cents per dollar, respectively.

In summary, the benefit of electronic payments for government taxes and fees—whether in the form of ACH, credit card, or debit card—offer many benefits to government agencies and citizens. These include:

- Reduced processing costs associated with cash and check payments;
- Reduced transaction processing time and costs;
- Improved payment verification and auditing through real-time authorization and verification;
- Reduced accounts receivables and payment delinquencies, and fewer need for debt collection activities;
- Improved fund availability by reducing check float and enhancing cash flow;
- Added convenience for citizens;
- Opportunity to automate accounting, banking and reconciliation functions and processes;
- Speed up the receipt of tax and fee payments from citizens and taxpayers.

Costs Issues Associated With E-Commerce - Collections

- Issues surrounding the payment of transactions fees were one of the major challenges to accepting or expanding the use of electronic payments.

- A potential barrier to expansion of electronic payments is managing the transactions costs associated with such payments. Currently, states have two principal options for addressing the issue of transaction fees including direct state payment for such fees or passing the fees to taxpayers via a convenience fee or surcharge (directly or through a third party). In addressing this issue, states may make the distinction between “required” payments such as taxes and payments for services. Because states are typically required to collect 100% of the taxes owed, electronic transactions fees may have to be paid by the taxpayer while fees for services (such as licenses and registrations of various types) may be absorbed by the respective state agency.

- While electronic payments provide several benefits and cost savings, the acceptance of electronic payments also involves several costs. If decisions are made to accept electronic payment, policies must be established to address how and by whom such costs will be covered. The costs associated with electronic payments vary both according to the type of payment media and the payment channel. The costs associated with electronic payments include:

- Equipment expenses including specialized software, keypads, computers, etc.;
- Administrative expenses including employee training, process streamlining, and marketing activities and user education programs; and
- Social costs associated with electronic payment media such as lack of access to electronic payment options by certain categories of citizens or misuse of electronic payment options such as increased debt burden due to increased use of credit cards.

- Internet payment systems allow government agencies to accept electronic payment via the web. An internet payment system reduces the costs associated with traditional (and often inefficient) paper-based payment methods, and allows citizens to pay taxes and fees when and where it is convenient for them. This significantly improves access to government services and increases the potential for on-time payments and fewer delinquent payments. The many costs associated with developing and maintaining an internet payment system include software, hardware, licenses, and maintenance costs.

- The primary costs associated with credit and debit card payments are the start-up costs (initial equipment, training, marketing and education) and the recurring per transaction fees. The fees paid by government agencies for credit card processing are determined by their contractual relationship with their bank and/or service provider, and are based on a number of factors, including total and average volume, total and average dollar amount, association fees, processor fees, card types, and processing timeframe. States have used two principal ways to pay for such fees associated with credit and debit card transactions including the use of surcharges and convenience fees.

- One of the most significant obstacles to accepting credit card payments for government taxes is the per transaction cost of credit card use. Most public agencies are required by law to collect 100% of the tax or fee amount owed by the taxpayer. As a result, public agencies cannot pay the merchant discount fee that acquirers charge merchants for processing credit card payments. Private sector merchants can typically hide or bury the fees associated with accepting credit card payments into the price of the goods and services. Some government agencies have taken an approach similar to the private sector in absorbing the credit card transaction fees as part of the cost of doing business, but without an across-the-board rise in tax rates or fee structures.

- Many other agencies, however, are constrained by statute to collect 100% of what is owed. Most government agencies have passed on the transaction fee to those taxpayers paying by credit card. Visa and Master Card, however, had bylaws prohibiting merchants from directly passing along the transaction fees to credit card users. In 1993, they began enforcing these bylaws, ordering member banks to cut off service to those government agencies passing along the transaction fee. Despite extensive discussions with representatives of state and local governments, Visa and MasterCard were reluctant to change their position prohibiting passing along the transaction fees. As a result, government agencies have adopted various means for addressing the problem of passing on credit card fees to taxpayers.

- California and Michigan were two states whose courts absorbed the credit card fees. The NCSC cited a threefold argument for doing so: (1) the increase in collections will offset credit card costs; (2) the cost of collecting court fines and fees via credit is no more than, and may actually be less than the combined fees, staffing costs, security expenses, and costs for handling, holding, and transferring cash and checks; and (3) the public prefers paying via credit card without any additional fees attached.

- Specifically, one survey question asked states to identify the funding source they use for paying merchant fees and/or bank fees. Most states use convenience fees or transaction surcharges to offset the fees associated with credit card transactions. Others use appropriated

funds or compensating balances. Others primarily absorb credit card fees as part of the cost of doing business. Many states use a combination of funding sources. Florida for example, responded that "primarily, agencies absorb the costs; however some do appropriate funds in their annual budgets. A few agencies charge a convenience fee to cover the cost of the program."

Best Practices Identified by Council of State Governments Report - Collections
Based on the states' responses, the report identified the following policies as "best" or "effective" in encouraging more extensive use of the e-payment option.

- Market the credit and/or debit card payment option, and educate residents and taxpayers on the availability of these payment options;
- Refrain from charging convenience fees or surcharges that may detract from the use of credit or debit cards;
- Use a third party service provider and contract with one primary service provider for all state agencies;
- Maintain a standardized payment processing system or platform across all agencies;
- Provide residents and taxpayers the option to pay online using credit or debit cards; and
- Make credit and debit card payment options available across a variety of state taxes and fees.

When asked to describe any insights that might enhance their credit or debit card programs, respondents primarily offered ideas related to credit card fees. These included removing convenience fees and surcharges, modifying policies regarding convenience fees, working with credit card associations to modify interchange fees, and adopting statewide contracts with service providers to leverage transaction volumes and reduce fees.

Best Practices for Collections - Web Capture
The first ecommerce websites offered by the corporate world allowing customers to make payments online provided payors the ability to pay by credit (merchant) card. Governments soon started developing such sites as well. The first such online applications in North Carolina state government were the offering DMV Vehicle Registration system and the Online Fair Tickets Sales program, both being first offered in the year 2000.

As ecommerce utilizing the Web progressed, many sites began offering another payment option. In addition to the merchant card option, payors were given the option of paying by bank draft, which is also referred to as an "ACH debit" transaction. The primary driver for offering this option is that the fees associated with an ACH transaction are much less expensive than those associated with a merchant card transaction. Most web applications that are being developed today therefore offer both payment options. Those applications developed a number of years ago now require retrofitting to add the ACH bank draft option.

Best Practices for Collections - Remote Deposit Capture
There have been two developments pertaining to the way paper checks are processed through the banking system over the past several years that have presented recipients of checks with opportunities to improve their collection processing. One is "check conversion" and the other is "Check 21." The services offered by banks that allow customers to participate in check conversion and/ or Check 21 is referred to more commonly as "Remote Deposit Capture."

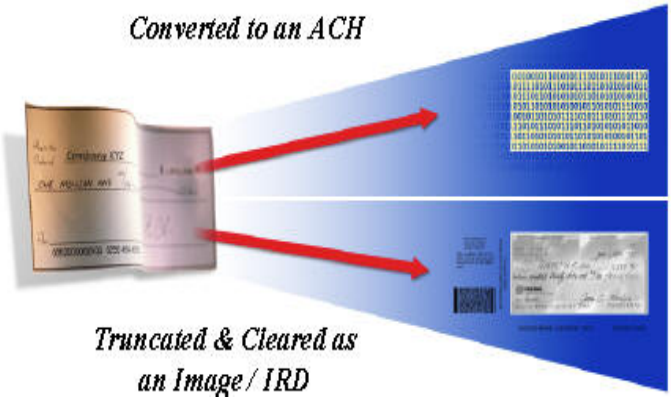
"Check conversion" is the process where a consumer check can be converted to an ACH debit by a merchant (or government agency), with the item then being processed electronically through the Automated Clearing House (ACH). These items are processed as either: 1) "point of purchase" (POP) transactions; 2) "accounts receivable conversion" (ARC) transactions; or 3) "back office conversion" (BOC) transactions. While the use of these "check conversion" techniques is growing in the retail industry, there is very little utilization in the government sector. While the retail industry receives mostly consumer checks, the government sector receives mostly commercial checks and government

checks, which are not eligible be processed as a check conversion item. Additionally, check conversions cannot be performed on checks over $25,000.

"Check 21 - IRD" is the process where virtually any check, for any amount, consumer or commercial, can be captured as an "image replacement document" (IRD) with the image being processed through the banking system. This process is the result of the enactment of the "Check Clearing for the 21st Century Act" (*Check 21*), which became effective October 28, 2004. However, only within the past two years has the banking industry developed technology and offered equipment that makes this process attractive to their customers. Banks now offer their customers scanning equipment that can capture the checks at the customer's location. This service allows the image to be transmitted to the bank as an IRD, alleviating the need to make a trip to the bank.

Best practices for the government sector and other non-retail entities seem to favor the "Check 21-IRD" version of remote deposit capture services over "check conversion," primarily due to Check 21 - IRD applicability to all types of checks. A customer that utilizes the check conversion service must still process commercial and government checks in a different manner. Best practices suggest that Check 21 - IRD service (processing as an image replacement document) is more conducive to situations where the daily volume of checks is small. Best practices also suggest that web-based capture systems offered by banks to provide this service are better than PC-based applications.

The Department of State Treasurer, in its role of designating depositories for state agencies collecting state funds, is in the process of evaluating the utilization of remote deposit services. In the winter of 2008, the Department of State Treasurer arranged for the Office of the State Controller to serve as a pilot agency for the remote deposit capture service offered by Wachovia Bank, using the Check 21 – IRD method.



Disbursements

Trends in E-Commerce - Disbursements

- In December 2003, the Federal Reserve announced that e-payment transactions had, for the first time, exceeded the number of check payments.

- According to statistics published by the National Automated Clearing House Association (NACHA 2005), the distribution of payment transactions in the U.S. has shifted over the past 20 years, from 96% checks and 4% electronic to 49% check and 51% electronic.

- The President and Chief Officer of NACHA stated in May 2005 that, "The rise in Direct Deposit and Direct Payment usage is part of an overall upward trend we have seen in electronic

payment methods. There is an increased shift in acceptance by consumers, businesses, and financial institutions toward utilizing the ACH network to ensure quicker and more accurate payment transactions."

- The number of paper state warrants (checks) issued and processed by the North Carolina State Treasurer peaked in FY 2001-02 at 18.2 million checks. Over the past five years, there has been a steady decline of the number of paper state checks issued (average 5% decline per year), with 13.2 million state checks issued in FY 2006-07.

- The number of employees being paid by direct deposit has been steadily increasing. With the implementation of the new BEACON HR/Payroll system in January 2008, the percentage of employees being paid by direct deposit has now reached 95%.

- Government agencies across the nation have been following the public sector in using ACH direct deposit to disburse a variety of payments types, resulting in cost efficiencies and improved services to citizens. However, many government payment recipients are unable to realize the benefits of direct deposit because they do not use conventional banking services. Electronic payment cards using prepaid debit card products are the solution for many of these recipients, as well as for government agencies to expand their direct deposit programs. Prepaid debit cards are currently being used on a large scale for child support disbursement, unemployment insurance benefits, government payroll, and other government administered payments.

- Procurement cards, used primarily by companies and governments to make small purchases of goods and services have been offered by banks for a number of years. In the past several years, banks have begun to promote the procurement card as a method of paying vendors for invoiced goods and services. Instead of issuing a check when the payment is due, the vendor is requested to accept payment via a procurement card, similar to a credit card purchase. The company or government does not actually pay for the transaction until invoiced by the bank that issued the procurement card. As an incentive to promote the use of the procurement card program, banks are offering rebates to companies and governments that participate.

Advantages and Disadvantages Identified by GFOA - Disbursements

The February 2008 report on "Electronic Commerce – Recommended Practice" issued by the Government Finance Officers Association (GFOA) listed the following advantages and disadvantages of using electronic payments for disbursements:

- Advantages
  - Eliminates the storage, handling, and processing of paper checks
  - Reduces the time spent on reconciliation
  - Reduces the visibility of information used in payment fraud
  - Eliminates the occurrence of lost or stolen checks and the cost of check reissuance
- Disadvantages
  - Internal controls emphasis moves from the production cycle of physical checks to information technology controls
  - Sensitive financial account information stored in a government's computer must be protected from internal and external access

Benefits of E-Commerce for Disbursements

The benefits associated with electronic disbursements are more apparent than they are for collections. Most benefits are associated with the elimination of the issuance of paper checks. Some of the benefits are as follows:

- Elimination of costs associated with producing paper checks (e.g., check stock and printing)
- Elimination of costs associated with distributing paper checks (e.g. postage and mailing)

- Elimination costs associated with processing paper checks presented through the banking system. In the case of state checks, the State Treasurer functions as the "banker." (Costs incurred by the State Treasurer include both internal processing costs and fees paid to the Federal Reserve Bank (FRB) for the portion of services outsourced to the FRB.
- Reduction of costs associated with retention of paid check images (The State Treasurer pays the FRB for creating and submitting check images, and incurs costs for retaining the images for seven years, as required by the uniform commercial code.)
- Elimination of costs associated with check fraud (e.g., counterfeits, forged endorsements, and altered checks)
- Elimination of costs associated with replacements of lost of stolen checks (e.g., stop payments and re-issuances)
- Enhanced cash flow forecasting for the State Treasurer (e.g., known funding dates allows maximization of investments)
- Assurance provided recipients of electronic payments that funds will be received on a known payment date (i.e., elimination of mail float)
- Convenience provided recipients (e.g., elimination of check depositing/cashing)

Best Practices for Disbursements – Electronic Funds Transfer (EFT)

Electronic Funds Transfer (EFT) is a generic term describing two different types of electronic payments: 1) wire transfers; 2) Automated Clearing House (ACH) payments. Both are performed through the Federal Reserve System. The movement of funds in a wire transfer transaction is real time, with the funds being moved immediately. The movement of funds in an ACH transaction is next day. Wire transfers are most commonly used for large dollar transactions, and are normally for time sensitive payments. ACH payments, also referred to a "direct deposit," are generally used for "batch" transactions, such a payroll and vendor payments.

Best practices are to use wire transfers for single time sensitive payments, and when the payment of the funds must be remitted to the recipient the same day as the transaction is initiated. The State Treasurer is by far the largest user of wire transfers in state government, using this method primarily for investment related transactions and debt service payments.

Best practices are to use ACH transactions for batch (multiple) payments, and when there is a sufficient lead time as to when the payments have to be initiated before being remitted to the recipients. The payroll centers, including the Retirement System, are the largest users of ACH transactions in state government, with employees and retirees being paid by "direct deposit." Vendor payments made though the North Carolina Accounting System (NCAS) is the second most common usage on ACH payments in state government.

Best Practices for Disbursements – Electronic Benefits Transfer (EBT) Cards

The Electronic Benefits Transfer (EBT) card is a form of debit card used primarily for federal government benefits. The EBT card program was created in the late 1990s by the US Department of Agriculture (USDA) Food Nutrition Service, with the intention of eliminating paper food stamps. EBT developed primarily as the result of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, although several pilots had been operating since the 1980s. One of the resulting benefits of the EBT card was the reduction in fraud and trafficking of food stamps.

The basic concept of the Electronic Benefits Transfer (EBT) card is that government benefits are disbursed electronically either through a magnetic stripe card or smart card and can be redeemed much the way one uses an ATM or debit card. This eliminates the need for checks and coupons. In effect, the federal government establishes an account containing the benefits for each beneficiary. This account is debited each time an EBT transaction occurs. Beneficiaries are able to receive cash at an ATM, or a point-of-sale (POS) device. They are also able to redeem non-cash benefits, such as

food stamps, at the point-of-sale from a retailer, who, in turn, would be paid by the government through the EBT vendor.

The NC Department of Health and Human Services (DHHS) began using the EBT card to disburse food stamp benefits statewide in June 1999. An EBT card is similar to a bank-issued debit card. The primary difference is that it is considered to be issued by a government, and is subject to the Quest Operating Rules, which are administered by the National Automated Clearing House Association (NACHA). EBT food stamp cards can only be used at point-of-sale (POS) terminals belonging to approved retailers, and only for the purpose of purchasing food.

DHHS currently contracts with eFunds Corporation, one of the EBT vendors that specialize in providing EBT services to the 50 states. The fee paid to the vendor is $.55 per case per month (reduced from $1.64 effective July 1, 2007). Funding of the card is made only after a purchase is transacted with a retailer, with the funding being made directly to the vendor by the USDA. Funds are never on deposit with the State Treasurer.

While federal legislation only mandated the distribution of food stamp benefits via EBT, a number of states utilize EBT to disburse cash benefits. According to a Working Paper entitled, "The State of Electronic Benefit" published by the Community for Community Capitalism, UNC at Chapel Hill in 2003, at least 33 states deliver Temporary Assistance to Needy Families (TANF) benefits electronically. North Carolina is not one of those states. A few states have experimented with the delivery of Women, Infants, and Children (WIC) support, but it appears that EBT is not well suited for WIC.

Best Practices for Disbursements – Debits Cards

The debit card is a form of payment that provides for the recipient to be issued a card, providing him/her access to funds, generally on deposit with a financial institution. The most common type of card is the stored-value card (SVC). Stored-value means the card is supported by a prepaid funded account, instead of by a checking account.

The Employment Security Commission (ESC) administers the disbursement of unemployment benefits in accordance with requirements of the US Department of Labor. Beginning in January 2007, the policy of ESC is now to issue employment benefits electronically, either by direct deposit or by debit card. In 2006, ESC contracted with Affiliated Computer Services, Inc. (ACS), a vendor that specializes in providing stored-value card programs to various state government programs. ESC selected the vendor through a competitive bidding process.

The Department of Health and Human Services is in the process of piloting with SMI, its Child Support collections vendor, a program to disburse child support payments to custodial parents via a debit card, in addition to its method of distributing the payments via direct deposit (ACH). The program, which utilizes a debit card issued by JPMorgan Chase, is currently in the development stage.

Several universities also use a debit card to disburse student refunds. Similar to the debit card program offered by the ESC, funds are remitted to a vendor that specializes in providing debit card programs to universities. Higher One, which uses a MasterCard debit card issued by Horizon Capital Bank, is the primary vendor used by the universities.

The best practice is to offer the debit card option for programs where there are large numbers of individuals not desiring or not having the ability to receive their funds by direct deposit, primarily the "unbanked."

Providing debit cards to the "unbanked" has the potential to connect many low-income people directly to the financial mainstream. Once the unbanked individuals begin using debit cards, many of them eventually acquire bank accounts. Research suggests that possessing bank accounts confers

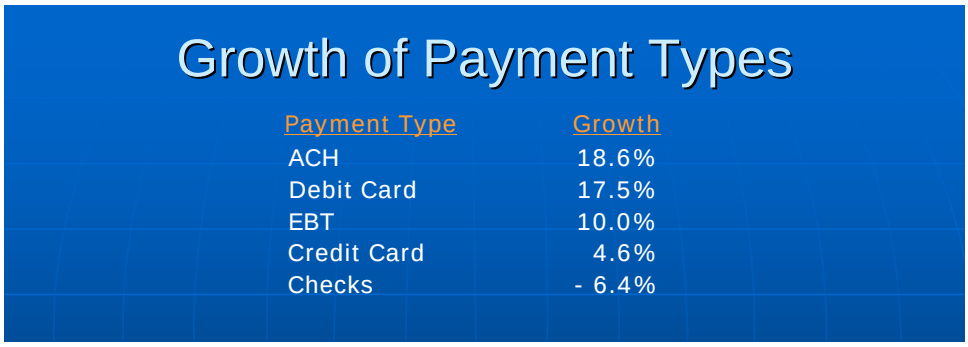
numerous benefits upon low-income citizens. Opening bank accounts allows people to save money, earn interest, build credit histories, and move towards home ownership. Connecting low-income people to the banking system also provides banks with the market information needed to develop products tailored to the needs of the newly banked.

Federal Reserve Bank Study Trends

Trends of electronic payments in the nation can be summarized by the findings of the 2007 Federal Reserve Payments Study.

- Electronic payments now comprised over two-thirds of all noncash payments in the United States.
- The number of electronic payments grew 12.4 percent per year from 2003 to 2006.
- Debit card payments now exceed credit card payments.
- Card payments alone comprised over half of all noncash payments.
- The number of check payments continued to decrease and did so at a more rapid rate than the previous three-year period.
- Moreover, check clearing is increasingly electronic.

The chart below shows the percentage growth of noncash payments between the years 2003 and 2006.



VI. Issues Pertaining to Funding and Fees

Purpose of Section
This section of this report is intended to examine the issues pertaining to card processing fees, particularly with how they affect state government. The issues discussed below are: 1) merchant card processing fees charged by the card associations; 2) how to pay for the fees levied by the card associations (to levy or not to levy convenience fees against the paying citizen); and 3) conflicts of convenience fees with card associations rules. The funding issues do no apply to Electronic Funds Transfer (EFT) transactions, as the bank processing cost of an EFT transaction is miniscule.

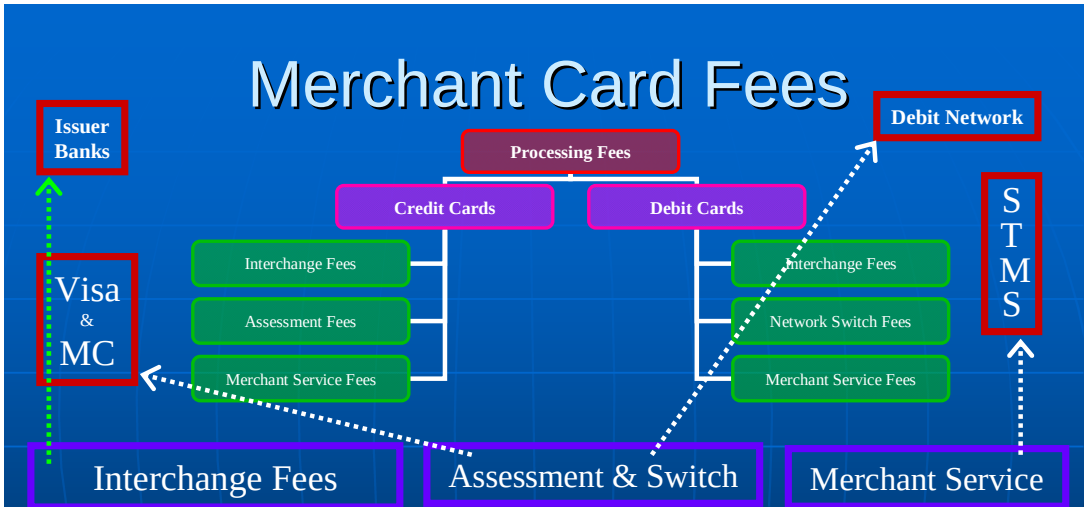
Merchant Card Processing Fees

Pass-through and Vendor-levied Fees
Processing fees associated with merchant cards can be significant. There are two types of fees, those that are "vendor-levied" (by STMS) and those that are "pass-through" levied by the card associations (e.g., Visa and MasterCard), debit card networks, and to the card issuing bank. The fees structures are complex, consisting of fixed amounts per transaction, variable rates per dollar amount, and are dependent upon other factors such as capture methods (i.e., card-present or card-not-present), as well as the type of card the cardholder presents (i.e., corporate card or consumer card). Corporate cards have higher fees.

The chart below shows the three categories of fees:

- Interchange fees (Paid to the bank that issued the card)
- Assessment and switch fees (Paid to the card association / network)
- Merchant service fees (Paid to the merchant's processor / bank)

The interchange fees, which are passed through to the cardholder's bank, represent the largest portion of the fees paid by a merchant. In many cases, these fees are used to provide "reward points" to the cardholder. The assessment and switch fees represent the next largest portion of the fees, which go to the card networks (i.e., Visa, MasterCard, American Express, and Discover). Merchant services fees represent the smallest portion of the fees goes to the State's contracted merchant card service provider (i.e., SunTrust Merchant Services).



Typical Fee for a Merchant Card Transaction

SunTrust Merchant Services (STMS) levies the State a $.04 fee for each transaction, regardless of the type card presented (vendor-levied fee). Assuming a transaction qualifies for the best government rate from Visa or MasterCard, on a typical $100 transaction the lowest "effective fee rate" for each would be as shown in the table below. The effective rate is higher if the payor presents a corporate Visa or MasterCard card, resulting in the fee being closer to 2% of the transaction amount.

Since a component of the fee for a card transaction is associated with the transaction amount, the larger the transaction amount the higher the fee. This is not the case for an EFT transaction or a paper-based transaction. The effective rate for debit cards is much lower than for credit cards. A disadvantage of accepting proprietary cards (i.e., American Express or Discover) is that the settlement time for receiving the funds is one day longer.

Typical Fees for a $100.00 transaction – Applying Card Associations' best government rates								
	Visa		MasterCard		Amex		PIN Debit (NYCE)	
	Fee	Amount	Fee	Amount	Fee	Amount	Fee	Amount
Transaction		$100.00		$100.00		$100.00		$100.00
Interchange-%	1.43%	1.43	1.55%	1.55	2.15%	2.15	.05%	*0.00
Interchange-$	$.05	.05	$.10	.10	-	-	.06	*.45
Assessment-%	.0925%	.09	.0950%	.10	-	-	-	-
Switch Fee-$	-	-	-	-	-	-	$.0375	.04
STMS-$	$.04	.04	$.04	.04	$.04	.04	$.04	.04
Total Fee		**$1.61**		**$1.79**		**$2.19**		**$0.53**

Typical Fees for a $500.00 transaction – Applying Card Associations' best government rates								
	Visa		MasterCard		Amex		PIN Debit (NYCE)	
	Fee	Amount	Fee	Amount	Fee	Amount	Fee	Amount
Transaction		$500.00		$500.00		$500.00		$500.00
Interchange-%	1.43%	7.15	1.55%	7.75	2.15%	10.75	.05%	*0.00
Interchange-$	$.05	.05	$.10	.10	-	-	.06	*.45
Assessment-%	.0925%	.46	.0950%	.48	-	-	-	-
Switch Fee-$	-	-	-	-	-	-	$.0375	.04
STMS-$	$.04	.04	$.04	.04	$.04	.04	$.04	.04
Total Fee		**$7.70**		**$8.37**		**$10.79**		**$0.53**

Impact of Card Fees on North Carolina State Government

The following chart shows the merchant fees that were paid by agencies participating in the State Controller's master services agreement with SunTrust Merchant Services during FY 2006-07, by sector. The total fees amount to over $9 million. On average, this fee amounted to 1.7% of the dollar amount of the transactions.

Card Activity FY 2006-07

	Trans. Vol.	Sales Vol.	Pass-Thru Fees	Vendor Fees	Total Fees
General Govt	1,967 M	$ 107,541 M	$ 1,895 M	$ 140 M	$ 2,036 M
Universities	1,797 M	$ 349,237 M	$ 5,634 M	$ 168 M	$ 5,802 M
Com. Colleges	161 M	$ 19,910 M	$ 283 M	$ 19 M	$ 302 M
Local Units	583 M	$ 58,006 M	$ 986 M	$ 47 M	$ 1,033 M
LEAs	1 M	$ 113 M	$ 2 M	$ 0 M	$ 2 M
Total	4,509 M	$ 534,807 M	$ 8,801 M	$ 374 M	$ 9,175 M

DMV Vehicle Registration largest volume
- 1.25 million transaction
- $ 39 million

Two Types of Fees
- Pass-thru fees are paid to Visa/MC
- Vendor Fees are paid to STMS

Card Associations' Authority to Levy Fees
There have been ongoing discussions regarding the card associations' practice of levying interchange fees for processing merchant cards, perceived by some to be excessive. Since 1916, the Federal Reserve Bank (FRB) has required member banks to clear paper checks "at par." (This is the reason state warrants bear the term "Payable at Par.")

There is no such "par" requirement for the clearing of a merchant card transaction, as transactions do not settle through the FRB. The card associations have specific and legal arguments that their setting of interchange fees is both legally permissible and economically rational (through their private networks). The legal reference is the 1984 federal appellate court decision in *National Bancard Corp. (NABANCO) v. Visa*, which held that the setting of credit card interchange rates by Visa members was permissible under the "rule of reason." The courts have also ruled that the interchange fee is pro-competitive because it was necessary to achieve stability of the Network and universality of acceptance.

There are currently several law suits against the card networks for alleged violation of the federal antitrust laws. Additionally, a bill currently before congress entitled, "Credit Card Fair Fee Act" would give merchants a seat at the table in determining the fees. There is no anticipation that the law suits, or other efforts being made by the retail merchants industry, will result in the card associations discontinuing or even reducing the fees that they levy against merchants. (A state agency is considered a merchant.)

With the increased practice of card-issuing banks offering incentives to cardholders, such as frequently flyer miles and rewards points, the banking industry's practice of levying interchange fees is likely to continue, since the interchange fees charged merchants is a source of the expense incurred by the card-issuing banks. Consequently, the State and other retail merchants are at the mercy of the card associations and the banking industry when it comes to the fees being levied.

Merchant Card Convenience Fees - Funding

Component of Convenience Fee Issue
One of the ongoing issues relating to merchant card services has dealt with how the State can cover the fees associated with the processing of merchant cards. The issue has several components:

- When should the State incur the processing fee, and when should the fee be passed on to the card holder, as a convenience fee?
- Under what conditions is it permissible to charge a convenience fee?
- If a convenience fee is levied, what form must it be in to be in compliance with card association rules?
- If convenience fees are not levied, how are the costs funded?
- Should the ACH bank draft payment option, which has a far less cost than the credit card payment option, be offered as an alternative?

How Other States Pay Card Fees
The Council of State Governments (COSG) published a study in April 2007, entitled "Acceptance and Use of Electronic Payments for State Taxes and Fees." The study was the result of responses to a survey received from 37 different states. Specifically, one survey question asked states to identify the funding source they use for paying merchant fees and/or bank fees. The report states the following:

> *Most states use convenience fees or transaction surcharges to offset the fees associated with credit card transactions. Others use appropriated funds or compensating balances. Others primarily absorb credit card fees as part of the cost of doing business. Many states use a combination of funding sources. Florida for example responded that "primarily, agencies*

absorb the costs; however some do appropriate funds in their annual budgets. A few agencies charge a convenience fee to cover the cost of the program."

The report recognized the issues states have with budgeting for credit card fees, especially when their statutes require collecting 100% of an obligation, but stated the following:

> *"Some government agencies have taken an approach similar to the private sector in absorbing the credit card transaction fees as part of the cost of doing business, but without an across-the-board rise in tax rates or fee structures."*

Studies show that all states wrestle with the issue of when it is appropriate for the state to consider the card transaction fees as a "part of doing business" and when to pass the fee on to the cardholder in the form of a "convenience fee." There continues to be philosophical differences of opinions regarding the question.

Reluctance of Citizens to Pay Convenience Fees

Whenever it is determined that a convenience should be levied against the cardholder (citizen), the effects on the utilization rate must be considered. A study by the IPSOS research firm indicated that Americans are extremely resistant to paying convenience fees. More than 78% polled say they "definitely will not" use a credit card the next time they owe federal income taxes. Instead, they will resort to the usual personal check (62%), money order (11%), or direct debit from a bank account (7%). Levying of a convenience fee is therefore a primary deterrent to the promotion of ecommerce in state government.

The E-Commerce survey of chief fiscal officers in state government conducted in December 2007 revealed the same sentiment as the general public. When asked their opinion if the levying of convenience fees discourages citizens from using credit cards to make online payments, the response of "Agree or Strongly Agree" were as follows: General Government – 84%; Universities – 74%; Community Colleges – 73%. Yet, despite this view, some of the fiscal officers indicated their desire to be able to charge convenience fees, as they had difficulty obtaining funding to pay the fees.

One of the best practices recommended in the Council of State Governments report was to: "*Refrain from charging convenience fees or surcharges that may detract from the use of credit or debit cards."* The report also indicated that any practice that discourages the use of credit cards affects the government's accounts receivable program, as cards offer "*a flexible payment method that allows citizens to avoid late payment fees while stretching their payments out as a means of managing their cash flows. Credit card acceptance may also yield greater collections by improving collections of delinquent payments."*

When the State Should Absorb Card Processing Fees

As shown in the surveys of other states and the fiscal officers of North Carolina agencies, there are philosophical differences in opinions regarding when the State should absorb the card processing costs. There are clearly times when it should, but there are other times when it is not clear. The times when it is obviously for the State to absorb the fees are when the following two conditions exist:

- The fees and costs are less than or not materially more than a paper-based transaction
- The agency has a funding source to pay the fees

On the other hand, when the cost of a credit card transaction is more than that of a paper-based transaction, or when the ability to fund the costs are not available, the decision to absorb the costs is not easily made.

Arguments are made that there are times when, while the fees and costs associated with an electronic payment may be more than that of a paper-based payment, it may still be appropriate for the State to absorb the cost. People taking this position argue that, when the majority of the citizens <u>expect</u> the convenience of paying for a government service by credit card as they do in the private

sector, then the cardholder (citizen) should not have to pay for that convenience. This is referred to as the "convenience expectation factor."

As the "digital divide" (lack of access to computers) in society disappears and merchant cards continue to become the accepted way of doing business, the number of people supporting the "convenience expectation factor" position will likely increase. This is supported by the Federal Reserve Bank's 2007 study that indicates a steady decline in the number of paper checks and a corresponding increase in the number of electronic payments in the United States. Credit card payments alone now comprise of over half of all non-cash payments. There are indications that some individuals in the younger generation do not even have check books. Many of these individuals will not even stop at a gas station that does not offer "pay at the pump."

There are still others that argue government is different than the private sector and any convenience accruing to the citizen should be paid by that particular citizen, and not by all citizens (by virtue of "the State" absorbing the fee). Those taking this position indicate the difference is that the reason for the private sector merchant offering the option to pay by credit card and being willing to absorb the fee is due to competition. Additionally, the private sector has the ability to build the card processing fee into the price of its product or service, while a government does not easily have this ability.

Unlike a private sector merchant, the State does not have any competition. Generally, taxes and fees must be paid, and only to the resident state. They also argue that, as long as there are citizens who do not utilize credit cards (even though in the minority), those citizens should not be subsidizing the benefits accruing to those who do utilize credit cards. Examples cited are frequent flyer miles and reward points that accrue to those paying by card, which are apparently supported by the fees the card associations levy against the merchants.

Cost of Electronic Payments vs. Paper-Based Payments (Collections)
One would assume that the cost of an electronic transaction is less than that of a paper-based transaction. However, this is not always the case. As explained in detail in the "Funding Issues" section of this report, the EC Task Force survey revealed that it is not always cheaper to process an electronic transaction compared to a paper-based transaction.

As shown above, card transactions representing large dollar amounts can be rather expensive, since the processing fees are directly related to the dollar amount of the transaction. There are also other situations where the cost of an electronic transaction may be higher than that incurred for a paper-based transaction. Factors include costs associated with developing and maintaining the agency's technological infrastructure to capture and process the electronic transactions. Other factors include the volume of transactions a particular agency processes. Generally, the larger the volume of transactions an agency processes, the lower the "cost per transaction."

A summary of the cost findings of the EC Task Force survey is reflected in the chart below, with the cost of each transaction type being ranked from less to most expensive.

Costs of Receipts

General Government			Universities			Comm. Colleges		
Rank	Type	Cost	Rank	Type	Cost	Rank	Type	Cost
1	ACH	$1.00	1	Paper	$2.00	1	ACH	$1.50
2	Cards	$1.60	2	ACH	$3.00	2	Paper	$2.00
3	Paper	$2.00	3	Cards	$5.00	3	Cards	$3.60

If attempting to apply the criteria that a convenience fee should only be levied if the card processing cost is more than the cost of a paper-based transaction, then only the general government agencies should not levy a fee. One could even argue that a citizen paying by a paper method should pay an extra fee. The Secretary of State has actually taken this position in the establishment of its filing fees. Those paying filing fees electronically actually pay a lower fee than those that file non-electronically.

If attempting to apply the same criteria, the universities and community colleges should levy a convenience fee to those paying by merchant card. This is due primarily to the high dollar tuition payments involved. However, this approach does not take into consideration other factors that should be considered:

- Enhanced Accounts Receivable benefits accruing to the State
- Convenience Expectation Factor accruing to the citizen
- Beneficiary of the receipts (e.g., general fund operation or enterprise operation)

Accordingly, there are no clear cut criteria that can be applied across-the-board to make a determination whether a convenience fee should or should not be levied. Each of the three government sectors is different. Even within each sector, each agency is different. Only a detailed business analysis of each agency's operation, applying cost accounting techniques can reveal the business case for or against which is the cheaper payment method.

A business case analysis for each agency's payment application should reveal one of the following findings, with corresponding approaches being applied:

- Card payment is less expensive than paper-based method – No convenience fee should be levied, regardless of type of payment or beneficiary of payment
- Card payment is more expensive than paper-based method – Additional factors should be considered.

The "additional factors" are elements that require further discussion and consideration from at a policy level. Examples of some criteria that possibly could be considered when developing the policies include:

- If payment is deemed to be for an obligation considered "mandatory," the State should absorb the fee as part of doing business, regardless of the cost.
- If payment is deemed to be for an obligation consider "delinquent," the State should absorb the fee as part of doing business to avoid having to turn the payment over to a collection agency or to the "debt offset" program.
- If payment is deemed to be for an obligation that is for an enterprise operation where offering the card payment option would likely increase sales, the enterprise should absorb the fee as part of doing business, regardless of the cost, particularly where there is flexibility in setting the cost of the product or service to cover the card costs. (Examples would include: General Assembly cafeteria sales, magazine subscriptions sales, event ticket sales, etc.)
- If payment is deemed to be one that the majority of citizens paying for a particular obligation expect the service or product to be eligible to be paid for by card, the State should absorb the fee as part of doing business, even if more expensive. A further stipulation could be made that the agency acquires a source of funding to pay the obligation, by approval of the Office of State Budget and Management or by specific statutory authorization.

Large Dollar Transactions Pose Problem for State Absorbing Fees

Absorbing the fees for large dollar transactions poses a dilemma for governments, especially for universities and community colleges. Because merchant card processing fees (levied by Visa, MasterCard, American Express, Discover, etc) are based largely upon the dollar amount of the transaction, the costs are substantial for large dollar transactions, such as tuition payments. While the typical fee for a $50 card transaction is $1, the typical fee for a $5,000 transaction is $80. While an

agency may be able to justify paying the $1 fee for a $50 online license payment transaction, a university finds it difficult to justify paying the $80 fee for an online tuition payment transaction.

The universities have been reluctant to establish their tuition rates with the cost of the credit cards considered as a part of the university's cost of doing business. An analysis several years ago by UNC General Administration indicated the cost to the universities would exceed $10 million if no convenience fee were to be levied.

Consequently, universities have elected to charge the convenience fee to the student/parent making the online payment. Because of the large dollar transactions, the universities and community colleges are affected more than most general government agencies. Local units of governments are also widely affected, due to large dollar amounts associated with property tax payments.

General Statutes Pertaining to Convenience Fees

Prior to the master services agreement in 2000, agencies operating under separate programs absorbed the fees. These programs were primarily those of the Wildlife Resources Commission, which had "receipts" to pay the fees, and the universities, which had "institutional trust funds" as a source to pay the fees. Since that time, several different statutes have been enacted addressing the issue, allowing agencies to charge a convenience fee. The statutes are permissive in nature:

- G.S. 147-86.22(b), enacted in 1999, states in part: "A debtor who pays by electronic payment may be required to pay any fee or charge associated with the use of electronic payment."
- G.S. 66-58.12(b) and (c), enacted in 2000, states: "(b) An agency may charge a fee to cover its costs of permitting a person to complete a transaction through the World Wide Web or other means of electronic access. The fee may be applied on a per transaction basis and may be calculated either as a flat fee or a percentage fee, as determined under an agreement between a person and a public agency. The fee may be collected by the agency or by its third party agent. (c) The fee imposed under subsection (b) of this section must be approved by the Office of State Budget and Management, in consultation with the State Chief Information Officer and the Joint Legislative Commission on Governmental Operations. The revenue derived from the fee must be credited to a nonreverting agency reserve account. The funds in the account may be expended only for E-Commerce initiatives and projects approved by the State Chief Information Officer, in consultation with the Joint Legislative Oversight Committee on Information Technology. For purposes of this subsection, the term "public agencies" does not include a county, unit, special district, or other political subdivision of government.
- G.S. 105-357 (b) authorizes any tax collector, including the Department of Revenue, the Employment Security Commission, and local units of government to levy a fee. The statute states, "The tax collector may accept checks and electronic payments, as defined in G.S. 147-86.20, in payment of taxes, as authorized by G.S. 159-32.1. Acceptance of a check or electronic payment is at the tax collector's own risk. A tax collector who accepts electronic payment of taxes may add a fee to each electronic payment transaction to offset the service charge the taxing unit pays for electronic payment service."

Approval to Levy Convenience Fees

Currently, pursuant to G.S. 66-58.12(c), agencies must obtain approval from the Office of State Budget and Management (OSBM) in consultation with the State Chief Information Officer and the Joint Legislative Commission on Governmental Operations before levying a convenience fee. This approval was previously required of the former IRMC. The funds must be deposited to an agency nonreverting agency reserve fund, and can only be expended for ecommerce initiatives and projects approved by the CIO, in consultation with the Joint Legislative Oversight Committee on Information Technology.

Based upon the findings of this study, and assuming it is desired to implement some type of business case analysis regarding whether a particular agency should or should not levy convenience fees, a central oversight agency needs to be empowered to make such determination. Because such

determination is based more upon cash management benefits and budgetary factors than technology, the Office of State Budget and Management in consultation with the Office of the State Controller should be the agencies involved in the determination and approval process. All determinations and approvals should be periodically reported to the appropriate committee of the General Assembly.

Funding of Card Transactions Costs
The EC Task Force survey indicated that agencies struggle with acquiring funding to pay for card processing fees, even when the electronic payment is less expensive than a paper-based transaction. This is due primarily to the agency having to pay a third-party vendor to process card transactions out of its budget, while the Department of State Treasurer incurs most of the costs for processing paper-based transactions as part of its function of compensating the depository banks for their services.

Accordingly, the central oversight agencies should be empowered to authorize all or a portion of an agency's costs incurred for card transactions to be paid from the revenue account code established to account for Interest on Treasurer's Investments, whenever that revenue account is the beneficiary of the increased availability of funds as a result of being collected electronically. The State Budget Director, in consultation with the State Controller and the State Treasurer, should be given the authority to make this determination.

Merchant Card Convenience Fees – Conflicts with Card Industry Rules

Convenience Fee versus Surcharge
There is a difference between a "surcharge" and a "convenience fee," which definitions have changed over the years, as addressed by the card industry associations.

- "Surcharge" relates to a fee charged for using a merchant card, regardless of medium, but generally applies to a face-to-face (card present) transaction.
- "Convenience fee" relates to a fee charged for using a particular medium of payment, but generally applies to payments made by electronic mediums, such as the Internet and Interactive Voice Response (IVR).

Card-Present Transactions
In the case of card-present transactions (i.e., face-to-face), surcharging is prohibited by Visa. While Discover, American Express, and MasterCard sometimes allow surcharging for card-present transactions, it is not always practicable for an agency to do so, since it would limit the agency to only accepting those three cards. Surcharging for face-to-face transactions could be advantageous for a university that does not accept Visa due to Visa's "flat fee only" requirement.

It could be argued that there are situations where it may be appropriate to only accept PIN debit cards, but not credit cards. PIN debit cards are not subject to card association rules, and the processing fee is much lower than for credit cards. While the typical fee for a $100 credit card transaction $1.62, the typical fee for a $100 PIN debit card is $.53. However, this practice is not considered a best practice. While the 2007 Federal Reserve Bank study indicates that debit card usage now exceeds credit card usage, a large number of citizens desire the ability to pay by credit card if given the option. This is especially true if the individual does not have funds in his/her bank account to honor a debit card.

Convenience Fee is a National Issue
The levying of surcharges and convenience fees has been a national issue since 1993, when card associations began enforcing their bylaws, ordering member banks to cut off service to those government agencies passing along the transaction fee. Despite extensive discussions with representatives of state and local governments, Visa and MasterCard were reluctant to change their

position prohibiting passing along the transaction fees. As a result, government agencies have adopted various means for addressing the problem of passing on credit card fees to taxpayers.

At one time, card associations precluded merchants from charging any type of "surcharge." The rationale given for the rules has been to prevent cardholders from being penalized for paying by merchant cards versus other methods of payments. The National Association of State Auditors, Controllers, and Treasurers (NASACT) attempted several times to get the card associations to make exceptions for governments. For the most part, the attempts have failed. In recent years the associations have relaxed their rules, allowing for "convenience fees" in certain situations.

The Government Finance Officers Association (GFOA) recognized the convenience fee issue in an Issue Brief, dated January 2005. The brief stated that governments have responded to the issue several ways:

- Use outside vendors to process card transactions (the associations have generally granted waivers to third parties, allowing them to charge percentage-based convenience fees based)
- Continue to pass on charges until the associations discover the practice and clamp down on the jurisdiction.
- Not charge a convenience fee at all, but use compensating bank balances (or other sources) to pay the fees.
- Cease to accept credit cards altogether.

Inconsistency in Card Association Rules

The card associations' rules are not consistent, and this inconsistency poses problems for agencies desiring to levy convenience fees.

- Visa, MasterCard, and American Express all three prohibit surcharges (face-to-face).
- Visa and MasterCard generally requires any convenience fee levied to also apply to ACH bank drafts, if that option is also offered via the same payment channel. MasterCard does allow for this requirement to be waived, but Visa currently does not.
- Discover has no prohibitions against surcharging for face-to-face transactions.
- MasterCard allows convenience fees for electronic mediums, allowing both "flat" and "percentage" fees.
- Visa allows convenience fees for electronic mediums, but only allows a "flat" fee. This means neither a percentage-based fee, nor a tiered based fee can be levied. There are two exceptions:
    - Visa allows percentage convenience fees if a third-party (e.g., Official Payments, Link2Gov) processes the payments on behalf of the taxing authority. Under these arrangements, the transaction initiated online is normally split into two transactions, one transaction initiated on behalf of the government, and one transaction (for the fee amount) initiated on behalf of the vendor.
    - Visa has a program allowing a percentage-based convenience fee, regardless of the medium (Internet or face-to-face), but the tax authority must make application to participate in the program. Additionally, the program has certain limitations, including: 1) the payment only applies to certain tax payments (excluding fees); and 2) the convenience fee must be processed as a separate transaction, so that the cardholder's statement shows the separate charge.

Violation of Association Rules

The Office of the State Controller (OSC) has identified the convenience fee issue as one that poses a risk to some agencies for being cited for a violation of the associations' rules. While MasterCard, Discover, and American Express allow convenience fees to be percentage based or tiered based, Visa's rules do not. In 2005 and 2006 two agencies received notifications from Visa that they were in violation of the association's rules prohibiting a percentage-based convenience fee. The agencies were DHHS Child Support Services and UNC-Chapel Hill. The two agencies reacted differently. DHHS conceded and changed its fee to a flat fee. UNC-Chapel Hill on the other hand elected to

discontinue accepting Visa cards, which is what a number of universities across the state and the country have done. These actions by the various universities have not seemed to phase Visa, as they have been willing to forgo the business.

In 2007, the OSC informed three agencies of their apparent violation of Visa's rules prohibiting levying a convenience fee base on a percentage of the transaction amount, and the possibility of fines being levied by Visa for continued violation. The three agencies (Department of Revenue, Secretary of State, and Employment Security Commission) each had fee schedules that were "tiered based." This tiered structure was deemed by Visa to be in violation of their "flat fee only" requirement. The Department of the Secretary of State and the Employment Security Commission both altered their fee structure to be a flat fee, in order to be in compliance with Visa's rules. The NCDOR is currently assessing its options regarding how it will address the tiered fee structure issue.

The various state laws authorizing the levying of a convenience fee are permissive and do not specify if fees are to be flat or percentage-based. Since the State has voluntarily entered into contracts with a merchant card vendor that requires the agency participants to adhere to the card associations' rules, the agencies must comply. Otherwise, Visa could require the State's vendor to terminate its agreement to process the cards on behalf of the State. Other states have either taken the same course of action, or discontinued to accept Visa cards altogether. Many universities particularly across the county have discontinued accepting Visa, electing only to accept MasterCard, Discover, and American Express.

General Statute Conflicts Pertaining to Convenience Fees

The conflict of G.S. 147-86.22(b) with the card industry rules was recognized by the General Assembly when enacted in 1999. The original version of the introduced bill introduced contained the provision, "A debtor who pays by electronic payment shall be required to pay any fee or charge associated with the use of electronic payment." Upon input from the State Treasurer's Office, the bill was amended in the legislative committee to change the term "shall" to "may." This was done as a result of the State Treasurer's Office advising of the card association rules requirement and of the issue that was being faced by governments nationally at the time.

In recent years, two other state statutes have been passed regarding credit card payments. HB 1779 of the 2005 General Assembly session had a provision [G.S. 105-330.59(b)], effective July 1, 2009, that provides for the Division of Motor Vehicles (DMV) to develop a system for the combined registration of motor vehicles (on behalf of the State) and the collection or property taxes (on behalf of the counties). The statute allows for the "collecting authority" to retain a fee for collecting the taxes and fees. While DMV has indicated its intent to collect these taxes by offering the credit card option, the issue of how the costs for card payments has not yet been resolved.

House Bill 1848 of the 2005 General Assembly session had a provision [G.S. 7A-343(9b)] that gives the Administrative Office of the Courts (AOC) the authority to, "Enter into contracts with one or more private vendors to provide for the payment of fines, fees, and costs due to the court by credit, charge or debit cards; such contracts may provide for the assessment of a convenience or transaction fee by the vendor to cove the costs of providing this service." In 2007, AOC began the process of issuing an RFP in attempts to secure the services of a vendor to provide the services, with hopes of finding a vendor that would be willing to charge fees to pay for its services. The desire is for the convenience fee charged by the vendor to cover the vendor's cost of services. The procurement is still in process, but there are reservations as to whether the services of a vendor can be secured under the statute's authorization. If such services are secured, the convenience fee charged the payor would likely be at a level that would discourage the use of the payment option.

It is apparent above that the various statutes addressing the operations and authority given to the various agencies do not reflect a consistent approach to the issue of paying for credit card transactions.

VII. Miscellaneous E-Commerce Issues

Purpose of Section
This section of this report is intended to examine some of the current miscellaneous issues associated with the ecommerce industry, particularly with how they affect state government. The two issues discussed below are: 1) payment card industry data security standard; and 2) Web capture solutions for online payments.

Payment Card Industry Data Security Standard

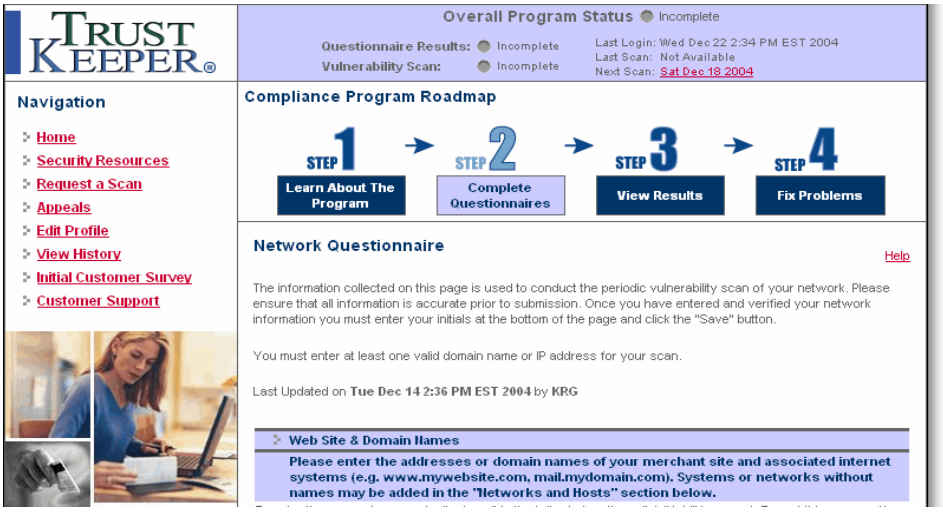
Development of Security Standard for Merchant Cards
One issue that has demanded more resources and required close attention related to the State's electronic commerce program over the past several years has been the Payment Card Industry Data Security Standard (PCI DSS), which emerged as a forefront issue during 2005. With the rise in instances of cardholder information compromises, the card associations issued Rules that service providers and merchants must adhere to protect cardholder data. The primary focus of the PCI DSS is to help merchants improve the safekeeping of cardholder information by tightening their overall security standards, which in turn reduces their chances of experiencing security breaches, fraud, and potential catastrophic financial losses. The Rules generally provide for:

- The designation of merchants into different categories, depending upon their annual transaction volume
- The requirement of certain security procedures depending upon the category, including the securing the services of a vendor to perform vulnerability scans of their networks
- The levying of fines for non-compliance

The security procedures require the completion of and compliance with strict security self-assessment questionnaires on an annual basis, and the performance of security network scans on a quarterly basis. The potential fees for violations can be as much as $500,000 per card association. Should Visa and MasterCard elect to levy fines for a violation, the potential liability for a single violation (e.g., security breach) would be one million dollars.

Arrangements with Qualified Security Assessor
To assist agencies and other participants in complying with the PCI DSS, OSC secured the services of Trustwave in 2005, a recognized industry leader in PCI DSS compliance assessment solutions. The State had to address the compliant issue from two perspectives: 1) the Common Payment Service gateway as a "service provider;" and 2) each participating agency as a "merchant." The cost of the services provided to the various agencies, which are absorbed by OSC, is approximately $80,000 per year (secured under the state's bidding process).

With the compliance process having begun in 2005, the OSC and Trustwave have continuously worked with the agencies to assist them in both becoming and remaining compliant. The CPS gateway, which processes approximately 47% of all the State's merchant card transactions, achieved compliance in early 2006. The majority of the agencies responding to the 2007 E-Commerce survey indicated that their agency was either "sufficiently compliant" or "had placed a high priority on being compliant and remaining compliant." There are several agencies that will complete the required upgrades to become fully compliant in 2008. Since 2005, one agency and one university experienced security breaches to the extent that required reporting to Visa and MasterCard. Fines by the associations were nominal.



Creation of PCI Security Council

In 2006, the card industry created the PCI Security Council to provide a more coordinated approach to administering the PCI DSS. In November 2006, desirous of the State being able to have input into the rule making process, the State Controller joined the Council as a member. In the early part of 2008, the Council made revisions to the standard which would become effective on a phase-in basis during 2008. All agencies accepting merchant cards are subject to whatever changes are made to the standard. One of the changes requires any point of sale software being used by any of the agencies to be compliant with the payments application standard. This could possibly affect some agencies, requiring them to acquire a different software application that what they currently utilize.

Challenges for Agencies

Due to the complexity and variety of the technological infrastructure of the various agencies, the security compliance effort has and continues to demand considerable resources of the IT staff of the various agencies, as well as that of the staff of the OSC in their efforts to educate the agencies.

Some agencies, primarily universities, are considering outsourcing their online web applications to third-party vendors in order to avoid having to deal with complying with the PCI Security Standard. Under such arrangements, payors would be redirected to the vendor's website in order to complete a card transaction, thereby avoiding the processing or storing of cardholder data on the agency's computer system. Consequently, the issue of security becomes a major factor in developing online systems.

Web Capture Solutions for Online Payments

Statewide Enterprise Solution

One of the ongoing issues relating to ecommerce has dealt with the agencies not having a statewide enterprise solution available to allow them to easily implement a system to begin accepting payments via the web. Agencies are desirous of a service that would allow them to accept payments online, offering the payment options commonly available in the private sector - both credit card and ACH bank draft. The ability to accept online payments is deemed to be the biggest ingredient to a successful ecommerce program.

The E-Commerce survey responded to by the chief fiscal officers in December 2007 confirmed the agencies' interest in a web capture service. The survey asked for interest levels, with three responses being possible responses: High, Indifferent, or Low. Those responding with a "High" level were as follows: 14 general government agencies (31%); 6 universities (40%); and 22 community colleges (44%).

Development of Yahoo! Solution
In 2000, one of the resulting developments of the NC@Your Service initiative was the State's selection of Yahoo! as the vendor to provide online stores for the various agencies. The Yahoo! Solution has its limitations, as it: 1) is only suitable for products that an agency may be offering for sale or conference registration, and not suitable for payments that are of an accounts/receivable nature, such as taxes, tuition, fees, due from vendors or citizens; 2) only offers the credit card option of payment, and not the bank draft option. The ACH bank draft solution is much less expensive than a merchant card transaction. The fee for a $100 card transaction is approximately $3, while the fee for an ACH bank draft transaction is less than $.50. The big difference is that no Visa or MasterCard interchange fee is involved with the ACH bank draft.

In-House Web Capture Solutions
Several agencies whose needs could not be met by Yahoo!, and that had the necessary resources independently developed their own in-house "web capture" system, at least to some degree (i.e., DOR, DMV, ESC, WRC, and SOS). Such in-house systems interact with the agency's accounts/receivable databases. Some of the agencies' systems interact with the Common Payment Service (CPS) gateway provided by ITS.

With the implementation of the Banner System at various universities, UNC General Administration selected and entered into a master agreement with a vendor named TouchNet, which offers an off-the-shelf web capture solution. Touchnet is compatible with Banner and was designed specifically for tuition payments. While most of the universities utilize the TouchNet service under UNC-GA's master agreement, some utilize a different vendor (e.g., NCSU uses Nelnet).

The Common Payment Service (CPS) gateway developed by the State (OSC and ITS) in 2000 was designed to facilitate those agencies that developed their own in-house web capture systems. Thus, CPS only has a payment engine component, and not a presentment engine component. The payment engine component serves as the middleware between the agency and the State's payment processors, either Wachovia Bank for EFT transactions, or SunTrust Merchant Services for merchant card transactions.

Need for Additional Web Capture Solutions
Other agencies whose needs cannot be met by Yahoo! (e.g., DENR, Agriculture, DOA, etc.) have expressed their desire for the State to provide a web capture service at an enterprise level. Such a service is generally referred to as either a "capture solution" or a "presentment engine." Not only are the agencies desirous of offering the service, but citizens dealing with these agencies have expressed their desires to be offered such payment options.

A web capture solution is a website application that allows an individual, vendor, or company (payor) to logon to the agency's website and initiate a payment to the agency. The payment could be either the result of:

- An invoice that has been submitted to the payor (i.e., tax, license renewal, fine, fee, etc.)
- A service that the payor desires to subscribe to for which no invoice has been generated.
- A shopping cart transaction, where the agency may be offering products for sale

In the first instance, a "validation process" is required before the payment can be effected (i.e., the invoice being paid is for the correct payor, for the correct amount, and for the correct invoice number - as reflected in the agency's accounts/receivable database.) To accommodate the validation process, the agency must interact with the capture solution to facilitate the ongoing updating of the databases. In the second case, a validation process is not required.

In the third case, a validation is not required, but the solution must offer the ability to perform a shopping cart operation. It should be noted that the Yahoo! Solution serves the needs of most agencies needing the shopping cart functionality.

First Tier vs. Second Tier Agencies

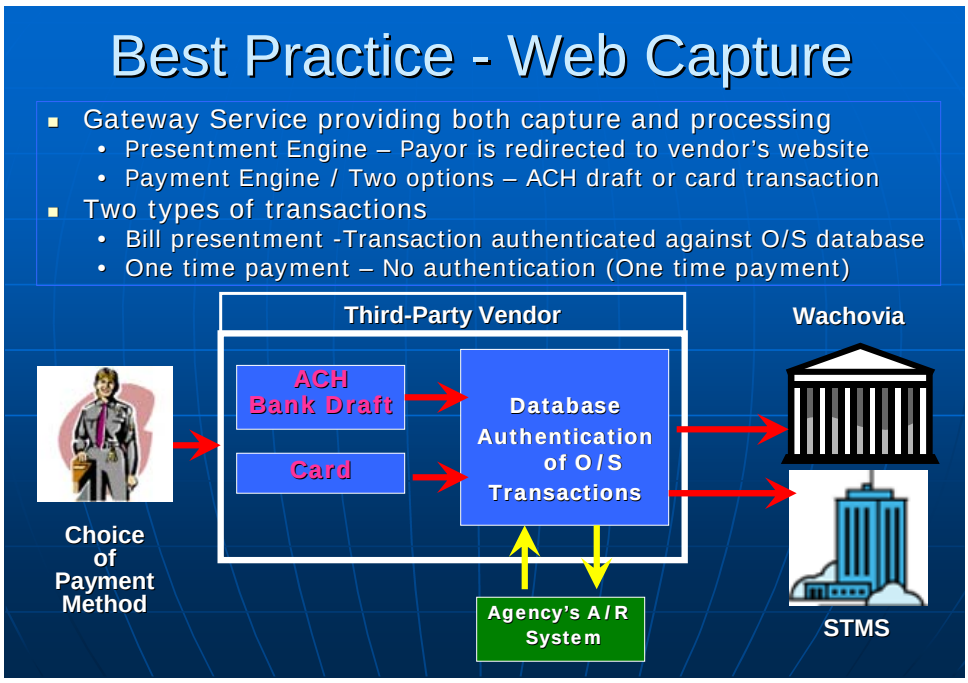
The few agencies that have developed their own web capture system (first tier agencies) did so independently of each other and were able to obtain the resources and funding to develop the systems. These agencies are highlighted in the "Current Assessment of Environment" section of this report. Some offer both payment options – credit card and ACH bank draft, while some only offer the credit card option. The agencies that only offer the credit card option are in the position of either having to retrofit their systems to add the ACH bank draft option, or find another solution. The DMV Registration is such an agency. The agencies that have not developed web capture systems (second tier agencies) apparently do not have the resources or funding, or do not have the knowledge to do so.

Since the ability to accept online payments is deemed to be the biggest ingredient to a successful ecommerce program, the Office of the State Controller is desirous of providing an enterprise solution for the second tier agencies. Several options are available. One option is to request ITS to expand the Common Payment Service to add a presentment engine component. The other option is for OSC to secure the services of a vendor having an "off the shelf" product that could provide the service.

In the spring of 2008, OSC and ITS began exploring the various options available. Options include enhancing the current Common Payment Service provide by ITS, or use a third-party vendor that has an off-the-shelf solution. The requirements of a system would include the following three primary components:

- Portal Builder – Provides each subscribing agency the ability to easily create a webpage, utilizing templates, to facilitate the initiation of payment by site visitors.
- Electronic Biller Presentment / Transaction Validation – Allows the subscribing agency to update a database containing open transactions (e.g., invoices) to accommodate the validation of a payment which may be attempted to be paid by a site visitor.
- Payment Engine – Allows for the site visitor to select one of two payment options – credit/debit card or ACH bank draft. The transaction will then be routed to the appropriate vendor for processing.

The latest analysis indicates that it is more feasible to secure an off-the-shelf solution from a third-party vendor than it is to develop one in-house.



VIII. Recommendations

Purpose of Section
This section of the report provides recommendations to address some of the major issues identified herein. The recommendations are intended to assist the State in expanding and building upon the ecommerce program(s) that currently exist. Other sections in this report should be referenced for justifications for each recommendation. Recommendations are categorized into the following areas: 1) Responsibilities for Expansion of Ecommerce; 2) Initiatives Relating to Expansion; 3) Policies Relating to Funding; and 4) Legislation.

Responsibilities for Expansion of Ecommerce

- The Office of the State Controller (OSC) should be the primary agency charged with the governance responsibility of establishing comprehensive standards, policies, and procedures to ensure a strong and effective system for the orderly expansion of the utilization of ecommerce activity as it relates to both disbursement and collection of funds within State government.
    - OSC should make appropriate education and marketing efforts to inform relevant State agency staffs of the standards, policies, procedures, and electronic commerce best practices that may become available.
    - An oversight and approval process should be established within OSC to ensure all new ecommerce applications desired to be implemented by an agency are consistent with standards and policies that may be established. The oversight and approval process should recognize the uniqueness of each of the three primary sectors of state government (general government, universities, and community colleges), and involve UNC General Administration and the NC Community College System when appropriate.
    - User Groups within state government should be created to facilitate the sharing of knowledge and experience on ecommerce activities.
    - The management of each State agency should be responsible for establishing and maintaining a proper system to support ecommerce activities within that agency and for developing procedures and a plan of action to maximize the utilization of ecommerce when deemed economically feasible. Such plan of action should support and compliment the requirements of the Cash Management Plan.
    - OSC should continue with the identification of service providers to assist agencies in increasing their ability to engage in ecommerce activities, including the acceptance of web-based payments.

- Other central oversight offices should be involved in the expansion of ecommerce.
    - When deemed appropriate the Office of Information Technology Services may provide services to the State agencies to facilitate ecommerce activities, as well as providing input into the development of policies.
    - When deemed appropriate, the State Treasurer may provide services to the State agencies to facilitate certain activities pertaining to electronic payments, as well as providing input into the development of policies.
    - The normal budgeting responsibilities performed by the Office of State Budget and Management shall include those pertaining to an agency's ecommerce activities, as providing input into the development of policies.
    - The University of North Carolina General Administration shall bear the responsibility of ensuring that the constituent institutions adhere to the policies established by the State Controller, and to provide guidance in the expansion and coordination of ecommerce activities within the university system.

- The NC Community College System shall bear the responsibility of ensuring that the constituent community colleges adhere to the policies established by the State Controller, and to provide guidance in the expansion and coordination of ecommerce activities within the community college system.

Initiatives Relating to Expansion

- Policies developed should be conductive to the orderly expansion of ecommerce activities, taking into consideration statutory requirements, industry requirements, best practices, cash management effects, and citizens needs.

- Some of the initiatives that should be pursued include the following:
  - An online system to allow vendors to enroll to receive payments from the State should be developed, in lieu of the current paper enrollment process. The current process makes it difficult for vendors to enroll.
  - A marketing effort should be made to enroll more vendors. The Office of the State Controller should consider services available from the banking industry that provides such out-sourced services.
  - When developing or acquiring Web online payment systems, agencies should offer the ACH bank draft as a payment option, due to the increasing demand for that option and due to the lower processing costs incurred.
  - The procurement process used by agencies (whether through the DOA Purchase and Contract Division or the ITS Procurement Office) should include bidding specifications that give the soliciting agency the right to require re-occurring payments made pursuant to any resulting bid award, be made electronically instead of by paper check.
  - Policies developed for the E-Procurement System (administered by DOA's Purchase and Contact Division) should be examined to maximize the utilization of electronic payments. Currently, all elements of the E-Procurement System are automated (i.e., quotes, purchase orders, fulfillment), but the correspondent payment can be made by paper check if the vendor has not enrolled to receive payment electronically. Either, all participating vendors should be required to enroll to receive payments electronically, or preference should be given to those vendors who are.
  - Employers who are required to remit taxes to the Department of Revenue (under DOR's current statutes) should also be required to remit unemployment taxes to the Employment Security Commission (ESC). Currently DOR is the only agency having statutory authority to require payments be made electronically, and some companies are taking advantage of paper check float at the expense of ESC.
  - The Department of Health and Human Services (DHHS) should pursue the developing an electronic payment program for the disbursement of TANF benefits, as this is the largest single type of benefit disbursement in state government that does not offer the electronic payment option. Both EFT and branded debit cards should be considered.
  - Agencies should be given the authority to collect fees from payor who remit electronic transactions that are returned for non-sufficient funds, the same as for returned paper checks.
  - The State Controller should consider the ecommerce capabilities of any new budget and financials system that may be implemented by the State.

Policies Relating to Funding

- Funding should be a priority for those agencies desiring to establish ecommerce functions that require modifications to their website infrastructure. Depending upon the unique operations of a particular agency, funding is needed to finance web application contractors and vendors who

can custom design ecommerce applications. These development costs are separate from the ongoing processing costs once a system is developed.

- Except for costs paid for by the State Treasurer relating to services obtained from depository banks, as determined by the State Treasurer, each State agency should be responsible for securing the funding of its ecommerce activities in accordance with applicable requirements of the Office of State Budget and Management, either through an appropriation or from a source approved by the Director of the Budget.

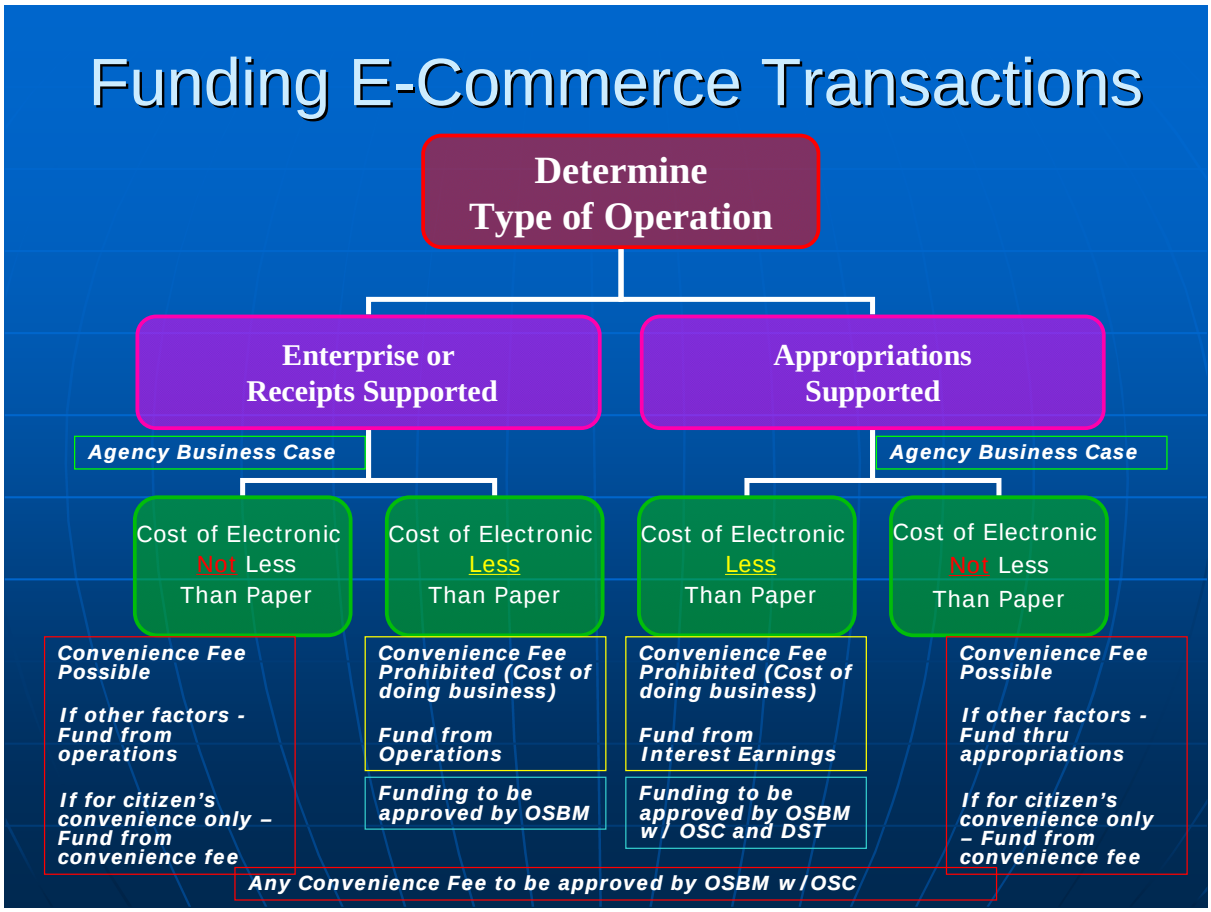
- Whenever it is determined that any ecommerce activity is economically beneficial to an agency's enterprise or receipts supported operation, the electronic payment transaction costs should be paid for from the agency's enterprise or special fund. Such determination should be made by the Office of State Budget and Management, based upon a business case analysis prepared by the agency.

- Whenever it is determined that any ecommerce activity is economically beneficial to an agency's operation, and the activity benefits the State Treasurer's Cash Management Program, the electronic payment transaction costs should be paid for from the interest revenue accruing to the general fund, or from the Highway fund as applicable. Such determination should be made by the Director of the Budget, in consultation with the State Controller and the State Treasurer, based upon a business case analysis prepared by the agency.
    - In addition to reduced transaction costs, the big advantage is the speedier collection and quicker funds availability. This results in money being available for expenditure or for investment sooner than if collected by check.
    - In the case of the increased interest earnings resulting from the reduction in float associated with electronic transactions for collections, the interest earnings normally do not accrue to the agency's budget, but accrue to the State Treasurer in the form of "Interest on Treasurer's Investments."
    - While this annual benefit is recognized by the State Treasurer as revenue to the General Fund, it is not reflected in the budget of the individual agencies.

- It should be recognized that there are times when it is <u>not</u> more efficient to process a transaction electronically. Such cases may potentially justify the levying of a convenience fee against the payor. Factors to be considered which would support the case <u>not</u> to levy a convenience fee would include:
    - If the payment is for a service or product that is considered "mandatory."
    - If the payment is for an enterprise operation where the acceptance of an electronic transaction would likely increase sales or revenue.
    - If the payment is to satisfy a "delinquent" account or other type of payment that would not likely otherwise be collected.
    - Other factors deemed appropriate for a particular type of payment

- A State agency should be authorized to levy a convenience fee to the payor only when the agency obtains approval of the Director of the Budget, in consultation with the State Controller, based upon a business case analysis prepared by the agency. Current statutory authority is given to the Office of State Budget and Management and the State Chief Information Officer. The following stipulations should apply:
    - The amount of a convenience fee levied should not exceed the transaction processing costs incurred by the agency
    - The manner in which a convenience fee is levied should be in compliance with all applicable banking and card industry rules.
    - The approval process for a desired convenience fee levy applies to when the fee is to be levied directly by the agency itself or by the agency's contracted agent.

The charts below summarize the recommendations pertaining to funding ongoing ecommerce transaction fees.



Factors Considered for Absorbing Fees as a "Cost of Doing Business"

- Reduced transaction costs
- Speedier collections and availability of funds (increased interest earnings)
- Payment for service or product is considered "mandatory" (e.g., taxes)
- Acceptance of an electronic transaction would likely increase sales or revenue
- Payment is to satisfy a "delinquent" account or other type of payment that would not likely otherwise be collected
- Other factors deemed appropriate for a particular type of payment (e.g., convenience expectation of citizen)

Approval Processes

- Funding for Enterprise and Receipts Supported Operations – By OSBM
- Funding for Appropriations Supported Operations
    - If appropriated – By General Assembly
    - If from interest earnings revenue – By OSBM in consultation with OSC and DST
- Levy of convenience fee – By OSBM in consultation with OSC

Reporting of Convenience Fees

- To the General Assembly by OSC

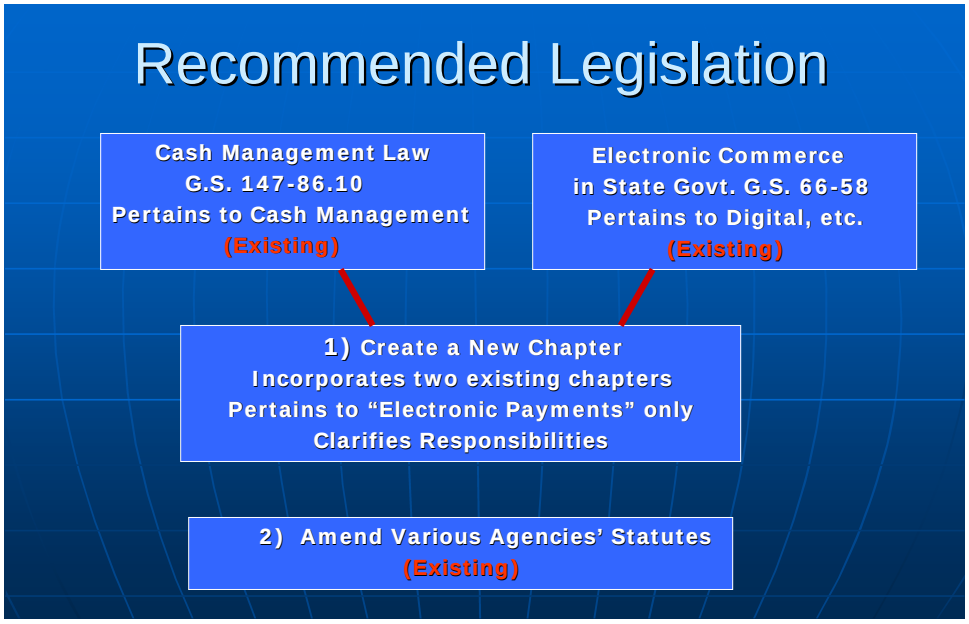
Legislation

- For some of the recommendations above, no legislation is required, as they can be implemented through policy changes. However, for some of the recommendations legislation would be required, either to give authorization or make clarifications. Two types of legislation are recommended:

  - Enactment of a specific Chapter in the General Statutes that ties the various elements of ecommerce together in one place. Legislation establishing the "NC Electronic Commerce for Electronic Payments Act" should be enacted. The purpose of the separate chapter would be: "To establish an ongoing function within the state government environment to ensure a strong and effective system for the orderly expansion of the utilization of ecommerce activity as it relates to both disbursement and collection of funds, incorporating the objectives of both the State's Cash Management legislation (G.S. 147-86.10) and the State's Electronic Commerce in Government legislation (G.S. 66-58).

  - Amendments to various existing statutes that:
    - References the newly created Chapter above
    - Conforms the requirements to those specified in the newly created Chapter
    - Removes conflicts between current general statutes and card industry rules
    - Accommodates the recommendations stated above, either directly or through authority to issue policies.

Recommended statutes changes follow.



Recommended Legislation – Creation of a New Chapter 143E

Chapter 143E.

The Electronic Commerce for Payments Expansion Act.

Article 1.

General Provisions.

§ 143E-1. Title.

This Chapter shall be known and may be cited as the "Electronic Commerce for Payments Expansion Act."

§ 143E-2. Purpose.

The purpose of this Chapter is to establish an ongoing function within the state government environment to ensure a strong and effective system for the orderly expansion of the utilization of ecommerce activity as it relates to both disbursement and collection of funds, incorporating the objectives of both the State's Cash Management legislation and the State's Electronic Commerce in Government legislation. Therefore, it is the intent of the General Assembly in this Chapter to clearly establish responsibilities related to ecommerce activities that involve electronic payments within State government.

§ 143E-3. Definitions.

The following definitions apply in this Chapter:

(1) Cash Management Plan. – The uniform cash management plan referred to in G.S. 147-86.11(a).

(2) Cash Management Program. – The investment program administered by the State Treasurer pursuant to G.S. 147-69.1.

(3) Ecommerce – Any activity involving the transaction of business electronically, which is also specifically associated with and limited to the exchange of funds via electronic payment.

(4) Electronic Commerce in Government – The broad term used to describe transactions that are performed either electronically or digitally by any public agency, as referred to and defined in G.S. 66-58.

(5) Electronic payment – As defined in G.S. 147-86.20(2a)

(6) State agency. – Those entities subject to the Cash Management Plan, specified in G.S. 147-86.10.

Article 2.

Ecommerce Activities Responsibilities.

§ 143E-6. Standards setting responsibilities.

The State Controller, in consultation with the State Treasurer, shall establish comprehensive standards, policies, and procedures to ensure a strong and effective system for the orderly expansion of the utilization of ecommerce activity as it relates to both disbursement and collection of funds within State government. These standards, policies, and procedures shall be made readily available to all State agencies, and the State Controller shall make appropriate education efforts to inform relevant State agency staffs of the standards, policies, procedures, and electronic commerce best practices. These efforts shall include the development of training courses, manuals, and other information sources to promulgate electronic commerce standards, policies, procedures, and best practices throughout all State agencies.

The State Controller shall establish an oversight and approval process to ensure all new ecommerce applications desired to be implemented by an agency are consistent with the standards and policies that may be prescribed as provided for herein.

This section does not apply to electronic commerce activities not involving electronic payments.

§ 143E-7. Central oversight agencies' responsibilities.

The State Controller, when deemed appropriate, may procure the services of vendors necessary to provided ecommerce services to the State agencies on a statewide enterprise basis. When deemed appropriate the Office of Information Technology Services may provide services to the State agencies to facilitate ecommerce activities. When deemed appropriate, the State Treasurer may provide services to the State agencies to facilitate certain activities pertaining to electronic payments. The normal budgeting responsibilities performed by the Director of the Budget shall include those pertaining to an agency's ecommerce activities, as well as to other responsibilities in this section.

The University of North Carolina General Administration shall bear the responsibility of ensuring that the constituent institutions adhere to the policies established by the State Controller, and to provide guidance in the expansion and coordination of ecommerce activities within the university system.

The North Carolina Community College System shall bear the responsibility of ensuring that the constituent community colleges adhere to the policies established by the State Controller, and to provide guidance in the expansion and coordination of ecommerce activities within the community college system.

§ 143E-8. Agency management responsibilities.

The management of each State agency bears full responsibility for establishing and maintaining a proper system to support ecommerce activities within that agency and for developing procedures and a plan of action to maximize the utilization of ecommerce when deemed economically feasible. Such plan of action shall be reported to the State Controller as may be prescribed by the State Controller to support the requirements of the Cash Management Plan pursuant to by G.S. 147-86(10) and (11). Such plan of action shall identify the current payment activities for which ecommerce activities are utilized as well as paper based payment activities that are candidates to be processed via electronic means.

Before implementing an ecommerce system or securing ecommerce services from a vendor, the management of each State agency shall ensure that such system or services conform to all standards, policies, and procedures pursuant to G.S. 143E-6. If applicable, the requirements of G.S. 147-33.72C pertaining to technology projects and G.S. 143B-426.39 pertaining to accounting systems must be considered and adhered to.

§ 143E-9. Funding of ongoing costs for ecommerce activities.

Except for costs paid for by the State Treasurer relating to services obtained from depository banks, as determined by the State Treasurer, each State agency is responsible for securing the funding of its ecommerce activities in accordance with applicable requirements of the Director of the Budget.

Whenever it is determined that any ecommerce activity is economically beneficial to an agency's enterprise or receipts supported operation, the electronic payment transaction costs may be paid for from the agency's enterprise or special fund. Such determination shall be made by the Director of the Budget, based upon a business case analysis prepared by the agency.

Whenever it is determined that any ecommerce activity is economically beneficial to an agency's operation, and the activity benefits the State Treasurer's Cash Management Program, the electronic

payment transaction costs may be paid for from the interest revenue accruing to the general fund, or from the Highway fund as applicable. Such determination shall be made by the Director of the Budget, in consultation with the State Controller and the State Treasurer, based upon a business case analysis prepared by the agency.

§ 143E-10. Levying of transaction fees to payors.

Unless otherwise authorized by specific statute, an agency shall not levy a fee to a payor for remitting funds to a State agency via an electronic payment means if the overall processing costs of accepting the payment are less than the overall processing costs of accepting the payment via a non-electronic means.

Whenever it is determined that the overall processing costs of accepting an electronic payment are more than the overall processing costs of accepting the payment via a non-electronic means, a State agency may levy a convenience fee to the payor, provided the agency obtains approval of the Director of the Budget, in consultation with the State Controller, based upon a business case analysis prepared by the agency.

Additionally, the amount of a convenience fee levied shall not exceed the transaction processing costs incurred by the agency, and the manner in which it is levied shall be in compliance with all applicable banking and card industry rules. The approval process for a desired convenience fee levy applies to when the fee is to be levied directly by the agency itself or by the agency's contracted agent.

§ 143E-11. Periodic reports to the General Assembly.

On an annual basis, the State Controller shall report to the Joint Legislative Commission on Governmental Operations the status of ecommerce activities within State government, including a report on the various convenience fees that have been approved for each agency to levy as provided for herein.

Recommended Legislation – Amendments to Existing Legislation

§ 66-58.12. Agencies may provide access to services through electronic and digital transactions; fees authorized.

(a) Public agencies are encouraged to maximize citizen and business access to their services through the use of electronic and digital transactions. A public agency may determine, through program and transaction analysis, which of its services may be made available to the public through electronic means, including the Internet. The agency shall identify any inhibitors to electronic transactions between the agency and the public, including legal, policy, financial, or privacy concerns and specific inhibitors unique to the agency or type of transaction. An agency shall not provide a transaction through the Internet that is impractical, unreasonable, or not permitted by laws pertaining to privacy or security.

(b) An agency may charge a fee to cover its costs of permitting a person to complete a transaction through the World Wide Web or other means of electronic access. The fee may be applied on a per transaction basis and may be calculated either as a flat fee or a percentage fee, as determined under an agreement between a person and a public agency, provided the manner in which the fee is levied is in compliance with all banking and card industry rules. The fee may be collected by the agency or by its third party agent.

(c) The fee imposed under subsection (b) of this section ~~must be approved by the Office of State Budget and Management, in consultation with the State Chief Information Officer and the Joint Legislative Commission on Governmental Operations.~~, if for a transaction involving an electronic payment as defined in G.S. 147-86.20(2b), shall be established in accordance with G.S. 143E-9 and 10. ~~The revenue derived from the fee must be credited to a nonreverting agency reserve account. The funds in the account may be expended only for e-commerce initiatives and projects approved by the State Chief Information Officer, in consultation with the Joint Legislative Oversight Committee on Information Technology.~~ For purposes of this subsection, the term "public agencies" does not include a county, unit, special district, or other political subdivision of government.

(d) This section does not apply to the Judicial Department. (2000-109, s. 8; 2004-129, s. 27; 2005-92, s. 1.)

§ 147-86.22. Statewide accounts receivable program.

(b) Electronic Payment. – Notwithstanding the provisions of G.S. 147-86.20 and G.S. 147-86.21, this subsection applies to debts owed a community college, a local school administrative unit, an area mental health, developmental disabilities, and substance abuse authority, and the Administrative Office of the Courts, and to debts payable to or through the office of a clerk of superior court or a magistrate, as well as to debts owed to other State agencies as defined in G.S. 147-86.20.

The State Controller shall establish policies that allow accounts receivable to be payable under certain conditions by electronic payment. These policies shall be established with the concurrence of the State Treasurer. In addition, any policies that apply to debts payable to or through the office of a clerk of superior court or a magistrate shall be established with the concurrence of the Administrative Officer of the Courts. The Administrative Officer of the Courts may also establish policies otherwise authorized by law that apply to these debts as long as those policies are not inconsistent with the Controller's policies.

~~A condition of payment by electronic payment is receipt by the appropriate State agency of the full amount of the account receivable owed to the State agency.~~ A debtor who pays by electronic payment may be required to pay any fee or charge associated with the use of electronic payment pursuant to G.S. 143E-10. Fees associated with processing electronic payments may be paid out of the General Fund and Highway Fund if the payment of the fee by the State is economically beneficial to the State

~~and the payment of the fee by the State has been approved by the State Controller and State Treasurer.~~ or paid for otherwise pursuant to G.S. 143E-9.

The State Controller ~~and State Treasurer shall consult with the Joint Legislative Commission on Governmental Operations before establishing policies that allow accounts receivable to be payable by electronic payment and before authorizing fees associated with electronic payment to be paid out of the General Fund and Highway Fund. A State agency must also consult with the Joint Legislative Commission on Governmental Operations before implementing any program to accept payment under the policies established pursuant to this subsection.~~ shall report the establishment of any fees to the Joint Legislative Committee on Governmental Operations pursuant to G.S. 143E-11.

A payment of an account receivable that is made by electronic payment and is not honored by the issuer of the card or the financial institution offering electronic funds transfer does not relieve the debtor of the obligation to pay the account receivable. Unless otherwise authorized by specific statute, the payor may be charged a fee equivalent to that of a returned check fee authorized by G.S. 25-3-506.

§ 105-357. Payment of taxes.

(b) Acceptance of Checks and Electronic Payment. – The tax collector may accept checks and electronic payments, as defined in G.S. 147-86.20, in payment of taxes, as authorized by G.S. 159-32.1. Acceptance of a check or electronic payment is at the tax collector's own risk. A tax collector who accepts electronic payment of taxes may add a fee to each electronic payment transaction to offset the service charge the taxing unit pays for electronic payment service. A tax collector who accepts electronic payment or check in payment of taxes may issue the tax receipt immediately or withhold the receipt until the check has been collected or the electronic payment invoice has been honored by the issuer. If applicable, the paying of fees associated with electronic payments shall be pursuant to G.S. 143E-9, and any levying of convenience fee against the taxpayer shall be pursuant to G.S. 143E-10.

§ 14-113.24. Credit, charge, or debit card numbers on receipts.

(a) For purposes of this section, the word "person" means the person that owns or leases the cash register or other machine or device that electronically prints receipts of credit, charge, or debit card transactions.

(b) Except as provided in this section, no person that accepts credit, charge, or debit cards for the transaction of business shall print more than ~~five~~ the last four digits of the credit, charge, or debit card account number or print the expiration date upon any receipt with the intent to provide the receipt to the cardholder at the point of sale. This section applies to a person who employs a cash register or other machine or device that electronically prints receipts for credit, charge, or debit card transactions. This section does not apply to a person whose sole means of recording a credit, charge, or debit card number for the transaction of business is by handwriting or by an imprint or copy of the credit, charge, or debit card.

IX. APPENDIX

Appendix A - Special Provision of 2007 Appropriations Act

SECTION 6.14 of the 2007 Appropriations Act states the following:

The Office of the State Controller shall evaluate the opportunities for efficiencies in state government through the use of electronic commerce as it relates to both disbursement and collection of funds, and shall report the results of that evaluation to the 2008 Regular Session of the 2007 General Assembly. The report shall include all of the following:

(1) Input from the entire State government user base, including State agencies, universities, community colleges, local education agencies, and other units of government that may be disbursing or collecting State funds. Input is also to be obtained from the various central agencies involved in the financial affairs of State government and from the Office of Information Technology.

(2) Specific proposals that would, if implemented, expand electronic commerce activity in the State government fiscal environment, and which shall include the establishment of an ongoing function within State government to execute the expansion. The recommendations should address activities that are suitable for statewide contractual arrangements, as well as those suitable for governmental entities to pursue individually. The recommendations should include expected costs and benefits of these implementations; recommendations for funding recurring and nonrecurring costs of the specific proposals; and a business case to support the recommendations.

(3) Proposed legislation that may be considered by the 2008 Regular Session of the 2007 General Assembly to ensure compliance with merchant card industry policies and standards for operations and security.

(4) Proposed legislation that may be considered by the 2008 Regular Session of the 2007 General Assembly that addresses any inconsistencies or conflicts in existing statutes relating to electronic commerce activities.

Periodic updates on this activity may be requested by the Joint Legislative Commission on Governmental Operations. The final report is due no later than April 30, 2008.

Appendix B – Electronic Task Force Members

Chairperson

Office of the State Controller	Gwen Canady Chief Deputy State Controller

Statewide Members

Office of the State Controller	David Reavis E-Commerce Manager
Office of the State Controller	Amber Young Central Compliance Manager
Department of State Treasurer	Spencer Phillips Accounting Operations Manager
Office of State Budget and Management	Julie Mitchel Associate State Budget Officer
Office of Information Technology Services	Gary Alexander Director for Enterprise Solutions
Department of the Secretary of State	Bruce Garner Deputy for Information Technology
Department of Revenue	Cindy Mallard Assistant Director, Documents/Payments Processing Division
Department of Health and Human Services	David Steele E-Commerce Branch Head
Department of Transportation	Donnie Thorne Director of Purchasing
Wildlife Resources Commission	Randy Smith Systems Accountant
Employment Security Commission	Sarah Joyner Director of Project Management Office
Department of Public Instruction	Sarah Harris Assistant Director of Financial Services
NC Community College System	Kim Van Metre System Accounting and Special Projects Manager
UNC General Administration	Kenneth Craig Associate Vice President for Finance

Appendix C – Objectives of Study

FOCUS OF STUDY

This study focuses on the two primary functions relating to "financial activities," specifically when associated with "electronic payments" pertaining to:

- Disbursements
- Collections (Receipts)

While there are ecommerce activities performed by government that do not involve financial transactions (e.g. online registrations; e-filing, digital transactions, electronic signatures, web portals, etc.), those activities were considered to be "out of scope" for the purposes of this study. The term used for the broader activities is "E-Government."

OBJECTIVES IDENTIFIED

- In each of the two areas (disbursements and collections), ascertain current utilization:
    - Paper based (types of transactions, number volumes, and dollar volumes)
    - Electronic based (types of transactions, number volumes, and dollar volumes)
- Identify agencies and programs that have developed successful programs
- Identify reasons and obstacles for lack of ecommerce participation
- Identify current costs of ecommerce activities
- Identify the various types of ecommerce solutions available
- Identify the various types of agency activities suitable for e-commerce
- Identify best practices in e-commerce
- Identify security related issues
- Identify industry issues of concern to governments
- Identify current roles of central agencies
- Identify inefficiencies in current operations
- Identify what services could/should be offered on an enterprise basis
- Identify impact of pending planning of BEACON Financials on e-commerce
- Identify the correlation between ecommerce and the State's Cash Management Plan
- Identify various statutes pertaining to ecommerce
- Identify modifications needed to statutes

OUTLINE OF RESULTING REPORT

- Executive Summary
- Previous Studies
- Assessment of Current Environment
- Best Practices in E-Commerce
- Issues Pertaining to Funding and Fees
- Miscellaneous E-Commerce Issues
- Recommendations
- Recommended Legislation

Appendix D - Existing General Statutes Pertaining to E-Commerce

§ 66-58.12. Agencies may provide access to services through electronic and digital transactions; fees authorized.

(a) Public agencies are encouraged to maximize citizen and business access to their services through the use of electronic and digital transactions. A public agency may determine, through program and transaction analysis, which of its services may be made available to the public through electronic means, including the Internet. The agency shall identify any inhibitors to electronic transactions between the agency and the public, including legal, policy, financial, or privacy concerns and specific inhibitors unique to the agency or type of transaction. An agency shall not provide a transaction through the Internet that is impractical, unreasonable, or not permitted by laws pertaining to privacy or security.

(b) An agency may charge a fee to cover its costs of permitting a person to complete a transaction through the World Wide Web or other means of electronic access. The fee may be applied on a per transaction basis and may be calculated either as a flat fee or a percentage fee, as determined under an agreement between a person and a public agency. The fee may be collected by the agency or by its third party agent.

(c) The fee imposed under subsection (b) of this section must be approved by the Office of State Budget and Management, in consultation with the State Chief Information Officer and the Joint Legislative Commission on Governmental Operations. The revenue derived from the fee must be credited to a nonreverting agency reserve account. The funds in the account may be expended only for e-commerce initiatives and projects approved by the State Chief Information Officer, in consultation with the Joint Legislative Oversight Committee on Information Technology. For purposes of this subsection, the term "public agencies" does not include a county, unit, special district, or other political subdivision of government.

(d) This section does not apply to the Judicial Department. (2000-109, s. 8; 2004-129, s. 27.)

Link:
http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_66/Article_11A.html

§ 143B-426.39. Powers and duties of the State Controller.

The State Controller shall:

(1) Prescribe, develop, operate, and maintain in accordance with generally accepted principles of governmental accounting, a uniform state accounting system for all state agencies. The system shall be designed to assure compliance with all legal and constitutional requirements including those associated with the receipt and expenditure of, and the accountability for public funds. The State Controller may elect to review a State agency's compliance with prescribed uniform State accounting system standards, as well as applicable legal and constitutional requirements related to compliance with such standards.

(5) Prescribe the manner in which disbursements of the State agencies shall be made and may require that warrants, vouchers, electronic payments, or checks, except those drawn by the State Auditor, State Treasurer, and Administrative Officer of the Courts, shall bear two signatures of officers as designated by the State Controller.

Link: http://www.ncga.state.nc.us/Sessions/2005/Bills/House/HTML/H914v5.html

§143B-426.40G. Issuance of warrants upon State Treasurer; delivery of warrants and disbursements for non-State entities.

(a) The State Controller shall have the exclusive responsibility for the issuance of all warrants for the payment of money upon the State Treasurer. All warrants upon the State Treasurer shall be signed by the State Controller, who before issuing them shall determine the legality of payment and the correctness of the accounts. All warrants issued for non-State entities shall be delivered by the appropriate agency to the entity's legally designated recipient by United States mail or its equivalent, including electronic funds transfer.

When the State Controller finds it expedient to do so because of a State agency's size and location, the State Controller may authorize a State agency to make expenditures through a disbursing account with the State Treasurer. The State Controller shall authorize the Judicial Department and the General Assembly to make expenditures through such disbursing accounts. All disbursements made to non-State entities shall be delivered by the appropriate agency to the entity's legally designated recipient by United States mail or its equivalent, including electronic funds transfer.

Link: http://www.ncga.state.nc.us/enactedlegislation/statutes/html/bysection/chapter_143b/gs_143b-426.40g.html

§ 147-86.10. (Effective July 1, 2007) Statement of policy.

It is the policy of the State of North Carolina that all agencies, institutions, departments, bureaus, boards, commissions, and officers of the State, whether or not subject to the State Budget Act, Chapter 143C of the General Statutes, shall devise techniques and procedures for the receipt, deposit, and disbursement of moneys coming into their control and custody which are designed to maximize interest-bearing investment of cash, and to minimize idle and nonproductive cash balances. This policy shall apply to the General Court of Justice as defined in Article IV of the North Carolina Constitution, the public school administrative units, and the community colleges with respect to the receipt, deposit, and disbursement of moneys required by law to be deposited with the State Treasurer and with respect to moneys made available to them for expenditure by warrants drawn on the State Treasurer. This policy shall include the acceptance of electronic payments in accordance with G.S. 147-86.22 to the maximum extent possible consistent with sound business practices. (1985, c. 709, s. 1; 1999-434, s. 2; 2006-203, s. 120.)

§ 147-86.11. (Effective July 1, 2007) Cash management for the State.

(a) Uniform Plan. – The State Controller, with the advice and assistance of the State Treasurer, the State Budget Officer, and the State Auditor, shall develop, implement and amend as necessary a uniform statewide plan to carry out the cash management policy for all State agencies. The State Auditor shall report annually to the General Assembly on the implementation of the plan as shown in the audits completed during the prior fiscal year. The State Treasurer shall recommend periodically to the General Assembly any implementing legislation necessary or desirable in the furtherance of the State policy. When used in this section, "State agency" means any agency, institution, bureau, board, commission or officer of the State; however, except as provided in G.S. 147-86.12, 147-86.13, 147-86.14, and 147-86.22, this Article does not apply to the agencies, institutions, bureaus, boards, commissions and officers of the General Court of Justice as defined in Article IV of the North Carolina Constitution or to the local school administrative units and community colleges and their officers and employees.

(h) New Technologies. – The statewide cash management plan shall consider new technologies and procedures whenever the technologies and procedures are economically beneficial to the State as a whole. Where the new technologies and procedures may be implemented without additional legislation, the technologies and procedures shall be implemented in the plan.

§ 147-86.20. Definitions.

The following definitions apply in this Article:

(1) Account Receivable. – An asset of the State reflecting a debt that is owed to the State and has not been received by the State agency servicing the debt. The term includes claims, damages, fees, fines, forfeitures, loans, overpayments, and tuition as well as penalties, interest, and other costs authorized by law. The term does not include court costs or fees assessed in actions before the General Court of Justice or counsel fees and other expenses of representing indigents under Article 36 of Chapter 7A of the General Statutes.

(2) Debtor. – A person who owes an account receivable.

(2a) Electronic payment. – Payment by charge card, credit card, debit card, or by electronic funds transfer as defined in this subsection.

§ 147-86.22. Statewide accounts receivable program.

(b) Electronic Payment. – Notwithstanding the provisions of G.S. 147-86.20 and G.S. 147-86.21, this subsection applies to debts owed a community college, a local school administrative unit, an area mental health, developmental disabilities, and substance abuse authority, and the Administrative Office of the Courts, and to debts payable to or through the office of a clerk of superior court or a magistrate, as well as to debts owed to other State agencies as defined in G.S. 147-86.20.

The State Controller shall establish policies that allow accounts receivable to be payable under certain conditions by electronic payment. These policies shall be established with the concurrence of the State Treasurer. In addition, any policies that apply to debts payable to or through the office of a clerk of superior court or a magistrate shall be established with the concurrence of the Administrative Officer of the Courts. The Administrative Officer of the Courts may also establish policies otherwise authorized by law that apply to these debts as long as those policies are not inconsistent with the Controller's policies.

A condition of payment by electronic payment is receipt by the appropriate State agency of the full amount of the account receivable owed to the State agency. A debtor who pays by electronic payment may be required to pay any fee or charge associated with the use of electronic payment. Fees associated with processing electronic payments may be paid out of the General Fund and Highway Fund if the payment of the fee by the State is economically beneficial to the State and the payment of the fee by the State has been approved by the State Controller and State Treasurer.

The State Controller and State Treasurer shall consult with the Joint Legislative Commission on Governmental Operations before establishing policies that allow accounts receivable to be payable by electronic payment and before authorizing fees associated with electronic payment to be paid out of the General Fund and Highway Fund. A State agency must also consult with the Joint Legislative Commission on Governmental Operations before implementing any program to accept payment under the policies established pursuant to this subsection.

A payment of an account receivable that is made by electronic payment and is not honored by the issuer of the card or the financial institution offering electronic funds transfer does not relieve the debtor of the obligation to pay the account receivable.

Link (Chapter 147): http://www.ncga.state.nc.us/gascripts/statutes/StatutesTOC.pl?Chapter=0147

§ 14-113.24. Credit, charge, or debit card numbers on receipts.

(a) For purposes of this section, the word "person" means the person that owns or leases the cash register or other machine or device that electronically prints receipts of credit, charge, or debit card transactions.

(b) Except as provided in this section, no person that accepts credit, charge, or debit cards for the transaction of business shall print more than five digits of the credit, charge, or debit card account number or the expiration date upon any receipt with the intent to provide the receipt to the cardholder at the point of sale. This section applies to a person who employs a cash register or other machine or device that electronically prints receipts for credit, charge, or debit card transactions. This section does not apply to a person whose sole means of recording a credit, charge, or debit card number for the transaction of business is by handwriting or by an imprint or copy of the credit, charge, or debit card.

Link: http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_14/GS_14-113.24.html

§ 159-32.1. Electronic payment.

A unit of local government, public hospital, or public authority may, in lieu of payment by cash or check, accept payment by electronic payment as defined in G.S. 147-86.20 for any tax, assessment, rate, fee, charge, rent, interest, penalty, or other receivable owed to it. A unit of local government, public hospital, or public authority may pay any negotiated discount, processing fee, transaction fee, or other charge imposed by a credit card, charge card, or debit card company, or by a third-party merchant bank, as a condition of contracting for the unit's or the authority's acceptance of electronic payment. A unit of local government, public hospital, or public authority may impose the fee or charge as a surcharge on the amount paid by the person using electronic payment. (1999-434, s. 5.)

§ 159-28. Budgetary accounting for appropriations.

(d) Payment. – A local government or public authority may not pay a bill, invoice, salary, or other claim except by a check or draft on an official depository or by a bank wire transfer from an official depository. Except as provided in this subsection each check or draft on an official depository shall bear on its face a certificate signed by the finance officer or a deputy finance officer approved for this purpose by the governing board (or signed by the chairman or some other member of the board pursuant to subsection (c) of this section).

Link (Chapter 159): http://www.ncga.state.nc.us/gascripts/Statutes/StatutesTOC.pl?Chapter=0159

§ 147-33.82. Functions of the Office of Information Technology Services.

(b) Notwithstanding any other provision of law, local governmental entities may use the information technology programs, services, or contracts offered by the Office, including information technology procurement, in accordance with the statutes, policies, and rules of the Office. For purposes of this subsection, "local governmental entities" includes local school administrative units, as defined in G.S. 115C-5, and community colleges. Local governmental entities are not required to comply with otherwise applicable competitive bidding requirements when using contracts established by the Office. Any other State entities may also use the information technology programs, services, or contracts offered by the Office, including information technology procurement, in accordance with the statutes, policies, and rules of the Office.

Link:
http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_147/GS_147-33.82.html

§ 147-33.96. Restriction on State agency contractual authority with regard to information technology; local governments.

(a) All State agencies covered by this Part shall use contracts for information technology acquired by the Office for any information technology required by the State agency that is provided by these contracts. Notwithstanding any other statute, the authority of State agencies to procure or obtain information technology shall be subject to compliance with the provisions of this Part. The Office shall have the authority to exercise the authority of State agencies to procure or obtain information technology as otherwise provided by statute.

(b) Local governmental entities are not required to comply with otherwise applicable competitive bidding requirements when using contracts offered by the Office. (1999-434, s. 10; 2000-174, s. 210-241.)

Link: http://www.ncleg.net/EnactedLegislation/Statutes/PDF/BySection/Chapter_147/GS_147-33.96.pdf

§ 105-357. Payment of taxes.

(b) Acceptance of Checks and Electronic Payment. – The tax collector may accept checks and electronic payments, as defined in G.S. 147-86.20, in payment of taxes, as authorized by G.S. 159-32.1. Acceptance of a check or electronic payment is at the tax collector's own risk. A tax collector who accepts electronic payment of taxes may add a fee to each electronic payment transaction to offset the service charge the taxing unit pays for electronic payment service. A tax collector who accepts electronic payment or check in payment of taxes may issue the tax receipt immediately or withhold the receipt until the check has been collected or the electronic payment invoice has been honored by the issuer.

If a tax collector accepts a check or an electronic payment and issues a tax receipt and the check is returned unpaid (without negligence on the part of the tax collector in presenting the check for payment) or the electronic payment invoice is not honored by the issuer, the taxes for which the check or electronic payment was given shall be deemed unpaid; the tax collector shall immediately correct the copy of the tax receipt and other appropriate records to show the fact of nonpayment, and shall give written notice by certified or registered mail to the person to whom the tax receipt was issued to return it to the tax collector. After correcting the records to show the fact of nonpayment, the tax collector shall proceed to collect the taxes by the use of any remedies allowed for the collection of taxes or by bringing a civil action on the check or electronic payment.

(2) Penalty. – In addition to interest for nonpayment of taxes provided by G.S. 105-360 and in addition to any criminal penalties provided by law, the penalty for presenting in payment of taxes a check or electronic funds transfer that is returned or not completed because of insufficient funds or nonexistence of an account of the drawer or transferor is twenty-five dollars ($25.00) or ten percent (10%) of the amount of the check or electronic invoice, whichever is greater, subject to a maximum of one thousand dollars ($1,000). This penalty does not apply if the tax collector finds that, when the check or electronic funds transfer was presented for payment, the drawer of the check or transferor of funds had sufficient funds in an account at a financial institution in this State to make the payment and, by inadvertence, the drawer of the check or transferor of the funds failed to draw the check or initiate a transfer on the account that had sufficient funds. This penalty shall be added to and collected in the same manner as the taxes for which the check or electronic payment was given.

Link (Chapter 105):
http://www.ncleg.net/EnactedLegislation/Statutes/HTML/ByChapter/Chapter_105.html

105-236. Penalties; situs of violations; penalty disposition.

(a) Penalties. – The following civil penalties and criminal offenses apply:

(1a) Penalty for Bad Electronic Funds Transfer. – When an electronic funds transfer cannot be completed due to insufficient funds or the nonexistence of an account of the transferor, the Secretary shall assess a penalty equal to ten percent (10%) of the amount of the transfer, subject to a minimum of one dollar ($1.00) and a maximum of one thousand dollars ($1,000). This penalty may be waived by the Secretary in accordance with G.S. 105-237.

(1b) Making Payment in Wrong Form. – For making a payment of tax in a form other than the form required by the Secretary pursuant to G.S. 105-241(a), the Secretary shall assess a penalty equal to five percent (5%) of the amount of the tax, subject to a minimum of one dollar ($1.00) and a maximum of one thousand dollars ($1,000). This penalty may be waived by the Secretary in accordance with G.S. 105-237.

Link:
http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_105/GS_105-236.html

105-241. Where and how taxes payable; tax period; liens.

(a) Form of Payment. – Taxes are payable in the national currency. The Secretary shall prescribe where taxes are to be paid and whether taxes must be paid in cash, by check, by electronic funds transfer, or by another method.

(b) Electronic Funds Transfer. – Payment by electronic funds transfer is required as provided in this subsection.

(1) Corporate estimated taxes. – A corporation that is required under the Code to pay its federal-estimated corporate income tax by electronic funds transfer must pay its State-estimated corporate income tax by electronic funds transfer as provided in G.S. 105-163.40.

(2) Prepayment taxes. – A taxpayer that is required to prepay tax under G.S. 105-116 or G.S. 105-164.16 must pay the tax by electronic funds transfer.

(2a) Motor fuel taxes. – A taxpayer that is required to file an electronic return under Article 36C or Article 36D of this Chapter must pay the tax by electronic funds transfer.

(3) Large tax payments. – Except as otherwise provided in this subsection, the Secretary shall not require a taxpayer to pay a tax by electronic funds transfer unless, during the applicable period for that tax, the average amount of the taxpayer's required payments of the tax was at least twenty thousand dollars ($20,000) a month. The twenty thousand dollar ($20,000) threshold applies separately to each tax. The applicable period for a tax is a 12-month period, designated by the Secretary, preceding the imposition or review of the payment requirement. The requirement that a taxpayer pay a tax by electronic funds transfer remains in effect until suspended by the Secretary. Every 12 months after requiring a taxpayer to pay a tax by electronic funds transfer, the Secretary must determine whether, during the applicable period for that tax, the average amount of the taxpayer's required payments of the tax was at least twenty thousand dollars ($20,000) a month. If it was not, the Secretary must suspend the requirement that the taxpayer pay the tax by electronic funds transfer and must notify the taxpayer in writing that the requirement has been suspended.

Link (Chapter 105):
http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_105/GS_105-241.html

Appendix E - Glossary

Accounts Receivable Conversion (ARC): A payment type assigned by the Automated Clearing House Association to describe consumer checks less than $25,000 that can be converted and processed as an electronic transaction, with the item being converted at a designated remittance location. This is similar to a check being converted in the back-office (BOC), but applies to mail-in payments.

Automated Clearing House (ACH): A regional organization used by member banks to electronically transfer funds between members. The ACH utilized by North Carolina banks is housed within the Federal Reserve Bank.

Automated Clearing House (ACH) Transactions: Refers to the various types of EFT transactions conducted through the ACH. Includes outbound transactions and inbound transactions.

Back Office Conversion (BOC): A payment type assigned by the Automated Clearing House Association to describe consumer checks less than $25,000 that can be converted and processed as an electronic transaction, with the item being converted in the back-office. This is similar to a check being converted at the point of purchase (POP).

Bank Draft: A method of collecting funds electronically through the ACH network. Also referred to as an ACH Debit.

Building Enterprise Access for NC's Core Operation Needs (BEACON): Program being implanted in phases over the next seven years to update the fundamentals of state government operations, to include human resources, payroll, budget management, taxation, data storage, and accounting.

Card Association: A group of financial institutions formed for sponsoring a bankcard program, using a common processing and administrative center. The two most well known card associations are Visa and MasterCard.

Card Issuer: 1) The financial institution or retailer that authorizes the issuance of a card to a consumer (or another organization), and is liable for the use of the card. The issuer retains full authority over the use of the card by the person to whom the card is issued. 2) Any bank or organization that issues, or causes to be issued, bankcards to those who apply for them. 3) Any organization that uses or issues a personal identification number (PIN).

Card-Present Transaction: Any transaction where the card is present, allowing the card capture to be performed by swiping or imprinting the card.

Card-Not-Present Transaction: Any transaction where the card is not presented, such as a mail order or web purchase.

Card Verification Code (CVC): A unique value calculated from the data encoded on the magnetic stripe of a MasterCard card, validating card information during the authorization process.

Card Verification Value (CVV): A unique value calculated from the data encoded on the magnetic stripe of a VISA card, validating card information during the authorization process.

Cash Management Plan: The uniform plan referred to in G.S. 147-86.11(a). The stature requires the State Controller to establish policies and procedures for state agencies to adhere to regarding the collection and disbursement of funds.

Cash Management Program: The investment program administered by the State Treasurer pursuant to G.S. 147-69.1. The legislation requires maximization of interest on funds deposited with the State Treasurer.

Check 21: Federal legislation known as the "Check Clearing for the 21st Century Act." The law became effective October 28, 2004, allowing banks to process paper checks as images, also referred to as "image replacement documents" (IRDs). The act allows for banks to offer their customers a service known as "remote deposit capture."

Common Payment Service (CPS): A payment gateways service provided by OSC through the Office of Information Technology (ITS) that allows agencies having Internet payment applications to process transactions with either or both of the two E-Commerce vendors: 1) SunTrust Merchant Services for merchant card transactions; or 2) Wachovia Bank for EFT transactions.

Convenience Fee: A fee assessed to a cardholder by a merchant for presenting the card for payment. Generally refers to card-not-present transactions. Different than a surcharge, which refers to a card-present transaction.

Core Banking System (CB$): System provided by the State Treasurer to entities having funds on deposit with the State Treasurer, providing online banking access.

Credit Card: A plastic card with a credit limit used to purchase goods and services and to obtain cash advances on credit for which a cardholder is subsequently billed by the issuer for repayment of the credit extended.

Debit Card: Any card that primarily accesses a Deposit Account maintained at a financial institution. Can also be utilized by a government entity to disburse funds, such a payroll or unemployment benefits.

Direct Deposit: Generic term for an ACH credit. A method of remitting funds electronically through the ACH network, either for payroll or vendor payments.

E-Check: Generic term for an ACH debit to a consumer account that is originated on the Internet, at the point of sale, over the telephone, or by bill payment sent through the mail.

Ecommerce: The conducting of transactions or the conducting of business electronically. There are two types of ecommerce activities, those that involve financial transactions, and those that do not involve financial transactions.

E-Commerce Work Group (ECWG): Work group created in 1998 that issued the report entitled, "*E-Government – Using Technology to Transform North Carolina's Governmental Service Operations in the Digital Age*."

Electronic Benefits Transfer (EBT): The provision of government entitlement programs to those individuals who are entitled to receive such entitlements or benefits through the use of magnetically striped or other cards capable of storing information regarding cardholders and capable of accessing ATM and POS Terminals to receive distribution of such entitlements or benefits. The Department of Health and Human Services uses EBT to distribute food stamp benefits.

Electronic Funds Transfer (EFT): Generic term to describe transactions conducted electronically, primarily including two types of transactions: ACH transactions and wire transfers. In some cases the definition also includes merchant card transactions.

Federal Reserve Bank (FRB): Organization that facilitates the movement of funds among member banks, to include transactions associated with E-Commerce activities. The FRB houses the nation's primary Automated Clearing House. The FRB also issues certain regulations, to include Regulation E.

Gateway Service: The interconnection between two networks with different communication protocols. Used in state government to process payment transactions captured on an agency's website and then transmitted to either the merchant card processor or the EFT bank.

Image Replacement Document (IRD): Refers to an image of a check that has been processed through "remote deposit capture" pursuant to Check 21 legislation. While not an electronic transaction, IRDs are subject to the same laws and regulations pertaining to paper checks. An IRD is different that a "substitute check," which is a paper document printed from an IRD.

Interchange Fee: Fees paid by the acquirer to the issuer to compensate for transaction-related costs. VISA and MasterCard establish interchange fee rates.

Inter/Intra Governmental Transfers: Refers to program offered by OSC to state agencies that utilize the North Caroling Accounting System (NCAS) to effect payments between agencies without having to use the commercial banking system.

Master Service Agreement (MSA): Agreement between the State and a vendor to provide a statewide E-Commerce activity, such as merchant card processing or EFT processing.

Merchant: A retailer, or any other person, firm, corporation, or entity that, according to a Merchant Agreement, agrees to accept credit cards, debit cards, or both, when properly presented.

Merchant Card: A card issued by a card issuer, generally in the form of a credit card, debit card, or proprietary card.

National Automated Clearing House Association (NACHA): The national trade organization for electronic payment associations, which establishes the rules, industry standards, and procedures governing the exchange of commercial ACH payments by depository financial institutions.

North Carolina Accounting System (NCAS): System provided state agencies by the OSC to accommodate the accounting functions performed by the various agencies.

Office of the State Controller (OSC): Office charged with the responsibility of issuing policies regarding E-Commerce in state government, pursuant to SB 222.

Point of Purchase (POP): A payment type assigned by the Automated Clearing House Association to describe consumer checks less than $25,000 that can be converted and processed as an electronic transaction, with the item being converted at the point-of-purchase. This is similar to a check being converted in the back-office (BOC).

Point-of-Sale (POS) Terminal: A device placed in a merchant location that is connected to the bank's system or authorization service provider via telephone lines and is designed to authorize, record and forward data by electronic means for each sale.

Pass-through Fees: Fees charged by credit card associations and debit card networks to process a credit card or debit card. In the case of credit cards, the fees are interchange fees and assessment fees. In the case of debit cards, the fees are switch fees. The fees are different than vendor-levied fees.

Payment Card Industry Data Security Standard (PCI DSS): A multifaceted security standard that includes requirements for security management, policies, procedures, network architecture, software design and other critical protective measures associated with credit card account data.

Primary Account Number (PAN): The number encoded on Track 2 of a magnetic stripe of a credit card used by the Issuer Member to identify a cardholder.

Proprietary Card: A card issued by a company other than a financial institution for access to their credit or deposit accounts. Examples include American Express and Discover.

Quest Operating Rules: Operating Rules issued by NACHA that govern Electronic Benefits Cards (which are used for the distribution food stamp benefits in North Carolina).

Regulation E: The regulation, all amendments thereto and official interpretations thereof (12 C.F.R. part 205) promulgated by the Board of Governors of the Federal Reserve System implementing Title IX of the Consumer Credit Protection Act (15 U.S.C. § 1601 et. seq.) which is known as the Electronic Fund Transfer Act.

Senate Bill 222: Legislation passed during the 1999 session that gave the OSC authority to issue policies regarding E-Commerce activities in state government, and that promoted the statewide enterprise approach.

State Warrant: Paper check issued, or authorized to be issued, by the State Controller, and drawn on the State Treasurer. Bears a unique transit-routing number assigned by the Federal Reserve Bank.

Statewide Electronic Payment Program (SECP): Program administered by the OSC, consisting of three primary components: Merchant Card Program, Electronic Funds Transfer Program, and Inter/Intra Governmental Transfers Program.

Stored-Value Card: A pre-paid payment card that stores a monetary value from which the purchase amount is deducted from the card each time the card is used. Is normally a debit card.

SunTrust Merchant Services (STMS): Vendor contracted with by the OSC to process merchant cards on a statewide enterprise basis.

Surcharge: A fee assessed to a cardholder by a merchant for presenting the card for payment. Generally refers to a card-present transaction. Different than a convenience fee, which refers to a card-not-present transaction.

Trustwave: A qualified security assessor contracted by OSC to assist participants in the State's MSA for merchant card processors to comply with the Payment Card Industry Data Security Standard. The portal TrustKeeper is used to provide the services.

Unbanked: Refers to individuals who do not have bank accounts, and therefore are not eligible to participate in direct deposit. The term "under-banked" is also used.

Vendor-Levied Fees: Fees levied by a vendor, such as the merchant card vendor or EFT vendor, to process transactions on behalf of the State. Does not include pass-through fees that are associated with merchant card transactions, charged by the credit card associations or debit card switch networks.

Wachovia Bank: Vendor contracted with by the OSC to process electronic funds transfer transactions on a statewide enterprise basis, as well as the vendor to provide a payroll card service to OSC's Central Payroll.