



NORTH CAROLINA
ADMINISTRATIVE OFFICE
of the COURTS

2016 Report on Efficiency of Establishing Kiosks

Session Law 2015-241, Section 18B.4

February 1, 2016



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Introduction

The North Carolina General Assembly adopted a provision directing the study of the efficiency of establishing a system of automated kiosks in local confinement facilities for use by attorneys representing indigent defendants.

Session Law 2015-241

STUDY EFFICIENCY OF ESTABLISHING A SYSTEM OF AUTOMATED KIOSKS IN LOCAL CONFINEMENT FACILITIES TO ALLOW ATTORNEYS REPRESENTING INDIGENT DEFENDANTS TO CONSULT WITH THEIR CLIENTS REMOTELY

SECTION 18B.4.(a) The Administrative Office of the Courts, in conjunction with the Office of Indigent Defense Services and the North Carolina Sheriffs' Association, shall study and determine whether savings can be realized through the establishment of a system of fully automated kiosks in local confinement facilities to allow attorneys representing indigent defendants to consult with their clients remotely. The system would incorporate technology through which meetings between attorneys and their clients cannot be monitored or recorded, would provide for end-to-end message encryption, and would have scheduling software integrated into the system.

SECTION 18B.4.(b) The Administrative Office of the Courts shall report its findings and recommendations, including recommendations of at least two potential pilot sites for the proposed system, to the chairs of the House of Representatives and Senate Appropriations Committees on Justice and Public Safety and the chairs of the Joint Legislative Oversight Committee on Justice and Public Safety by February 1, 2016.

This is a report submitted pursuant to Section 18B.4.(b).

Executive Summary

North Carolina Administrative Office of the Courts Research and Planning Division staff produced this report after analyzing jail visit and video conferencing data as well as visiting New Hanover County. The key points and recommendations are as follows:

- The potential financial savings discussed in this report can only be realized if all of the following are present:
 - The cost of kiosk communication system is less than the costs of the public defender staff time;
 - Public defender staff time savings result in more cases assigned to the average public defender staff member; and
 - Public defender staff is reduced or fewer cases are assigned to private assigned counsel resulting in a reduction in billings by private assigned counsel
- Although this report focuses its analysis on public defender staff, there could be potential savings by the use of kiosk technology by private assigned counsel in that travel time and travel costs could be reduced. These potential savings would only be realized if private assigned counsel reduced their hours billed instead of devoting the travel time avoided to other billable activities.

Indigent Defense Services has some data that indicates the New Hanover Public Defender Office has increased its dispositions since the institution of video conferencing. That increase could be due to any number of factors. Since it is not possible to determine with certainty the degree to which the increase dispositions might have resulted from the adoption of kiosk technology, any potential savings discussed in this report are purely potential/theoretical at this point.

Pursuant to the legislative mandate, NCAOC makes the following recommendations regarding the use of kiosk technology:

Recommendation 1: IDS should continue to favor an unlimited usage per staff person cost model in public defender offices if kiosk technology is expanded. As this report will indicate, the cost per person that would result in potential savings would need to be calculated for each office based on likely levels of usage and non-client contact time per jail trip (including travel, security screening, and wait time).

Recommendation 2: When considering expansion of kiosk technology to additional counties, IDS should agree to a payment rate only after careful consideration of likely utilization. The utilization of kiosk technology in additional counties should be monitored to ensure than it accomplishes cost savings or cost containment.

Recommendation 3: NCAOC/IDS should consider payment agreements with any vendor(s) who sheriffs have allowed to install kiosk technology in local confinement facilities based on the cost and likely utilization rates.



Study design

The NCAOC Research and Planning staff visited the New Hanover Public Defender's Office to discuss its use of technology for jailed indigent defendant consultation and visited New Hanover Detention Facility to see its kiosks and to briefly discuss its use with jail staff. NCAOC staff also met with Indigent Defense Services (IDS) central office staff members to review research assumptions and to request any relevant data.

IDS central office staff members provided NCAOC staff with three months of jail visit baseline data from 2015 as reported by local public defender offices for attorney and non-attorney staff. This data includes: non-client contact time (primarily travel, clearing security, and waiting), client contact time, and number of clients seen per jail trip.

NCAOC staff also analyzed mileage from each public defender's office to jails in their service area to determine which offices have the greatest distances from offices to jail(s) and to calculate potential time savings by use of kiosk technology. NCAOC staff also examined information from Indigent Defense Services on costs paid in New Hanover for staff members who utilize kiosk system and utilization information of the kiosk technology for a three month period.

To calculate potential savings, the statewide average salary plus benefits is used throughout this report, with a distinction between attorney costs and non-attorney costs. Attorney costs include the public defenders and assistant public defenders. The non-attorney costs include the other public defender staff members.

New Hanover County

While the payment structure and current usage patterns in New Hanover cannot be presumed if their model of local confinement facility kiosk were expanded, an analysis of their current practice and cost model is instructive given their length of usage. A notable limitation for comparison purposes is that the enthusiasm of that office's leadership likely supports a higher level of adoption of the kiosk technology than can be presumed in other offices.

NCAOC staff visited the public defender's office and the New Hanover Detention Center. An overview of three months of kiosk usage data is below in Table 1. Note that the number of jail visits that would be needed if video sessions were replaced with in-person jail visits is lower than clients visited because multiple client visits are handled in one day via video, which would likely equate to one jail visit.

Table 1: Three Months of Kiosk Usage in New Hanover County

County	Attorney			Non-Attorney		
	Total Video Sessions Used (30 minute blocks)	Number of Clients Seen	Maximum Number of Jail Trips Averted	Total Video Sessions Used (30 minute blocks)	Number of Clients Seen	Maximum Number of Jail Trips Averted
New Hanover	434	427	275	27	27	22

Kiosk technology affords both the opportunity to replace some jail visits with remote visits via technology and it also provides the opportunity to enhance communication with clients in local confinement facilities. The technology is used in New Hanover, and presumably might be used in other locations, to enhance communication frequency between jailed indigent defendants and their attorneys (and staff). The focus of this study is on potential cost savings and no mechanism exists to quantify which kiosk meetings replaced what would have otherwise been in-person jail visits and which kiosk meetings provided enhanced communication. It is important to note that the most likely application of kiosk technology has both time/cost implications as well as potential level of service implications. Although the service implications discussed with New Hanover focused on enhanced communication with clients, there is the theoretical possibility that kiosk technology could be used to replace in-person jail visits that might be more appropriately held in-person. Since there are professional standards for attorney conduct, it seems that this concern would tend to be more theoretical than a likely outcome.

Assuming that 80% of kiosk sessions during the three months of data collection actually replaced in-person visits – with the other 20% of kiosk sessions providing enhanced communications, the potential savings are reflected in Table 2 below. Since New Hanover public defender staff have extensive experience with the technology and the staff that frequently use the technology have comfort with this technology, it is likely that more than 20% of the session are actually enhanced communication, but this figure was selected to prevent understating the potential savings.

**Table 2: Potential Annual Savings from Use of Kiosk Technology in New Hanover County
(based on current usage patterns and cost structure)**

	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Likely Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
New Hanover					
Attorney	44.7	220	9,834	\$8,933	\$35,732
Non-Attorney	44.7	18	787	\$507	\$2,029
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$37,762
Annual Cost Under Current Cost Structure					\$(8,640)
Potential Annual Savings from Use of Kiosk Technology (based on current usage patterns and cost structure)					\$29,122

Current cost of kiosk technology in New Hanover is based on a monthly fee of \$40 per month per staff member for unlimited usage. Although not all staff members actually use the system, the cost terms have remained unchanged at a monthly charge for all staff members. These potential savings can only continue to be realized if the cost structure remains the same or is lowered.

Current IDS policy permits the reimbursement of attorneys for actual expenses of up to \$0.65 per minute for use of online video conferencing technology for meeting with clients in the custody of local jail facilities. Tables 3 and 4 demonstrate the importance of the pricing factor in determining potential cost savings of the use of kiosk technology in local confinement facilities. The New Hanover data did not include the actual length of each video conference. In the three months of jail visit data submitted from public defender offices for client contact per client in minutes, the mean client contact was 27.6 minutes and the median was 25.6 minutes (New Hanover data was excluded from this calculation because their typical jail visit were longer, presumably in part, because some shorter communications were handled via video conferencing). To not understate the potential savings, 25 minutes was used below in Table 3 and Table 4.

Table 3: Potential Annual Savings from Use of Kiosk Technology in New Hanover County
Scenario A: Presumes Current Usage at \$0.65 per minute

New Hanover	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Likely Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
Attorney	44.7	220	9,834	\$8,933	\$35,732
Non-Attorney	44.7	18	787	\$507	\$2,029
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$37,762
Scenario A: Cost Assuming current usage at \$0.65 per minute cost					
	Number of Clients Seen	Video Minutes @ 25 per Client	Quarterly Cost @ \$0.65 per minute	Potential Annual Cost @ \$0.65 per minute	
	454	11,350	\$7,378	\$29,510	\$(29,510)
Potential Annual Savings at Current Usage @ \$0.65 per minute					\$8,252

Table 4 further demonstrates the importance of the pricing structure if a primary motivation for the implementation of kiosk technology is cost savings / cost containment.

Table 4: Potential Annual Savings from Use of Kiosk Technology in New Hanover County
Scenario B: Presumes a 28% Usage Increase at \$0.65 per minute

New Hanover	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Likely Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
Attorney	44.7	220	9,834	\$8,933	\$35,732
Non-Attorney	44.7	18	787	\$507	\$2,029
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$37,762
Scenario B: Cost Assuming 28% usage increase at \$0.65 per minute cost					
	Number of Clients Seen	Video Minutes @ 25 per Client	Quarterly Cost @ \$0.65 per minute	Potential Annual Cost @ \$0.65 per minute	
	581.12	14,528	\$ 9,443	\$ 37,773	\$(37,773)
Potential Annual Savings at Current Usage @ \$0.65 per minute					(\$11)

If the New Hanover County Public Defender's office were paying by the minute and increased adoption by staff members led to a 28% increase in number of minutes consumed, potential savings would disappear. Since, as discussed below, New Hanover could be considered the most favorable location for kiosk technology, a per minute costing model could result in marginal to no savings in even that office.

Recommendation 1: IDS should continue to favor an unlimited usage per staff person cost model in public defender offices if kiosk technology is expanded. As this report will indicate, the cost per person that would result in potential savings would need to be calculated for each office based on likely levels of usage and non-client contact time per jail trip (including travel, security screening, and wait time).

Potential Sites for Expansion of Kiosk Technology

NCAOC analyzed the timely, usable data of three months of jail visit. At 44.7 minutes, New Hanover County has the longest reported time for non-client contact per jail trip (including travel, security screening, and wait time). Based on this factor, coupled with the enthusiastic support of kiosk technology by the New Hanover County Public Defender, New Hanover is the most logical location for kiosk technology to result in potential cost savings. Since their implied security screening plus wait time (i.e., reported non-client contact per jail trip minus round trip travel time), at 14.7 minutes is between the median of 14.2 minutes and mean of 15 minutes of data compiled, the clear factor in the potential savings by the utilization of kiosk technology in New Hanover is that all of their in-county jail clients are a 30 minute round-trip from their office.



While a cursory examination of estimated roundtrip drives from public defender offices to jails in their service areas alone might suggest an expansion of kiosk technologies in Judicial Districts 1 and 2, it is not possible based on the data submitted to determine if kiosk technology would result in cost savings in these areas (especially given the infrequency of reported visits to jails not in the counties with public defender offices).

Other than New Hanover, there are three counties whose non-client contact per jail trip (including travel, security screening, and wait time) exceeds 30 minutes. Presuming that other changes that would reduce security screening and wait time are unlikely, focusing on these three counties for the potential expansion of kiosk technology seems reasonable – especially given their large case volumes.

Table 5: Potential Expansion Counties Based on Minutes Saved Per Jail Trip Averted

	Minutes Saved Per Jail Trips Averted
Wake	38.9
Forsyth	30.9
Cumberland	30.0

The amount of any potential savings would be dependent on two key factors:

- Pricing
- Level of utilization/adoption

As demonstrated above, a price per minute cost model could ironically reduce potential savings as the utilization of kiosk technology increases. In counties with less than New Hanover's 44.7 minute non-client contact per jail trip, the potential for kiosk cost exceeding potential staff savings would be higher. Consequently, in keeping with recommendation 1 above, the following scenarios all presume a per person cost model based on total attorney and non-attorney staff members in the public defender's office in each county.

Given the enthusiasm of the New Hanover County Public Defender for the utilization of kiosk technology and that office's long term use of the technology, it seems quite likely that other offices, even after some experience with the technology, would have utilization rates lower than New Hanover's. In the scenarios in Tables 6A – 8B, potential savings are calculated based on a usage level of 75% and 50% of New Hanover's usage level. Tables 6A, 7A, and 8A reflect a usage level of 75% of New Hanover's usage level in each respective county. Table 6B, 7B, and 8B reflect a usage level of 50% of New Hanover's usage level in each respective county. There is no available information to actually predict utilization rate. The scenario rates are presented for illustrative purposes only. Note that if utilization were much lower than 50% of New Hanover's usage level and/or pricing were significantly higher than \$40 per month per staff member in the office, the modest potential savings in Tables 6A – 8B would disappear.



Table 6A: Wake Scenario A**Assumes usage at 75% of New Hanover level**

Wake	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
Attorney	38.9	313	12,195	\$11,078	\$44,310
Non-Attorney	38.9	29	1,120	\$722	\$2,890
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$47,200
Annual Cost Under Current Cost Structure					\$(17,760)
Potential Annual Savings from Use of Kiosk Technology (based on current cost structure and usage at 75% of New Hanover level)					\$29,440

Table 6B: Wake Scenario B**Assumes usage at 50% of New Hanover level**

Wake	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
Attorney	38.9	209	8,130	\$7,385	\$29,540
Non-Attorney	38.9	19	747	\$482	\$1,927
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$31,467
Annual Cost Under Current Cost Structure					\$(17,760)
Potential Annual Savings from Use of Kiosk Technology (based on current cost structure and usage at 50% of New Hanover level)					\$13,707

Table 7A: Forsyth Scenario A**Assumes usage at 75% of New Hanover level**

Forsyth	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
Attorney	30.9	213	6,569	\$5,967	\$23,869
Non-Attorney	30.9	16	501	\$323	\$1,291
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$25,160
Annual Cost Under Current Cost Structure					\$(11,520)
Potential Annual Savings from Use of Kiosk Technology (based on current cost structure and usage at 75% of New Hanover level)					\$13,640



Table 7B: Forsyth Scenario B**Assumes usage at 50% of New Hanover level**

	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
Forsyth					
Attorney	30.9	142	4,379	\$3,978	\$15,913
Non-Attorney	30.9	11	334	\$215	\$861
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$16,774
Annual Cost Under Current Cost Structure					\$(11,520)
Potential Annual Savings from Use of Kiosk Technology (based on current cost structure and usage at 50% of New Hanover level)					\$5,254

Table 8A: Cumberland Scenario A**Assumes usage at 75% of New Hanover level**

	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
Cumberland					
Attorney	30	213	6,404	\$5,817	\$23,270
Non-Attorney	30	14	432	\$279	\$1,114
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$24,384
Annual Cost Under Current Cost Structure					\$(9,600)
Potential Annual Savings from Use of Kiosk Technology (based on current cost structure and usage at 75% of New Hanover level)					\$14,784



Table 8B: Cumberland Scenario B
Assumes usage at 50% of New Hanover level

Cumberland	Minutes Saved Per Jail Trips Averted	Jail Trips Likely Averted	Total Time Saved in Minutes	Potential Quarterly Staff Time Savings	Potential Annual Staff Time Savings
Attorney	30	142	4,269	\$3,878	\$15,513
Non-Attorney	30	10	288	\$186	\$743
Attorney Plus Non-Attorney Potential Annual Staff Time Savings					\$16,256
Annual Cost Under Current Cost Structure					\$(9,600)
Potential Annual Savings from Use of Kiosk Technology (based on current cost structure and usage at 50% of New Hanover level)					\$6,656

Recommendation 2: When considering expansion of kiosk technology to additional counties, IDS should agree to a payment rate only after careful consideration of likely utilization. The utilization of kiosk technology in additional counties should be monitored to ensure that it accomplishes cost savings or cost containment.

Potential Mechanism for Expansion of Kiosk Technology

Neither the North Carolina Administrative Office of the Courts nor the North Carolina Sheriff's Association has the authority to direct any sheriff to install kiosk technology in local confinement facilities. Consequently, the expansion of kiosk technology into additional local confinement facilities is primarily a matter between sheriffs and potential vendors who provide this technology. Though the scope of this study was limited to local confinement facilities, future considerations should include the potential for kiosk technology within Department of Public Safety facilities, particularly facilities that provide safe keeping custody and/or prisoners with post-dispositional activity on their cases, whose attorneys may reside a significant distance from where they are being held. Given the number of defendants being held in auxiliary jails in the county where they were charged and the number being held outside the county where they were charged, these local confinement facilities could be included in expansion of kiosk technology.

Recommendation 3: NCAOC/IDS should consider payment agreements with any vendor(s) who sheriffs have allowed to install kiosk technology in local confinement facilities based on the cost and likely utilization rates.