EXECUTIVE SUMMARY

The NCSC makes the following general findings that support its specific recommendations concerning the state's court case management system (CMS), the Unified Court Information System (UCIS):

• UCIS is not in a crisis at the moment but the SCAO should re-write or replace UCIS as soon as possible to prevent a crisis that will likely occur in the next few years if the current situation persists.

• UCIS, despite its deficiencies, is stable, reasonably capable and well-liked among clerks, judges, and court administrators. Its deficiencies, however, are numerous and they require users to perform numerous workarounds to get the desired results. Some desirable results are available only with significant user or programming resources. Furthermore, users experience lower job satisfaction from frustration with system problems and workarounds, and from the perception that tools to perform their job are "falling behind" the curve. Ultimately, and most importantly, members of the public who interact with the court system experience delays and hidden costs of inefficiency of which they may be unaware, because of the lack of flexibility in operation of UCIS.

• From a technology point of view, the System i5 computer platform may face lack of support by IBM in the medium time frame (approximately five to eight years), but there are risks in continuing the present course, primarily in terms of ability to attract staff expertise in the System i5 programming language. The System i5 technology platform was introduced by IBM in 1988 as the AS/400 (later renamed iSeries), so at the age of 18, it is an aging technology platform. Industry trends are toward Intel processors and Windows or Linux operating systems, fully relational databases and Web-based applications. Programmers able to program the System i5 will be increasingly difficult to find and retain.

The NCSC obtained current market information on re-writing or replacing UCIS, and those findings and analysis are set forth in this report, along with cost data for several recommended alternatives.

BASE CASE: CURRENT COURSE OF IN-HOUSE DEVELOPMENT OF UCIS

One alternative to re-writing or replacing UCIS is continuing the current course of incremental enhancement of UCIS and extending its reach into other information systems through development of interfaces for exchange of data with those systems. The "base case" answers, the question, "What will happen if there is no project?"

In terms of staffing, continuing the current course of action, including support of current and some additional users, would expect to employ the current SCAO IT staff of nine.

No software system is ever maintenance free. The current course is one of evolutionary change, not revolutionary change. The risks and costs of this approach include the following, which motivated the SCAO to consider alternatives:

• The IBM System i5 server will, at some point, become non-supported by IBM, and put the SCAO at risk of requiring repair or service which is no longer commercially available. There is always a lengthy transition time to a new system, and when a court or court system finds out that its CMS hardware or software is no longer supported, it may not have sufficient time to make this transition without jeopardizing operations.

• UCIS has a lengthy learning curve for new employees, and casual or infrequent users find that the system is inaccessible without assistance or significant study.

• Programming staff able to make changes to UCIS using the RPG language will become increasingly difficult to attract to Bismarck and retain, as RPG skills become increasingly rare in the IT community and unattractive to software developers. RPG is considered an obsolete software development tool.

• Users, including clerks, administrators and judges, will continue to experience frustration in numerous workarounds to complete their work, and the inflexibility of UCIS to meet current needs and needs that inevitably arise.

• The public bears the hidden costs of inefficiencies and delay that are inherent in the current system environment. These "costs" are often referred to as "agency costs" and do not include any costs borne by the users of the CMS or the public at large. It is difficult to assign a cost to intangible elements in the equation, but the following may be considered:

• Users experience lower job satisfaction from frustration with system problems and workarounds, and from the perception that tools to perform their job are "falling behind" the curve.

• Members of the public who interact with the court system experience delays and hidden costs of inefficiency of which they may be unaware, because of the lack of flexibility in operation of the current CMS.

Baseline Costs
Baseline costs are excluded from the cost of the COTS CMS because they do not differentiate the current course of action from the alternatives. These are costs that the SCAO will incur whether it implements a new system or not. Baseline costs excluded include the following, and their approximate annual values, are set forth in the table below:

Baseline Cost Elements and Values

Baseline Cost Element Annual Base	Cost Value
Average personnel costs of SCAO IT staff	$49,718 times 9 people
Network charges for T1 access to 53 courthouses	$180,000
Network charges for 2nd T1	$3,000
System i5 server maintenance	$12,000
Citrix server maintenance	$6,000
PC Replacement	¼ of inventory each year

Other Assumptions
Factors that impinge on baseline costs indirectly include:

• Average age of court employees statewide: 47.7
• Average years of service: 13.4
• 2005 turnover (of 290 court employees statewide): 10.1%