Nebraska Information Technology Commission

Project Proposal Form

**New or Additional State Funding Requests
for Information Technology Projects**

FY2005-07 Biennium

Project Title	**Court Re-engineering – Adjudication – Revised**
Agency/Entity	**Nebraska Workers' Compensation Court**

About this form…
The Nebraska Information Technology Commission ("NITC") is required by statute to "make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel, for which new or additional funding is requested." In order to perform this review, the NITC and DAS-Budget Division require agencies/entities to complete this form when requesting new or additional funding for technology projects. For more information, see the document entitled "Guidance on Information Technology Related Budget Requests" available at http://www.nitc.state.ne.us/forms/.

Electronic versions of this form are available at http://www.nitc.state.ne.us/forms/.

For questions or comments about this form, contact the Office of the CIO/NITC at:

Mail: Office of the CIO/NITC
        521 S 14th Street, Suite 200
        Lincoln, NE 68508
Phone: (402) 471-3560
Fax: (402) 471-4608
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Submission of Form
Completed forms must be submitted by the same date biennial budget requests are required to be submitted to the DAS Budget Division. Completed project proposal forms must be submitted via e-mail to info@cio.state.ne.us. The project proposal form should be submitted as an attachment in one of these formats: Microsoft Word; WordPerfect; Adobe PDF; or Rich Text Format. Receipt of the form by the Office of the CIO will be confirmed by e-mail. If an agency is unable to submit the application as described, contact the Office of the CIO prior to the deadline, to make other arrangements for submitting a project proposal form.

Section I: General Information

Project Title	Court Re-engineering – Adjudication
Agency (or entity)	Nebraska Workers' Compensation Court

Contact Information for this Project:

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Section II: Executive Summary

Provide a one or two paragraph summary of the proposed project. This summary will be used in other externally distributed documents and should therefore clearly and succinctly describe the project and the information technology required.

This project will procure, develop, install, and support Court Re-Engineering enhancements in the Adjudication section of the court. These enhancements will be based upon the results from current internal re-engineering analysis and the recommendations from a consultant to be engaged in Fiscal Year 2006. From the current internal analysis and court priorities, the first software products to be introduced to the court will be from one or more of the Key Technologies currently identified in the internal analysis that cannot be achieved with existing resources. This projects key technology is Computer Managed Workflow.

Section III: Goals, Objectives, and Projected Outcomes (15 Points)

1. Describe the project, including:
    *   Specific goals and objectives;
    *   Expected beneficiaries of the project; and
    *   Expected outcomes.

    Goals, Objectives, Outcomes
    The court has several internal re-engineering projects in various stages of development. Each project has identified key technology(s) that are critical to the project that will later have broader use in other sections of the court. This project's key technology is:

    Computer Managed Workflow.

    A computer managed workflow will result in an optimized flow of activities within the Clerks Office, Judicial Support, and Judges sections of the court. Inputs and outputs will be streamlined to provide just-in-time information and work events. Workflows will be managed graphically which will allow for self-documentation of processes, modeling and testing of changes to procedures, and immediate implementation. A Rules Engine will control the execution of routing logic of work and event notifications. Work activities will be automated to the extent that is appropriate. Each Judge or court staff person will have individualized work queues that will reflect pending actions that are associated with the "days" work. Court management will be able to see the status of an individual docket with overdue activities. Case-load management will be enhanced through the collection and analysis of historical activities.

    Beneficiaries will include court staff and judges and all external stakeholders of the court, including attorneys, insurance companies, injured employees, and employers.

    As caseload grows, the court expects to handle the increased load with minimal staff additions. Activity notices will be immediate to the next processing step. Overdue activities will create alerts to staff, management, and judges. Depending upon pre-set criteria, certain dockets will be able to flow through different paths and to different court members.

2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

Times between, time to process, number of steps and repeated steps will be used to measure efficiency. Real-time assignment workload levels will assist in routing and re-routing work. Easy of understanding the workflows will determine whether the workflows are self-documenting. Event notifications will be immediate and work queues should only reflect the "days" work. Correctly routed work and notifications will determine whether the Rules Engine is functioning properly.

3. Describe the project's relationship to your agency comprehensive information technology plan.

This project was discussed in Section 4.A. Strategies and Future Direction as prepared by the court's Presiding Judge and listed in 4.C. Future IT Projects.

Section IV: Project Justification / Business Case (25 Points)

4. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers).

The Adjudication re-engineering analysis identified the following problems:

The current system requires multiple screens to assign a new case. Screens are not designed to facilitate the task. The system is not task flow driven. The current screen design was built around the structure of data and not around the task which has an impact on productivity.

The current task management review is not searchable by date. There is no ability to search for all tasks by employee, by day to manage the system at a macro level. Reporting system is not flexible.

All current decision-making is manual. The current computer system does not have intelligent rules and queries to assist with the decision making process.

The current system does not have active triggers to notify change of status. Various sections of the court must run daily reports to be aware of docket status change. There is not an electronic calendar for notification of events.

The current system doesn't allow an individual judge to analyze his/her case load.

5. Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

Over the last three years, this court invested substantial time and effort to analyze and strategize moving towards a "paperless" court. This work included an extensive analysis of the possibility of collaboration with the Nebraska Supreme Court and Information Management Services (IMServices) in its efforts to increase ability to electronically file and store documents and information on a statewide basis. That effort at collaboration showed that extensive collaboration was not possible because of extensive differences in the specific missions of the Nebraska Workers' Compensation Court and all other courts of the state of Nebraska. Some of the differences in mission relate to significant agency type functions of the court arising from statutory obligations in the Nebraska Workers' Compensation Act. These functions relate to coverage and claims enforcement, re-education and retraining oversight, dissemination of information, and the process used to review and approve or disapprove applications for lump sum settlements. Another key difference is that the court's statewide jurisdiction requires statewide judicial mobility, which significantly complicates scheduling and information dissemination on a case-by-case basis.

Based upon the analysis by the court, computer managed workflow is the appropriate strategic solution. Workflow software is fairly mature. Further analysis planned for in the next biennium by an outside consultant, Requests for Information, and Requests for Proposal will determine whether existing off-the-shelf software can be effectively integrated with the current court computer systems and will meet the courts requirements. Off-the-shelf software will require that the court conform to procedural and technical constraints of each unique system. Additional application server hardware will be required.

The court in December 2004 became aware of recently improved features in the Oracle Database and Application Server. As part of the solution selection process which will look at off-the-shelf solutions, the court will also evaluate these improved Oracle features in combination with its existing programming software to determine whether the problems can be solved in an acceptable manner and requirements can be met. Given that the courts current business software systems are almost 100% "in-house" developed, this solution would provide the possible benefit of tighter integration with existing systems at potentially lower development/purchase and on-going costs. There is the possibility that certain requirements may not be immediately met because of the need for custom development.

The court will evaluate what is available at the state's enterprise level through services provided by IMServices.

Doing nothing leaves the current problems unsolved. It also does not position the court to handle increased workload without the adding of additional staff.

6. If the project is the result of a state or federal mandate, please specify the mandate being addressed.

Not applicable.

Section V: Technical Impact (20 Points)

7. Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

The key technologies are all enhancements to our current Microsoft Windows Application and Oracle Relational Database environment. Because the court's offices in Lincoln are on 100 megabit data communications, band-width is not an issue.

Computer Managed Workflow will require the installation of new software technology on an application server. Because of the structure of the court, the court's three-tier Microsoft Windows Client – Application Server – Database Server model is still the appropriate underlining technology on which to incorporate. The courts current production environment is the Microsoft Windows Win32 construct. The solution must provide the ability for the court to continue to function in that environment. Looking to future expansion to workflows outside the court (attorneys, insurance companies, etc.) the solution must also allow for the movement to a Microsoft .NET environment and their future "Smart Client" technology. Web Services and Service Oriented Architecture (SOA) must also be supported or planned for to integrate effectively and efficiently with our current technology. The solution must also be compatible with the state's Enterprise directory system. The court has developed its own case management system on Win32 and Oracle and is integrating document management directly into that system. The workflow solution must be able to access data stored in Oracle and execute programs developed for the Win32 platform. The solution must also allow for access to the "user work queues" from "in-house" developed business software programs.

The strength of the current Microsoft Win32 solution provides the court a feature rich, robust application. Microsoft .NET / Smart Client, Web Services, and SOA will allow the court to extend from Win32 to an Internet-based application for those situations were appropriate. At the same time it adds new function points that could fail and make trouble-shooting more complicated. Interfacing with a non-homogenous system based upon a JAVA-based third-party system with the rest of the court systems could prove challenging, but may be addressed through Web Services.

The courts re-engineering analysis has laid out a roadmap for the court to be paperless by 2011. In order for there to be usable data for the court, as many digital documents as possible must be "intelligent"; that is they must have structured content embedded within them that can be program extractable (e.g. XML). Scanning and optical character recognition does not provide sufficient usable data/information and is not the solution. The court is therefore planning on implementing e-filing systems in future projects. Case-management, document management, and workflow management are underlining technologies that must be in place for e-filing to be successful. Workflow is a potential infrastructure platform for e-filing upon which a custom e-filing system could be developed. When the court reaches the point in its strategic roadmap where end user e-filing becomes a project, it will evaluate software functionality available within the court, the State, and third-party companies.

8. Address the following issues with respect to the proposed technology:
   - Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.

Computer Managed Workflow must prove to be highly reliable or it will have an adverse effect on productivity. In evaluating and choosing a solution the court will insure that production tools are available to verify that all nodes are functioning, that the solution is able to integrate with the state's Enterprise Directory for identity management, that the solution includes secured work queues for staff to control their assignments, and that the solution is scalable to allow for future implementation in a secured internet environment that would allow for use by attorneys and other external parties.

   - Address conformity with applicable NITC technical standards and guidelines (available at http://www.nitc.state.ne.us/standards/) and generally accepted industry standards.

The court participated in a joint project with IMServices to define accessibility development standards for Microsoft Windows development. Those same standards with other published standards will be used when procuring third-party software solutions. Other standards and guidelines will be reviewed at appropriate times during the projects.

   - Address the compatibility with existing institutional and/or statewide infrastructure.

IMServices and Department of Communications will be brought in to review any new technologies for compatibility.

Section VI: Preliminary Plan for Implementation (10 Points)

9. Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

All project plans below are tentative and may be revised based upon the recommendations and outcome of a consultant who will be brought in during Fiscal Year 2006 to review current analysis and strategic plans. The consultant will assist the court in deeper business process analysis and preliminary evaluation of alternative technical implementations such as Web Services (WS), Service Oriented Architecture (SOA), Business Process Management (BPM), and Business Process Execution Language (BPEL). A solution will be chosen using standard State Request for Proposal procedures and Proof-of-Concept testing of both third-party software and in-house solutions. The goal is to have selected/procured a solution in Fiscal Year 2006.

Fiscal Year 2007 is tentatively targeted for installation, training, and design and testing of the pilot re-engineered workflow. During the design and testing of the pilot workflow the court will gain critical knowledge necessary to plan for integration with existing systems and custom development. During Fiscal Year 2008 and beyond, fully functional workflows will be designed, developed, tested, and implemented into production. At this point it is not known how long the production roll-out will take.

Internal Court stakeholders have participated in the initial analysis or have been closely informed of the strategy. External stakeholders have not yet been approached, but current plans include having focus group sessions with key external stakeholders during Fiscal Years 2005 and 2006.

The project sponsor is the Courts Presiding Judge. He has actively and directly participated in the analysis phase of the re-engineering. The Information Technology project leader/primary developer has not yet been chosen, but will be one of the Court's Senior or Lead Application Developers. The design team will be comprised of the Presiding Judge, Clerk of the Court, Judicial Support Manager, selected staff from the Clerk of the Court's Office, Judicial Support, Legal and Coverage and Claims sections. The Information Technology Manager / Database Administrator will function as data analyst and will participate heavily in system engineering. Contract programming resources will be used if appropriate and funds are available. Policy issues that need to be addressed will be taken to the Presiding Judge and Court Administrator.

The below table represents the existing internal experience upon which the courts project team will be based.

Experience

Title	Total	In Current Position
Lead Application Developer (IT Project Leader)	15+	2
Presiding Judge	BS in Agricultural Economics, MS Economics Juris Doctorate Private Business Owner - 10 County Commissioner - 4 Private attorney - 12 WCC Judge - 8	4
Clerk of the Court	40+	20
Judicial Support Manager	15	3
Clerk of the Court and Judicial Support Staff	10+	5+
Legal Staff	5+	5+
Coverage and Claims Staff	6+	6
IT Manager/DBA	28	9

10. List the major milestones and/or deliverables and provide a timeline for completing each.

- Fiscal Year 2006 – Consultant Engagement and Procurement process completed.
- Fiscal Year 2007 – Installation, training, and design and testing of the pilot re-engineered workflow.
- Fiscal Year 2008 and beyond - Fully functional workflows designed, developed, tested, and implemented into production.

11. Describe the training and staff development requirements.

For all the key technologies, not only will there be major training requirements, but changes in mindset on how to perform the duties. Workflow will require staff training in the use of graphic flowchart / diagramming tools to build the workflows. Staff training will also be required on how to use the new software. IT Staff will need to be trained on implementation, maintenance, and administration.

12. Describe the ongoing support requirements.

A Workflow system will require annual software support and upgrade fees, planning for hardware updates, etc. Purchased software will need to under upgrade/maintenance agreements.

Section VII: Risk Assessment (10 Points)

13. Describe possible barriers and risks related to the project and the relative importance of each.
14. Identify strategies which have been developed to minimize risks.
(Combined Answer)

- Acceptance of the change by court personnel brought about by automating workflows.
    - Managers are involved in projects.
    - Staff is involved in design and selection processes.
    - Implemented software is friendly to work with.
- Solutions may have an unintended adverse impact on other areas of adjudication.
    - All impacted areas and sections are involved in impact analysis.
- Implementation of workflow could cause the loss of knowledge of how the court systems functions at the over-all level.
    - Periodic reviews of workflows need to be performed with staff to retain an understanding of the full process flow.
    - Workflow diagrams and rules definitions must be easily understood.
- A workflow system may have slow system performance.
    - The criteria for product select needs to state performance requirements.
    - Proof of concept testing will be required before a final product decision is made.
    - Response times must be monitored and appropriate corrective action taken.
- Software maintenance costs will escalate in future years.
    - Maximum maintenance cost increases are negotiated as part of any contracts.
    - Initial costs estimates were budgeted higher than usual.
- Consultant engagement will not produce any conclusive results.
    - The court has been attending AIIM, ARMA, E-Court, Oracle, Microsoft, and Borland conferences during the past six years and is gaining knowledge that will assist in the selection of a consultant and participation in the process.
    - Other outside agencies (such as IMServices) will be asked to participate where appropriate and neutrality can be achieved.
- The selected solution could not meet requirements once placed in production.
    - The court has participated in several Requests for Proposal (RFP's) with IMServices and other agencies over that last several years and has learned from these experiences.
    - The selection process will include a Proof-Of-Concept phase that will provide hands-on testing of a preliminarily selected solution based upon a actual workflow. The court completed a full process Adjudication Process analysis several years ago and has documented process flows available to choose from for the Proof-Of-Concept.
    - The court will evaluate an in-house solution based upon its existing software development platform of Borland Delphi Programming Software and Oracle Database/Application Server software. Both support Microsoft .NET, Web

Services, etc. Oracle also provides workflow features in its database and application server that will be evaluated.

Section VIII: Financial Analysis and Budget (20 Points)

15. Financial Information

Financial and budget information can be provided in either of the following ways:

(1) If the information is available in some other format, either cut and paste the information into this document or transmit the information with this form; or

(2) Provide the information by completing the spreadsheet provided below.

Instructions: Double click on the Microsoft Excel icon below. An imbedded Excel spreadsheet will be launched. Input the appropriate financial information. Close the spreadsheet. The information you entered will automatically be saved with this document. If you want to review or revise the financial information, repeat the process just described.

Excel Spreadsheet
(Double-click)

Financial information appears at the end of the docuement.

16. Provide a detailed description of the budget items listed above. Include:
- An itemized list of hardware and software.
- If new FTE positions are included in the request, please provide a breakdown by position, including separate totals for salary and fringe benefits.
- Provide any on-going operation and replacement costs not included above, including funding source if known.
- Provide a breakdown of all non-state funding sources and funds provided per source.

See side notes on spreadsheet above for line-item explanations.

- Hardware estimates are based upon recent purchases.
- The software and professional services estimates were based upon Requests For Information (RFI) sent to three leading vendors whom provide workflow products. These vendors ranged in the medium to high-end category of product offerings. The following preliminary criterion was provided to the vendors to respond.
  - 50 User production license
  - 10 User development license
  - Server software hosted on a 2-CPU Intel / Windows Server platform
  - Client/Server or .NET based product.
  - Need Installation Costs, Administration Training Costs, Startup Training Costs for In-house 10 Users
  - Professional Services costs for installation and customization.
  - Additional Costs not included in software license (such as database license, etc.)

- The three product responses to the RFI are all agnostic, off-the-shelf offerings that can be integrated with the courts current systems. A Process Flow Diagrammer and Rules Engine are key functional features of all agnostic, off-the-shelf offerings. The court does not want to develop this functionality and does not plan on developing in-house a full-blown workflow management system.
- Court Information Technology staff all have experience in project management in various size projects. Project management and System Development Life Cycle (SDLC) are management tools of all court technology projects.
- Software maintenance costs were estimated higher than standard to cover unknown contingencies.
- Requests for Information were sent to two consultants with experience in workflow management. Based upon preliminary proposals the consultant engagement cost is estimated to be $50,000. The engagement will be funded out of reallocated continuation dollars and were not included in the Budget spreadsheet.

17. Please indicate where the funding requested for this project can be found in the agency budget request, including program numbers.

Program Number 530.

Nebraska Information Technology Commission
Project Proposal Form
Section VIII: Financial Analysis and Budget

(Revise dates as necessary for your request.)

	Estimated Prior Expended	Request for FY2005-06 (Year 1)	Request for FY2006-07 (Year 2)	Request for FY2007-08 (Year 3)	Request for FY2008-09 (Year 4)	Future	Total	
1. Personnel Costs							$ -	
2. Contractual Services								
2.1 Design							$ -	
2.2 Programming							$ -	
2.3 Project Management							$ -	
2.4 Other			$ 100,000.00				$ 100,000.00	**2.4 Other**
3. Supplies and Materials							$ -	Professional Contract Services to assist in the installation, configuration, etc. of purchased software
4. Telecommunications							$ -	
5. Training			$ 36,382.50				$ 36,382.50	
6. Travel			$ 12,127.50				$ 12,127.50	
7. Other Operating Costs							$ -	
8. Capital Expenditures								
8.1 Hardware			$ 30,000.00			$ 20,000.00	$ 50,000.00	**8.1 Hardware**
8.2 Software			$ 355,556.25	$ 103,607.44	$ 108,787.81	$ 109,790.00	$ 677,741.50	Year 2 is the initial hardware purchase, Future represents hardware replacement costs.
8.3 Network							$ -	
8.4 Other							$ -	**8.2 Software**
TOTAL COSTS	$ -	$ -	$ 534,066.25	$ 103,607.44	$ 108,787.81	$ 129,790.00	$ 876,251.50	Year 2 is the initial software purchase. Subsequent years represent the annual maintenance agreement costs.
General Funds							$ -	
Cash Funds			$ 534,066.25	$ 103,607.44	$ 108,787.81	$ 129,790.00	$ 876,251.50	
Federal Funds							$ -	
Revolving Funds							$ -	
Other Funds							$ -	
TOTAL FUNDS	$ -	$ -	$ 534,066.25	$ 103,607.44	$ 108,787.81	$ 129,790.00	$ 876,251.50	