

Nebraska Information Technology Commission

Project Proposal Form

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

FY2007-09 Biennium

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

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Notes about this form:

1. **USE.** 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.” Neb. Rev. Stat. §86-516(8) 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.
2. **WHAT TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM?** See the document entitled “Guidance on Information Technology Related Budget Requests” available at <http://www.nitc.state.ne.us/forms/>.
3. **DOWNLOADABLE FORM.** A Word version of this form is available at <http://www.nitc.state.ne.us/forms/>.
4. **SUBMITTING THE FORM.** Completed project proposal forms should be submitted as an e-mail attachment to rick.becker@nitc.ne.gov.
5. **DEADLINE.** Completed forms must be submitted by September 15, 2006 (the same date budget requests are required to be submitted to the DAS Budget Division).
6. **QUESTIONS.** Contact the Office of the CIO/NITC at (402) 471-7984 or rick.becker@nitc.ne.gov

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Section 1: 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 2: 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 is a multi-year project that 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 engaged in Fiscal Year 2006-07.

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.

Project Update

An RFP was issued and awarded for a workflow consultant. With the assistance of the consultant, court will issue an RFI and RFP for the purpose of selecting and procuring workflow software by the end of the biennium. The court will have also started the initial installation and training on this software with the goal of having completed a pilot implementation.

Section 3: Goals, Objectives, and Projected Outcomes (15 Points)

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

Goals, Objectives, Outcomes

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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 Adjudication Division 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.

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.

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

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 workload management will be used in routing and re-assigning work. Workflow diagrams must be self-documenting and easy to read and understand. 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 1.3. Projects Planned to be Started in FY2006-07 and subsequent sections of the *AGENCY INFORMATION TECHNOLOGY PLAN FOR 2007-09 BIENNIAL BUDGET*.

Section 4: 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).

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The Adjudication re-engineering analysis identified the following problems that will be corrected through this project and improve the effectiveness and efficiency of the Adjudication Division of the court.

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, within 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 five 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 Office of the CIO 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 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 include significant administrative and enforcement 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 was identified as an appropriate strategic solution. Workflow software is fairly mature. An outside consultant has been engaged during the Fiscal Year 2006-07 to review the courts existing technologies and assumptions and assist in the preparation of Requests for Information and Requests for Proposal to 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

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software will require that the court conform to procedural and technical constraints of each unique system. Additional application server hardware will be required.

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 5: 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. Omaha continues to be a communications problem because of the lower band-width for which the court has not yet found a solution. The court will be revisiting this problem in the first half of Fiscal Year 2006-07 to find a solution.

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 .ASP-.NET environment and 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 has integrated document management and message 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 current Microsoft Win32 solution provides the court a feature rich, robust application. Microsoft .ASP-.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

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addressed through Web Services. The court has been successful in its first Web Services project with the Office of the CIO and has implemented electronic fax Web Services that are called by its Message Management Windows 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 that provide structured, intelligent information that is usable programmatically. Case-management, document management, message 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. The system must be able to return a users current queue of work tasks within 3 seconds from a total queue of all users of 1 million+ records both past, present, and future.

- 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 Office of the CIO 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, such as security, will be reviewed at appropriate times during the projects.

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

The Office of the CIO will be brought in to review any new technologies for compatibility. The Office of the CIO had a participant on the evaluation team for the Workflow Consultant RFP.

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Section 6: 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 is being brought in during Fiscal Year 2006-07 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 Request for Information and Request for Proposal procedures and possibly 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 2006-07.

The fourth quarter of Fiscal Year 2006-07 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 2007-08 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 beginning in the fourth quarter of Fiscal Year 2006-07.

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, selected staff from the Clerk of the Court's Office, 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.

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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)	17+	4
Presiding Judge	BS in Agricultural Economics, MS Economics Juris Doctorate Private Business Owner - 10 County Commissioner - 4 Private attorney - 12 WCC Judge - 10	6
Clerk of the Court	17	1
Clerk of the Court Staff	12+	7+
Legal Staff	6+	6+
Coverage and Claims Staff	8+	8
IT Manager/DBA	30	11

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

- Fiscal Year 2006-07, 2nd-3rd Quarter – Consultant Engagement and Procurement process completed.
- Fiscal Year 2006-07, 4th Quarter – Installation, training, and design and testing of the pilot re-engineered workflow.
- Fiscal Year 2007-08 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.

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Section 7: 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 the Office of the CIO 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 .ASP-.NET, Web Services, etc. Oracle also provides workflow features in its database and application server that will be evaluated.

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Section 8: 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 from the embedded spreadsheet appears at the end of this PDF version of the document.

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 who 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 and .ASP/.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

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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.
- A consultant has been engaged at a cost of \$49,000. The engagement is being funded out of reallocated continuation dollars and was 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.

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Section VIII: Financial Analysis and Budget

Adjudication Re-engineering

(Revise dates as necessary for your request.)

	Estimated Prior Expended	Request for FY2007-08 (Year 1)	Request for FY2008-09 (Year 2)	FY2009-10 (Year 3)	FY2010-11 (Year 4)	Future	Total	
1. Personnel Costs							\$ -	
2. Contractual Services								
2.1 Design							\$ -	
2.2 Programming							\$ -	
2.3 Project Management							\$ -	
2.4 Other	\$ 25,000.00	\$ 75,000.00					\$ 100,000.00	2.4 Other
3. Supplies and Materials							\$ -	Professional Contract Services to assist in the completion of the installation, configuration, etc. of purchased software
4. Telecommunications							\$ -	
5. Training	\$ 16,000.00	\$ 10,000.00					\$ 26,000.00	8.1a Hardware - One Time \$30,000
6. Travel	\$ 8,000.00	\$ 4,000.00					\$ 12,000.00	Servers & Server Replacements (Prod & Test) \$30,000
7. Other Operating Costs							\$ -	
8. Capital Expenditures								***
8.1a Hardware - One Time	\$ 30,000.00				\$ 30,000.00		\$ 60,000.00	
8.1b Hardware - Cont	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 25,200.00	8.1b Hardware - Cont \$4,200
8.2a Software - One Time	\$ 355,000.00						\$ 355,000.00	CIO Data Center Footprint \$4,200
8.2b Software - Cont		\$ 71,000.00	\$ 74,550.00	\$ 78,277.50	\$ 82,191.38	\$ 86,300.94	\$ 392,319.82	
8.3 Network							\$ -	***
8.4 Other							\$ -	
TOTAL COSTS	\$ 438,200.00	\$ 164,200.00	\$ 78,750.00	\$ 82,477.50	\$ 116,391.38	\$ 90,500.94	\$ 970,519.82	8.2a Software - One Time \$355,000
General Funds							\$ -	Workflow Software \$355,000
Cash Funds	\$ 438,200.00	\$ 164,200.00	\$ 78,750.00	\$ 82,477.50	\$ 116,391.38	\$ 90,500.94	\$ 970,519.82	
Federal Funds							\$ -	***
Revolving Funds							\$ -	
Other Funds							\$ -	8.2b Software - Cont \$71,000
TOTAL FUNDS	\$ 438,200.00	\$ 164,200.00	\$ 78,750.00	\$ 82,477.50	\$ 116,391.38	\$ 90,500.94	\$ 970,519.82	Annual License Renewals, Subscriptions, Maintenance Agreements \$71,000
Biennium Total			\$ 242,950.00					***