

**Nebraska Information Technology Commission**

**Project Proposal Form**

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

**FY2007-2009 Biennium**

<b>Project Title</b>	<b>Migration of PIONEER to the jClarity Platform</b>
<b>Agency/Entity</b>	<b>85-Nebraska Public Employees Retirement Systems</b>

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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](mailto: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](mailto:rick.becker@nitc.ne.gov)

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**Section 1: General Information**

Project Title	Migration of PIONEER to the jClarety Platform
Agency (or entity)	85-Nebraska Public Employee Retirement Systems

Contact Information for this Project:

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**Section 2: Executive Summary**

This project is for the migration of the PIONEER application to the Sabre jClarety framework based on J2EE technology and written in Java. The jClarety framework is a functionally rich solution with very stable and robust architecture specifically developed for public retirement systems. The need for this project to be implemented at this time is due to the fact that Forte (the language PIONEER was written in) was purchased by Sun Microsystems. Sun is a big proponent of Java and has decided to completely stop support of Forte. This leaves NPERS and our software system in a potentially dangerous situation not having software support.

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

This project will:

- Migrate current Forte code to JAVA
- Move our system to proven architecture/infrastructure.
- Lower user time/change management impact/improve processing times.
- It will enhance system usability and features already in place.
- Continue vendor supported application environment.
- It will minimize risk because of lost software support.
- It will minimize risk in migration by using our current vender.

**Section 4: Project Justification / Business Case (25 Points)**

The migration of PIONEER to the jClarety template is primarily needed due to the upcoming loss of support for Forte, the current language of our retirement software. It is imperative that the software NPERS uses for retirement processing is fully supported and maintained in the future due to the critical nature of our business. NPERS has nearly 97,000 plan members and processes nearly 15,000 retirement payments worth about \$20,800,000 per month to the State's economy. The timeliness and accuracy of benefit payments and member accounts would be difficult to maintain without our integrated PIONEER software system. Software support is critical to our system..

The jClarity template is web based. Being an Internet browser based architecture; our system can be accessed using a standard Internet browser such as Internet Explorer. The advantage of this is that there

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are no specific client machine components that need to be deployed with the application. In the future, the application will be usable with newer system software with very few application upgrades.

jClarity will process faster and more powerfully. The central controller optimizes the data stream and minimizes the data traffic over the network. jClarity uses several browser based devices from a central controller point which reduces actual support time and effort. In the jClarety model, the batch architecture uses multi-threading strategy extensively. Multi-threading involves dividing a given task into multiple parts and executing the parts at the same time. This strategy makes the batch architecture extremely efficient. Long running batch jobs will run in a much shorter time.

**Section 5: Technical Impact (20 Points)**

The current PIONEER application is based on the client server architecture. In this type of architecture, the client machines, such as desktops, have a part of the application residing on them. When the application is in use, part of the processing is executed on the servers and part of the processing is executed on the client. For a client machine to access an application, the client portion has to be deployed or installed on the user's desktop. This type of system is sometimes described as a 'thick client' system.

During the last few years the industry has moved away from client-server applications to browser-based systems. In this type of architecture, all of the application logic and components reside on a server or a set of servers. All that the user needs to be able to access the application is an industry standard internet browser such as Internet Explorer. There are no components to be installed on the desktop machine. The jClarety template is based on the browser-based system concept. This type of architecture is sometimes described as a 'thin client' system. Features that will be improved include processing speed, supportability, flexibility, reliability, and programmability.

The Java based solution will have the same interfaces with the state infrastructure, such as that with NIS, that PIONEER possesses now. This has worked very well for us.

**Section 6: Preliminary Plan for Implementation (10 Points)**

The project has a preliminary recommendation derived from a study conducted by Kevin Cueto, contractor with the NITC. It has also been recommended by a recent Legislative Performance Audit Committee report. NPERS has hosted a demo from the software vender Sabre. We have everything in place to begin work as soon as we receive the NITC approval and budget approval.

Our in-house Project Team currently consists of an IT Business Systems Analyst Lead, 2 IT Business Systems Analysts, 1 IT Infrastructure Support Tech, and on IT Infrastructure Support Analyst. We are in the process of filling the IT Manager position. It is expected that involvement of NPERS users will be most involved during the User Interface Review and User Acceptance Test. Besides these two activities all NPERS end users will be involved in the User Training activity

The Sabre Team will include approximately 25 persons. These will range from the Project Executive, Project Manager, Transition Manager, 5 Functional Analysts, 13 Application Developers and an architecture team.

The Project will be completed in phases and should take between 18-24 months to be completed. Please see the cost estimate below for the estimated timeline for completion of the phases. The following is an outline and a brief description of those phases:

**Definition of Phases**

The proposed phases for the project are:

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Start-up Phase

Phase 1 – Online Application – I

Phase 2 – Online Application – II

Phase 3 – All Batch jobs

Each of the phases 1, 2 and 3 will be divided into following sub-phases:

U/I Review preparation

User Interfaced Review

Development

System Testing

User Acceptance Testing

Rollout

In the start-up phase Sabre will work with NPERS to create detailed plans for the rest of the project. Sabre will also establish the infrastructure plans, including detailed plans for updating the current hardware and software as needed. During this phase Sabre will create a baseline of the code from PIONEER. Components on this baseline will be used as the target for migrating to the new template.

Phase 1 of the migration effort will include the following functionality:

Employer Maintenance

Employer Reporting – Internal

Employer Reporting – Self Services

Financial related to Employer Reporting

Phase 2 of the migration effort will include the following functionality:

Enrollment & Demographics

Member Account Maintenance

All Benefit Calculation

Service Credit Purchase

Refund Application Processing

Cash Disbursements

Processing Alternate Payees

Retirement Application Processing

Benefit Amount Adjustment

Benefit Payment processing

General Ledger

Tax calculation and 1099R Processing

System Administration

Workflow/Imaging

Telephone Call Center

Web Application – All Membership

Phase 3 of the migration effort will include all batch functionality of the application. It will consist of:

Batch Architecture

Batch Jobs from all the Functional Areas

Interface for DC Plan Administration

NPERS is proposing training for all existing IT staff in Java programming and processing. We are also asking for an additional FTE that will specialize in Java Programming. The idea behind this is to bring as much of the maintenance of the system in-house. There will still be outsourcing of programming needed from our software vender in special circumstances, such as legislative changes that may occur. The need to outsource from time to time is due to the complexity of our software and the vender's extensive knowledge of our system..

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**Section 7: Risk Assessment (10 Points)**

NPERS feels that our primary risk is that of not proceeding with the project. If this project is not approved we will lose all support for our current application that is related to the Forte programming language.

Risks with the implementation will be minimized by implementing this in phases. The phases will be streamlined to minimize the impact on NPERS business and will allow NPERS to migrate a controlled group of functionality to the new template while the rest of the application exists in the old environment. At the end of the project all of the functionality will become available in the new solution, at which point the old application can be discontinued.

During the course of the project, the Sabre team will follow the processes, standards and techniques that are part of the jClarety Methodology. This will ensure proper controls, reporting and quality assurance.

The phased approach involves migration of the current application in well defined groups of components to the new template. Each phase goes through the complete development life cycle. Completing the entire migration will be the iteration of the development cycle multiple times.

This methodology allows the project to be successively refined. This leads to management of project risks in earlier parts of the project. Users are involved from early parts of the lifecycle of each phase of the project and provide feedback to the development team. This results in greater system orientation and awareness among users. Training efforts and risks are minimal for transitioning to the new system. Some of the key advantages of using the proposed methodology are:

- Implementation is done step by step during the migration process, limiting it to fewer elements. The advantage is realized in gradual transition that helps the user community to accommodate to the new environment efficiently.
- Implementation is less complex, making it less risky.
- Business functionalities are separately developed and/or implemented and can be easily identified for later reuse.
- Risks are attacked early in the migration process

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**Section 8: Financial Analysis and Budget (20 Points)**

PIONEER Migration to JAVA

Services	5,751,000.00
Hardware/Software	772,000.00
<b>Total</b>	<b>6,523,000.00</b>

Month	Service Fees	Delivery	Payment Due at Delivery	HoldBack	Cumulative HoldBack
1					
2				\$0.00	\$0.00
3	\$48,107.12	On-line Application - I: Requirements Documentation	\$43,296.40	\$4,810.71	\$4,810.71
4	\$221,292.73	On-line Application - I: Detailed Design	\$199,163.46	\$22,129.27	\$26,939.98
4	\$221,292.73	On-line Application - I: Integrated and Tested Code	\$199,163.46	\$22,129.27	\$49,069.26
5	\$386,000.00	Hardware/Software for Testing	\$386,000.00	\$0.00	\$49,069.26
5	\$471,449.73	On-line Application - I: Acceptance Testing	\$424,304.75	\$47,144.97	\$96,214.23
6	\$386,000.00	Hardware/Software for Production	\$386,000.00	\$0.00	\$96,214.23
7	\$124,422.89	On-line Application - II: Requirements Documentation	\$111,980.60	\$12,442.29	\$108,656.52
8	\$572,345.27	On-line Application - II: Detailed Design	\$515,110.74	\$57,234.53	\$165,891.05
9		Hold back on services: On-line Application I	\$96,214.23		\$69,676.82
10					\$69,676.82
11	\$572,345.27	On-line Application - II: Integrated and Tested Code	\$515,110.74	\$57,234.53	\$126,911.34
12	\$115,020.00	Batch Application: Requirements Documentation	\$103,518.00	\$11,502.00	\$138,413.34
13	\$1,219,344.27	On-line Application - II: Acceptance Testing	\$1,097,409.85	\$121,934.43	\$260,347.77
14	\$529,092.00	Batch Application: Detailed Design	\$476,182.80	\$52,909.20	\$313,256.97
15					\$313,256.97
16					\$313,256.97
17		Hold back on services: On-line Application II	\$248,845.77		\$64,411.20
17	\$529,092.00	Batch Application: Integrated and Tested Code	\$476,182.80	\$52,909.20	\$117,320.40
18	\$1,127,196.00	Batch Application: Acceptance Testing	\$1,014,476.40	\$112,719.60	\$230,040.00
19					\$230,040.00
20					\$230,040.00
21					\$230,040.00
22		Hold back on services: Batch Application	\$230,040.00		\$0.00
	<b>\$6,523,000.00</b>		<b>\$6,523,000.00</b>	<b>\$575,100.00</b>	<b>\$0.00</b>

In addition to the above items NPERS is asking for one additional FTE which will be a Computer Programmer specializing in Java. We are asking for this person with the idea that much of the maintenance for our system will be completed in-house.

The funding for this project will come from the Retirement Plan Assets. It can be found in the operating budget for Program 041.

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