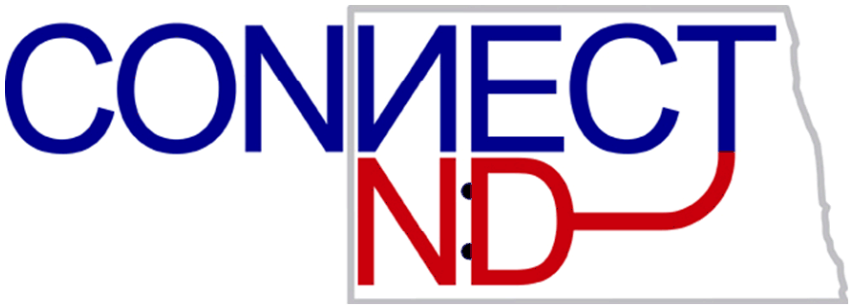
State of North Dakota



ConnectND Organizational Charter

Final Version 1.0

2005.04.12

Table of Contents

INTRODUCTION **3**
BACKGROUND **3**
ASSUMPTIONS 3
DEFINITIONS **3**
GOVERNANCE STRUCTURE **4**
FINANCIAL MANAGEMENT **4**
REVIEW OF AGREEMENT **5**
AGREEMENT & EFFECTIVE DATE **5**
APPENDIX A – GUIDING PRINCIPLES **6**
VISION STATEMENTS 6
ERP IMPLEMENTATION PRINCIPLES 6
APPENDIX B – ROLES AND RESPONSIBILITIES **8**
GENERAL 8
EXECUTIVE SPONSORS 8
Composition *8*
Responsibilities *8*
Operation *8*
Meets *8*
CONNECTND BOARD 8
Composition *8*
Responsibilities *8*
Operation *9*
Meets *9*
EXECUTIVE OVERSIGHT COMMITTEES 9
Composition *9*
Responsibilities *9*
Operation *10*
Meets *10*
INTER-FUNCTIONAL TEAM 10
Composition *10*
Responsibilities *11*
Operation *11*
Meets *11*
MANAGEMENT TEAM 11
Composition *11*
Responsibilities *11*
Operation *12*
Meets *12*
FUNCTIONAL USER TEAMS 12
Composition *12*
Responsibilities *12*
Operation *12*
Meets *12*
TECHNICAL TEAM 12
APPENDIX C – CUSTOMIZATION AND MODIFICATION POLICY **13**
APPENDIX D – ISSUE RESOLUTION PROCESS **14**
OVERVIEW 14
STEPS TO FOLLOW 14
Clarify *14*
Prioritize *14*
Assign Task *15*
Research Issue *15*
Resolve Issue *15*
Sign Off *15*
Apply Changes *15*
Escalation of Issues *15*
Functional Team Level *15*
Management Team Level *15*
Oversight Committee *16*
ConnectND Board *16*

Introduction

The following document provides a governance framework for the continuation of ConnectND as a partnership between State Government and the North Dakota University System (NDUS). The proposed framework reflects the experience gained during the initial years of the project as well as the experiences of other agencies and institutions outside of North Dakota that have implemented PeopleSoft. The framework also reflects the need to continue the challenge of defining and then evolving business practices based on configuration, the potential for impact on existing policies and procedures and the opportunity for continuous improvement.

Background

ConnectND is North Dakota's implementation of the PeopleSoft financial, human resource and student administration applications across North Dakota's state government and university system. Implementation began in April of 2002 with pilot and full implementations spread throughout the following two years. The initial scope of implementation will be completed by July of 2005.

During the implementation, state government and NDUS project teams worked closely with the implementation partner to minimize conflicts and establish priorities. Executive Steering Committees and an Executive Sponsor Committee were also established to provide guidance throughout the project.

Now that most implementation activities are completed, a longer-termed governance structure is required. The following are some of the assumptions made in the development of the governance structure.

Assumptions

- It is expected that business and functional needs, identified by various council and user groups, will direct the continued evolution of the system.
- The needs identified will require prioritization based upon functional criticality, resource availability and funding requirements.
- The needs of the university system may, at times, conflict with the needs of the state government operations and vice versa. Resolution of some of these conflicts may need to occur at the highest levels of those entities.
- A Memorandum of Understanding (MOU) between the Information Technology Department (ITD) and the Higher Education Computer Network (HECN) will provide the operational basis for the daily technical needs of ConnectND.

On-going Operation and Expansion of ConnectND

Definitions

- Customization - A customization does not change PeopleSoft delivered code. A customization is required when PeopleSoft, as delivered, does not have what is needed to meet our business needs.
- Modification - A modification changes the PeopleSoft delivered code. A modification is required when PeopleSoft has delivered code which partially meets our business requirements but needs additional changes to make it work to our needs.

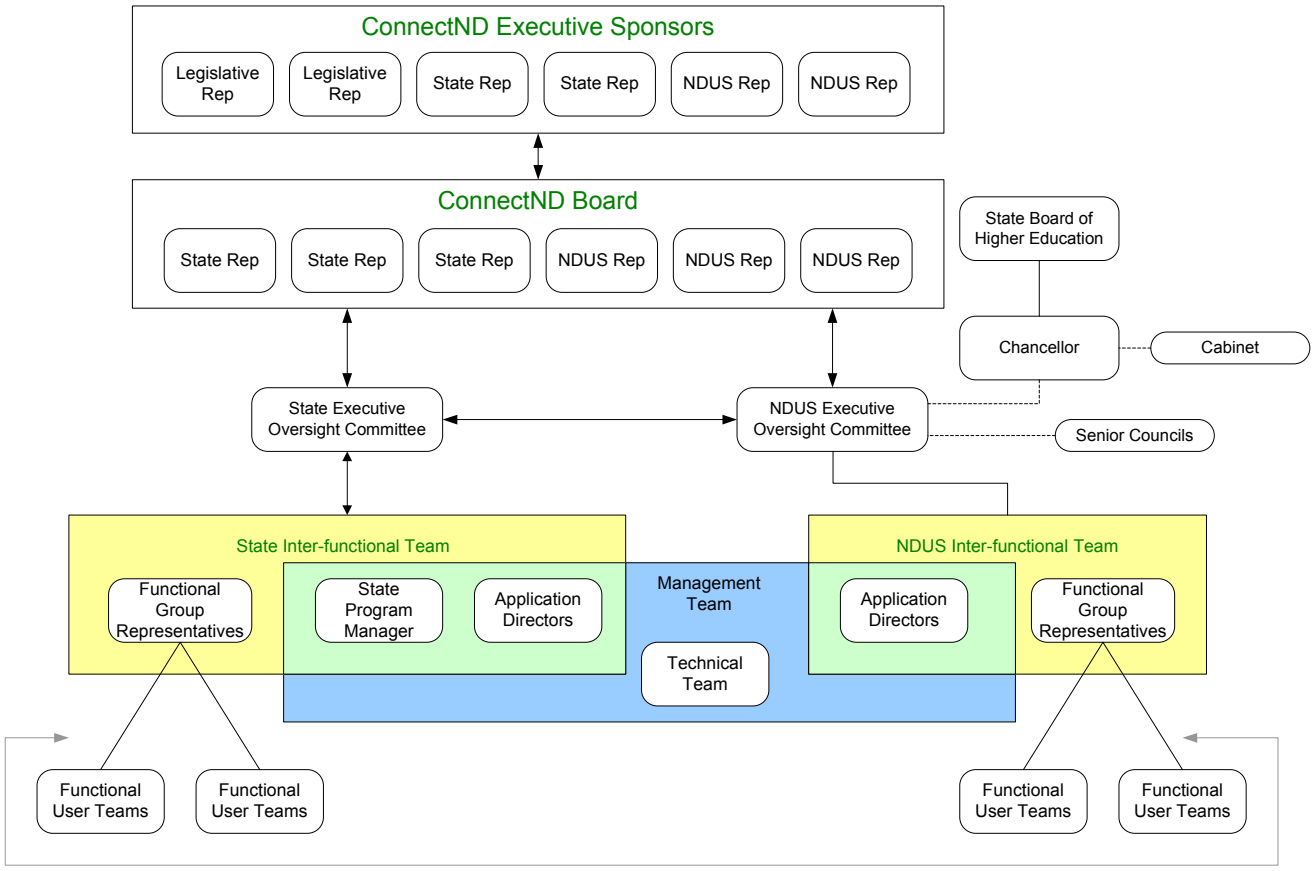
  Comparing the on-going maintenance cost for a customization vs. modification, a modification has a higher cost. A modification requires analysis each time the PeopleSoft code is upgrade or revised to see what additional changes will be required. A customization is new code which can be pulled out of the system and reinstalled without having to analyze what may have changed in the PeopleSoft's upgrade or revision.
- Governance – ConnectND governance is decision-making through roles, responsibilities and processes that enable diverse agents and groups to bring their perspectives to bear on decisions regarding the state/higher education shared PeopleSoft system and infrastructure. ConnectND governance gains its authority by delegation from appropriate officials in state government and the North Dakota University System, both of which retain all of their legal authority unless they expressly delegate it. The purpose of ConnectND

governance is to ensure that consumers and business/functional users have high quality, responsive information and functionality in accordance with their priorities and resources that are or can be made available to the system.

Governance Structure

The diagram below shows the expected governance structure for ConnectND. Major enhancements and upgrades will be proposed to the ConnectND Board via the Oversight Committees reflecting the consensus developed by user and management team representatives. The ConnectND Board is also responsible for escalation of issues that are not resolved at a lower level.

ConnectND Governance



Financial Management

Upgrade cost split will be dependent on appropriate cost unit:

Item	State	NDUS
PeopleSoft Software	40%	60%
version control	50%	50%
Integration/interface	Appropriate entity	Appropriate entity
Ancillary systems	Appropriate entity	Appropriate entity
State Data Center	50%	50%
NDUS Data Center		100%

Any activity that has significant costs attached will need to have prior approval from the appropriate governance groups, including agreement on cost sharing arrangements, in advance of the commitment of any funds.

Review of Agreement

This agreement will be reviewed on a biennial basis, with the first review scheduled for completion in the fall of 2006. Amendment can occur at any time with agreement of both parties.

Agreement & Effective Date

This agreement is signed in Bismarck, North Dakota on this _____ day of _____, 2005.

_____	_____
Laura Glatt Vice Chancellor for Administrative Affairs	Pam Sharp Director, Office of Management and Budget

Appendix A – Guiding Principles

Vision Statements

State of North Dakota

Provide modern financial and human resource systems to support the efficient and effective administrative functions of individual state agencies and higher education institutions as well as the enterprise as a whole.

North Dakota University System

The NDUS supports a service-oriented environment where the focus is on providing students, faculty, staff and others access to information and services, at any time, from anywhere.

ERP Implementation Principles

Commitment to maintaining an effective administrative information system is universal and unequivocal throughout the North Dakota University System and state government. Most people are aware that the system does not simply automate what we did previously, nor did we want it to do so. Rather, the system supports new ways of doing business, positioning us not only to meet needs now, but for the future as well. It was implemented in a way that maintains flexibility, now and in the future, allowing campuses, agencies and other government entities to further collaborate. For example, any administrative function could be performed anywhere in the system - on another campus or at a government office.

The following principles were designed to guide post-production decisions:

1. The focus is improving service.

Intent – A major goal is to improve our ability to provide all services. We need to provide an environment where the focus is on providing services, rather than addressing administrative minutiae. Many options will be available to us in pursuing this goal. If there are alternatives, options that allow us to better serve constituents, in ways they want to be served ("on-line" vs. "in line"), will be selected.

2. Due to maintenance costs, customization and modification will be kept to a minimum. Guidelines have been established defining authority levels where decisions are to be made.

Intent – Customizations cost both time and money initially and for the life of the software that has been customized. To the extent possible, business practices should be aligned with the software.

3. Agencies, campuses and the system office will commit the human resources necessary to make timely and efficient decisions.

Intent –People who have the best knowledge of the business practices and have the clearest vision of how those processes can be improved should be involved.

We will strive to make decisions in ways that are expedient and promote continued colleagueship among all parties. We will all accept and support decisions of the ConnectND governance process.

4. We will strive for sharing information statewide, to the extent possible, recognize the unique mission and needs of each agency and campus.

Intent –Systems must support collaborative activities that will allow everyone to take advantage of opportunities that may not be available to them individually. In order to fully support these activities, we must implement the system and redesign business processes to allow the sharing of almost all information. We need to ensure that access to information is controlled by agreements among all entities and security policies and procedures, not by the architecture of the system.

5. We will strive for state-wide solutions that reduce complexity, to the extent possible, recognize the unique mission and needs of each agency and campus.

Intent –For most purposes we must look for one uniform solution system-wide rather than try to accommodate different processes. This does not imply that approval paths, for example, need to be identical for each entity, but it does mean that the general process will be the same for everyone. It is recognized that the need for flexibility to allow all entities the ability to best perform their roles must be considered. However, in order to achieve the best for everyone, we should start with standardization and deviate only as necessary.

6. We will ensure functional users are an integral part of critical decisions regarding the system.
Intent – This needs to be a full partnership between IT and the system functional users. Functional users need to be a full partner in the governance process. This does not just include the functional specialists that have been closely tied to the system but also the larger group of functional users who use the system on a regular basis.

Appendix B – Roles and Responsibilities

General

Because of the tight coupling, strategic importance and high visibility of ConnectND systems, decision making must focus on the greater good while considering the unique business requirements and environments of the partners. An issue will be decided when consensus is established; i.e. a position reached by the group as a whole. At least one team member from state government and one team member from NDUS must be present to reach consensus. The respective team members will have responsibility for representing/communicating the benefits and consequences of positions being considered. At each level, the inability to reach consensus on a solution would require that the issue and differences be escalated.

Executive Sponsors

Composition

The ConnectND Executive Sponsors will include the chairs of the Oversight committees, Governor's chief of staff, chancellor, and the chair and vice chair of Interim Legislative IT Committee or their designees. The state and NDUS CIOs will attend as non-voting members and will provide staff support.

Responsibilities

The ConnectND Executive Sponsors will meet regularly to monitor overall program status. The goal of the Sponsors is to provide leadership and support of the system. Major responsibilities include:

Responsibilities
Encourage ConnectND staff, campuses, and agencies to actively engage in a regular review and improvement of administrative services and business practices.
Participate in communication as required.
Receive information regarding budget, implementation plan timelines, and milestones for any major joint initiatives.
Solicit project resources.

Operation

This group ensures that the ConnectND vision and results are consistent with the expectations of the leaders of North Dakota and the North Dakota University System. The group advocates with diverse constituencies on behalf of the ConnectND vision and actions that may be needed to fulfill that vision.

Meets

The committee will meet annually or at the request of the chair of the ConnectND Board.

ConnectND Board

Composition

The ConnectND Board will include an equal number of representatives for the state and for NDUS. ConnectND Board representatives for the state include the chair of the Executive Oversight Committee, the state CIO, and an agency representative selected from the Oversight Committee by the chair of the Executive Oversight Committee. ConnectND Board representatives for NDUS include the chair of the Executive Oversight Committee, a vice chancellor, and a representative elected from the NDUS Executive Oversight Committee by the committee. The NDUS CIO will be a non-voting member of the board. The chair of the ConnectND Board will be elected from the members by the members and all members are to serve a minimum of a 2 year term.

Responsibilities

The ConnectND Board will meet regularly to monitor overall program status, address escalated issues that cannot be resolved earlier in the escalation process, and other areas as deemed appropriate. These

are the key people to achieve a compromise when conflicting priorities occur. The goal of the ConnectND Board is to set strategic direction as well as provide leadership and support to achieve the ConnectND vision. Major responsibilities include:

Responsibilities
Approve a program vision that supports North Dakota's strategic direction.
Based on Executive Oversight Committee recommendations, remove obstacles that may impact ongoing success of the program.
Champion the need to change by encouraging campuses and agencies to actively engage in a review of administrative services and business practices.
Assist the efforts of staff involved in the program in developing momentum and a cooperative spirit.
Facilitate communication as required.
Review project budget, implementation plan timelines, and milestones.
Solicit project resources.
Oversee periodic external project management audits.
Provide a final escalation point for ConnectND issues impacting both state and NDUS beyond the authority of the Executive Oversight Committees.
Set project priorities impacting both state and NDUS, including identification of resources needed to meet priorities.

Operation

Issues that impact both the State and NDUS systems that cannot be resolved by the Executive Oversight Committees will be resolved by the ConnectND Board. Other types of issues and decisions typically handled at this level would be ones such as prioritization of joint projects and strategic directives.

Meets

The committee will meet semiannually or at the call of the chair.

Executive Oversight Committees

Composition

There will be a State Executive Oversight committee and a NDUS Executive Oversight Committee.

The State Executive Oversight Committee will comprise a minimum of two agency executives, the Director of the Office of Management and Budget to serve as chair, and the state Chief Information Officer. The chair will appoint the agency membership to serve a minimum of two years terms.

The Higher Education Executive Oversight Committee will be comprised of the following voting members: two presidents, a member from each of the senior councils (academic, administrative, student affairs), a vice chancellor, a faculty representative and a student representative. The NDUS CIO serves as non-voting member. Membership mix should also reflect representation by type of institution (two year, four year, research). Committee members will be appointed by the Chancellor for a minimum of two year terms. The Chair will be appointed by the Chancellor from one of the two presidents.

Responsibilities

The Executive Oversight Committees will meet regularly to monitor overall program status, address escalated issues that cannot be resolved by the Inter-functional Teams, and other areas as deemed appropriate. The goal of the committee is to provide leadership, support and assistance to achieve the ConnectND vision. Major responsibilities include:

Responsibilities
Maintain a vision.
Maintain and enhance a set of planning and implementation principles to help define the scope and character of ConnectND as well as provide the means to evaluate its outcomes.
Champion the need to change by rethinking current business processes and implementing new processes appropriate to the project vision and objectives.
Review, approve, and monitor communication needs and facilitate communication, as needed.
Assist in maintaining momentum and a cooperative spirit.
Act as a spokesperson
Review and approve requests of significant modification customization, modules and additional functionality.
Review, recommend and monitor project budget, implementation plan timelines, and milestones as needed.
Review, recommend, and monitor budget, implementation plans, timelines, and milestones for ancillary systems related to ConnectND.
Monitor risk assessment and report any elevated or lasting risk factors to the ConnectND Board.
Oversee the preparation of an annual program report to fulfill reporting responsibilities (State Board of Higher Education, Chancellor's Cabinet, and Legislative Committees, etc.)
Help identify and solicit project resources.
Resolve escalated issues from the Inter-functional/Management Teams. Some issues, due to their significance and impact, may need to be resolved by ConnectND Board, Legislature, SBHE, and/or Cabinet.

Operation

Each Executive Oversight Committee has governance responsibility for the successful functioning of the ConnectND system for its respective entity (state or higher education). Issues impacting both NDUS and the State that cannot be resolved by the Executive Oversight Committees will be resolved by the ConnectND Board. Any issue involving only a single party would be escalated to their respective governance organization. The types of issues decided at this level would be prioritization of projects that do not impact the other entity and issues that are escalated from the Inter-functional Teams. This group works with the appropriate Management Team and Functional User Team members to fill vacancies on the Inter-functional Teams.

Meets

The committee will meet quarterly or at the call of the chair.

Inter-functional Team

Composition

This group is a selection of the user groups who work directly with Management Team members to develop consensus about system priorities and resolve overlapping issues which impact more than one area of ConnectND. These teams should include representation coming from active Functional User Teams. Specific membership will be determined in individual charters. Chair will be elected by the members of the members. Other functional users or technical staff, not represented on the inter-functional team, can be added on an ad hoc basis, as needed, to address specific issues, based on the approval of the team.

Initially, the NDUS team will be comprised of the following voting members:

- 3 members sent by the Finance User Team,
- 3 members sent by the HRMS Functional Team,
- 1 member from the Student Records Team
- 1 member from the Student Financials Team
- 1 member from the Student Financial Aid Team
- 1 member from the Admissions/Recruitment Team
- the Finance System Director (ex-officio)
- the HRMS System Director (ex-officio)
- the Student System Director (ex-officio)

Voting members will serve overlapping 2-year terms. The NDUS CIO will be ex-officio, non-voting. Permanent changes to committee membership, terms, or voting status must be approved by the NDUS Oversight Committee.

Responsibilities

This team will assure that key ConnectND stakeholders are active participants in identifying issues, defining business practices and developing recommendations on functionality, future development, specific issues, etc.

Responsibilities
Provide input regarding ConnectND service and performance
Recommend additional PeopleSoft module implementations and joint projects.
Recommend changes to procedures regarding overall security or access.
Recommend additional software or hardware.
Recommend requests of significant modification, customization, modules and additional functionality.
Recommend prioritization of system projects, based on a documented business case.
Ensure common issues and solutions have been discussed.
Recommend enhancements or efficiencies in operations and services which can be achieved as a result of ConnectND.
Assist in the preparation of the annual report.

Operation

The team will ensure that the end users have a significant voice on the needs, wants and desires of the system. Issues that cannot be resolved by this group will be escalated to the Executive Oversight Committees.

Meets

The committee will meet no less often then quarterly, or at the call of the chair.

Management Team

Composition

This group consists of the Application Directors, Program Managers, and Technical Managers who handle the day-to-day operations of the system. The Chair will be elected by the members from the members.

Responsibilities

Most of the responsibilities of this group will be covered in the separate Memorandum of Understanding. From the governance perspective this group has some of the following responsibilities.

Responsibilities
Escalate operational issues that can't be resolved at this level.
Provide leadership and assist the Inter-functional and functional user groups in addressing common issues and solutions.
Work with all entities to create the annual report.
Manage on-going operations and planning for updates and changes for ConnectND Finance, Human Resources, Student Administration, and ancillary systems.

Operation

The team will assure records of major activities and changes are stored in a shared document repository. Operational issues that cannot be resolved by this group will be escalated to the Executive Oversight Committees.

Meets

The committee will meet no less often then quarterly, or at the call of the chair.

Functional User Teams

Composition

These teams will normally consist of representatives in a particular functional position. Examples of these include the Fiscal Officers or the Registrars. This could include cross-functional user groups as needed.

Responsibilities

These teams will assure that key ConnectND stakeholders are active participants in identifying issues, defining business practices and developing recommendations on functionality, future development, specific issues, etc.

Responsibilities
The ConnectND Business/Functional Teams will provide State Government and NDUS business practices and customer service leadership within ConnectND.
The teams are responsible for planning, implementation and communication to enable ConnectND to meet business process requirements.
Develop recommendations for change requests, based on a documented business case.
Act as resources for issue resolution and system enhancements.
Discuss common issues and solutions among user group.

Operation

- The teams will assure that key ConnectND stakeholders have input into issues are active participants in identifying issues, defining business practices and developing recommendations.
- The teams will be responsible for assisting the Inter-functional Team in the preparation and communication of the annual report.

Meets

The teams will meet regularly, or at the call of the chair.

Technical Team

This area is covered in the ITD-HECN Data Center Memorandum of Understanding.

Responsibilities
System administration, vendor software maintenance, development, change control.

Appendix C – Customization and Modification Policy

Management Team members will bring customizations or modifications to the ConnectND Oversight Committees that are:

1. Business process changes needed for 'vanilla' use of the system that are major and/or of significant interest to end-users or project stakeholders.
2. Modifications of over 80 hours in development time
3. Modifications of any size which may have high long-term maintenance costs (e.g. changing the way a key field functions)
4. Modifications conflicting with any project principle.

Within these constraints, the Application Directors have authority to approve the following types of customizations and modifications:

1. Reports
2. Queries
3. Interfaces
4. Conversions
5. Items that PeopleSoft documentation indicates must be modified to work (examples are ACH addenda, array size, or any 3C's developments)
6. PeopleSoft fixes as a result of PeopleSoft cases (trouble tickets)
7. Any change as the result of a Federal or State Law, regulation or mandate
8. Any modifications whose intent is to ensure project principles are met (example is the HR/SA bio/demo sync process)

All modifications or customizations made will be reported to the Executive Oversight Committee in a quarterly summary report.

Appendix D – Issue Resolution Process

Overview

A change or issue is anything that affects the PeopleSoft system. The PeopleSoft system includes the main Human Resources, Financials, Enterprise Performance Management and Student Administration applications and all other ties to the applications that fall under the responsibility of HECN and ITD. Other ties to the applications include interfaces, reports, and business processes that interact with PeopleSoft. Issues include reporting needs, page modifications, adding search keys, etc. Not all issue resolutions involve software modifications; some resolutions may require a procedural change by users.

Steps to Follow

The following steps are followed once an issue arises:

- Clarify the issue
- Prioritize the issue
- Assign the issue to a person or group
- Analyze the issue, identify alternatives and recommend a solution
- Resolve the issue and document the final decision
- Test the modification, work-around or procedural change
- Obtain Sign Off/User Acceptance
- Apply modifications to the PeopleSoft Environments or implement the new procedure

Clarify

The first step is to clarify the problem. Issues not arising from direct customer calls through the Help Desk (using the Remedy System in NDUS or the HEAT system for state government) can arise in a variety of ways, particularly during meetings of the Functional User Teams. Issues that arise during these meetings will be documented by the Application Director and entered into the Quest STAT system.

Prioritize

The director who enters the information into the work request system will determine and assign an initial priority to the issue. The Management Team will review all the issues on a weekly basis to determine that the priority is appropriate. The following table has a range of priority codes, with descriptions for the severity of the issue. Issues may have their priority increased or decreased as information is uncovered and changes in response are needed. Descriptions for each level of priority should be clearly understood by the team.

Priority	Initial Issue Description
Critical	Immediately Impacts Operations
High	Impacts Operations within 2 to 4 weeks
Medium	Impacts Operations within 4 to 8 weeks
Low	Impacts Operations beyond 8 weeks

The priority code will be used to simplify reporting issues and assigning completion dates for issue resolution. Priority will be reviewed and escalated if, as the due date for the issue approaches, the need for the resolution is increased, or if no action is being taken on the issue. For long-term issues or critical impact items, the Management Team should convene the appropriate Functional User Team for input.

The Management Team will discover issues that will need to be forwarded to the Executive Oversight Committees for direction or clarification. The decision to forward issues to the Executive Oversight Committees will be based upon the issue's impact to the organizations, or the managerial implications of the options that the Management Team has developed.

Assign Task

After assigning a priority, "Responsible Parties," business analysts, functional users, and/or technical specialists will be convened by the Management Team to research and resolve the issue. The Responsible Parties will investigate, discuss, and report on the issue resolution by identifying possible "work-around" and/or solutions to the problem.

Research Issue

For complex issues, the Responsible Parties will put together an Issue Resolution document. The Issue Resolution document will outline possible solutions and/or work-around, as well as the potential impact to the system.

After completing the Issue Resolution document, the Responsible Parties along with the Management Team will determine a course of action. If the potential impact is high, or it is determined that additional resources are required; the Management Team will refer the issue to the appropriate functional users (cross-functional if necessary) and then forward the recommendation to the Executive Oversight Committees for approval.

A thorough testing plan will accompany the proposed resolution in the Issue Resolution document. This testing plan will address the business process, the issue impacts, and the expected results of the test.

Resolve Issue

If it is determined that a modification is required, business analysts will assist technical specialists in designing the modification. Technical specialists will develop the modification in accordance with the Technical Standards and Procedures established for the State of North Dakota.

If it is determined that a business process change is required, business analysts will work with affected departments to identify and then document the details of the business process change.

When an issued is resolved it will be closed and the appropriate changes made to capture the tasks and activities required to execute the resolution.

Sign Off

Obtaining resolution sign-off will be done after all testing is complete, and all results are as expected and within pre-determined acceptance parameters. The Management Team will perform sign-off after all testing is completed. This sign-off should occur only after approval by the impacted functional users. If the issue was escalated beyond the Team during the resolution process, the party which made the decision will be responsible for approving the changes. Written authorization by Management Team members is the only acceptable approval before the resolution is migrated from the staging environment into the production environment. Verbal acceptance will not be permitted.

Apply Changes

For any resolution that requires modification, the appropriate tasks will be added to the work plan once the modification is approved.

Escalation of Issues

Throughout the change control process, a clear and understandable mechanism for bumping issues up to a higher level of authority must exist. The Functional Users and Management Team will strive to resolve issues at the earliest point possible. Project issue resolution and escalation process is as follows:

Functional Team Level

If at all possible, the issue will be resolved at this level. In that case, the issue and resolution will be documented for operational records. These actions will be reported to the Management Team and Executive Oversight Committee as part of the status reporting process.

Management Team Level

If an issue is not deemed resolvable at the Functional Team level, the issue and proposed solutions will be documented and discussed with the Management Team for resolution. It is

expected that most issues can be resolved at the Management Team level. If the issue has cross-functional impact, the Management Team will involve the Inter-functional team in the resolution to ensure the full impact of any change is taken into consideration. These actions will be reported to the Executive Oversight Committee as part of the status reporting process.

Oversight Committee

If an issue is not deemed resolvable at the Management/Inter-functional Team level, the issue and proposed solutions will be documented and discussed with the Executive Oversight Committee for resolution.

ConnectND Board

If an issue is not deemed resolvable at the Executive Oversight Committee level and impacts both the state and NDUS systems, the issue and proposed solutions will be documented and discussed with the ConnectND Board for resolution. Any issue that only impacts a single entity's system will be escalated through their normal governance process.

After resolving the issue, the Responsible Parties will document the identified solution for system records.