The University of Wyoming

Proposal for
Information Technology Services Review
April 2004
Executive Summary

Overview

The University of Wyoming serves an undergraduate and graduate student population of approximately 11,000 with a teaching faculty and staff of over 2,700. The University is the exclusive provider of state financed higher education, servicing a state population of almost one-half million. The University structure contains seven accredited colleges whom cumulatively offer 77 undergraduate and 185 graduate programs of study. Supporting the administrative, admissions, registration, business office, and other student service needs of the University is an Information Technology department that provides shared information resources to hundreds of distributed systems.

It is recognized that the University is at a critical juncture in determining the IT strategy to adopt for administrative and distributed systems to ensure they will achieve their mission in the future. Considerations for and against the introduction of de-centralized system deployments must be addressed in formulating IT strategies for the future.

At the very least, determining how to minimize redundant efforts by employing a “Best of Breed” strategy must be considered in formulating an IT strategy. The assessment will provide the University with recommendations to best support centralized and de-centralized systems while maintaining a long-term perspective.

It is for these reasons that there is a need to conduct an objective, informed and unbiased Information Technology Services Review to lead the University into the future.

The assessment will take a variety of knowledge and experience to develop, which we believe RSM McGladrey has assembled in the project team being proposed. The following proposal identifies our project team’s skill sets, prior project references, and the experience and quality of these consulting personnel. We believe we have tailored a comprehensive planning approach to meet your needs and provide a guarantee for your satisfaction with the outcome of this engagement, uniquely setting RSM McGladrey apart from other firms.

Firm Background

RSM McGladrey, Inc. is one of the nation's leading accounting, tax and consulting firms serving the needs of fast-growing mid-sized companies, local and state governments, colleges and universities. With over 4,500 employees serving more than 80,000 clients throughout 100 offices across the nation, RSM McGladrey is able to serve its clients in a cost effective manner, collaborating specialized expertise with local office presence.

We are staffed and structured so top professionals work closely with you, consistently bringing you ideas and solutions to help you succeed. With your mission and goals in mind, our team works with you in an integrated way, without departmental barriers. No matter what the issue, you will work with seasoned
professionals who have experience solving business problems similar to yours. That is the RSM McGladrey difference.

RSM McGladrey is a wholly owned subsidiary of H&R Block. HRB is headquartered in Kansas City. The main office is located at:

H&R Block, Inc.
World Headquarters
4400 Main Street
Kansas City, Missouri 64111

The H&R Block tax identification number is 44-0607856. Insurance coverage is included as Exhibit E.

Integrated Technology Solutions Group

To provide the highest level of client service, RSM McGladrey has established an Integrated Technology Solutions Group. This group was established to centralize highly skilled and specialized technology consulting personnel. This group performs projects throughout the country and is comprised of consultants, programmers and technicians. Individuals within this group focus on specific industries and consulting services.

Our Integrated Technology Solutions Group has extensive experience in the following areas:

- Strategic Information Systems and Technology Planning
- Information Technology Risk Assessments
- SAS 70 Service Auditor's Reviews
- Network Vulnerability Assessments and Intrusion Testing
- IS Security Assessments
- IS Operational and Efficiency Reviews
- Needs Assessment Studies
- Hardware/Software Selections
- Contract Negotiations
- Implementation Planning
- Project Management
- Business Continuity and Disaster Recovery Planning
- Telecommunications Consulting
- Profit Improvement Studies
- Regulatory Compliance Assistance
- Business Process Re-engineering
• Physical Security Assessments

**RSM McGladrey Network**

RSM McGladrey also operates the RSM McGladrey Network, an affiliation of more than 70 independent accounting firms with 188 locations in 41 states and Puerto Rico. RSM McGladrey Network member firms maintain their own names, autonomy, and independence and are responsible for their own client fee arrangements, delivery of services and maintenance of client relationships. Network firms can access high quality services, tools and expertise through RSM McGladrey.

**Strategic Alliance with McGee, Hearne, & Paiz, LLP**

McGee, Hearne & Paiz, LLP is a certified public accounting and consulting firm located in Cheyenne, Wyoming. MHP consists of approximately 50 people, including nine partners, offering accounting, tax and consulting services to business, not-for-profit, government and individual clients throughout Wyoming, Northeastern Colorado and Western Nebraska.

MHP believes in the value of relationships and they take pride in their commitment to providing close, personal attention to their clients. Their continuing investment of time and resources in professional continuing education, state-of-the-art computer technology and extensive business relationships is indicative of their commitment to excellence.

**RSM International**

RSM McGladrey is the U.S. member of RSM International, the world’s sixth largest accounting and consulting organization. The international affiliation of 600 offices in 75 countries benefits businesses that are interested in expanding overseas or gaining insight into global best practices. RSM McGladrey’s membership in RSM International means clients can access the combined skills of more than 19,500 professionals worldwide.

**The RSM McGladrey Difference**

We are staffed and structured so top professionals work closely with you, consistently bringing you ideas and solutions to help you succeed. With your mission and goals in mind, our team works with you in an integrated way, without departmental barriers. No matter what the issue, you will work with seasoned professionals who have experience solving business problems similar to yours. That is the RSM McGladrey difference.

RSM McGladrey’s commitment of resources and talent to you reflects our commitment to your business and your industry. We focus on your needs and helping you reach your business goals by providing affordable, practical solutions. Look to RSM McGladrey to provide you with consulting, tax and business advice needed for your long-term success. Should the need arise for special attest services in connection with our consulting work, McGladrey & Pullen can provide those services in a timely manner, building on our knowledge of your organization.

**Working with RSM McGladrey**

A number of important factors contribute to good, productive working relationships between clients and their consultants. These factors include the
skills and personalities of the persons assigned to an engagement, the quality of the services delivered, experience, cost and more. We believe that we have some special qualities that distinguish us from other public accounting and consulting firms, as described below.

- Our existing understanding of information technology infrastructure will minimize the amount of time required for us to become familiar with your operations.
- Our mission and client service philosophy are based on helping our clients succeed.
- Our understanding of distributed systems, PeopleSoft software products, networks, and the academic industry as a whole, will significantly reduce the amount of time required by your staff to educate us on your systems.
- We have written several books on information technology topics, including:
  - Strategic Information Technology Planning
  - IT Development
  - IT Management
  - Systems Selection
  - Computer Crime Prevention
  - Business Continuity Planning
- Many of our consultants hold various professional certifications such as Certified Public Accountant (CPA), Certified Information Systems Auditor (CISA), Certified Business Continuity Professional (CBCP), Certified Information Systems Security Professionals (CISSP), or various SANS GIAC security certifications. Many of our staff also have technical certifications such as Certified Novell Engineer (CNE), Microsoft Certified System Engineer (MCSE), Cisco Certified Network Associate (CCNA), Cisco Certified Design Associate (CCDA).
- Under the alternative practices structure, although we are not a public accounting firm, we subscribe to the AICPA’s code of ethic and consulting services standards. In addition, our security consultants subscribe to the Information Systems Audit and Control Association’s (ISACA), International Information Systems Security Certification Consortium’s (ISC²), and System Administration, Networking, and Security (SANS) Institute’s Codes of Ethics.
- Providing services of the highest quality is a basic tenet of our Firm. We believe this fundamental strength is enhanced by our orientation to help clients anticipate future needs. This approach is part of our basic service to clients.

**Specific Qualifications**

Members of our project team, as well as other consultants in our Firm have worked with virtually every component of your current IT environment.
The approach we are proposing benefits the University in several key ways. Our assistance is intended to give you the benefits of an on-schedule, on-budget project. To this end, you will receive the following:

- Experienced planning and management to help you keep the project on track.
- An objective third-party review of your current systems.
- Practical recommended solutions to issues facing the University, including workflow process improvement through technology adaptation.
- A comprehensive assessment of the trade-offs between strategic options, taking into account implementation timeframes and conversion risks.
Scope and Approach

As stated in the Request for Proposal, the University of Wyoming faces some critical long-term decisions with respect to the direction its administrative computing decisions will take in the future. You have requested that we examine the services, applications, architecture, system security, resources, and associated information technology personnel throughout the University's Laramie campus and make recommendations pursuant to the results of the analysis.

The goal of the review will be to:

- Ensure the protection and security of University data.
- Minimize duplication of effort, services and resources.
- Eliminate inefficient and costly redundancies.
- Define what services, if any, should be restructured or eliminated.
- Eliminate non-compatible standards and architectures.
- Identify obstacles for departments wanting to move computing operations to the Division of Information Technology.
- Recommend a strategy for evaluating the University-wide impacts of major information technology purchases, including analysis of total cost of ownership.
- Evaluate the complexity and risks of managing a complex distributed computer environment, including system security, exposure to data loss and virus protection.
- Identify issues and trends in technology that may affect the University's technology infrastructure and long-term architecture.
- Recommend the most effective balance of central and distributed technology services, staffing and resources.

Our fieldwork will review the following scope of services:

- Security Architecture & Administration
- System Architecture & Scalability
- Business Continuity Planning, Back up & Recovery
- Domain services for both the employee and student domains (roughly 30 UW domains that trust the two primary UWYO and UWSTUDENT domains)
• Duplication of services (DNS, email, DHCP, Web servers, files servers, etc.)
• Consistency of database architectures, where possible
• Departmental networking infrastructure including wireless
• Environmental: Machine Rooms, Air Conditioning, Wiring, UPS and Power Supplies, Redundant Network Connectivity.
• Environmental support systems such as HVAC, UPS and backup where equipment is housed.
• Functional employee groups and other suitable areas for Citrix/Terminal Services applications including potential costs and cost savings, if any.
• Purchasing standards for hardware, and software, etc.
• End user software and hardware support
• Server support and maintenance
• Personnel resources
• Opportunities for cost savings

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• Experienced planning and management to help you keep the project on track.
• An objective third-party review of your current systems.
• Practical recommended solutions to issues facing the University, including workflow process improvement through technology adaptation.
• A comprehensive assessment of the trade-offs between strategic options, taking into account implementation timeframes and conversion risks.

We have developed a work plan that takes into consideration the various considerations we've listed above.

Our approach includes three pricing options based on the amount of remote and on-site interviews, survey collection, analysis, and number of departments. The Options are:

• Option I: Remote interviews, survey collection, and analysis of a sample of University groups (based on 20 interviews)
• Option II: On-site interviews, survey collection, and analysis of select University groups (based on 30 interviews)
• Option III: On-site interviews, survey collection, and analysis of select University groups (based on 40 interviews)

To accomplish the project's objectives, we will perform the following activities with the assistance and input from University staff, administration and students.
Phase I: Organization and Technology Assessment

1) Meet with the Project Coordinator and IT Directors from the University.

The purpose of these meetings will be to discuss our work plan, establish overall liaison responsibilities for the study, schedule meetings, and confirm other general arrangements. This would include workspaces and meeting rooms during the process of soliciting comments and validation of the RFP assertions from faculty and staff members.

2) Assist the Project Coordinator to structure a Planning Team to be involved throughout the project.

Generally, the Planning Team should be representative of the major functional areas or services provided by the University. We would envision the Planning Team providing feedback and additional insight based on their review of draft deliverables during the course of the project.

3) Meet with University administration to better understand the strategic plans of the University of Wyoming.

We will also review any preparatory materials that have been formulated that would help us to understand the University's vision of the future. Meetings will be held with the University President, the Executive Council and the Dean's Council to gain an understanding of the overall strategic plans of the University.

4) Develop questionnaires related to existing and future information systems and technology needs.

Two questionnaires will be developed, one for the Department Heads and one for Departmental System Administrators. These questionnaires will address technical and end user considerations such as business recovery, departmental system initiatives, security of applications, etc. The questionnaire will also be directed to gaining an understanding of the department’s technology needs and to understand the technology environment. These questionnaires will be placed on the Intranet for participants to answer.

5) Assess the current environment.

Obtain and review organization charts, software and hardware inventory, communication network schematics, written policies and procedures (particularly those dealing with data administration), and other items that will be helpful to our understanding of UW’s current systems and future plans. Upon completion of our review of these materials, we’d like to meet with the individuals in the IT department to discuss the enforcement of data and security administration policies and the impact of introducing third party software products. This will include 10-15 additional face-to-face interviews with the departmental system administrators.

We would also need to understand what hardware and software facilities are in place to monitor and safeguard production databases from unauthorized network access.
During this task, we’d also like to review current policies and procedures related to backup and recovery of the administrative databases and applications in the event the current facilities were rendered inoperable. In this regard, we would need to understand any formal or informal disaster recovery plans and specific responsibilities that would be assigned during the recovery stage.

Finally, we will review and discuss the deployment of existing network facilities to determine how extensible these facilities would be to meet future needs, expand service offerings and/or deploy new integrated, or “Best of Breed” software strategies.

6) Review the overall architecture of the University’s systems.

This will help us to gain an understanding of how information is stored on the physical databases as well as how it is used to logically support the administrative and academic applications. Once this review is completed, we’d like to discuss planned enhancements as well as any structural changes needed to improve the capabilities of the system architecture to support departmental applications. We would also review the current archiving and data security procedures and record retention policies and procedures.

7) Interview personnel from each department and operating area, and other interested parties to review and discuss existing and future technology needs.

We will utilize a combination of group workshops, individual interviews, and electronic surveys to gather information. We are presenting three options for this important step. Based on the University’s size, complexity, and organization structure, we recommend option three to conduct approximately forty interview sessions, one for each of Colleges, administrative and IT departments, and others to be determined.

We have found that an effective technique in conducting these interviews is to have two to four individuals from the same department in an interview session to discuss interrelationships and the sharing of information in the conduct of particular functions or shared responsibilities. These sessions will be conducted by one consultant and would last 2 - 2½ hours, with three to four sessions scheduled per day. This requires participants to be prepared in advance by completing the questionnaires and returning them to us in advance of the actual interview sessions. In order to minimize distractions and interruptions, we also like to conduct the interview sessions in a conference room that would accommodate our interview team and the participants.

8) Review the information gathered during the interview process and develop an information systems assessment document.

This document will summarize our preliminary assessment and conclusions based on the survey and interview results from an institutional perceptive. We would also discuss our impression of existing data and security administration procedures as well as current provisions for recovery of the existing IT facilities in the event of a disaster.
We will comment on the adequacy of these measures and existing record retention procedures, and determine if these need to be upgraded as part of the strategies developed in this review. **We will review this document with the Planning Team in a discussion outline format.**

**Phase II: Development of Strategic Initiatives**

9) Document the needs identified by the individual departments and classify them into specific strategic technology initiatives to satisfy the University's short-term and long-term objectives.

Needs will be categorized in a more detailed manner into technical infrastructure requirements, application system initiatives, data integration and analysis needs, workflow improvement projects, and technology training and support resource requirements. Wherever possible, we will document the relative priorities of these user needs, and determine the desired timeframe in which they need to be satisfied. The business requirements and process improvement initiatives will be quantified in terms of opportunity costs, so that, together with the desired delivery timeframe, they can act as a mechanism for evaluating the effectiveness and feasibility of alternative IT strategies.

10) Contrast and compare the strategic technology initiatives jointly with the Project Coordinator and the Planning Team.

We will develop high-level descriptions of the most feasible technology strategies that we identify as a result of Phase I.

We will identify direct and indirect benefits attributable to the implementation of each alternative strategy, as well as offsetting risks and degree of difficulty in implementing a particular strategy. We will review these criteria with the Planning Team, in order to determine the completeness of them.

To be seriously considered, any alternative strategy must, at least in the longer term, offer a reasonable improvement of IT capabilities over what is currently available and must satisfy future user requirements that have been identified as a result of the planning process. Certainly, an alternative strategy that affords little, if any, improvement in IT capabilities, or worse yet, does not provide what is currently available in terms of IT systems, would not be considered as a viable strategy.

The delivery or implementation timeframe of each alternative will also weigh heavily in the evaluation process. The quicker that enabling technologies can be brought to bear to improve business processes, the greater the payback in terms of improved cost of operation and quality of service delivered. Such considerations will be taken into account in developing a comparison matrix of the alternative strategies.

Once the descriptions of each alternative strategy has been agreed upon, we'll more fully develop a high-level cost estimate to implement our recommended alternative, as well as determine what alternative software components might be available to fulfill part or all of a particular strategy.
Phase III: Strategy and Plan Development

11) Evaluate and contrast the various information technology strategies that can achieve the strategic goals and business objectives of the University.

Evaluate and contrast each from a relative cost perspective including:

- Hardware platforms
- Systems architectures (operating environment)
- Application software
- Communications networks
- Delivery systems (data capture and presentation)
- Other costs (training, conversion assistance including project management, additional support resources, ongoing maintenance costs, etc.).

Each alternative will also be assessed and documented in terms of what additional costs potentially would be incurred regarding extensions to security mechanisms, firewalls, and backup facilities (including archiving and power supply facilities).

12) Identify the most appropriate IT organization structure(s) to support the information and telecommunications technology infrastructure for each alternative strategy.

There is likely to be a continued long-term shortage of qualified technical resources and it is imperative that the strategic information technology planning process realistically addresses the support needs of the organization in the future for each strategy being considered. Some alternative strategies would entail significant additional staffing expense if the University were to successfully compete for IT personnel needed to support a particular system’s architecture. We will review the strategies with the University Project Coordinator.

13) Develop a consolidated budget for each alternative strategy.

Costs associated with each of the individual strategic alternatives over a three-five year planning period will be estimated. Estimates will cover the one-time and ongoing costs for equipment, software, conversion, communications, installation, implementation, staffing, education, and other costs as defined in the preceding tasks. This will include a cost benefit analysis as well as a discussion on total cost of ownership of various strategies.

We will complete the initial Information Technology Review Report and review it with the Project Coordinator and Planning Team. You can expect to receive our report that addresses the following items:

- To create a cost-efficient blend of centralization and decentralization of information technology resources - properly aligning the University's information technology infrastructure to best meet the needs of its teaching, research and outreach missions.
- To create a coherent campus-wide information technology computing architecture and a solid foundation for the University's information technology infrastructure.
- On developing a long-term organizational process and structure to ensure the best utilization of the University's information technology resources for the future.
- To estimate the costs of infrastructure and support, including personnel and training, in the current distributed environment and to estimate the same costs for the alternatives proposed.

And the report will include the following items:

- An executive summary addressing all Review Goals and Objectives and making recommendations for actions that will enable the University to achieve the Review Goals and Objectives.
- Compilation of survey and interview responses and analysis of the results.
- Distributed security assessment and general vulnerability analysis.
- Cost-benefit analysis of centralized and decentralized options, with long-term risks articulated.

We will incorporate changes and additions to the initial plan as agreed upon by the members of the Planning Team and deliver the final document. In the table that follows in Section 5, we have provided a project timeline as well as indicated critical milestones or project deliverables.

15) Present the Information Technology Review Report to appropriate University management. We anticipate providing up to six presentations during the same trip to the University.
Our Project Team

The most critical element in the successful completion of any engagement of this nature is the personnel assigned to carry out the responsibilities. Mr. Roger Peters, Managing Director, in charge of the National Integrated Technology Solutions (NITS) group of RSM McGladrey, Inc., will provide quality control. Mr. Peters will be responsible for assuring that the proper level of supervision, review and staffing is provided.

Personnel identified for this engagement include Hussain Hasan, Melissa Harp, Bob Adam, Corbin del Carlo, (biographies of these individuals are attached), as well as other qualified consulting staff. They will be assisted by other qualified consultants, as appropriate, to assure the quality and timely completion of our commitments to you. Mr. Hasan, who is a Director in our NITS group, will be the Project Manager and will have the responsibility and authority to act on behalf of RSM McGladrey in matters related to this project. Bibliographic information of our team is attached in Exhibit B. Exhibit D contains a summary technical skills matrix of the staff assigned to this project.

To ensure coordination between the University and RSM McGladrey, Inc., we request the University designate a person as engagement coordinator. This person would be our main point of contact and be responsible for identifying and making available the needed resources. This person would arrange for the interviews and provide background information as needed. We would view this person as a key participant in this engagement and would expect him/her to be available at critical points during the project to address problems and review preliminary recommendations.
University of Wyoming
Information Technology Assessment Review
Project Team Organization Chart

PROJECT DIRECTOR
Roger Peters

PROJECT MANAGER
Hussain T. Hasan

Consultant
Melissa Harp

Consultant
Bob Adam

Consultant
Corbin del Carlo

Technical Advisors
Senior Staff

UW Project Coordinator

UW Planning Team

UW Department Personnel
(Faculty & Staff)

UW Technical Personnel

UW Select student representatives
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<td>10. Compare Strategic Alternatives</td>
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Total Estimated Hours: 394 – 474 Hours

* The range provided on the number and detail of interview sessions allows the University the discretion to tailor the requirements gathering and confirmation process. Alternatively, the additional time could be allocated to more in-depth business process improvement activities.
Mr. Hasan is a Director with the Integrated Technology Solutions Group in the Schaumburg, Illinois, office of RSM McGladrey, Inc. He specializes in Information Technology (IT) Strategic Planning, IT security and risk assessment, business impact analysis, and network systems design and implementation. Mr. Hasan has over fifteen years of experience with Information Technology in various industries. He serves as an industry specialist instructor (graduate and undergraduate courses) in the Northeastern Illinois University's Computer Science Department.

Prior to joining RSM McGladrey, Mr. Hasan was the Director of Network and Distributed Services for a large public university. Mr. Hasan designed, installed, maintained and managed the university's Information Technology environment, including local area and wide area networks (LAN/WAN) and voice networks. Mr. Hasan also worked as a Network Administrator for another large public university.

**Experience:**

- **Information Technology Strategic Planning**
  
  Mr. Hasan manages and performs several Information Technology Strategic Planning projects each year involving a variety of hardware, software, and operating environments. These projects include all aspects of technology in business and computer security. Projects in various industries cover understanding of technology in business processes, systems development and documentation, hardware and systems issues, human resource issues, physical security, and application and processing issues.

- **Information Technology Security and Risk Assessment**
  
  Mr. Hasan's responsibilities include analyzing client network security (firewall) systems, evaluating established corporate security controls and procedures, analyzing the accuracy and adequacy of data and intellectual property security processes and procedures, substantiating and documenting discovered security control weaknesses, and formulating and presenting recommendations for improvement to management. His experience includes analysis and reviews of:
  - Data and Intellectual Property Security and Integrity
  - Security Operations
  - Corporate Security Policies and Procedures
  - Telecommunications Security
  - Business Continuity/Disaster Recovery Planning
  - Physical Security Analysis
  - Enterprise Intrusion Testing
Mr. Hasan has experience in designing, preparing, and implementing Request for Proposal (RFP) documents and drawings for physical cabling, including Multi-Mode and Single-Mode Fiber, and UTP Category 3, 5 and 6. He has been involved in numerous projects that involve the design, testing, evaluation, acquisition, and implementation of the network electronics and management software/hardware required to connect various locations (local and remote). He has experience with a network modeling and analysis tool (COMNET III from CACI) and has used it in his design analysis. The design criteria he has used is based upon performance, price, and standardization of the technologies (ATM, Gigabit Ethernet, Fast Ethernet, Token-Ring, FDDI, Switched-Ethernet, Frame-Relay, and dedicated circuits). Other experience includes the design, testing, evaluation, selection, acquisition, and implementation of Client Server, Application, File, and Communication Servers, TCP/IP and IPX subnetting scheme, Network Operating System (NOS), RAID solutions, Clustering Technologies, Thin-Client Architecture, Backup hardware and software, Network Interface Cards (NICs), GroupWare solutions, UPSs, Internet connectivity software, and other hardware, software, and tools necessary to implement an Enterprise-Wide network. These engagements were performed in several industries, including, various levels of government (state, county, and local), banking, private club, education, and retail industries.

**Education:**

- M.S., Illinois State University (Computer Science)
- B.S., Illinois Wesleyan University (Physics, Mathematics & Computer Science)
- B.A., Punjab University (Economics and Statistics)

**Training:**

- Internet and System Security Scanner Training (ISS)
- Introduction and Advanced Cisco Router (Protocol Interface)
- Introduction and Advanced Sniffer (Sniffer University)
- Introduction and Advanced HP Openview (HP Training Center)
- Network Simulation and Modeling (CACI)

**Certifications:**


**Affiliations:**

- FBI InfraGard, Chicago Chapter
Roger A. Peters is a Managing Director in RSM McGladrey Integrated Technology Solutions consulting group. Mr. Peters has over 25 years of information systems experience including a wide variety of hardware platforms, operating systems, application software, and processing center operations.

Mr. Peters has considerable experience in systems review and enterprisewide automation needs analysis. His experience includes financial institutions, data centers, and software companies. Prior to joining RSM McGladrey, he worked for a major computer systems and services vendor and managed consulting and software development teams.

Mr. Peters has experience in project management and implementation planning, and has assisted many organizations with information technology planning. In addition, Mr. Peters has managed numerous business continuity planning projects, including business impact analysis, risk assessment, prioritizing operations, determining recovery strategies and plan development. His contingency planning experience includes financial, distribution, government and other industries.

Mr. Peters has extensive system experience in a variety of hardware. He has experience with various programming languages, including 4GLs, SQL-based systems and COBOL. Software design experience includes several database marketing systems using mainframe, Unix and microcomputer architectures. In addition, he has extensive experience with microcomputer hardware and software.

As a consultant with RSM McGladrey, Mr. Peters provides services to clients in the areas of:

- Information Systems Needs Analysis
- Strategic Information Systems Planning
- Systems Configuration Review
- System Evaluation and Selection
- Implementation and Project Management
- Contract Review and Negotiation
- Disaster Recovery and Contingency Planning
- Business Process Re-engineering

Mr. Peters has authored numerous articles published in the U.S. and South America in the areas of business continuity planning, systems selections, strategic information systems planning, and profitability enhancement. He has also co-authored three books on contingency planning, including risk reduction strategies and business continuity planning. Mr. Peters speaks frequently to various organizations regarding information security, strategic technology planning, and hardware and software selection methodology.
BOB ADAM

Summary of Experience

Bob Adam is a director with the Consulting Services group of the Great Lakes practice. He has over twenty-five years of experience in all phases of Information Technology (IT) design and implementation, including:

- **IT Software Evaluations and Selection** for a variety of organizations including local governments, school districts, associations, financial institutions, manufacturing & distribution businesses, health care, transportation, insurance and retail operations.

- **Operational IT Reviews** involving a variety of hardware, software and operating environments for several organizations, including Rock Valley Community College and Southern Illinois University. Reviews include all aspects of IT operations controls, systems development and documentation, business continuity planning, computer access, data and procedural controls, application and processing controls, as well as systems performance.

- **Database Design and Implementation** across a wide range of industry applications. He designed a dynamic, ticket-pricing database for the international air travel industry and a database that covered all informational needs for a large motion picture production company. Bob also developed standards for internal database controls for a large railcar manufacturer, among other large enterprise-wide data base design assignments.

- **IT Strategic Planning** engagements have included projects for a statewide consortium of health agencies, a state education agency, an electronic publisher and a large health insurance claim processing operation.

Bob has held supervisory and managerial roles in the areas of systems, programming, database development and inventory control in a large retail operations environment as well as in banking. In addition, he has worked extensively in IT consulting, both in his own independent firm and with another large national accounting firm prior to joining RSM McGladrey in 1985.

Professional Affiliations

Bob has written more than twenty articles appearing in industry trade publications over the past several years, and he is a frequent speaker on IT issues at international and national seminars. He has been quoted in Computerworld and BusinessWeek, and was an editorial advisor for a large software trade publication.

Education

Bob received a Bachelor of Science degree in Political Science from the University of Wisconsin – Madison. Bob also attended the Graduate School of Banking program at the University of Wisconsin - Madison.
Ms. Harp is a Manager with the Information Security Group of RSM McGladrey, Inc. She specializes in information systems auditing, internal control reviews, business continuity planning, and risk analysis.

Prior to joining RSM McGladrey, Inc., Ms. Harp worked for a major financial institution performing project management, software development and quality assurance responsibilities. She has nine years of experience in the information technology field. Her client work spans several industries; to date, she has served clients in financial services, manufacturing, insurance, higher education and government agencies. Her responsibilities include:

- **IS Auditing**
  Ms. Harp manages and performs over 30 SAS 70 Third-party and Information Systems Internal Control Reviews each year involving a variety of hardware, software and operating environments. These audits include all aspects of computer security and business continuity planning. Audits cover operations controls, systems development and change control procedures, access controls, data and procedural controls, physical security, application and processing controls, compliance testing and off-site storage.

- **Business Continuity Planning Consulting**
  As a Manager, Ms. Harp has directed project planning, conducted business impact analyses, evaluated critical needs, developed recovery strategies, and written recovery plans. As part of the business continuity process, she has also analyzed insurance coverage, developed effective backup strategies, evaluated contracts, and reviewed storage and retention guidelines.

Ms. Harp has participated in the development and testing of data center business continuity for over 50 financial institutions.

- **Related Information Technology Experience**
  In addition to providing IS Auditing and Business Continuity services, Ms. Harp is also experienced with the following:
  - Developing testing strategies, methods, and procedures
  - Performing Information Technology Risk Assessments
  - Reviewing Gramm-Leach-Bliley program compliance
  - Designing software development methodologies
  - Delivering end user software training
  - Implementing management reporting practices
Ms. Harp has systems experience with mainframe computers, midrange systems, PCs, LANs, and WANs and is familiar with a variety of operating systems and application software.

**Education:**

- B.A., Carleton College, Northfield, MN

**Certifications:**

- CISA Certified Information Systems Auditor as awarded by Information Systems Audit and Control Association
- CBCP Certified Business Continuity Professional as awarded by the Disaster Recovery Institute

**Affiliations:**

- Project Management Institute (PMI)
- Disaster Recovery Institute International (DRII)
- Information Security Audit and Control Association (ISACA)
Mr. Del Carlo is a Senior Associate with the National Integrated Technology Solutions Group of RSM McGladrey, Inc. He specializes in network security (external and internal) reviews, internal control reviews, information systems security policies and technology risk impact analysis.

Prior to joining RSM McGladrey, Inc., Mr. Del Carlo worked for a major financial institution providing network administration and security direction for 1,500 users across three states. Mr. Del Carlo has carried out examinations of network structures, administrative practices and security. His hands-on experience includes:

- Managing the integrating and standardizing technology platforms to achieve management efficiencies, reliability and security
- Provided second level support for teams of technicians to assure timely resolution of network, software and hardware problems
- Implemented Internet services providing segregated DMZ (De-Militarized Zone) for hosted web applications, VPN (virtual private network) secure remote access and automated fail over of firewalls to assure continuity of service and security
- Installed and operated the automated management services for a large network providing configuration management, device fault notifications, device inventory, software distribution, network diagramming and central log repository
- Designed, migrated and managed the network domain structure with Microsoft Active Directory
- Supported a 90+ node wide-area network (WAN) using IP/IPX/SNA protocols over frame-relay and ATM/IMA circuits
- Rolled out an enterprise intrusion detection system setting up traffic blocking policies with centralized management
- Software, Hardware and Industry Experience
  - Financial Application Software:
    Fiserv ITI, Metavante Banker Insight, Metavante Teller Insight, Metavante Operation Desktop, Harland Financial Laserpro, Miser II, FEDLINE, Alltel CPI
  - Operating Software:
    UNIX, MS-NT/2000, Novell Netware, OS/2, IOS
• Hardware:
  HP/Compaq Servers and Storageworks libraries; Cisco Routers, IDS, VPN and Firewalls; Dell Server and workstations; 3COM Hubs and Switches; and various Unix boxes including SGI, DEC and IBM.

• Industry:
  Financial, Insurance, Education

Education:

• Millikin University Decatur, Illinois, Bachelors of Science:
  ▪ Major: Computer Science
  ▪ Second Major: Chemistry

Certifications:

• Microsoft Certified System Engineer (MCSE)

• Cisco Certified Network Associate (CCNA)

Affiliations:

• Association for Computing Machinery (ACM)
Phase I
Organization And Technology Assessment

PHASE I
- Organization and Technology Assessment
  - Analyze Organization Goals and Objectives
  - Structure the IT Planning Team
  - Review Existing Systems and Technology
  - Review Existing Business Processes

PHASE II
- Strategic Technology Initiatives
  - Objectives
  - Hardware Environment
  - Strategic Business Plans
  - Organization Structure
  - Laws/Regulations
  - Constraints
  - Threats and Opportunities
  - Financial Status
  - Assumptions
  - Composition of Team
  - Responsibilities
  - Specific Functions

PHASE III
- IT Strategy Development
  - Departmental Workflow
  - Interdepartmental Dependencies
  - Process Redesign
  - Staffing Levels
Phase II
Strategic Technology Initiatives

PHASE I
Organization and Technology Assessment

PHASE II
Strategic Technology Initiatives

Perform Information Needs Assessment

Classify Needs

Determine Strategic Technology Initiatives

Prioritize Strategic Technology Initiatives

PHASE III
IT Strategy Development

- User Assessment
- Technical Assessment
- Competitive Analysis
- Feature/Functions
- User Satisfaction

- Departmental Prioritization
- Type of Technology Need
- Potential Benefits
- Other

- Cost/Benefit Analysis
- Impact on Human Resources
- Legal/Regulatory Requirements
- Demand
- Effect on Business Strategy
- Other Criteria

- Major Technology Projects
- e-business Initiatives
- Organization-Wide Priorities
- Tied to Business Strategies
PHASE I
Organization and Technology Assessment

PHASE II
Strategic Technology Initiatives

PHASE III
IT Strategy Determination

Develop Hardware and Communications Requirements

Develop Software Requirements

Develop Staffing and Education Requirements

Develop Budgetary and Implementation Plans

Hardware Platform(s)
- Hardware Capacity
- Hardware Usage Analysis
- Anticipated Requirements

Software Architecture
- Anticipated Requirements
- Systems Software
- Program Language
- Packaged Software
- Technical Standards
- Documentation Standards

Staffing Requirements
- Technical Education
- User Education
- Management Education

Estimated Costs
- Timeframes
- Responsibilities