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Bradley has 28 years experience in information systems, consulting and decision support for the healthcare industry in the following areas:

- Strategic Operational Planning
- Business Re-engineering
- Project Management
- System Implementation
- System Design and Installation
- Training and Support Programs
- Clinical Repository
- Data Warehouses
- Information Planning
- Software and Technology Selection
- System Development
- Organizational Development
- Comparative Benchmarking
- Decision Support
- Process Improvement
- Contract Negotiation

Bradley possesses both strong technical skills in information systems and technology and the ability to solve complex problems (business or organizationally related). He takes a pragmatic approach to decision making, evaluating competitive strengths and weaknesses, to determine competitive positioning opportunities. He has also developed strong skills in group facilitation, working with clients to expedite group processes to reach decisions.

Professional Experience Summary

Bradley has developed and managed consulting practices focused on the planning, selection, design and implementation of healthcare information systems and the identification and realization of benefits through business re-engineering.

Bradley led the effort to design, develop, market and launch the first comparative financial and clinical repository in the industry providing healthcare organizations with the ability to identify opportunities for improvement in resource utilization, cost, quality and outcomes.

He has established market leading healthcare consulting practices in diverse markets including the leading edge managed care environment of Minnesota. He has worked with over 1000 healthcare organizations in the United States over the past 28 years, consulting in all 50 states. He has also consulted in the United Kingdom, Canada and Australia.

Bradley's clients have included hospitals, health systems, integrated delivery networks, physician practices, managed care organizations and major healthcare insurance organizations. He has also had consulting engagements with suppliers and pharmaceutical companies.

Selected Representative Consulting Engagements

Strategic Information Planning

Developed information system plans to support the business strategies for the following healthcare organizations: Hospitals, Health Systems, Integrated Delivery Networks, Managed Care Organizations, and large Physician Practices. These information plans included software, hardware and organizational strategies for systems development, operation and support over a three to seven year period.

Software Selection, Design and Implementation

Reviewed and evaluated over 200 healthcare software packages including all of the major vendors, as part of extensive software selections for healthcare clients. The application areas for software selection include all of the below listed business and clinical application areas.

Provided project management and leadership to healthcare organizations and clients in the design and implementation of information systems in all of the below listed areas.

Business Applications

- Admitting and Registration
- Patient Accounting
- Accounts Receivable and Billing
- Credit and Collections
- Revenue Management
- Document Imaging
- Electronic Eligibility, Claims and Payment Processing
- Materials Management
- Accounting and Management Reporting
- Productivity Management
- Human Resources and Payroll
- Financial Data Warehouses
- Financial Decision Support
- Enterprise Resource Management

Clinical Applications

- Computerized Physician Order Entry
- Electronic Medical Records
- Master Patient Index
- Patient and Resource Scheduling
- Order Entry
- Results Reporting
- Medical Records
- Pharmacy
- Laboratory
- Radiology
- Nursing
- Physician Communication and Information Access
- Lifetime Computerized Patient Records
- Clinical Data Warehouses
- Clinical Decision Support
- Staffing and Scheduling
- Patient Classification and Severity Measurement

Technology Selection and Evaluation and Development

- Reviewed, evaluated, prototyped and selected technology platforms for the development of healthcare information solutions. Reviewed and evaluated over 100 development technologies for the healthcare industry.
 - Interface Engines
 - Data Warehouses and Data Marts
 - Reporting and Analysis Tools
 - Networks and Communications
 - Relational Databases
 - Software Development Tools
 - Internet Communications
- Ported the Vista CPOE / EMR to the Mainframe Linux Environment
- Developed multi-tiered client server applications starting in the mid 1980s
- Developed multi-terabyte clinical repository relational databases utilizing numerous relational database technologies including IBM-DB2, ORACLE and SYBASE starting in the 1980s.

System Design and Installation

Provided project management and leadership to healthcare clients in the design and implementation of information systems. These projects include:

- Planned and provided project management for the implementation of a centralized business office and software solution for a large multi-entity healthcare organization.
- Designed and implemented electronic health record (EHR) and computerized physician order entry system (CPOE) systems
- Implemented clinical decision support to improve the delivery of healthcare.
- Implemented Medication Management, Patient Safety and Pharmacy Solutions.
- Planned and provided project management of implementation of all business and clinical information systems for healthcare providers.
- Planning and Project Management of implementation of Enterprise Resource Management including Accounting and Finance, Materials Management and Human Resources and Payroll.

- Planning, Design & Development of Patient Care & Accounting Systems

Software Creation, Design and Development

Created, Designed and Developed software solutions for the healthcare industry. These solutions include the following:

- Created and Developed Patient Registration, Medical Record, Radiology & Patient Accounting Systems
- Developed and Implemented Medical Records Systems -- Including the Design and Installation of Comprehensive Data and Cross-Data Validation Routines to Improve Data Accuracy
- Created, Developed and Implemented a Custom Enterprise Master Patient Index System for multiple healthcare entities
- Designed, Created and Implemented a Patient Accounting System
- Designed and Created a Patient Registration, Admitting and Radiology Patient Care System
- Led the project to operationalize, convert and create web page front ends for the VA's Vista EMR, CPOE and Hospital information systems.

Business Re-engineering Improvements

Reviewed operations and developed recommendations for business re-engineering improvements for the following departments in a diverse healthcare client base.

Developed profit improvement practice guidelines for the healthcare industry.

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| • Utilization Review and Quality Assurance | • Patient Accounting and Claims Processing | • Materials Management and Purchasing |
| • Medical Records | • Accounting and Finance | • Nursing |
| • Pharmacy | • Physician Practices | • Surgery and Anesthesiology |
| • Revenue Management | • Patient Scheduling | • Staffing and Scheduling |
| • Emergency Room | • Long Term Care | • Information Systems |
| • Laboratory and Radiology | • Outpatient Clinics | • Admitting and Registration |

Results: A diverse group of healthcare clients have realized significant value through the implementation of new information systems and business processes to meet their unique requirements.

Contract Management and Negotiation

Assisted in the development of win-win information services contracts for healthcare organizations.

Developed, negotiated and managed outsourcing arrangements as both the service provider and customer for several healthcare organizations.

Decision Support

Developed and Launched a Healthcare Comparative Data Base Business

Developed, marketed and implemented the first comparative database product (CFIS/CQMS) in the healthcare industry in 1986 to analyze and manage the cost, quality, outcomes and process of care - clinical protocols. The solution also enabled the users to identify best demonstrated practices and evaluate their performance against those clinical practices. Developed the second generation of the solution in a client server relational database environment in 1993. The third generation of this product is currently in use at over 200 hospitals nationwide. This product is known as VHA's Clinical Financial Information System (CFIS), Arthur Andersen & Co's Cost Quality Management System (CQMS) and as HBSI's Explorer.

Results: Launched the first such software and database product for sale in the healthcare industry. Over 150 organizations implemented the solution. Multi-million dollar cost reductions and significant quality improvement benefits were achieved.

Development and Implementation of the Case Mix System

Developed the first decision support system in the healthcare industry in 1979 that combined clinical and financial information. Successfully implemented the Case Mix System at the development and pilot sites. The system included the first implementation in the United States of the DRGs from Yale and Dr. Robert Fetter. Developed the documentation, software enhancements and system packaging to prepare the system for release as a product. This product formed the database and software foundation for decision support solutions that are now in their third generation (Eclipsys / TSI) and in use today at over 500 healthcare organizations.

Results: Successfully brought the first Case Mix System to the market in 1979. The combination of clinical and financial information that preceded the implementation of the DRGs enabled hospitals utilizing this system to make significant changes to clinical and business practices resulting in millions of dollars of ongoing business benefits.

Development of Productivity and Operational Benchmarking Program

Developed the largest productivity benchmark database with over 700 hospital clients in 1987. The productivity and benchmarking system was the first in the industry to account for differences in key factors that impacted costs and productivity. The second generation of this productivity and benchmarking solution is currently in use today at over 700 healthcare organizations. This product is known as VHA's Data Comparison Reporting System (DCRS) and HBSI's Action.

Results: Successfully brought the most comprehensive productivity and benchmarking solution to the market in 1987. Through benchmarking 100s of healthcare organizations have targeted their operational improvement programs and implemented millions of dollars of cost reductions.

Utilization Management Program

Developed and implemented a series of Utilization Management Applications utilizing comparative benchmarking to identify the greatest opportunities for changes in practice patterns and the cost of providing services. The applications were focused at physicians, executives and utilization management staff. Users were able to quickly identify where they had the greatest opportunity for improvement and the benefits from implementing new practice patterns.

Results: Numerous clients re-focused their utilization management programs and have realized significant benefits in clinical performance improvement.

Benchmark Opportunity Analysis Development

Developed a series of analysis, targeted at the provider's senior executives and physicians, which identified opportunities for improvement in cost, quality and outcomes through comparative benchmarking.

Results: Implementation of this program resulted in greater usage of the information and the realization of significant cost reduction and quality improvement benefits.

Severity System Selection And Implementation

Evaluated, selected and implemented a common severity system at over 150 providers with thousands of physicians. The evaluation included all viable severity systems and was focused on providing physicians and clinicians with the necessary severity adjustment to conduct and accept in-depth resource utilization analysis in order to implement changes in their practice patterns.

Results: The group quickly implemented the best solution in the healthcare industry, at the lowest possible cost, while increasing the physician confidence and use of the information for utilization, quality and outcomes analysis.

Healthcare Data Warehouse Development and Implementation

Designed, Developed and Implemented Data Warehouse solutions for several healthcare organizations. These data warehouses effectively organized the healthcare transactions data (i.e. claims, physician orders, clinical results, etc.) to provide the foundation for decision information solutions for the analysis of healthcare performance (cost, quality and outcomes). Utilized numerous technical environments in these solutions including: DB2, SQL/DS, Oracle, Sybase, Ingress.

Results: Data and information were effectively organized to meet the business requirements and provide the foundation for their managed care information solutions.

Training and Education Development

Utilization Management

Developed a training program for the implementation of a utilization management program for over 100 healthcare organizations representing thousands of physicians. The training program was focused on implementing comparative utilization management programs that resulted in bottom line and quality outcome improvement impact for their organization.

Healthcare

Developed a training program for a large healthcare consulting practice, to assist in further developing the firm's consulting practice and completing engagements in response to significant changes in the healthcare industry. Created a firm-wide curriculum plan for the healthcare industry. Also, developed and taught several training classes for this healthcare consulting practice in decision support, information planning, system design and implementation, profit improvement and re-engineering business processes.

Resource Management

Developed a firm-wide curriculum plan for an over 25,000 employee consulting firm for the resource management practice area in 1) human resource management 2) marketing management 3) materials management 4) project and property management. This project included working with the practice heads of the above consulting areas, to define and develop a curriculum, to train and develop a consulting staff worldwide and to meet the changing needs of their clients. This project included analyzing the existing consulting engagements and forecasting the engagements that would be required in the future and to

identify the training requirements and needs. Methods to most effectively train the consulting staff were then developed.

Results: A diverse group of organizations have been trained and educated to respond to significant changes in the industry and to prepare for implementation of new information solutions and re-engineered organizations. Through the training and education programs the organizations more quickly realized significant value.

Education and Training

Education: University of Michigan, Ann Arbor, Michigan. M.S. Mechanical Engineering, 1979. B.S. Mechanical Engineering, 1978. Bradley has also received several thousand hours of additional education and training in the management, planning, development and implementation of information systems and technology.