Lee T. Carmen
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Summary

Experienced Information Systems Administrator with 20 years experience building and managing information technology and bioenginnering staff, budgets, operations and infrastructure to support the goals of a premier academic health care and research institution. Experience managing 300+ staff, capital and operational budgets exceeding $50 million per year, facilities exceeding 4 million square feet, and the strategic direction of multiple functional units.

- **Planning**: Skilled in developing Information Technology strategic plans and participating in development of institutional strategic plans.
- **Systems**: Extensive experience in systems support and implementation to enhance medical education, biomedical research, health care delivery and core administrative services.
- **Finance**: Experienced with capital and operational budgeting, financial modeling and forecasting.
- **Human Resources**: Knowledgeable in management, recruiting and retention, staff development, and benefits in union and non-union environments
- **Project Management**: Substantial experience managing complex, enterprise information systems on time and on budget.

Employment

July 2007 – Present	**Associate Vice President for Information Technology** University of Iowa Health Care
July 2001 - Present	**Chief Information Officer Director of Health Care Information Systems** University of Iowa Health Care Iowa City, Iowa

Reporting to the Vice President for Medical Affairs - Responsible for managing Information Systems, Telecommunications and Bioengineering operations for the University of Iowa Carver College of Medicine and University of Iowa Hospitals and Clinics. Provide technical and knowledge management leadership to clinical, academic and research enterprises.

- Developed 60 million dollar Information Technology Strategic Plan for Hospital. Worked closely with Hospital, College of Medicine, University and Board of Regents to define, fund, and implement plan.
- Implemented integrated clinical information systems (Epic) to support clinical needs of large academic medical center.
- Member of State of Iowa 'eHealth' Executive Committee charged with planning and implementation of a state-wide Health Information Exchange. Leading workgroups on system governance and finance and sustainability.
- Organized multiple information systems support teams into single unit. Re-engineered computer support and operations to maximize service, minimize duplication and expense.
- Implemented commercial revenue cycle system (IDX) to support unified hospital / physician billing operations.

- Installed secure enterprise wireless data network to support mobile clinical computing.
- Provide support for 15,000+ computers, 14,000+ telephones, 6,000+ pagers, 14,000 electronic mailboxes, 4 PB storage.
- Co-Principle Investigator on federal grant to implement bar code system to support blood products administration.
- Implemented PeopleSoft General Ledger / Inventory Control system to support hospital operations
- Implementing enterprise labor management including staff scheduling, time reporting and labor analytics (API)
- Oversight of information technology support for University of Iowa Institute for Clinical and Translational Sciences
- Partnered with University CIO to design and build new enterprise data center

August 2001 to Present	**Adjunct Assistant Professor** **College of Public Health** University of Iowa Iowa City, Iowa

August 1994 to June 2001	**Director of Information Systems** University of Iowa Carver College of Medicine Iowa City, Iowa

Reporting to the Associate Dean for Finance and Administration - Responsible for managing information systems operations at a major academic medical school consisting of 780 faculty and 2300 staff. Direct staff composed of 41 full-time and 8 part-time employees. Manage annual operating budget of 12.5 million dollars.

- Coordinate the development of ORACLE-based information management system to manage finances, facilities, human resources, grants, student admissions, enrollment, financial aid, physician credentialing, and clinical research projects.
- Developed centralized team to provide comprehensive networking and desktop support to over 4000 systems located in 14 campus buildings and 30 remote locations.

January 1992 to August 1994	**Database Systems Manager** University of Iowa Carver College of Medicine Administration Iowa City, Iowa

Reporting to the Assistant Dean for Administration - Responsible for designing, programming, and supporting an ORACLE-based information management system to manage critical institutional data.

- Responsible for HP-UNIX v 9.x system administration,
- Administered ORACLE transactional and data warehouse databases

July 1990 to January 1992	**Application Programmer** Department of Internal Medicine University of Iowa College of Medicine

Iowa City, Iowa

Responsible for designing, programming, and supporting a PARADOX-based departmental information management system to facilitate management of departmental faculty, staff, clinical and research activity.

- Designed, installed, and supported local area network for centralized word processing center, faculty offices.
- Provided programming support to research projects.

July 1987 to July 1990 **Programmer**
Cardiac Electrophysiology Research Laboratory
Department of Internal Medicine
University of Iowa
Iowa City, Iowa

Responsible for design and programming of computer system for high speed acquisition and analysis of multiple intracardiac signals. Designed and programmed software analysis tools for commercial human cardiac activation mapping system.

July 1983 to June 1987 **Research Associate**
Cardiovascular Research Laboratory
Department of Internal Medicine
University of Oklahoma
Oklahoma City, Oklahoma

Responsible for support for basic and clinical cardiology research activities. Supported research protocols involving radio frequency ablation of cardiac conduction pathways. Developed and supported computer database to follow patients enrolled in clinical drug trials.

Education

January 1990 to   Graduate Studies, Electrical Engineering
May 1991   Electrical Engineering and Computer Engineering
                                University of Iowa
                                Iowa City, Iowa

August 1987 to   Electrical Engineering and Computer Engineering
December 1990   University of Iowa
                                Iowa City, Iowa

January 1985   University of Oklahoma
to May 1987   Norman, Oklahoma
                                Undergraduate coursework in Mathematics, Statistics,
                                Engineering

August 1979   BS Microbiology (minor Mathematics)
to May 1983   University of Oklahoma
                                Norman, Oklahoma

Additional Training

Lean Six Sigma in Information Technology. September 2007

Introduction to Value Stream Mapping and Lean Process Methodologies. February 2007

Baldrige National Quailty Program for Performance Excellence in Health Care. September 2006

Advanced Project Management. November 2004

Project Management Fundamentals. October 2003

Institutional Leadership Development Program. University of Iowa Health Care. December 2000.

Technical Training

Introduction to Novell Netware 3.11
Administration of Novell Netware 3.11 Systems
Administration of Novell Netware 4.11 Systems
Introduction to Microsoft Windows NT Architecture
Mastering Microsoft WINDOWS NT v 4.0

Mastering Microsoft EXCHANGE server v5.0
Hewlett Packard – Fundamentals of HP-UNIX
Hewlett Packard – HP-UNIX System Administration
Hewlett Packard - OPENMAIL Technology
Introduction to TCP/IP and Internetworking
TCP/IP Administration for UNIX Systems
Data Communications and Security
Object Oriented Programming and Design
Cloverleaf Interface Engine Fundamentals
Introduction to HL7

ORACLE - Structured Query Language
ORACLE - Developing ORACLE Reports
ORACLE - v 7.0 Database Administration
ORACLE - Web Application Server Administration
ORACLE - Web Application Server: Develop Web-Based Applications
ORACLE – v8i Database Administration
ORACLE – Data Warehouse and Data Mining
Extended Relational Analysis - Data Modeling
Microsoft Project 98 – Beginning, Intermediate
Microsoft OUTLOOK 2000 – Beginning, Intermediate
Microsoft – Implementing WINDOWS 2000 Server
Crystal Reports – Beginning, Intermediate
Introduction to JAVA Programming
Data Warehouse Design Fundamentals

External Committees

Iowa Electronic Health Exchange Executive Committee July 2008 - present

Iowa Rural Health Telecommunications Program Steering Committee July 2008 – present

Iowa Hospital Association Council on Health Information May 2008 - present

Publications

Morriss Frank, Abramowitz Paul, Carmen Lee, Wallis Anne. Nurses Don't Hate Change - A Survey of nurses in a neonatal intensive care unit regarding the implementation, use and effectiveness of a bar code medication administration system. HealthCare Quarterly, August 2009

Askeland RW, McGrane S, Levitt JS, Dane SK, Greene DL, Vandeberg JA, Walker K, Porcella A, Herwaldt LA, Carmen LT, Kemp JD. Improving transfusion safety: Implementation of a

comprehensive computerized bar-code tracking system for detecting and preventing errors. Transfusion, July 2008

Kuck K, Jackman W, Pitha J, Carmen L. Percutaneous Catheter Ablation at the Mitral Anulus Using Bipolar Epicardial-Endocardial Electrode Configuration. PACE, June 1988

Jackman W, Kuck K, Naccarelli G, Carmen L. Radiofrequency Current Directed Across the Mitral Anulus With a Bipolar Epicardial-Endocardial Electrode Configuration in Dogs. Circulation, November 1988

Presentations

Arneson S, Carmen L, Schmidt R. Information Management Systems At the University of Iowa College of Medicine. Oral Presentation to American Association of Medical Colleges Group on Business Affairs - Midwest MIS Symposium, June 1993

Carmen L. Update on University of Iowa College of Medicine Information Management System. Oral Presentation to American Association of Medical Colleges Group on Business Affairs - Midwest Symposium, June 1994

Carmen L. Designing a Medical Student Tracking System. Oral Presentation to American Association of Medical Colleges Group on Student Affairs - National Conference, October 1994

Carmen, L. Health Care Information on the Internet. Health Connections. Iowa Continuing Medical Education Conference, April 1997

Carmen L. University of Iowa College of Medicine Information Technology Snapshot. Oral Presentation to Graylyn Conference on Technology Innovation in Medical Education – Wake Forest University, May 2001

Carmen L. Information Systems Project Management. Big Ten Internal Auditors and Information Technology Managers.

Carmen L., Kienzle, M. Coping in a Hostile Environment. Presentation to American Association of Medical Colleges Council on Teaching Hospitals and Health Systems. November 2003

Carmen L. IDX WebFramework Architecture. Presentation to IDX National Users Group, August 2004.

Carmen L. Tools for a Collaborative Enterprise. Web Presentation for Health Data Management magazine. October, 2004

Carmen L. CIO Reality Check on Clinical Research Initiatives. Presentation to Academic Health Centers Forum on Clinical Research. March 2005

Carmen L. Information Technology Initiatives at University of Iowa Hospitals and Clinics. Keynote presentation to University of Iowa Information Technology Forum , April 2005

Carmen L. Patient Safety with Blood Products Administration Using Wireless and Bar Code Technology. AHRQ Safety and Health Information Technology Conference, June 2005

Carmen L, Fleagle S. .Consumerism in Information Technology. Keynote presentation to University of Iowa Information Technology Forum, April 2007

Carmen L. Statewide Progress on Electronic Health Information. Panel presentation at 'Rebalancing Health Care in the Heartland', Dec 2008

Carmen L. Broadband Applications and Strategies. Panel presentation at Iowa Hospital Association Critical Access and Rural Hospital Forum. March 2010

Carmen L. EHealth in the State of Iowa. Panel presentation at University of Iowa Public Policy Center Health Care Reform Symposium. July 2010

Carmen L. 'Statewide Activities on Health Information Exchange'. Presentation at Iowa Hospital Association District G Meeting. September 2010

Carmen,L. 'Clinical Information Systems in Health Care'. Presentation to University of Iowa Information Technology Forum, May 2011

Carmen, L. 'The Road to Meaningful Use'. Presentation to Iowa Health Information and Management Systems Society, May 2011

Awards

2007 Iowa CIO of the Year. Technology Association of Iowa