Vanderbilt University
Enterprise Information Technology Organization and Key Roles (v4)

Enterprise Information Technology Organization

The enterprise information technology organization of Vanderbilt University is deliberately designed to be a robust, agile, and effective enabler of the University's missions. Organization design principles include:

- Aligned with the multiple missions and decentralized nature of the University through matrix reporting relationships and extensive collaboration.
- Focused on an architecture approach using modularity and layering to deal with complexity, increase flexibility, and compartmentalize change.
- Determined in its recognition that leadership must have the accountability, authority, and responsibility to execute at the enterprise and operational levels.
- Fluid and flexible in its structure to accommodate and incorporate the ever-changing aspects of the higher education, clinical, and technology environments.
- Balanced in its approach between centralized and decentralized in order to enable and facilitate innovation in its academic and clinical endeavors.

This approach is reflected in the division of the highest level of technology leadership among the Vice Chancellors for Academic Affairs and Health Affairs (mission leadership); the Chief Information Architect (technology leadership) and the Vice Chancellor for Administration (business leadership). This approach recognizes information technology as an essential element of everything the University does by "main streaming" the effort. Distribution of responsibility is translated into strength through the following explicit accountabilities:

1. Vice Chancellors for Academic Affairs and Health Affairs

   o Develop a shared vision of how the University might optimally meet its missions of discovery, learning and service in a technology-enabled world;
   o Lead planning and communication processes for technology among the schools; and
   o Stimulate change.

2. Chief Information Architect

   o Formulate information policies and information technology standards for the enterprise;
   o Define the enterprise information architecture;
   o Communicate opportunities and risks implicit in the University's information technology trajectory to the Chancellor.
   o Establish accountability for integrity and availability of university information assets and arbitrate where direction is not clear as to whether a particular technology should be centralized or decentralized.

3. Vice Chancellor for Administration

   o Develop funding models and service level agreements for enterprise-wide technology infrastructure to meet the University's needs.
   o Maintain and evolve the enterprise-wide information technology infrastructure.
   o Line responsibility for Information Technology Services (ITS) and Management Information Systems (MIS)

The strategic vision, authority and responsibility for the University's information technology infrastructure rests with the Chief Information Architect and, subsequently, the appointed positions of Associate Chief Information Architect, Enterprise Infrastructure, Associate Chief Information Architect, Enterprise Applications, and Associate Chief Information Architect, Enterprise Informatics.
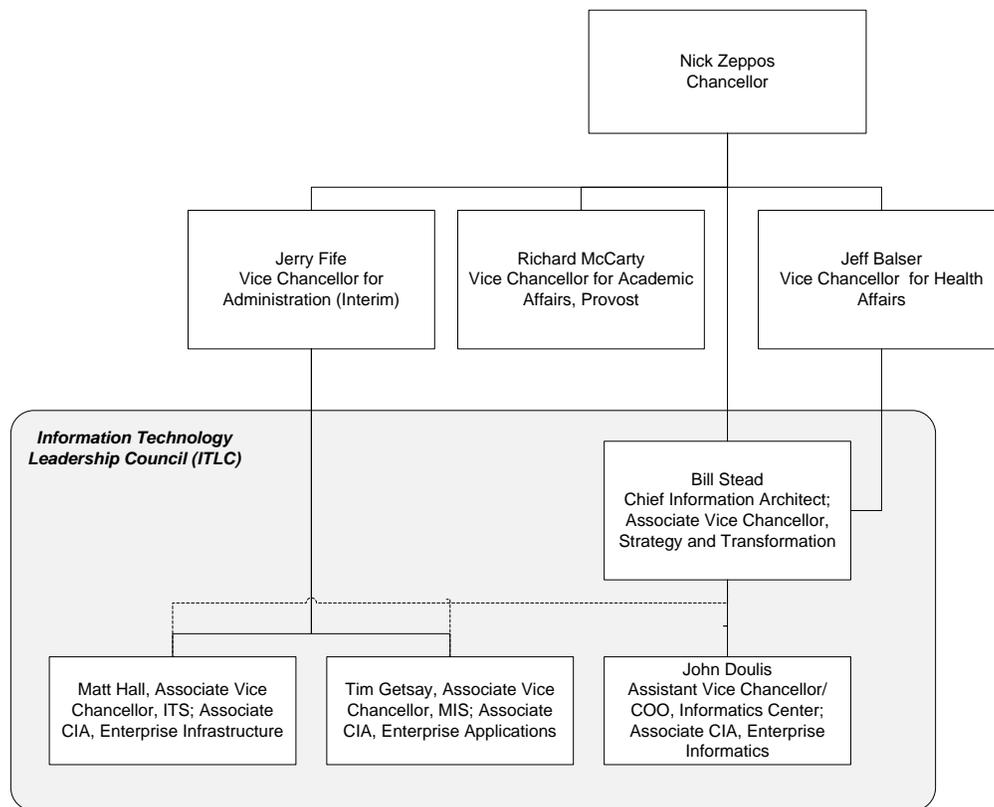
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Operational responsibilities that span the University rest within the structure of the Division of Administration under the Vice Chancellor of Administration and, subsequently, the positions of Associate Vice Chancellor of Information Technology Services (ITS) and Associate Vice Chancellor of Management Information Systems (MIS). Operational responsibility limited to the medical center rest within the structure of the Informatics Center under the Associate Vice Chancellor for Health Affairs/Chief Information Officer VUMC and, subsequently, the position of Assistant Vice Chancellor/Chief Operations Officer of the Informatics Center.

The Information Technology Leadership Council (ITLC) meets regularly to coordinate strategic and operational decision making. ITLC is chaired by the Chief Information Architect and members include the Associate Chief Information Architects and the Assistant Vice Chancellors responsible for ITS, MIS and VUMC. Although not required, strategic and operational alignment is eased by one individual wearing a university-wide strategic hat where possible in addition to a more narrowly focused operational responsibility. For example, the Chief Information Architect currently also serves as the Associate Vice Chancellor for Health Affairs/Chief Information Officer VUMC and the Associate Chief Information Architects also serve as the Associate or Assistant Vice Chancellors with operational responsibilities for Management Information Systems, Information Technology Services, and VUMC Informatics.

Vanderbilt University Information Technology Organization

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Job Descriptions

Chief Information Architect:

Assume overall responsibility for scalability and integrity of the University's information and information technology assets through matrix reporting relationships that establish accountability in the context of the University's decentralized organization.

- Formulate information policies and information technology standards where a University-wide approach is required for information integrity or availability.
- Define enterprise information architecture to allow management of corporate information assets, such as data definitions, business rules and data, from the transaction processing engines that support operations.
- Assess on an on-going basis the operational feasibility of information technology infrastructure components that emerge as high potential to be built once and used across the enterprise, thereby creating more effective pathways towards achieving strategic goals and objectives of the academic and clinical enterprise.
- Communicate opportunities and risks implicit in the University's information technology trajectory to the Chancellor.
- Establish points of accountability for functions critical to the scalability and integrity of University information and information technology assets (e.g., Associate Chief Information Architect, Enterprise Applications; Associate Chief Information Architect, Enterprise Infrastructure; and Associate Chief Information Architect, Enterprise Informatics). These functions ideally are performed by appropriate leaders from an established organizational unit within the University. In such case, the person will have a solid line reporting relationship to the Chief Information Architect for their enterprise function and a solid line reporting relationship to their line-supervisor for their organizational responsibilities. Other, dedicated positions may be established reporting to the Chief Information Architect.

Associate Chief Information Architect, Enterprise Infrastructure

The Associate CIA, Enterprise Infrastructure is responsible for the integrity and scalability of the Institution's enterprise communication, collaboration, computing, and storage assets through matrix reporting relationships, reallocation/realignment of resources, and creation and nurturing of committee structures that establish accountability in the context of the University's decentralized organization. Examples of key enterprise leadership initiatives contain capacity management, communication, collaboration, computation, and support for virtual communities. Core job responsibilities include the following:

- Lead and facilitate the formulation of information technology policy and architectural standards as needed to provide cost effective, reliable, secure information technology infrastructure of the scale required by the University's strategic plans.
- Lead and facilitate the development of enterprise system software services (e.g., authentication, directory management, software patches) that will permit central expertise to be applied on a distributed basis enabling transformative gains in reliability and cost to deploy infrastructure.
- Create efficiencies and increased capacity in information technology infrastructure through economies of scale and skill, platform consolidation, universal technology building blocks, and common methodologies.
- Assess on an on-going basis the operational feasibility of information technology infrastructure components that emerge as high potential to be built once and used across the enterprise, thereby creating more effective pathways towards achieving strategic goals and objectives of the academic and clinical enterprise.
- Oversee the investigation of security breaches and assist in the disciplinary and legal matters associated with such breaches and address all security risks and breaches with the utmost of urgency and professionalism.

- Lead and facilitate development of enterprise information security policies, standards, guidelines and procedures where coordinated action is needed to ensure the proper level of security for all information processed, stored, or transmitted on the VU data network.
- Represent enterprise infrastructure on appropriate committees.
- In conjunction with the financial leadership of the institution and the Chief Information Architect, lead the creation of a enterprise infrastructure service level agreements and funding models that are aligned with the needs of the university, open in design, acceptance and understanding, and firmly positioned to provide a framework for growth.

Associate Chief Information Architect, Enterprise Applications

The Associate CIA, Enterprise Applications is responsible for the scalability and integrity of the University's information, application development and application-specific infrastructure assets through matrix reporting relationships, reallocation/realignment of resources, and creation and nurturing of committee structures that establish accountability in the context of the University's decentralized organization. Examples of key enterprise leadership initiatives are business intelligence, database management, business continuity, process automation, and identity management. Core job responsibilities include the following:

- Lead and facilitate the formulation of information policies and the definition of enterprise application and data architecture as needed to create a data and information environment that can be accessed and leveraged across the enterprise.
- Lead and facilitate the development of enterprise information resources, tools, and application component services (e.g., business intelligence, identity management, roles and responsibilities) that permit central maintenance and use of organizational knowledge while supporting distributed processes to enable transformative gains in application utilization and capability.
- Create efficiencies and increased capacity in the application infrastructure through economies of scale and skill, platform consolidation, universal technology building blocks, and common methodologies.
- Assess on an on-going basis the operational feasibility of application infrastructure components that emerge as high potential to be built once and used across the enterprise, thereby creating more effective pathways towards achieving strategic goals and objectives of the academic and clinical enterprise.
- Lead and facilitate development of enterprise information security policies, standards, guidelines and procedures for internal and vendor applications.
- Represent enterprise applications on appropriate committees.
- In conjunction with the financial leadership of the institution and the Chief Information Architect, lead the creation of a enterprise application service level agreements and funding models that are aligned with the needs of the university, open in design, acceptance and understanding, and firmly positioned to provide a framework for growth.

Associate Chief Information Architect, Enterprise Informatics

The Associate CIA, Enterprise Informatics is charged with developing and championing the science and substance of Informatics to enable the University to maximize the utility, integrity, usability, and liquidity of its information resources. With its focus on integrating people, process, and information, this role also serves as the information technology Chief Risk Officer for the University to guide the measurement and mitigation necessary when using information technology to meet its missions while managing risk to an acceptable level. Examples of key enterprise leadership initiatives are process control and management dashboards, workflow visualization, organizational metadata, knowledge and content management, and educational informatics. Core job responsibilities include the following:

- Lead and facilitate the application of Informatics principles dealing with information, its structure, acquisition and use into the strategic and tactical initiatives of the information technology organizations and the University. Focusing specifically on the following areas:
    - Techniques to structure, discover, visualize & reason with information content
    - Approaches to link people, process & technology together as a system and process to facilitate change
    - Methods to evaluate systems and their technology components
- Facilitate development and adoption of best practices for obtaining, implementing, and utilizing information technology components on an enterprise scale.
- Serve as information technology Chief Risk Officer.
    - Chair IT Risk Committee containing the ACIA, Enterprise Infrastructure and ACIA, Enterprise Applications to create and continually update an enterprise IT risk assessment.
    - Establish milestones to manage and mitigate risks in relation to shared goals and objectives.
    - Research and assess emerging information technology risks and represent Vanderbilt in peer groups; be an advocate for new business process and technology efforts that have significant risk impacts.
- Represent enterprise informatics on appropriate committees.
- In conjunction with the financial leadership of the institution and the Chief Information Architect, lead the creation of a enterprise application service level agreements and funding models that are aligned with the needs of the university, open in design, acceptance and understanding, and firmly positioned to provide a framework for growth.

Associate Vice Chancellor, Information Technology Services

The Associate VC, ITS is charged with the effective delivery and maintenance of data, voice and video services, academic computing support, e-mail and collaboration services, web services, help desks, software licensing and management, network security and training.

- Develop, maintain and benchmark plans for meeting the University's need for shared information technology infrastructure (communication, collaboration, computation, and storage) according to industry best practices.
- Design, establish, and continually refine, enhance and improve a scalable, efficient and effective information technology infrastructure and system software components focused on capacity, reliability, performance, availability, security, and flexibility.
- Oversee the effective delivery and maintenance of operational services – data, voice and video services, academic computing support, e-mail and collaboration services, web services, help desks, software licensing and management, network security, and training.
- Develop and manage policies and programs to monitor the institutions infrastructure components for compliance, performance, and availability purposes.
- Develop, lead and nurture a culture and skill-base, both within ITS and throughout the University, embodying a cohesive, value-added, and positive direction consistent with the values and mission of Vanderbilt University and focused upon meeting objectives without regard to organizational bounds.
- Collaborate with key constituencies to maintain existing services and create new services. Examples include:
    - Student leaders and organizations, Student Life leadership, and school leadership to manage internet bandwidth, control network security, and develop services.
    - Research faculty and administrators regarding research computing and storage.
    - Hospital administrators regarding voice services and on-demand video development and broadcast..

- Provide responsible and innovative leadership to ITS, the Division of Administration, and the University community:
    - Position ITS as a leader and enabler of technological change.
    - Develop, manage, and promote sound fiscal strategies
- Promote and oversee relationships between the University and external entities regarding communication, collaboration, computing, and storage infrastructure.
- Work with university information technology leaders to continuously flex organizational structures to better meet operational goals.

Associate Vice Chancellor, Management Information Systems

The Associate VC, MIS is charged with creating, enhancing, and supporting the University's core business information processing and intelligence systems.

- Develop, maintain and benchmark plans for meeting the University's need for shared applications.
- Design, establish, and continually refine, enhance and improve a scalable, efficient and effective application architecture (e.g., business intelligence, application server, database) focused on capacity, reliability, performance, availability, security, and flexibility.
- Create, deliver, and implement high-quality custom and vendor-purchased software products that support and enable the business processes of the University
- Create and deliver application support services that enhance and enable the timely and accurate completion of the University's transaction and operational processes
- Develop, lead and nurture a culture and skill-base, both within MIS and throughout the University, embodying a cohesive, value-added, and positive direction consistent with the values and mission of Vanderbilt University and focused upon meeting objectives without regard to organizational bounds.
- Align MIS with the business mission(s) (e.g., Financials, Human Capital, Student Administration, Research Administration, Development and Alumni Relations, Clinical Administration) of the University to create and deliver effective, customer-driven product strategies and implementation support.
- Provide responsible and innovative leadership to MIS, the Division of Administration, and the University community:
    - Position MIS as a leader and enabler of technological and business change.
    - Develop, manage, and promote sound fiscal strategies
- Promote and oversee relationships between the University and external entities relating to the University's application development and application infrastructure assets.
    - Work with university information technology leaders to continuously flex organizational structures to better meet operational goals

Assistant Vice Chancellor/Chief Operations Officer, Informatics Center:

The Assistant VC, Chief Operations Officer Informatics Center is charged with providing the most effective information technology infrastructure to support the operations of VUMC. The COO leads strategic and tactical planning related to this charge; facilitates adoption of best technology practices; and negotiates allocation of resources to support VUMC operations. The COO oversees technology acquisition, development, and project management processes. The COO provides cost effective operational support according to service level agreements.

- Lead strategic and tactical planning related to information technology resources to support VUMC's education, research, and clinical programs.

- Create, deliver, and implement high-quality custom and vendor-purchased software products that support and enable the clinical and patient care processes of the University
- Manage strategic and tactical processes for implementation, development, and outsourcing of information technology infrastructure and applications to support medical center operations, including working to move aspects of the infrastructure that can be managed on a university-wide scale to that level.
- Develop, lead and nurture a culture and skill-base, both within Informatics and throughout the University, embodying a cohesive, value-added, and positive direction consistent with the values and mission of Vanderbilt University and focused upon meeting objectives without regard to organizational bounds.
- Negotiate and allocate resources to support operation of VUMC.
- Operate infrastructure according to service level agreements.
- Provide project management for implementation and development initiatives. The latter includes incorporating faculty and student led development as appropriate.
- Participate in management's execution of the plans of VUMC operating units.
- Provide responsible and innovative leadership to Informatics, the Medical Center, and the University community:
    - Position Informatics as a leader and enabler of technological and business change.
    - Develop, manage, and promote sound fiscal strategies
    - Recruit, develop, and mentor Informatics staff
- Promote and oversee relationships between the University and external entities relating to the University's clinical applications, interests, and assets.
    - Work with university information technology leaders to continuously flex organizational structures to better meet operational goals