UNT IT GOVERNANCE

Updated: 7/20/2012

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OVERVIEW

It is critical the University of North Texas makes informed decisions about the selection of (and investment in) "common good" information technology services. Generally, a "common good" service benefits a significant number of users across multiple organizational entities. IT governance defines both *who* makes these decisions as well as the *process* for making those decisions.

As UNT System IT Shared Services' governance and services become increasingly well-defined, and as the transformational possibilities for the application of technology in higher education continue to expand, and as IT investment grows, UNT recognizes the time is right to review and update our institution's IT governance model with the following objectives in mind:

- Align IT with university strategic plans and tactical directions
- Coordinate and align UNT IT with IT Shared Services
- Establish a clear path for strategic IT decisions including funding
- Engage campus constituencies in evaluation, planning, and execution
- Provide transparency around IT governance and service provision
- Provide a forum for development of IT initiatives and services to provide greater capabilities while leveraging economies of scale and other efficiencies in the application of technology

Therefore, UNT will embrace a governance model to clearly define and communicate IT requirements, decision responsibilities, and accountabilities to encourage effective deployment of "common good" information technology at UNT.

IT GOVERNANCE

"IT Governance: Specifying the decision rights and accountability framework to encourage desirable behavior in the use of IT … Governance determines who makes the decisions and management is the process of making and implementing the decisions."
(Weill and Ross 2004, 8)

IT is expensive, pervasive, and expanding—and the value comes from more than just technology. By designing and executing IT governance better than average, studies indicate we should see 20% more benefit than our competitors (Weill and Ross 2004, 2).

Although implementing IT governance improves the quality of decisions, alignment with institutional priorities, and accountability, it remains important to do it well and

infrequently. It takes most institutions three to six months to implement and organizationally "learn" IT governance processes.

Currently, the advent of the System's Shared Services model has been defining an IT governance model to ensure the IT services shared within the UNT System, as a whole, performs excellently. Therefore, understanding how we can work effectively with the IT Shared Services model remains key to our success.

UNT SYSTEM SHARED SERVICES MODEL

Some practical consideration of how the new Shared Services model interacts with UNT IT governance:

- IT Shared Services will not provide all IT services to UNT.
- For solutions the UNT System does not adopt, UNT still needs to find a local "best fit" solution in terms of funding, capabilities, and implementation.
- IT Shared Services requires touch points within the UNT governance structure to evaluate sharing opportunities and funding priorities.

Based on the above, to achieve excellence, UNT needs to continue considering and prioritizing IT initiatives—we need to ensure UNT does a good job appraising both internal and shared IT initiatives.

KEYS TO EFFECTIVE IT GOVERNANCE

To achieve excellence similar to other top performing institutions, Weill and Ross note UNT management must know the following:

- How we govern IT
- How we get input and decide the following items:
    - IT Principles
    - IT Architecture
    - IT Infrastructure
    - IT Applications
    - IT Prioritization and Investment

With the many recent IT Shared Service developments, management is beginning to understand how IT Shared Services governance works. Effectively answering and communicating the remaining items above, as they relate to UNT, should improve our local IT governance.

Top institutions with successful IT governance share the following attributes (in order of benefit):

1. More leadership can describe the institution's IT governance
2. Governance communication includes:
    - Management announcements
    - Formal committees and processes
    - Pro-active championing of governance process by CIO
    - More groups adhering to governance process
    - A single reference (e.g., web site) for IT governance and procedures
3. More senior leaders directly involve themselves in IT governance
4. Senior management sets clear objectives for IT investments to align with the institutional strategic plan
5. Institution more clearly differentiates strategies (e.g., constituent intimacy, value, operational excellence, etc.)
6. Institution realizes fewer renegade and recognizes more formally-approved exceptions
7. Institution changes IT governance (primarily decision-making groups) only when institutional strategies change

The System has already established their governance model and this document serves to define UNT's model in tandem with the System's effort. UNT still needs to fill in the remaining gaps to identify how IT can help us achieve greatness—starting with IT-specific principles.

PRINCIPLES

Principles *translate high level institutional objectives into terms that inform and guide IT decision-makers*. The principles briefly outline operating and funding model objectives and also the expected role and behavior of IT—an agreement among key parties of what IT should achieve. Examples include:

- Reduce costs to support growth and enhancements in other areas
- Create a common community member view
- Reuse before buy; buy before build

According to Weill and Ross, all good performing not-for-profit institutions effectively communicate *how* IT creates value. The top performers further define exactly which capabilities were "must" versus "nice" to have.

ARCHITECTURE

Architecture decisions define and coordinate *policies, standards, and technology UNT uses to organize* data, equipment, and applications. Put another way, architecture defines the tools, methods, and rules to plot a clear path for UNT community members to get work done.

Architecture decision-makers must understand *how* the core UNT processes (people, workflow, data flow, etc.) and their respective applications, organization, and data interrelate. Examples include:

- Why and how to make EIS data authoritative and effective
- Review and advise management regarding information security policies
- How to integrate analytics and visualization systems with data sources

INFRASTRUCTURE

Infrastructure decisions *promote a common, shared backbone* for UNT's process (human and technical) and application capabilities (i.e., work flows, data flows, and software should drive infrastructure design).

The decisions prioritize and coordinate solutions and decide whether or not a solution qualifies for enterprise services, how to price and maintain the services, and whether or not to outsource the service. Examples include:

- Server request scope and available servers/storage inventory
- Data storage systems
- Phone systems and applications

At not-for-profit institutions, senior management should consider infrastructure decisions strategic and therefore make those decisions.

APPLICATIONS

Application decisions *identify new software* to further enhance institutional capabilities and opportunities.

Application decision-makers decide methods (off-the-shelf versus custom), value, integration, testing methodology, exception handling (top performing institutions recognize and track exceptions to build upon the ones that work), and production solution ownership (on-going maintenance/value assessment). Examples include:

- Visualization Software (e.g., Tableau)
- Research Grant Software (e.g., Cayuse)
- Smartphone software (e.g., Quickoffice)
- Cloud services (e.g., Dropbox, Box, iCloud, etc.)
- Institutional Review Board software
- Conflict interest management software

PRIORITIZATION AND INVESTMENT

Prioritization and investment decisions specify *how much money and where* to invest in IT.

Decision-makers strengthen the correlation between strategic objectives and costs/benefits for current and proposed solutions. Without an effective way to prioritize and invest in IT, organizations invariably focus on local, rather than institution-wide, solutions. To achieve more as an institution, decision-makers specify project approval and justification methodologies. Examples:

- Approving allocations for application trials
- Portfolio cost/benefit assessment

Top non-profit institutions implement models that enable IT and business units to work together to understand solution benefits and infrastructure capabilities.

With a firm grasp of effective IT governance keys (how to decide IT principles, architecture, infrastructure, applications, and prioritization), we may now consider a UNT IT Governance Model.

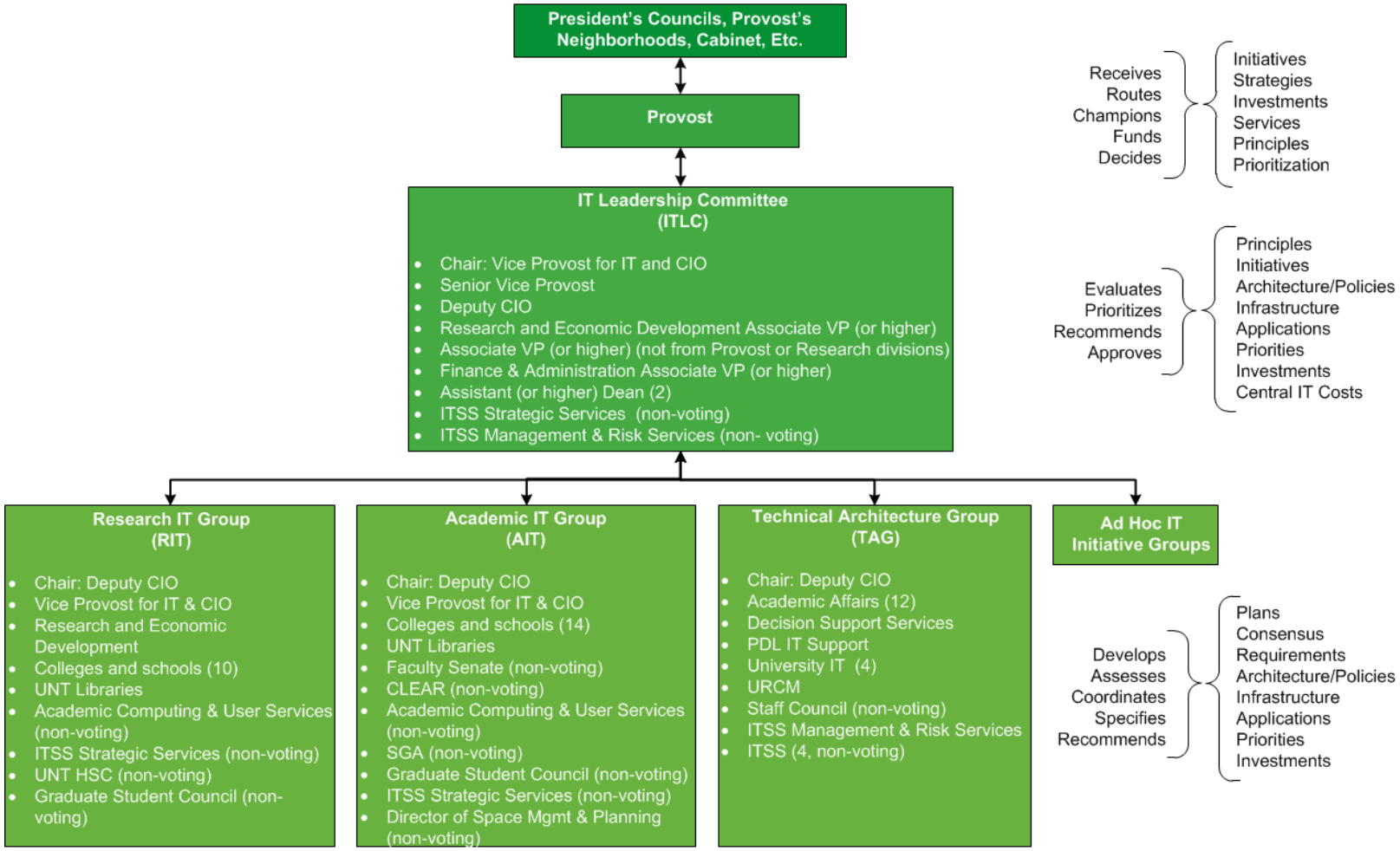
UNT IT GOVERNANCE MODEL

Two primary components comprise the UNT IT Governance Model:

- UNT IT Governance Structure
- UNT IT Delegated Authority Decision Matrix

The governance structure connotes *who* makes decisions. The decision matrix clarifies *how* structure elements promote items for review. The structure component follows.

UNT IT GOVERNANCE STRUCTURE



The above figure shows primary (not all) groups. A decision matrix follows to specify *how* items (e.g., project requests) move.

UNT IT DELEGATED AUTHORITY DECISION MATRIX

For each level of governance in the previous UNT IT Governance Structure figure, the respective group moves the item "up" to the next level whenever the item exceeds the group's authority threshold, as shown in the following Delegated Authority Decision Matrix.

	Funding	Capital Cost	Project Magnitude	Risk	Project Value Analysis Score	Domain
President Councils	University budget funding required	Greater than $1 Million	As determined by Provost/SVP	As determined by Provost/SVP	As determined by Provost/SVP	Funding, strategy, alignment
Provost	Consensus based funding	$100,001 - $999,999	Large >= 6 months duration	High	250+	Champion, review, strategy, funding, ownership
IT Leadership Committee	Consensus based funding	$0 - $100,000	Medium, < 6 months duration	Medium	320+	Direction, priority, policy, budget, allocation, alignment, value
IT Program Groups (RIT, AIT, TAG, ad hoc)	Consensus based funding	$0	Small, <2 months duration	Low	400+	Expertise, costs, execution, plans, operations, needs, evaluation, value

Description of the UNT IT governance model begins with the Provost.

PROVOST

Purpose:

- Champion the governance process throughout the university
- Develop funding and commitment for IT initiatives from appropriate university governing bodies, other university divisions, or the cabinet
- Review plans and strategies for long term IT needs
- Receive input primarily from IT Leadership Committee
- Assure transparent and effective IT governance through oversight and ownership of the IT governance process

Reports to:

- President

Review and approval process:

The UNT IT Delegated Authority Decision Matrix specifies the Provost's review and approval authority. When the matrix does not require routing a particular initiative to the next level, the Provost has broad discretion for the disposition of that item. This could include the following:

- Independent of the matrix, the Provost may choose to route an item for consideration by another university governing body such as a president's council
- For initiatives totally within the purview of Academic Affairs, the Provost may work with the leadership of Academic Affairs to come to a disposition for the initiative—including developing funding and resource commitments
- For initiatives not within the purview of Academic Affairs, the Provost may work with the leadership of other university divisions to develop funding and resource commitments

IT LEADERSHIP COMMITTEE

Purpose:

- Champion the governance process throughout the university
- Accept, evaluate, and prioritize IT-related solutions for shared University needs

- Make strong recommendations to the University administration regarding IT issues
- Identify and plan for long term IT needs
- As part of priority-setting process, define the “must” versus “nice to have” items
- Receive input primarily from standing and ad hoc subordinate groups
- Oversee standing and ad hoc subordinate groups to promote consensus, prioritization, and parity with defined IT governance principles
- Manage requests that multiple subordinate groups share
- Formally track projects
- Annually review UNT central IT budget proposals
- Review and advise on IT related policies
- Assure transparent governance including establishing and sustaining regular communications with UNT information technology constituents

Reports to:

- UNT Provost

Representation characteristics:

- Knowledge of finance and operations
- Ability to make judgments in relation to university goals
- Ability to serve as a representative of a broad set of constituents beyond their own direct interests
- Representative of non-academic areas that include three of the President's cabinet divisions
- Representative of academic areas that represent a broad range of needs and interests including research, learning, creative, and other scholarly emphases

Membership includes high-level administrators and representatives of the academic community:

- Chair: Vice Provost for Information Technology and Chief Information Officer
- Senior Vice Provost
- Deputy Chief Information Officer
- Associate VP (or higher) for Research and Economic Development
- Associate VP (or higher) (not from Provost or Research divisions)
- Associate VP (or higher) for Finance & Administration
- Assistant (or higher) Dean from a College (position 1)
- Assistant (or higher) Dean from a College (position 2)

- ITSS Strategic Services representative (non-voting)
- ITSS Management & Risk Services (non-voting)

Review and approval process:

The UNT IT Delegated Authority Decision Matrix specifies this committee's review and approval authority. The committee chair brings items forward for review and approval. With consensus and per the matrix, the committee approves an item or routes the item to the Provost for approval. Without consensus and with a simple majority of the committee in favor of an item, the committee may work to develop consensus or prepare majority and minority positions for disposition by the Provost.

RESEARCH IT GROUP

Purpose:

- Receive input from research user community
- Accept, analyze, and evaluate IT-related solutions for shared research needs
- Provide strong input to the IT Leadership Committee to ensure IT meets the university's research needs
- Define and coordinate the procedures, standards, and requirements UNT uses to organize academically-related data, equipment, and applications
- Review and advise on IT related policies
- Serve as a focal point for briefings on trends and products related to the application of technology to research needs by internal and external presenters.

Reports to:

- IT Leadership Committee

Representation characteristics:

- First-hand knowledge of University research, scholarship, and creative activities
- Ability to represent and evaluate research initiatives in relation to University goals
- Representative of the research interests and activities at the University

Membership includes non-IT-staff representatives (except CIO) from the following areas:

- Chair: Deputy Chief Information Officer
- Vice Provost for Information Technology & Chief Information Officer

- Research and Economic Development
- Colleges and schools:
    - College of Arts and Sciences
    - College of Business
    - College of Education
    - College of Engineering
    - College of Information
    - College of Merchandising, Hospitality & Tourism
    - College of Music
    - College of Public Affairs and Community Service
    - College of Visual Arts and Design
    - School of Journalism
- UNT Libraries
- Academic Computing & User Services (non-voting)
- ITSS Strategic Services (non-voting)
- UNT HSC (non-voting)
- Graduate Student Council (non-voting)

Review and approval process:

The UNT IT Delegated Authority Decision Matrix specifies the review and approval authority of this group. The chair brings items to the group for review and approval. With consensus and per the matrix, the group approves an item or routes the item to the IT Leadership Council for approval and prioritization. Without consensus and with a simple majority of the group in favor of an item, the group may work to develop consensus or prepare majority and minority positions for disposition by the IT Leadership Council.

ACADEMIC IT GROUP

Purpose:

- Receive input from academic user community
- Accept, analyze, and evaluate IT-related solutions for “common good” academic needs
- Provide strong input to the IT Leadership Committee to ensure IT meets the university’s academic needs
- Define and coordinate the procedures, standards, and requirements UNT uses to organize academic-related data, equipment, and applications

- Review and advise on IT related policies
- Serve as a focal point for briefings on trends and products related to the application of technology to academic needs by both internal and external presenters.

Reports to:

- IT Leadership Committee

Representation characteristics:

- First-hand knowledge of University teaching, scholarship, and creative activities
- Ability to represent and evaluate academic initiatives in relation to University goals
- Representative of the academic interests and activities at the University

Membership includes non-IT-staff representatives (except CIO) from the following areas:

- Chair: Deputy Chief Information Officer
- Vice Provost for Information Technology & Chief Information Officer
- Colleges and schools (14):
    - College of Arts and Sciences
    - College of Business
    - College of Education
    - College of Engineering
    - College of Information
    - College of Merchandising, Hospitality & Tourism
    - College of Music
    - College of Public Affairs and Community Service
    - College of Visual Arts and Design
    - Graduate School
    - Honors College
    - School of Journalism
    - Texas Academy of Mathematics and Science
    - Undergraduate Studies
- UNT Libraries
- Faculty Senate (non-voting)
- Center for Learning Enhancement, Assessment & Redesign (non-voting)
- Academic Computing & User Services (non-voting)
- SGA (non-voting)

- Graduate Student Council (non-voting)
- ITSS Strategic Services (non-voting)
- Director of Space Management and Planning (non-voting)

The group could receive input from core, mission-related external representatives as well, like from Blackboard, THECB, aspirational peer schools, etc.

Review and approval process:

The UNT IT Delegated Authority Decision Matrix specifies the review and approval authority of this group. The chair brings items to the group for review and approval. With consensus and per the matrix, the group approves an item or routes the item to the IT Leadership Council for approval and prioritization. Without consensus and with a simple majority of the group in favor of an item, the group may work to develop consensus or prepare majority and minority positions for disposition by the IT Leadership Council.

TECHNICAL ARCHITECTURE GROUP

Purpose:

- Receive input from technical staff
- Accept, analyze, and evaluate IT-related solutions for shared needs
- Provides strong input to the IT Leadership Committee to ensure IT meets the university's operational needs
- Define and coordinate the procedures, standards, and technology requirements UNT uses to organize data, equipment, and applications
- Promote common, shared systems for UNT's processes and application capabilities
- Work very closely with IT Shared Services to ensure parity with UNT endeavors
- Review and advise on IT related policies
- Serve as a focal point for briefings on technology products, topics, and trends by both internal and external presenters.

Reports to:

- IT Leadership Committee

Representation characteristics:

- Knowledge of UNT technology services

- Ability to represent and evaluate technology solutions in relation to UNT goals
- Representative of IT service areas within the University

Membership includes IT professional staff from the head of each major IT organizational unit:

- Chair: Deputy Chief Information Officer
- Academic Affairs (12):
    - CAS Information Technology Services
    - CLEAR
    - CoB Helpdesk
    - COE Support
    - CoI Technology Services Group
    - CVAD Support
    - Engineering Support
    - GALMAC Chair (non-voting)
    - Libraries Support
    - Music Helpdesk
    - PACS Staff Technical Support
    - TAM Network Support
- Finance and Administration (2):
    - Decision Support Services
    - PDL IT Support
- University IT (formerly CITC) (4):
    - ACUS
    - AITS
    - CSS
    - MMS
- University Relations, Communications, & Marketing (1):
    - Web Development Center
- Staff Council (non-voting)
- ITSS Management & Risk Services
- ITSS Communication & Collaboration Services (non-voting)
- ITSS Enterprise Systems Infrastructure Services (non-voting)
- ITSS Strategic Services (non-voting)
- ITSS Campus Technology Support Services (non-voting)

This group could also include regular input from external providers, like from UNTS, DIR, or vendors/partners (e.g., Dell, Microsoft, Apple, etc.).

Review and approval process:

The UNT IT Delegated Authority Decision Matrix specifies the review and approval authority of this group. The chair brings items to the group for review and approval. With consensus and per the matrix, the group approves an item or routes the item to the IT Leadership Council for approval and prioritization. Without consensus and with a simple majority of the group in favor of an item, the group may work to develop consensus or prepare majority and minority positions for disposition by the IT Leadership Council.

AD HOC INITIATIVE GROUPS

The IT Leadership Committee may create ad hoc groups as necessary to consider specific initiatives when demands require skills or constituents beyond RIT (Research IT), AIT (Academic IT), and TAG (Technical Architecture Group) entities.

Purpose:

- Accept, analyze, and evaluate IT-related solutions for shared needs
- Provide strong input to the IT Leadership Committee to ensure IT meets the university's operational needs
- Define and coordinate the procedures, standards, and technology requirements UNT uses to organize data, equipment, and applications
- Promote common, shared systems for UNT's processes and application capabilities
- Work very closely with IT Shared Services to ensure parity with UNT endeavors
- Review and advise on IT related policies

Reports to:

- IT Leadership Committee

Representation characteristics:

- Knowledge of domain specific to initiative
- Ability to represent and evaluate technology solutions in relation to UNT goals
- Representative of University IT service areas with domain interests

The membership depends on the specific initiative and may include IT professional staff and/or functional staff. The IT Leadership Committee appoints the chair.

Review and approval process:

The UNT IT Delegated Authority Decision Matrix specifies the review and approval authority of this group type. The chair brings items to the group for review and approval. With consensus and per the matrix, the group approves an item for action or routes the item to the IT Leadership Council for approval and prioritization. Without consensus and with a simple majority of the group in favor of an item, the group may develop consensus or prepare majority and minority positions for disposition by the IT Leadership Council.

CONCLUSION

UNT should adopt a governance model which works in concert with the UNT System IT Shared Services governance. An effective IT governance model at UNT has the following attributes:

- Management understands, champions, and uses governance to direct IT initiatives in concert with institutional objectives.
- Users understand how to get their needs met or understood as they relate to institutional objectives, priorities, and resources.
- Technical staff receive clear priorities and directions to deliver IT initiatives in concert with institutional objectives.

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