# HLC Accreditation
# **Evidence Document**

**Title:  Kurt Salmon Associates IT Strategic Planning Executive Session**

**Office of Origin:  Information Technologies**

**Description:**  This slideshow was presented in 2015 following a review of the university's IT system by the Kurt Salmon Associates.  KSA's review entailed a broad consideration of the nature and responsibility of information technology, providing what is ultimately an "information technology strategic plan" (p. 18) that takes into account the principles of such a department in general.  The recommendations provided by the firm entailed a consideration of governance, and the business and fiscal "models" of information technology.

**Date:  2015**

Kurt Salmon

# Information Technology Strategic Planning

Executive Session

22 June 2015

THE UNIVERSITY of
NEW MEXICO

# Priority Actions

22 June 2015 Meeting Outcomes

# Priority Actions from 22 June 2015 Meeting

## UNM Executive Leadership identified the top three priority actions

› Wi-Fi across campus – uniform coverage

- Define minimum standards, timeline,  funding

- Present Wi-Fi remediation plan within 45 days

- Complete within 2-3 years – execute well with robust project management and accountability

› Information Technology Strategic Plan

- Start long-term Information Technology planning process

- Build support for planning process

- Five year plan for achieving and maintaining state of the art information technology services

- Complete Five-Year Information Technology Strategic Plan

› 3.Regular Executive Leadership meetings for decision making

- Information Technology focus, monthly

- President Frank, Provost Abdallah, EVP Harris

- UNM IT must bring forward appropriate information (executive level)

# Meeting Attendees

› UNM Executive Leadership

  − President Robert Frank

  − Provost Chaouki Abdallah

  − EVP David Harris

› Participants

  − Dorothy Anderson, Vice President Human Resources

  − Duane Arruti, Director,  UNM IT

  − Gil Gonzales, Chief Information Officer

  − Kevin Stevenson, Strategic Planning, Office of the President

  − Amy Wohlert, Chief of Staff,  Office of the President

› Facilitator

  − Gerard Nussbaum, Kurt Salmon

# Discussion Materials

UPDATED

# Discussion Topics

Introductions

Goals for this session

Review Of Planning Framework, Vision, Guiding Principles, And Key Definitions

Information Technology Ownership And Governance

Business Model

Fiscal Model

Standards Setting Process

Next Steps And Wrap Up

# Agenda

| Agenda Item | Start | End |
|---|---|---|
| Introductions, Goals, Planning Framework | 10:00 | 11:00 |
| Ownership | 11:00 | 12:30 |
| BREAK (Lunch) | 12:30 | 1:00 |
| Business Model | 1:00 | 2:15 |
| BREAK | 2:15 | 2:30 |
| Fiscal Model | 2:30 | 3:45 |
| BREAK | 3:45 | 4:00 |
| Standards | 4:00 | 4:30 |
| Next Steps and Wrap up | 4:30 | 5:00 |
| Adjourn | 5:00 | 5:00 |

# Goals for This Session

# Goals For This Retreat

## Goals for this retreat

› Adopt governance and oversight approach for information technology

› Delineate scope of services for central UNM Information Technology

› Discuss budgeting and funding approaches for UNM Information Technology

› Explore accountability mechanisms for information technology across UNM

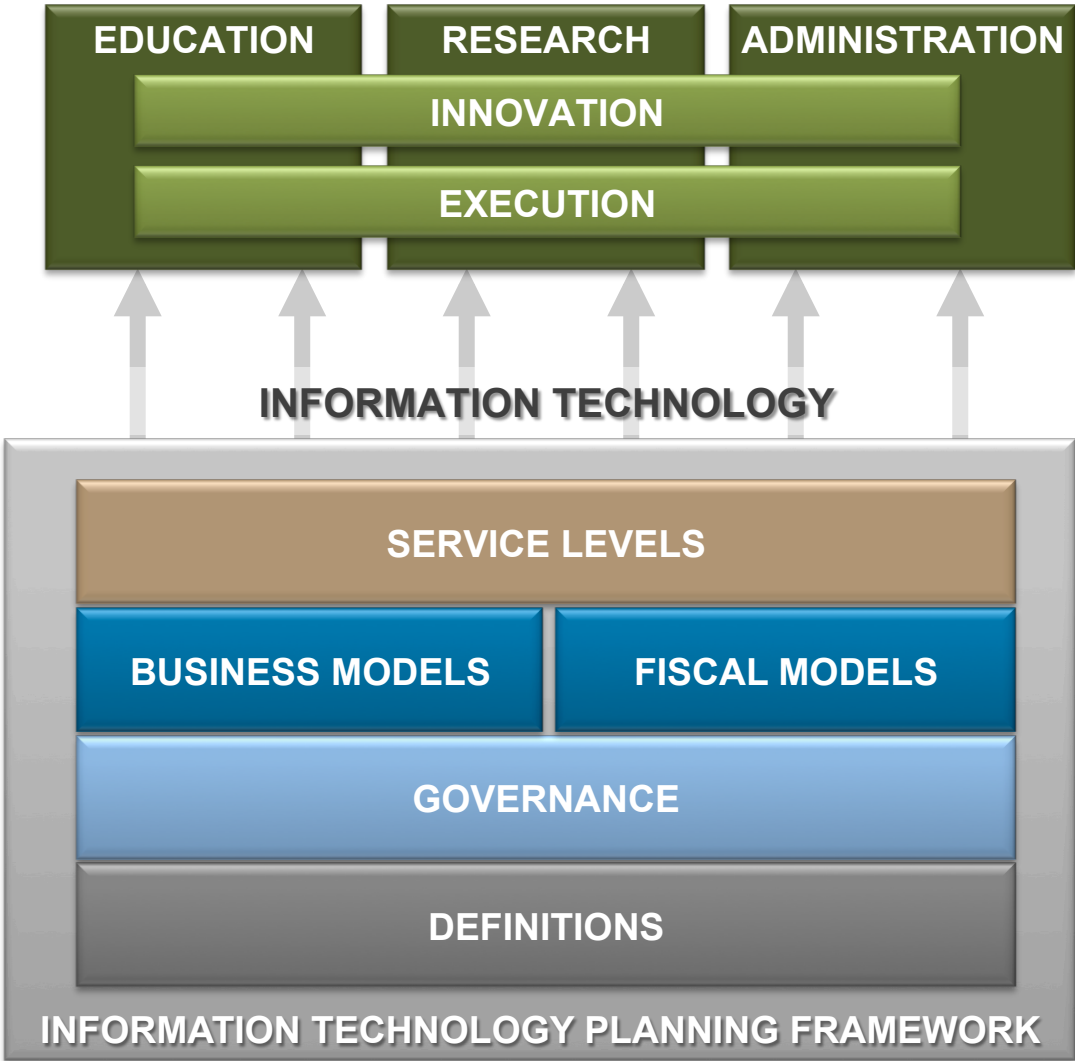› Identify next steps

## Are these the right goals for today?

# Planning Framework

# Information Technology Strategic Planning Framework

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# Vision

# Vision Statement (updated)

UNM stakeholders will actively collaborate to deliver state-of-the art *information technology services* to meet the needs of our customers, advance the missions of the university and its constituent elements, and ensure the security of university assets and privacy of sensitive data

# Guiding Principles

# Guiding Principles (updated)

## Guiding principles establish a common framework for assessing how *information technology* will be delivered

Information technology delivery will

1. Support the mission and goals of the university and its constituent elements

2. Be conducted at a level of aggregation/distribution that appropriately balances needs, costs, and control

3. Be deployed and used in a manner that supports compliance with all laws and regulations

4. Assure appropriate security of university assets and privacy protections

5. Be provided in a manner that adheres to UNM standards and policies, which will be enhanced through collaborative, inclusive, transparent and representative governance processes

6. Be executed in a manner that balances effectiveness, reliability, stability, and cost with innovation

7. Balance common approaches and solutions with differential entity and customer needs

8. Be accomplished openly and transparently where one entity provides services to another

9. Meet agreed upon service levels and expectations; inclusive of approaches for monitoring achievement

10. Aspire to excellence in execution

11. Be funded based upon fair, equitable, and transparent cost allocations

12. Be acquired in an open/transparent manner supporting full disclosure and analysis of use of resources

# Key Terms

# Key Terms

A consistent vocabulary for discussing information technology service delivery is essential

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# Key Terms: information technology

Fundamentally, this is an information technology strategic plan, making the definition of the term *information technology* core to the process

> The tools, services, systems, and resources that support the creation, manipulation, analysis, communication, exchange, storage, and management of data and knowledge

We are intentionally referring to this as *information technology* in lower case

› Not limited to any one or single unit of the university

› Broadly viewed

› Widely distributed

› Encompasses the technology plus the resources and processes

# Key Terms

| Term | Definition |
|------|------------|
| Governance | The processes by which all aspects of *information technology* are defined, prioritized, monitored and overseen |
| Risk Management | The identification, assessment, and prioritization of potential threats, likelihood of occurrence and magnitude of adverse outcomes to enable coordinated, balanced, and economical application of resources that minimizes, mitigates, and monitors to control the probability and/or impact of unfortunate events |
| Leverage | Those aspects of *information technology* where aggregation provides economies of scale, enhanced transparency, accountability, risk reduction, collaboration, enhanced capability and/or enhanced control |
| Service Level | The metric by which delivery of *information technology* is actively measured and monitored and against which performance is openly and transparently communicated, and the basis for establishing accountability |
| Standards | A set of requirements, operating procedures, or capabilities that specify and control the manner for delivery and/or use of *information technology* |

# Key Terms: Business Model

*information technology* may be provided at a number of levels

| Term | Definition |
|------|-----------|
| Enterprise | Those aspects of *information technology* that are offered exclusively via a central entity |
| Incremental | Those aspects of Enterprise provided to a higher degree than baseline, but still exclusively by a central entity |
| Supplemental | Those aspects of *information technology* that are offered via a central entity on a non-exclusive basis |
| Center | Those aspects of *information technology* that are provided by independent units to university components with shared needs |
| Component | Those aspects of *information technology* that are provided by colleges, departments or other university components |
| Distributed | Those aspects of *information technology* that are provided by individuals, work teams, and other less formal entities |

# Key Terms: Fiscal Model

The basis for funding *information technology* may take a number of forms

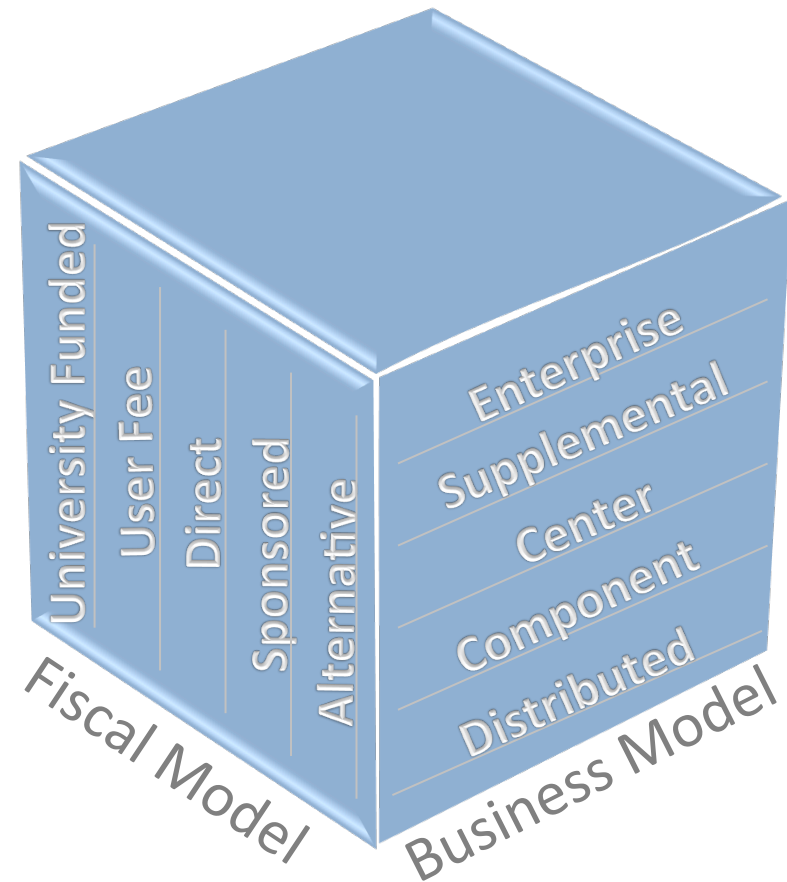| Term | Definition |
| --- | --- |
| University Funded | Those *information technology* aspects funded at the university level |
| User Fee | Charges assess based upon a formula or algorithm (e.g., per user fee, headcount, per device) |
| Direct | Charges assessed to cover the cost of providing an aspect of *information technology* (includes cost recovery) |
| Sponsored | information technology funded by special purpose or restricted sources that constraint the nature or type of information technology acquired (includes grant funded) |
| Alternative | A means of funding not encompassed by the foregoing terms |

A given aspect of *information technology* may be funded by more than one basis

# Business and Fiscal Models Must Work Together

The business model versus fiscal model

› Are separate decisions

  − The business model decision does not dictate the fiscal model

  − The fiscal model does not dictate the business model

• Each business model may be funded by one or of the fiscal model approaches

• Implementing the models requires

  • Clear definition of the scope of services

  • Defined bilateral service levels

  • Full understanding of the relevant life cycle costs and expenditure timing

Cube faces labeled — Fiscal Model (University Funded, User Fee, Direct, Sponsored, Alternative); Business Model (Enterprise, Supplemental, Center, Component, Distributed)
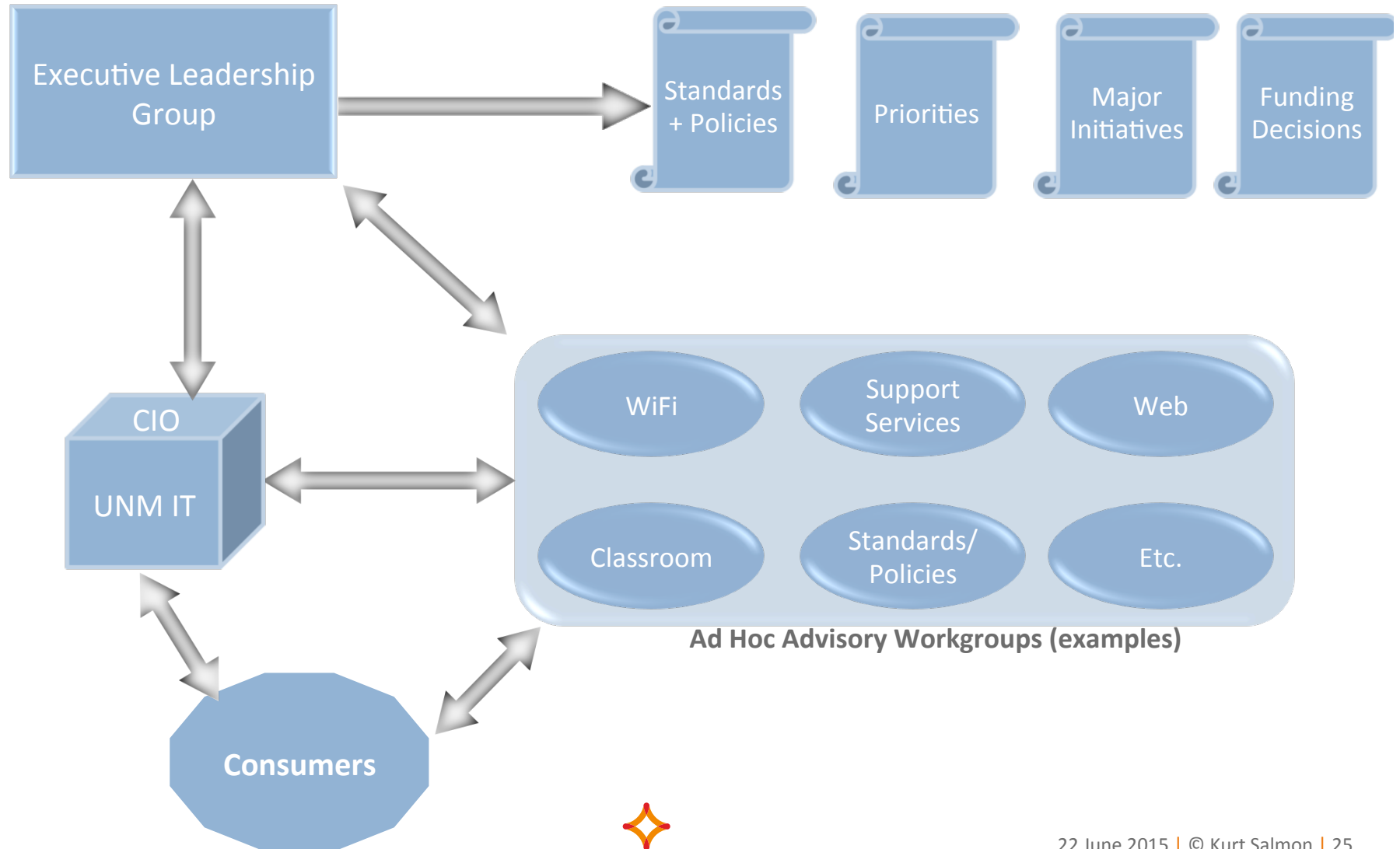
# Ownership

Governance

# Initial Recommendations: Ownership

## Senior UNM Leadership must own information technology decision-making

› Priority setting

› Make resource allocation decisions

› Define the two-three year roadmap with clear link to overall UNM goals

› Leverage informal governance

  − Ad hoc working groups

    − Small teams

    − Limited duration scope

    − Targeted focus

› Reserve large-scale governance for long-term directional input

  − Five year planning efforts

    − Reviewed every 2 years

    − Key priorities

# Governance: Conceptual Model

Ad Hoc Advisory Workgroups (examples)

# Ownership:  Discussion Questions

› Who sits on the Executive Leadership Group?

› How is the need for an ad hoc advisory workgroup decided

› Who decides who sits on the ad hoc advisory workgroups for a specific standard?

› What is necessary to assure efficiency for Executive Leadership?

› Does this encompass other campuses or only the ABQ campus?

› Applicability to off-campus locations?

› What mechanisms are need for effective oversight of

– UNM IT?

– information technology services delivered across the campus?

# Business Model

Deciding What Is Enterprise

# Key Terms: Business Model

*information technology* may be provided at a number of levels

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| --- | --- |
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| Incremental | Those aspects of Enterprise provided to a higher degree than baseline, but still exclusively by a central entity |
| Supplemental | Those aspects of *information technology* that are offered via a central entity on a non-exclusive basis |
| Center | Those aspects of *information technology* that are provided by independent units to university components with shared needs |
| Component | Those aspects of *information technology* that are provided by colleges, departments or other university components |
| Distributed | Those aspects of *information technology* that are provided by individuals, work teams, and other less formal entities |

# Initial Recommendations:  Enterprise

› Define initial Enterprise information technology areas

   – Define initial areas of focus

   – Set base level of services

      – Define costs for incremental services (fully cost basis)

      – Define bilateral service levels

   – Define transition plan

   – Update/establish standards and policies as necessary

   – Fund

   – Communicate

   – Enforce

› Enterprise information technology is not synonymous with University Funded

   – Base level Enterprise information technology may be University or some other funding

   – Incremental technology is paid by the requestor from other funding sources (e.g., User Fee, Direct)

   – Services provided by a Center (e.g., CARC)  may be University Funded in part to provide a base level to all researchers

# Initial Recommendations:  Enterprise

**Enterprise information technology are those aspects of *information technology* that are offered <u>exclusively</u> via a central entity**

Enterprise information technology should focus on

› Risk management

- The identification, assessment, and prioritization of potential threats, likelihood of occurrence and magnitude of adverse outcomes to enable coordinated, balanced, and economical application of resources that minimizes, mitigates, and monitors to control the probability and/or impact of unfortunate events

› Enhancing Leverage across the university

- Those aspects of *information technology* where aggregation provides economies of scale, enhanced transparency, accountability, risk reduction and/or enhanced control

› **Delivery according to agreed upon written service levels**

- The metric by which delivery of information technology is actively measured and monitored and against which performance is openly and transparently communicated, and the basis for establishing accountability

# Proposed Enterprise Services

| Aspect | Model[1] | Comments |
|---|---|---|
| Email, Calendar | Ent | • Security, e-discovery, retention, DLP<br>• Single email infrastructure<br>• Defined minimum service level<br>• Potential uplift for storage (incremental fee-based)<br>• Need to close down distributed email systems<br>• Policy requiring use of UNM email |
| Wireless network | Ent | • Uniform minimum service level across campus<br>• Plan needed to bring all campus locations to minimum standard<br>• Encryption and security<br>• Potential capacity uplift (incremental, fee-based) |
| Wired network | Ent. | • Minimum service level to each building/location<br>• Minimum service to each port<br>• One device per port<br>• Plan needed to bring all campus locations to minimum standard<br>• Potential capacity uplift (incremental, fee-based) |

1. Ent = Enterprise

# Proposed Enterprise Services

| Aspect | Model[1] | Comments |
|---|---|---|
| IP Address Management | Ent | • Domain name services (DNS)<br>• Dynamic Host Configuration Protocol (DHCP)<br>• Core network management capabilities<br>• IP address space management |
| Network Management | Ent | • Network management<br>• Network operations center<br>• Router and switch control and management |
| Network security | Ent | • Intrusion detection<br>• Firewall management<br>• Traffic inspection and management<br>• Security protections |
| UNM Campus Connectivity | Ent | • Connectivity to internet for all UNM campuses<br>• Connectivity between UNM Main campus and the Branch campuses<br>• Wide-Area-Network Traffic Routing & Aggregation |

# Proposed Enterprise Services

| Aspect | Model[1] | Comments |
|---|---|---|
| Identity Management | Ent | • Single UNM access identification (NetID)<br>• Maintain security<br>• Access control<br>• Service that supports core applications (ERP, HR, email, network access)<br>• Many applications do not use NetID; have application specific identity management (potential security exposure) |
| Master Software Licenses | Ent | • Negotiations, acquisition<br>• Required use of university contracts (No ban on using alternate software, but must inventory and report)<br>• Compliance, security. Section 508 requirements<br>• Leverage master licenses with related entities<br>• Microsoft, antivirus, online training, etc. |
| Master Hardware Contracts | Ent | • Required use of university contracts – to maintain volume<br>• Acquisition of competing brands requires an exception<br>• Requires reevaluation of scope of existing contracts |

1.  Ent = enterprise

# Proposed Enterprise Services

| Aspect | Model[1] | Comments |
|---|---|---|
| Information security Incident handling | Ent | • Incident handling<br>• Incident response coordination<br>• Forensic investigation<br>• Collaborative with UNM executive, public relations, police, and affected units |
| Information standard development | Ent | • Coordinate and manage standard setting process<br>• Publication of standards<br>• Standards maintenance<br>• Standards education |
| Information standard compliance | Ent | • Proactive compliance review<br>• Compliance investigations<br>• Enforcement recommendations<br>• Enforcement response |

1.   Ent = enterprise

## Proposed Enterprise Services

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| Aspect | Model[1] | Comments |
|---|---|---|
| Directory listing | Ent | • Online directory of authorized users<br>• Populated from ERP systems<br>• Official record<br>• Does this preclude other units from having their own directory listings? |
| Emergency notification system | Ent | • Single UNM system for emergency notification<br>• Content contributed by Office of the President, Emergency Management Group<br>• Future expansion for use for non-emergency information sharing (e.g., specific class cancellation) under consideration |
| Core system acquisition, management/ development | Ent | • Core academic and administrative systems (ERP, student management, human resources)<br>• Web authentication and access<br>• Security<br>• Boundaries between units and UNM IT requires clarification |

Ent = Enterprise, Sup=Supplemental, Coe = Enter of Excellence, Comp = Component,
Dist = =Distributed

# Proposed Enterprise Services

| Aspect | Model[1] | Comments |
|---|---|---|
| External Relation-ships | Ent | • Designated representative to municipal, other local, state and federal government entities and agencies for information technology issues<br>• Primary contact point - UNM speaks with a single voice<br>• Responsibility to solicit input from UNM community, as appropriate |
| External Vendor | Ent | • Resell central services to external entities<br>• Provides higher volumes for contractual discounts<br>• Recoup costs for excess capacity<br>• Supports other non-profit and governmental entities<br>• Example: "gigapop" connections across State of New Mexico |

Ent = Enterprise, Sup=Supplemental, Coe = Enter of Excellence, Comp = Component, Dist = =Distributed

# Proposed Enterprise/Supplemental Services

| Aspect | Model[1] | Comments |
|--------|----------|----------|
| Web services | Ent | • Official UNM website<br>• Web search, tools and utilities<br>• Web Site Hosting<br>• Web Collaboration Tools (blogs, wikis, etc.)<br>• Content is managed by individual departments, colleges, and units<br>• Challenges exist with independent websites containing university information |
| Web development | Sup | • UNM IT and other groups provide web development<br>• Current absence of standards hampers consistent UNM approach |

1. Ent = Enterprise

# Proposed Enterprise/Supplemental Services

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| Aspect | Model[1] | Comments |
|---|---|---|
| Application development | Sup | • Development of tools and applications as needed<br>• Ongoing application enhancement and updates<br>• Adherence to best practices, including security in design and design for support |
| Application maintenance | Sup | • Ongoing software maintenance of custom developed applications (bug fixes)<br>• Service desk support for custom developed applications<br>• Regulatory compliance updates |

1. Ent = Enterprise
2. Beyonod core administrative and academic systems

# Proposed Enterprise/Supplemental Services

| Aspect | Model[1] | Comments |
|---|---|---|
| Service desk (core systems) | Ent | • Support for all users of core applications, network and other enterprise information technology<br>• Call center, ticketing<br>• Includes maintaining knowledgebase<br>• Updates on outages of core systems<br>• Identification of trends for corrective action |
| Service desk (non-core) | Sup | • UNM IT able to to support users for non-core systems<br>• Potential to provide service desk that triages calls to other end user support units<br>• Individual units could provide own service desk services<br>• Multiple service desks raises challenge of who customers should call |

1. Ent = Enterprise, Sup=Supplemental, Coe = Enter of Excellence, Comp = Component, Dist = =Distributed

# Proposed Enterprise/Supplemental Services

| Aspect | Model[1] | Comments |
|---|---|---|
| Data Center (core) | Ent | • For all core academic and administrative systems<br>• Physical and logical protection<br>• Uptime<br>• Server management<br>• Database management<br>• Backup and restoration |
| Data Center (non-core) | Sup | • UNM IT data centers provide a compliant solution for interested units<br>• Many non-compliant data centers and servers in non-compliant locations across campus<br>• Key issue is standards compliance |

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# Proposed Enterprise/Supplemental Services

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| Aspect | Model[1] | Comments |
|---|---|---|
| Mobile app distribution (core systems) | Ent | • UNM IT primary focus is mobile apps related to core administrative and academic systems<br>• Apps touching core UNM systems required to use UNM IT for distribution |
| Mobile app distribution (non-core) | Sup | • Capacity to distribute apps for other units<br>• Individual units could create own distribution site or leverage external sites (iTunes, Google Play) |
| Mobile device manage-ment | Ent | • Security and control for mobile devices with access to core administrative and academic systems<br>• Includes device control, remote wipe, device tracking |

1. Ent = Enterprise, Sup=Supplemental, Coe = Enter of Excellence, Comp = Component, Dist = =Distributed

# Proposed Supplemental Services

| Aspect | Model[1] | Comments |
|---|---|---|
| Project Management | Sup | • Is adherence to a uniform project management methodology required?<br>• How is project achievement reporting handled across UNM?<br>• Minimum project size requirements? |
| Web conferencing | Sup | • Adobe Connect and Lynx<br>• Integrated with NetID[2]<br>• No prohibition on other units adopting other solutions, with adherence to standards |
| Printing | Sup | • Need to address consumers playing off one provider against another<br>• May require minimum footprint across campus to be a viable supplemental service |

1. Ent = Enterprise, Sup=Supplemental, Coe = Enter of Excellence, Comp = Component, Dist = =Distributed
2. See Identity Management, above

# Proposed Supplemental Services

| Aspect | Model[1] | Comments |
|---|---|---|
| End user device support | Sup | • Currently many units offer these services (*Component, Distributed*)<br>• To properly plan resources, may require full year agreement from customers<br>• All devices must adhere to UNM security and other standards |
| Instant messaging | Sup | • UNM IT focused on instant messaging to support core administrative and academic systems<br>• Anonymous instant messaging solutions have raised liability concerns |

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# Proposed Supplemental Services

| Aspect | Model[1] | Comments |
|--------|-------|----------|
| Instructor Evaluations | Sup | • Data feeds into Banner<br>• Supports promotion and tenure processes |
| Test scoring | Sup | • Test scanning<br>• Paper form-based |
| Surveys | Sup | • Many web-based alternatives exist<br>• UNM has a locally hosted tool |
| Student elections | Sup | • UNM IT acts as neutral 3rd party for student election using locally hosted survey tool |
| Other academic support services | Sup | • Basket of varied services, examples:<br>    • Student computer location<br>    • Student computer support |

1. Ent = Enterprise, Sup=Supplemental, Coe = Enter of Excellence, Comp = Component, Dist = =Distributed

# Proposed Center of Excellence Services

| Aspect | Model[1] | Comments |
|---|---|---|
| Learning management systems | Sup/ CoE | • Online Learning unit manages<br>• Contract with UNM IT for support |
| High performance computing | CoE | • CARC provides services to several other units<br>• Management of external high performance computing resources not fully addressed (e.g., Amazon, Google, Microsoft) |

1. Ent = Enterprise, Sup=Supplemental, Coe = Enter of Excellence, Comp = Component, Dist = =Distributed

# Business Models: Discussion Questions

› How will the necessary service level agreements be defined?

› Is there a need for ad hoc workgroups to support service level definition?

› How does UNM develop representative and reliable performance metrics?

› How should performance metrics be transparently shared?

› Are there instances where performance metrics should not be widely shared?

› How is insufficient performance by UNM IT handled?

› How is failure of customers to meet their service level responsibilities handled?

› What is the role of the Executive Leadership Group in addressing performance gaps?

› What is necessary to assure efficiency for Executive Leadership?

› Does this encompass other campuses or only the ABQ campus?

› Applicability to off-campus locations?

## Business Model:  Efficiency

**UNM needs to move to greater efficiency:  distributed information technology in many cases is inefficient**

› Exists, in part,  because of dissatisfaction with Central UNM IT responsiveness and services levels

› Moving forward with UNM Human Resources reclassification will help surface distributed information technology resources

  − Will not reach all of the partial positions (under single full-time equivalent)

  − Create a dotted line reporting relationship to Central UNM IT

    − Will support greater compliance with UNM information technology policies and procedures

    − Enables improved information exchange on approaches to build synergies

  − Define minimum qualifications and ongoing competencies to assure qualified resources

  − Need for central training for ongoing skills improvement

# Business Model:  Efficiency

› Support creation of Centers of excellence for information technology services

  − Encourage sharing of expensive resources

  − Better match needs to appropriate resources

  − Leverage models of success (e.g., College Arts and Sciences)

  − Dotted line to Central UNM IT

    − Coordination

    − Compliance

  − Funding derived from customers (e.g., user fees, direct costs)

› Distributed information technology services

  − Must meet standards and policies

  − Requires compliance function with meaningful enforcement

# Fiscal Model

# Fiscal Model

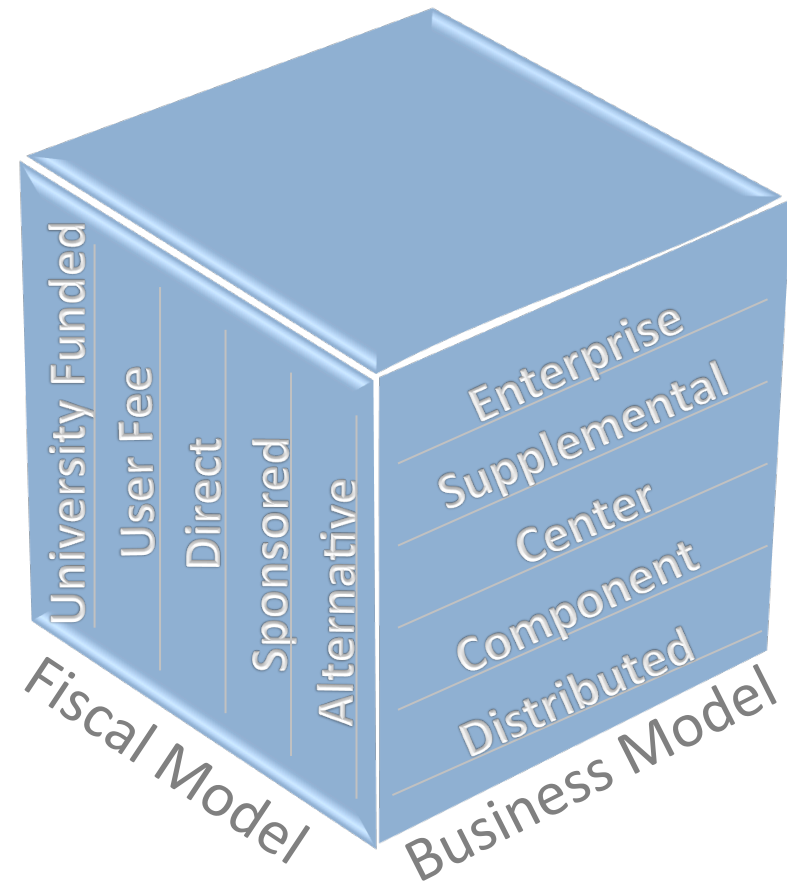information technology services are funded via a large number of sources

› Many of the funding sources do not fully service expectations with the costs to meet the expectations

› Less than effective means are in place to adjust service delivery for changes in funding

› Complexity of funding sources makes prioritization challenging

› Shifting to a more distributed model for information technology service delivery will require

  − Clearer understanding of underlying costs matched to service expectations

  − Greater attention to lifecycle costs

    − Capital requirements and funding

    − Ongoing operating costs

    − Fully loaded costs – including all related costs

  − Transparent disclosure of cost components

  − Inclusion of compliance requirements and adherence to minimum standards in defining service expectations

  − Matching funding sources to

    − cost drivers

    − Responsible decision making unit

  − Avoiding hidden cross-subsidization

# Business and Fiscal Models Must Work Together

The business model versus fiscal model

› Are separate decisions

  − The business model decision does not dictate the fiscal model

  − The fiscal model does not dictate the business model

• Each business model may be funded by one or of the fiscal model approaches

• Implementing the models requires

  • Clear definition of the scope of services

  • Defined bilateral service levels

  • Full understanding of the relevant life cycle costs and expenditure timing

# Key Terms: Fiscal Model

The basis for funding *information technology* may take a number of forms

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| Sponsored | information technology funded by special purpose or restricted sources that constraint the nature or type of information technology acquired (includes grant funded) |
| Alternative | A means of funding not encompassed by the foregoing terms |

A given aspect of *information technology* may be funded by more than one basis

# Proposed Funding (Enterprise Services)

| Aspect | Fiscal Model | Comments |
|---|---|---|
| Email, Calendar | User Fee | • Per user fee<br>• Incremental services (e.g., more storage) will be on a *Direct* basis per GB |
| Wireless network | University | • Multi-year capital funding for upgrades to bring uniform minimum level of services across campus and ongoing capital for ongoing upgrades<br>• Ongoing operating cost funding<br>• Individual Schools/Colleges may pay on a *Direct* basis for higher capacity than minimum standard |
| Wired network | | |

# Proposed Funding (Enterprise Services)

| Aspect | Fiscal Model | Comments |
|---|---|---|
| IP Address Management | User Fee | • Allocated cost per network port assessed on users |
| Network Management | University | • University funded ongoing capital improvements and operating costs required to meet risk management requirements |
| Network security | | |
| UNM Campus Connectivity | University /Direct | • University funded<br>• Direct fee assessed on branches for connectivity |

# Proposed Funding (Enterprise Services)

| Aspect | Fiscal Model | Comments |
|---|---|---|
| Identity Management | Per User | • Per user fee assessed |
| Master Software Licenses | Per User | • Allocated costs assessed on all users of software |
| Master Hardware Contracts | Direct | • Cost of hardware paid by acquirer<br>• Includes contract administration fee on each device |

# Proposed Funding (Enterprise Services)

| Aspect | Fiscal Model | Comments |
|---|---|---|
| Information security Incident handling | University /Direct | • University funds cost for development of procedures, preparedness<br>• Potential for recoupment from units if fault determined |
| Information standard development | University | • Centrally funded |
| Information standard compliance | University /Direct | • Centrally funded staffing, compliance procedures, etc.<br>• Potential for assessment of penalties as part of enforcement actions |

# Proposed Funding (Enterprise Services)

| Aspect | Fiscal Model | Comments |
|---|---|---|
| Directory listing | Per User | • Included in per user fee |
| Emergency notification system | University /Per Use | • University funds foundation<br>• Per user fee for use for non-emergency messages (e.g., specific class cancellation) |
| Core system acquisition, management/ development | Direct | • Time and materials or fixed fee based upon agreed upon scope based upon costs for UNM IT support<br>• Paid by unit requesting assistance |

# Proposed Funding (Enterprise Services)

| Aspect | Fiscal Model | Comments |
|---|---|---|
| External Relationships | University | • Centrally funded<br>• Funding may require prioritization of work and relationship management efforts |
| External Vendor | Direct | • Revenue must fully cover all program administration costs |

# Proposed Funding (Enterprise/Supplemental Services)

| Aspect | Fiscal Model[1] | Comments |
|---|---|---|
| Data Center (core) | Direct | • Allocated costs for rack space used, backup space requirements, server management etc.<br>• Database administration on a time and material basis or bundled rate for hours not exceeding a cap<br>• Assessed on unit responsible for system |
| Data Center (non-core) | Direct | • Allocated costs for rack space used, backup space requirements, server management etc.<br>• Database administration on a time and material basis or bundled rate for hours not exceeding a cap |

1. Funding model addresses how UNM IT would be funded, for supplemental services, other units would likely incur *Direct* costs to be funded out of available funds in unit budgets

# Proposed Funding (Enterprise/Supplemental Services)

| Aspect | Fiscal Model[1] | Comments |
|---|---|---|
| Mobile app distribution (core systems) | University | • University would centrally funded needed distribution infrastructure and staffing for core systems |
| Mobile app distribution (non-core) | Direct | • Service Fee based upon fully loaded costs to support distribution<br>• Paid by unit requesting assistance |
| Mobile device management | University/ Direct | • Capital and ongoing operating costs for foundation capabilities university funded<br>• Per device charge for licenses, installation, and support |

1. Funding model addresses how UNM IT would be funded, for supplemental services, other units would likely incur *Direct* costs to be funded out of available funds in unit budgets

# Proposed Funding (Supplemental Services)

| Aspect | Fiscal Model[1] | Comments |
|---|---|---|
| Project Management | Direct | • Time and materials charge or fixed fee based upon defined scope |
| Web conferencing | University/ User Fee | • University funds core Adobe connect and Lynx systems<br>• Per conference fee for setup and administration |
| Printing | User fee | • Per page or similar fee |
| End user device support | User Fee | • Per device fee |
| Instant messaging | User fee | • Per user fee (headcount for staff and students) |

1.  Funding model addresses how UNM IT would be funded, for supplemental services, other units would likely incur *Direct* costs to be funded out of available funds in unit budgets

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# Proposed Supplemental Services

| Aspect | Fiscal Model | Comments |
|---|---|---|
| Instructor Evaluations | User Fee | • Per evaluation fee |
| Test scoring | User Fee | • Per test response fee |
| Surveys | User Fee | • Per survey fee for administration<br>• Time and materials for survey design assistance |
| Student elections | User Fee | • UNM IT acts as neutral 3rd party for student election using locally hosted survey tool |
| Other academic support services | User Fee/ Direct | • Will vary by service – likely per device or Direct (e.g., cost of license) |

1. Funding model addresses how UNM IT would be funded, for supplemental services, other units would likely incur *Direct* costs to be funded out of available funds in unit budgets

## Proposed Center of Excellence Services

| Aspect | Fiscal Model | Comments |
|---|---|---|
| Learning management systems | Direct | • UNM IT support provided on a time and materials or fixed fee based upon agreed upon scope |
| High performance computing | Alternative | • CARC has a variety of funding approaches<br>• Likely should evolve to align charges with actual costs |

1. Funding model addresses how UNM IT would be funded, for supplemental services, other units would likely incur *Direct* costs to be funded out of available funds in unit budgets

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# Fiscal Model: Discussion Questions

› How can the funding approach for information technology services be simplified?

› How do we balance simplicity with maintaining a relatively direct link between cost drivers and funding approach?

› Is it feasible to take money off the top, before distribution of monies to units, to support university funded information technology?

› How will university unit budgets be adjusted to allow greater control and fiscal responsibility for information technology services?

› How will transparency for all information technology costs be supported?

› How should service delivery commitments be adjusted if funding sources decline?

› What additional roles are needed to establish and maintain the new fiscal model (in UNM IT, in units, in purchasing, elsewhere)?

› To what extent is moving to a new fiscal model for information technology services dependent upon other changes?

› Will determination of true fully loaded lifecycle costs drive greater leverage of external service providers?

# Standards

# Initial Recommendations:  Standards

**For information technology not within Enterprise information technology, UNM must define appropriate standards to drive consistent use of information technology**

› Guiding Principle Number 5:  *information technology* will be provided in a manner that
   - adheres to UNM standards and policies,
   - which will be enhanced through collaborative, inclusive, transparent and representative governance processes.

› The evolution of *information technology* standards will need to continue to address the evolving
   - Threats faced by the UNM community
   - Legal requirements
   - Needs of the UNM community – define in part by active engagement for broad-based input
   - Nature of technology

› Standards definition and rollout
   - Provide appropriate education
   - Consider transition periods
   - Recognize added costs of standards compliance
   - Consistent enforcement

# Standard Setting Process

The defining standards is essential to the delivery of information technology

› Standard setting process
- Attributes
  - Collaborative
  - Transparent
  - Inclusive
  - Representative processes
- Key Steps
  - Use of ad hoc workgroups of appropriate size
  - Coordinated by CIO
  - Notice and Comment approach
  - Review and approval by Executive Governance
  - Effective and enforceable
  - Ability to set temporary standards if required
- Standards apply uniformly to all across campus
  - Exception process requires express written senior executive approval – should be rare
- Standards must be maintained and remain current

# Standard Setting Process

Standard setting process, includes standards, policies and procedures

Must adhere to a defined schedule

Address prioritized needs

**Final Standard**

- Published
- Online availability
- Appropriate training
- Maintained
- Clear effective date
- Relevant transition periods
- Compliance costs estimated

**Comment**

- Comments period
  - 15-30 days
- Review and update
  - Comments reviewed
  - Standard updated
  - 15-30 days
- Transparency
  - Availability of all comments
  - Tracking disposition of all to comments

**Notice**

- Proposed standard published
- Announcement
- Consistent posting location

**Need identified**

- Source (CIO, WG, campus)
- Ad hoc workgroup formed
- Standard development
- 30-45 days

# Standards:  Discussion Questions

› How should the standard setting process work?

› Who decides who sits on the ad hoc advisory workgroups for a specific standard?

› How do we define the minimum set of standards needed to support the adopted business models?

› How do we approach compliance and enforcement?

   – Who monitors compliance (UNM IT, Internal Audit, others)?

   – How will enforcement be handled?

      – Removal of non-compliant information technology services/devices?

      – Denial of ability to provide own information technology services – requirement to use enterprise or center of excellence?

      – Denial of authority to offer services to others?

      – Cost of remediation assessed?

      – Financial penalties, budgetary reduction?

      – Human resource implications?

   – Will leadership back up the enforcement

› How will UNM handle requests for exceptions to standards?

› What new roles are needed to support this standard-based approach?

› Other questions?

# Next Steps and Wrap Up

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# Next Steps

Immediate next steps

› Summarize executive decisions

› Identify key next steps and assignment

› Provide a summary to the campus community

Intermediate-term next steps

› Socialize planning framework

› Plan for Phase II

# Thank You

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# Appendix

# Planning Process Participants

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› Wendy Antonio, Associate Vice President of Special Projects*^

› Duane Arruti , Director of Applications, IT*^

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› Bruce Cherrin , Chief Procurement Officer*^

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› Kevin Comerford, Digital Initiatives Librarian*^

› Julie Coonrod , Dean of Graduate Studies*

› Jed Crandell, Associate Professor, Computer Science

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› Tim Gutierrez , Associate Vice Provost for Student Services*^

› David Harris, Executive Vice President for Administration@

› Greg Heileman , Associate Provost

› Michele Huff, Senior Associate University Counsel

*Participated in First Stakeholder Meeting
^ Participated in the Second Stakeholder Meeting
# Represented at Second stakeholder Meeting
@ Core Group Member

› Brad Hutchins , Senior Associate Athletic Director/ Athletics Marketing Manager

› Kevin Malloy , Associate Vice President for Research and Economic Development*#

› Elizabeth Metzger , University Controller*^

› Monica Orozco Obando, Vice Provost, Extended University*#

› Carol Parker , Senior Vice Provost*^

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