Information Technology Center
ITC: Vision, Plans, Issues

A special presentation for
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Discussion Items

- ◆ Vision of new ITC (the next 3+ years; based on user expectations)
  - – Structure
  - – Sectors (their role, and what directions we are going to take: vision)

Current User Expectations

- ◆ What are our customers looking for?
  - – Almost everything related to computers is referred to ITC
- ◆ Services (we must consider ourselves similar to a services dept)
  - – Internet access and eMail
  - – Applications
  - – Automation
  - – Computing resources (for research)
  - – Collaborative work environment
  - – Security (no policy and no framework yet)
  - – Storage (reliable)
  - – Guidance and Awareness
  - – Access to R&D resources
  - – Self service applications
  - – Office automation tools
  - – Training
  - – and many others

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Role of ITC

- Should we be doing?
  - Internet filtering (and morality control)
  - Exam grading
  - Providing content for the Web
  - Developing Software Packages (at an exorbitant cost, no economies of scale) for internal use
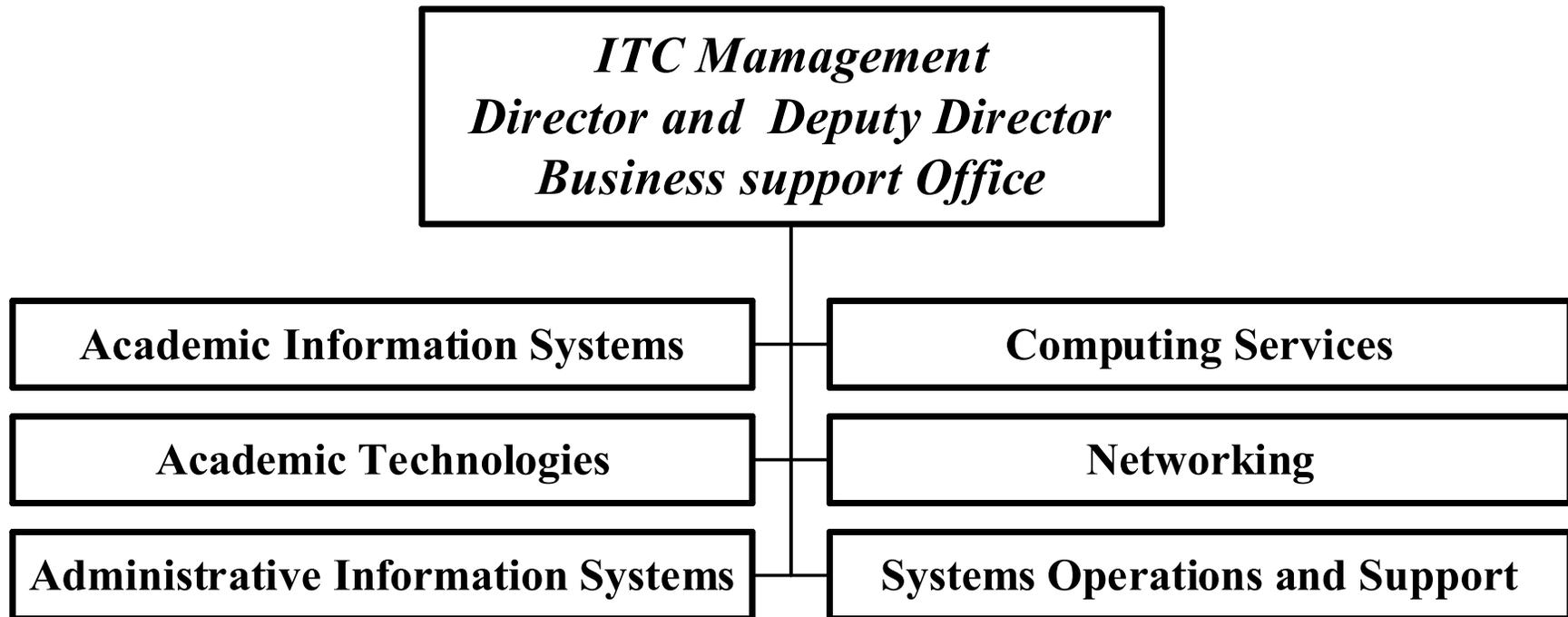 - And many others

Current Structure

No need to talk about it! (but briefly…)

Overview of ITC Departments

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┌─────────────────────────────────────┐
│          ITC Mamagement              │
│   Director and  Deputy Director      │
│      Business support Office         │
└─────────────────────────────────────┘

┌──────────────────────────────┐   ┌──────────────────────────────┐
│ Academic Information Systems │   │      Computing Services      │
└──────────────────────────────┘   └──────────────────────────────┘

┌──────────────────────────────┐   ┌──────────────────────────────┐
│     Academic Technologies    │   │          Networking          │
└──────────────────────────────┘   └──────────────────────────────┘

┌──────────────────────────────┐   ┌──────────────────────────────┐
│ Administrative Information    │   │ Systems Operations and       │
│ Systems                      │   │ Support                      │
└──────────────────────────────┘   └──────────────────────────────┘
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ITC at a Glance

- Excellent job is done in some areas, but
  - Many users are not fully aware of many services offered.
  - Overlap exists between several ITC departments.
  - No standard procedures have been adopted in software development (requirements, documentation, deliverables, etc., ad-hoc).
  - Redundancy exists between CCSE/RI and ITC functions and operations.
  - Policies, Procedures, Awareness/Training Programs and User guides are not in place or updated.
  - The new vision must address
    1. How to improve quality of services (to students, faculty, researchers, and administration)
    2. Cost/Value
    3. HR

A new structure

- Is very much needed
- Is going to define a new role for ITC
- Comes from where?
  - Due to the new business line
  - Because of the changes in IT (enabler, and a commodity)
  - Changing needs of users
  - Because the old structure is obsolete, it is not working today and will definitely not work tomorrow
  - We have to think of a new organizational structure, as if the center does not exist (this will make our reorganization easy)

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he New Structure …

- Will employ new tools and techniques
  - (Strategy map, expectations of administration, etc)
- Will look into the value creation process (ITC services are most criticized)
- Will cause a change in number of personnel and number of departments
- Will change roles:
  - Will involve retraining of staff to play new roles in our organization (for example the adoption of ERP solution)
- Will bring in new departments (such as Information Security, ERP, Infrastructure, Help-Desk & Call-Center, Q&P, etc).

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Issues

- Services (how to create value)
- Quality, Planning, and Audit (Measures? BSC)
- Cost (the dangers of cutting-edge)
  - Spending is ad-hoc
  - Re-looking closely at hardware, software, and licensing
- Competencies (no IT Gurus)
  - New competencies must be developed to align staff with the coming changes
  - Training of IT staff (both Saudis and non-Saudis)

- Visas, salaries, and raises (people are our biggest problem)
- Faculty, *Professionals*, Staff (this can help raise morale)

Activities Thus Far

- Focus on Students (Web-Cache, raise priority level of service)
- Framework Agreement for PCs/Laptops for Faculty/Students, both for KFUPM and Community Colleges
- Progress in WLAN and Faculty Campus Network
  - Networking of the new buildings
- Integration of Infrastructure of CCSE/RI with ITC
  - Will reduce cost considerably
  - Will also look into centralization of other services such as backup, storage, email, etc.
  - Library and its relation to ITC
- Aggressive participation in the ERP project
- Training plan in preparation
- High performance parallel machines already used for research applications (our staff did a super job here with no cost)

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Draft of The New ITC's Vision

The New Vision

- In Infrastructure (Networking, Wireless, etc…)
- In Information Security
- In Quality, Planning, & Audit (Business)
- In Services (Internet and eMail) & Help Desk
- In Training, Awareness
- In Participation and continuation of the ERP project
- In Hardware/Servers and Licenses
- In Development (last but definitely the least)

Networking

Vision: To have a high-speed, reliable and secure network infrastructure and services. Network as the main information delivery mechanism, with QoS to support multimedia content, (Voice/Video/Data), Network Everywhere (Wired, Wireless, ADSL, Internet), with redundancy, and major upgrades and replaced aging infrastructure every 3-4 years.

Wireless

Vision: The vision is to implement an enterprise wide wireless network infrastructure, and a secure access policy.

Future rests on wireless "Always On" network. Mobile computing devices are becoming cheaper, more powerful, and better integrated. There is a major potential in transforming research and educational environment.

Information Security

Vision: An information security framework (based on international standards such as ISO 17799), risk management based security approach, with Information Systems Auditing as an integral part. A Continuous process rather than a project, adopting ITIL standards.

Resources: Chief Information Security Officer and Information Security department. Will need Investment in Man Power acquisition and training

Computer Emergency Response Team for Saudi Arabia (CERT-SA)

(Will ensure business continuity, disaster recovery)

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lanning, & Audit (Business)

Vision: To have an office playing a proactive role in new technologies, their adaptation, planning, and performance studies, to improve services, their quality, and increase return on investment.

The business wing can also be responsible in inviting external jobs and projects to increase the KFUPM income (e.g., vendor independent studies)

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Training, Awareness

Vision: To increase IT literacy in the ever changing applications and facilities available at the ITC/KFUPM (increase level of literacy of Security, Connectivity, Pervasiveness, etc.,) to ensure higher utilization of existing facilities and resources.

Continuous training of ITC staff. ITC to be an innovative and dynamic force in education, research and training.

Users Support Services & CCC

Vision: The vision here is to formalize the processes for Help Desk Support and CCC (Customer Care Center), End-user IT support Services, hardware support, desktop services and support for general purpose PC Labs.

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ve and Enterprise Applications

Vision: To have a consolidated department that will ensure continuation of the ERP Project in terms of Support and Management. In addition, support for both administrative and academic business processes (satellite application), University Portal, and Web Services will be conducted here. (This will merge the current 3 departments).

Operations and Support

Vision: To increase the number of low cost servers, downsize/right-size and reduce the current exorbitant licensing costs (spend intelligently). The target is to reduce costs of both hardware and licensing; and increase fault tolerance and reliability.

- Increase BW of Internet/eMail, increase services, and look for alternates for connectivity to increase fault tolerance.
- High performance computing environment (clusters), mainly for research purposes are being investigated.
- To work with CCSE/RI for an enterprise database, enterprise email, and other overlapping functions (backup for e.g.).
- Efficient operation of the university-wide back-end computing services, including Windows, Unix and mainframe, Enterprise Storage (to support online courses, etc.,), and Database Administration.

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Thank you for your kind attention