NKN Enablement- e-governance initiatives in University of Kashmir

(NKN Annual workshop 2012, IIT Bombay)

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Directorate of Information Technology and Support System (IT & SS)

University of Kashmir

Directorate of IT & SS, University of Kashmir
In order to capitalize the benefits associated with the Communications and Information Technology, the Directorate of IT&SS was established in December 2008 to fulfill the Mission ICT at University of Kashmir.

- Sanctioned permanent Faculty Strength: 11
  - One Director
  - Three Sr. Scientists / Technologists
  - Six System Engineers
  - One Accounts Officer
The Directorate of IT & SS comprises of two centres:

- **Centre for e-Governance & e-Services**
  1. Software Development Unit
  2. Network Infrastructure Management Unit
  3. Support and Services Unit
  4. HRD and Trainings Unit

- **Advanced Centre of Information & Communications Technology (ACICT)**
  1. IT Incubation Cell
  2. Project Procurement and Placement Cell (PPPC)
  3. Quality Control and Testing Cell
  4. Entrepreneurship Development Centre
Vision

a) To Provide a platform where involvement of all the stakeholders is ensured for decision making.

b) To transform the system into an extremely Efficient, Secured, Transparent and Result Oriented one,

c) To provide the requisite technological support required for Teaching and Learning Process and

d) To provide technological support to all the constituent Administrative Units of the System.

e) To establish a technology incubation facility for the entrepreneurs.
1. **Best Department Award for the contributions in e-governance for the session 2008-09**
   - Awarded by Directorate of Internal Quality Assurance (DIQA), University of Kashmir during its Quality Assurance Awards function held in 2010.

2. **WISITEX ICT RATNA – 2010 (J&K)**
   - Awarded by Wisitex Foundation (India) in collaboration with IT Dept. J&K.
The Directorate in the first instance took up the challenge of modernizing the system of Governance in the University system.
e-Governance Project: Overview

E-Governed Admissions & Examination System, University of Kashmir

Sponsoring Organization –

- Ministry of Comm. & Inf. Tech, Department of Information Tech., Govt. of India. New Delhi

- Financial Support provided: 4.43 Crore & 7.5 cr

Directorate of IT & SS, University of Kashmir
e-Governance Project: Scope

The scope of the e-Governance Project involves the following four areas:

a) Software Development & Maintenance
b) Network Connectivity
c) Hardware Procurement & Installation
d) HRD – Trainings & Development
The e-Governance project is to cater the following extent of activities:

- Number of affiliated colleges = 123
- Departments/Centers = 55
- Student Enrollment = 2.50 Lakhs
- Courses:
  - Undergraduate: 35 courses
  - Professional: 15 courses
  - Post Graduate: 55 courses
- Examinations annually = 300
- Main Result Notifications = 600 annually

Directorate of IT & SS, University of Kashmir
1. **Automation of Activities related to Admissions and Examinations in University Examination Wing, Departments & Affiliated Colleges**

2. **Connectivity of 37 Govt. Colleges and University Satellite Campuses under KUWAN.**

3. **Establishment of Information Centre at each Govt. College.**

4. **Online Services for Students, Colleges, Departments, Paper Setters, Evaluators & other stakeholders.**

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e-Governance: Software Services

- Establishment of Software Development Unit under Centre of e-Governance & e-Services
- Entire Software Development is In-house
- For Quality Assurance (QA), collaboration made with:
  1. Wipro Technology Ltd.
  2. National Informatics Centre (NIC)
e-Governance: Software's Developed for examination system

1. Admissions System
2. Registration System
3. College/University Departments Automation
4. Conduct (Pre Examination)
5. Transit (Management & Evaluation of Answer Scripts)
6. Tabulation (Result Processing)
7. Certificate (Degree Certificates)
8. Secrecy (Management of Question Papers)
9. Examination Accounts
e-Governed Admission Process

e-Admissions System offers the following services to:

- **Prospective Students**
  - Downloading pre-filled application forms
  - Online submission of Application forms
  - Application form status
  - Downloading of the Admit Card
  - Programmes Eligibility
  - Results
  - Help Desk
  - SMS Integration

- **Administrative Staff**
  - Assigning of Roll numbers to the Applicants
  - Exam Centre Management
  - Attendance sheets

- **Departments**
  - Selection List of Candidates
  - List of Candidates
    - Programme-wise
    - Gender-wise
    - District-wise
    - Faculty-wise

About **2 Lakh SMS Messages** were sent during the 2009-2010 admissions but due to bulk banning of SMS in J&K we are presently not able to send SMS's to the students.

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Directorate of IT & SS, University of Kashmir
As part of the e-Governance Project, College Information Centres were established in the Govt. Affiliated Colleges.
Purpose of Establishment

- To avoid **DIGITAL DIVIDE** between colleges and the University
- **E-Services Delivery** Centers
- Automation of **Registration and Examination Records**
- Automation of **Internal Assessment Awards**
- Generation of **Identity Cards**
- Generation of requisite **Statistical Information**
- Generation of **Provisional & Character Certificates**
### Infrastructure at Information Centres

- Computers: 5
- Printers: 2
- UPS 3 KVA: 1
- Furniture & Furnishing
- 5 KVA Stabilizer: 1
- Access points & power outlets: 10
- Intranet & Internet Connectivity: 11/2 MBPS
- Manpower: 1
Information Centers

- Number of Centers established = 37
  (Spread across Kashmir & Laddakh division)
In addition to the e-Governance initiatives, the Directorate is actively involved in providing IT related support services to the University as well as other institutions in the State.
Our website provides latest updates, results, notifications and other online services to students and has heavy traffic throughout.
Websites for all Departments

- Self-hosted Content Management System
- Easy to use: updated by departments regularly
- Linked to University domain name as sub-domain
- All past announcements accessible from single platform

Directorate of IT & SS, University of Kashmir
Websites for Affiliated Colleges

- Hosted by IT&SS
- Separate domain name for each college
- Complete training provided to college operators
- Content managed independently at the college level
Internet Access Management

- 24x7 Internet services are available
- Access to Internet is secured by latest state-of-art firewall
- From 5661 users in 2008, the active user-base has increased to 10500 users as of 2012
  - This includes about 8000 student users

**Unified Threat Management System (UTM)**

Directorate of IT & SS, University of Kashmir
Other Support Services

- Locally hosted enterprise antivirus solution
- Basic computer skills trainings
- University email service
- Individual Faculty Profile on website
- IT equipment / software installation & troubleshooting
- Network Troubleshooting Team for on-site support
- Networking Helpline.
Infrastructure: **Internet Connectivity & Data Centre**

- KU Gateway has a high-speed dedicated, unshared bandwidth of:
  - 1 Gbps under NKN through NIC
  - 40 Mbps from Reliance
  - 512 Kbps from STPI
- Main campus is WiFi enabled
- Satellite Campuses and 38 colleges connected through KUWAN with the main campus.
- In house maintained Data Centre where from all the e-services and University web portal is hosted.

Directorate of IT & SS, University of Kashmir
University Network: Main Campus

Entire campus Networked
Wi-Fi system operational in the whole of campus barring few shadow areas in Nassem Bagh
In-house web, DNS server
Connectivity with Colleges (Central)

- Line of sight connectivity with colleges
  - In collaboration with National Power Grid Corporation of India (NPGC)
Connectivity with Colleges (North)

- Applications hosted on Intranet accessible @ 11 Mbps
- High-speed Internet accessible from colleges @ 2Mpbs
Connectivity with Colleges (South)

- Centrally managed Access Control System
- Infrastructure leased out to Telco companies
  - Revenue generated upto 15 lakhs/year

Directorate of IT & SS, University of Kashmir
Capacity building through the conduct of training programmes is a fundamental requirement for successful execution of e-Governance and infusion of IT expertise in systemic setup.
A total of **603 employees** have been trained so far:

- **General Awareness Trainings**
  - 6 batches involving 190 employees

- **Need Based Trainings**
  - 4 batches involving 200 employees
  - Operators from **70 Private Affiliated Colleges**

- **Hi-end Trainings**
  - 3 Trainings for the Software Development Team (9 programmers)

- **Feedback & evaluation of training programmes.**

- **Workshops**
  - One day for College Principals and Senior Officials (30)
  - One Week MDP Programme for College Principals (26 principals)
  - One day training for using CMS for departmental websites (48 Faculty Members)
  - 5-days Basic Computer Skills for **Women Employees** on Women's' Week 2011 (30 attendees).
  - Trained 200 employees (in 2012) on the file tracking system.

**Directorate of IT & SS, University of Kashmir**
The Directorate has always endeavored to help local graduates in getting placed in reputed companies in the IT industry.
IT Trainers for Saudi Arabia

- In collaboration with Maharashtra Knowledge Corporation Arabica Pvt. Ltd.
  - For recruitment to teach at various Universities in Saudi Arabia
  - 40 Female candidates appeared (20 selected)
  - Trainings of all selected candidates are being conducted by IT&SS
The Directorate, besides promoting IT and e-Governance has been generating sufficient revenue to finance its core and support activities as well as for regular upgradation and maintenance of the entire IT infrastructure of the University and affiliated colleges spread across Kashmir and Ladakh divisions of the State.
Revenue Generation

- IT Service fee @ Rs. 50/per student per examination = Rs. 125.00 Lakhs/year
- IT Service fee for admission services = Rs. 15 lakhs/year
- Infra-sharing and Consultancy = Rs. 15 lakhs/year
- Internet Fee @ Rs. 150/per student per Semester from University Students = Rs. 40 Lakhs/year
  - Rs. 150/student per semester for regular students
  - Rs. 150/student per year for distance-mode students
- Total = Rs. 195 lakhs/year

Directorate of IT & SS, University of Kashmir
The Directorate has undertaken a number of other project in line with its Mission ICT for the State in general and the University of Kashmir in particular.
AD-ICT - Plans & Programmes

- Achieve excellence in five areas of Information Technology
  - Multimedia Systems,
  - Software Engineering,
  - Network Systems,
  - VLSI & Embedded Systems
  - Software Development & DBMS

- More than 8000 students pass-out with IT degree from the State annually

- Bridge the gap between Academics & Industry

- Provide necessary support & structure for the development of the IT Industry in the State

- Provide consultancy & support in e-governance to other Organizations including Universities.
Skill Development: Talent Valley Project

- Project Cost = 2.72 Crore
- Sponsoring Organization = Department of Information Technology, J & K Government
- Funds Released till Date = 57.50 Lakhs
- Collaboration with Global Talent Track, Pune
  - More than 460 students were trained
  - Training included industrial visits to Pune
  - Placement guidance was also provided
The Directorate of Information Technology & Support System (IT&SS), University of Kashmir has been acting as an IT consultancy to various external organizations. This has increased our capacities further as well as brought in considerable revenue for independent functioning of the Directorate.
IT Consultancy Projects

- Design, Development & Installation of WiFi System at Gulmarg – 50 Lakhs
  - J&K State Cable Car Corporation (JKPCCC)
  - Gulmarg Development Authority (GDA)
- Complete e-Governance of J & K Wakf Board
- Advisor / Consultant to State IT Department, Govt. of J&K:
  - State Wide Area Network (SWAN)
  - State Data Centre (SDC)
- e-Governance of J&K Board of Technical Education
Thank You