



UNIVERSITY  
OF  
JOHANNESBURG

# **Information and Communication Systems**

## **Annual Report**

**2010**

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# **1 Executive Summary**

## **Research support**

The UJ high performance computing cluster was recognised as part of the SA National Grid and this facility garnered international recognition when Mr Stavros Lambropoulos and Mr Francois Wolmarans both participated in the presentation of at Supercomputing workshops held at UJ, Bloemfontein and Potchefstroom. The UJ High Performance Computing cluster allows UJ staff to participate in the high energy Physics experiments that are being conducted at the Large Hadron Collider and indications are that the first research outputs will be delivered during 2011.

## **Upgraded interconnectivity**

During December 2010 the fibre connection to the Soweto campus, the longest fibre route yet established by the Higher Education sector, was commissioned. Having partnered with Wits on the build we were able to halve the construction costs and now have a 5 Gb/s capability to the Soweto campus.

This new link completed the delivery of gigabit per second primary links to all UJ campuses.

## **Infrastructure improvement**

The establishment of a state of the art, green ICT compliant, cooling and power supply infrastructure at the Soweto and Kingsway campuses during the December 2009 recess went a long way towards addressing the continual failures experienced with the out dated equipment that was proving impossible to maintain and the elimination of the unreliable central cooling capacity was yet another step in delivering world class infrastructure.

## **Governance**

The implementation of an ICT Task team to develop an embracing, business aligned, ICT strategy for UJ has probably been the top achievement of 2010. This is fully in alignment with the fundamental requirements of the King III code of practise and provides the opportunity to critically assess the UJ ICT capabilities as well as the requirements to deliver on and support the UJ strategic imperatives.

## **Connecting learners**

The challenge to deliver anywhere, always available, networking to allow students access to the e-Learning environment has resulted in several pilot projects with commercial vendors to explore cost effective models of supplying the core infrastructure and bandwidth provision.

High capacity backbones were established to the residences and wireless connectivity was established at Sophiatown and Hector Pietersen residences.

### **Staffing**

Whilst the skills development program that was initiated in conjunction with the ETDP SETA to provide learnerships to young black persons addressed the staffing requirements in the lower ranks, the difficult staffing situation continued during 2010 with higher level vacancies taking up to a year to fill. Critical skills shortages in the ICT environment are mainly due to the open market offering highly competitive remuneration packages. The solution remains in reviewing highly skilled job grades, benchmarked against market norms, sourcing these skills and retaining this staff in the institution

### **Special achievements**

The leading edge, energy efficient, data centre technology, established at the Soweto and Kingsway campuses of UJ, formed the basis of an acclaimed presentation at the International Datacentre Dynamics conference, has been the subject of webinars, and set a new standards in the Higher Education environment

### **Higher Education Collaborations**

The Association of South African University Directors of Information Technology (ASAUDIT) held a number of constructive workshops to develop economies of scale in negotiating prices with vendors of IT hardware software relevant for enabling students and staff in the Higher Education sector. The benefits of this will be realised in 2011 and the years to come. UJ fully participated in these deliberations and hosted some of the workshops.

## **2 ICS Strategic Plan**

The ICS Strategic Plan, titled Three year Technology Overview 2009, was published on 9th March 2009.

### **2.1 Achievements**

#### **2.1.1 Inter campus Connectivity**

The equalisation of ICS infrastructure across all campuses received a significant boost with the establishment of a 1Gb/s fibre link between APK and SWC.

The building of this fibre route was initiated after TENET received a ECNS license which allowed them to establish and operate data networks. They were thus in a position to contract Dark Fibre Africa to build the route to SWC. As the closest SANREN point of presence was at Wits, we entered into discussions with them and found that they required broadband connectivity to the Chris Hani Baragwaneth Hospital. We were thus able to share the cost of building the route and each institution has access to a capacity that can grow to 5 Gb/s and carries similar operational cost the current Telkom 10 Mb/s link.

The new data link is being operated by Dark Fibre Africa, under contract to TENET, who is responsible for the operational integrity and throughput but we are working with Wits to investigate the implementation of a redundant 100 Mb/s radio link to provide emergency capacity in the case of unforeseen interruptions on the main fibre.

#### **2.1.2 Residence connectivity**

The implementation of 100 Mb/s free space optics links to breach the distances to the remote residences has laid the groundwork for growing this connectivity into the residences to support the teaching, learning and research efforts.

The establishment of these links are a prerequisite to rolling out wireless connectivity to the residence students and prepares the way for the next step.

Given the cost of wireless infrastructure as well as the resource constraints the provision of wireless connectivity will have to be a phased project with priority being jointly developed by the residence management and residents.

By working throughout the December shut down period it was possible to provide wireless connectivity to the Sophiatown and Hector Pietersen residences.

#### **2.1.3 HR Benchmark study**

An inter- institutional HR benchmark study was conducted in concert with UCT, US, UNW and UP.

The findings reflected the national norm for inland institutions to have very equal salaries for the same post levels whilst the coastal entities' salaries were some 10% lower for the same post levels.

The use of the PEROMNES evaluation system, that is based on remuneration depending on institutional complexity, to evaluate and determine the remuneration for specialised ICT staff was

shown to be insensitive to current market realities and largely responsible for the critical skills shortages in the sector.

#### **2.1.4. Telecommunications Domain**

The digital exchange installations at APB and SWC completed the establishment of institution wide digital telephony infrastructure.

The establishment of call centres is expanding. During periods of high call volumes, waiting time is unacceptably long due to a need for more call operators. Ways to improve the service would be to either make use of temporary staff during the registration period or to outsource the service for that period.

The bulk Short Message Service, SMS, system has been used by 1, 600 staff members. Combining the bulk SMS system and the least cost routing has saved UJ an amount of R 1.68 M in telephony charges when compared to the Telkom rates.

#### **2.1.5 10 year UJ ICT strategy development**

The development of a ten year strategic ICS plan for UJ was one of the most valuable exercises ever embarked upon. Previously the ICT strategy was set by the ICS department and presented to the ELG with very low levels of institutional participation. The establishment of an ICT Task Team driven by the institutional stakeholders, and focussed on achieving alignment between the UJ Strategic Thrusts, and the ICT capabilities it would for the first time provide an overall and integrated requirements statement that would shape the ICT strategy as well as the tactical and operational plans.

## **2.2 New developments**

### **2.2.1 Establishing mobile connectivity**

The implementation of free space optics links formed the first steps in the quest to establish network access for residence students. These point to point, laser powered, 100 Mb/s data links enable UJ to breach public roads and other impediments to connectivity and provide the high speed connectivity from the data centres to the residences.

The next step will be the roll out of student-owned devices to enable access for the students through the appropriate technology.

## **3 Human Resource Management**

### **3.1 Benchmarking**

During 2010 a benchmarking exercise concerning staffing and HR structures was held in collaboration with UCT, US, UP, UNW.

The staffing situation at UJ is typically between 35 and 60% of the equivalent staffing at the other institutions.

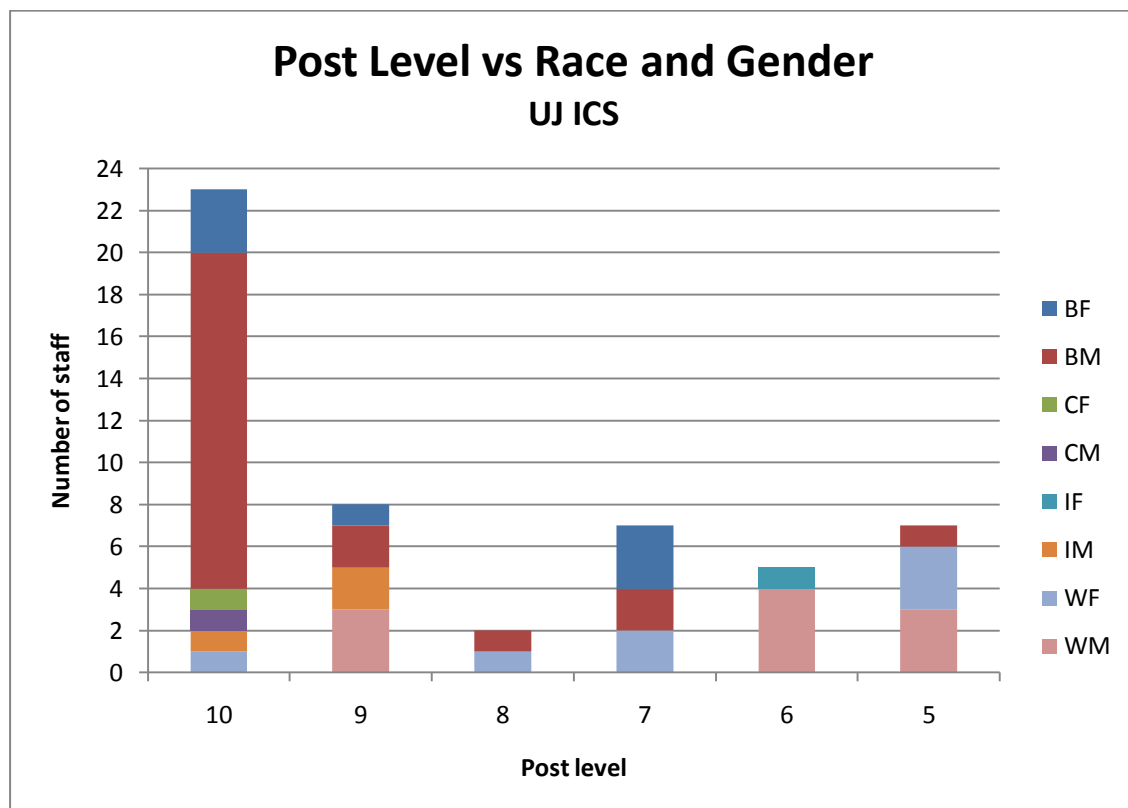
The exercise underlined the soundness of the UJ structure design and emphasised the low level of staffing in many high level positions. These positions are in the highly specialised areas of Enterprise

Architecture, Project Management, IT Governance and Standards, Security Governance, Relationship Management and Business Analysis.

### 3.1.1 Student Support.

The other universities have all deployed support for students, both facilities to support walk in clients and dedicated support for facilities in residences. Many of these functions are staffed by students with some ICT staff in an oversight position. UJ is considering this in the ICT Strategy proposal.

## 3.2 Employee profile



Graph 1. Post level versus Race and Gender for UJ ICS, 8 March 2011

Graph 1 above illustrates a very concerning trend, which will guide all new staff appointments and promotions to achieve equity targets as determined by Council.

### 3.3 Overall Equity profile

The equity profile as at 31 January 2011 is reflected in Table 2 below

Equity profile as at 31 January 2011 (Excludes 4 black interns)	Black		Coloured		Indian		White	
	Female	Male	Female	Male	Female	Male	Female	Male
Count	7	21	1	1	1	3	8	10
<b>Totals</b>	<b>28</b>		<b>2</b>		<b>4</b>		<b>18</b>	
<b>Percentage</b>	<b>54%</b>		<b>4%</b>		<b>8%</b>		<b>35%</b>	
<b>Representation</b>	<b>64%</b>						<b>36%</b>	

Table 2. Equity profile

The equity profile delivers a 64/36 ratio in respect of race representativity but as set out in paragraph 3.1 the distribution is heavily skewed with the bulk of the previously disadvantaged employees in the lower ranks.

The appointment of competent and representative staff to the higher positions will require significant investment.

### 3.4 ICS 2010 Staff Turnover

#### 3.4.1 Resignations

Several staff members resigned from ICS. These were mostly due to better remunerations in the private sector, government and elsewhere.

Name	Race	Group	Gender	Employment Type	Termination Date
S Maphalala	Black	African	Male	Permanent	31 July 2010
L Hunt	White	White	Male	Permanent	31 August 2010
C Ferreira	White	White	Male	Permanent	31 October 2010
M Hlatshwayo	Black	African	Male	Permanent	31 October 2010
J Du Toit	White	White	Male	Permanent	30 November 2010
P Marais	White	White	Male	Permanent	31 December 2010

Table 3. Resignations during 2010

### 3.4.2 Pensioner

Mr Fusi Mokoena has reached retirement age on 30 April 2010. In spite of several very lucrative offers from the private sector it was possible to convince him to accept a one year contract appointment.

Name	Race	Group	Gender	Employment Type	Termination Date
FS Mokoena	Black	African	Male	Permanent	30 April 2010

Table 5. Pensioner

### 3.4.3 Appointments

The experience with the quality of appointment, as well as the cost of new employees, and the time line required to get approvals for appointments, have all mitigated against appointing new staff.

The difficulty experienced with the termination of the services of underperforming employees, even during the probation period, led to a new approach whereby prospects are appointed for a six month period only with a definite termination date. Continued appointment is then subject to the normal recruitment process.

Interviews ran up to 14 December 2010 and these employees will only be able to take up employment in 2011.

Name	Race	Group	Gender	Employment Type	Start date
G Gammon	White	White	Male	Permanent	1 April 2010
FS Mokoena	Black	African	Male	Fixed Term	1 May 2010
M Ntshabele	Black	African	Male	6 Months Contract	11 October 2010

Table 6. New appointees.

### 3.4.4 Succession planning

There currently is no scope for succession planning beyond the desktop technician level where stipends are available from the EDTP SETA to afford four learnerships.

These learners are supported by a R 3000 per month stipend from the EDTP SETA and are deployed to UJ to gain experience and become competent in the ICT environment.

We have been able to appoint some of these learners to vacancies that occur.

### 3.4.5 Staffing strategy

ICS is very much part of the supporting environment and hence there are certain services that have to be delivered irrespective of the level of staffing. As stated previously, the way forward will be

reviewing job profiles, job grading benchmarked against market norms and developing clear career paths for support staff.

### **3.4.6 Cultural integration**

The ICS team members participated in three formal cultural integration events.

The results of the efforts were a closer community of team members that had mutual respect for each other and new events are planned for 2011.

The values of UJ were one of the central themes that were continually reinforced during the cultural integration events. ICS staff is fully aware that they will be held accountable for their actions and deviation from the UJ values will not be tolerated. The need for mutual respect between support and academic staff was also affirmed with support from the Executive Deans and Directors.

### **3.4.7 Achievements of employees**

Mr Victor Thobakgale obtained a BTech IT qualification in September 2010.

Mr Stavros Lambropoulos and Mr Francois Wolmarans taught at the Supercomputing Grid School that was held at UJ during April 2010.

Mr Lambropoulos also taught at Supercomputing Grid Schools held in Bloemfontein and Potchefstroom.

Mrs Annemarie Meyer, who has been on the board of the Southern African Association for Institutional Research since 2008, has been appointed as the SAAIR secretary up to 2012, she is also active in the Higher Education Management Information System Institute.

Both Mr Grant Gammon and Mrs Chelma Sliep have been awarded national colours, Mr Gammon as the manager of the SA Junior Archery team and Mrs Sliep for biathlon.

The CIO has participated the CIO round tables of the Brainstorm Magazine, spoken at TOGAF events, delivered an address at an international data centre conference and has been appointed to the TENET and ASAUDIT boards.

### **3.4.8 Staff Development Program**

The rapid development in the ICT domain means that the half life for ICS knowledge is less than two years, hence there is a continual training requirement simply to maintain the state of skills and knowledge.

The training and skills development efforts are reflected in Table 7 below.

<b>Event</b>	<b>Staff</b>
Microsoft TechDays	C Sliep
Microsoft Tech Ed Conference	C Sliep, A Coetzee, R Makou, L Teleki, P Nephumbada
SQL Server Reporting Services	R Loots, R Makou, L Teleki, P Nephumbada
Micosoft SCCM course	C Sliep, A Coetzee
Exchange 2010 course	C Sliep, Z Sekgejane, P Marais
TOGAF 9 Enterprise Architecture	C Sliep, G Gammon, F Mokoena, V Thobokgale, A Caldwell, A Meyer, F Wolmarans
ITS User Group	R Strydom
Oracle User Group	R Strydom, N Khan
Forensic Investigation	A Caldwell
Solaris Systems Administration	A Snyman
King III training	A Caldwell
Oracle 11i Admin	N Khan
SPI Training	R Strydom, L Nokyeni, S Gwebu
Microsoft Office 2010 support	V Thobokgale, L Teane, N Khorommbi, M P Hlatswayo, K Ndulkulwani, M Maloka, T Tshepe, K Matsemela, K Kabini, C Ferreira, T Mokgotla, R Kassie, G Mashila, M Munzhelele, A Mafolo, A Bessick, P Nxumalo
Alcatel Technology, Networking and Data Services	N Kassie, W Mabena, S Pillay, V Thobokgale, M Munzhelele, C Sehannie
Alcatel Call Centre Technology	T Laurens, B Sehannie

Table 7. Skills development and training of ICS personnel.

This needs to be complimented with career progression which is still a challenge.

### 3.4.9 Staff skills matrix

The staff skills matrix only indicates the high level skills of the permanent employees. Due to the interconnectedness of the ICT environment there is considerable overlap in the skills of staff. This situation is exacerbated by the low level of staffing which results in staff having to perform many different duties. Whilst this is good for the employee, as it increases their marketability, replacing such a multi skilled staff member presents challenges.

#### 3.4.9.1 Campus Management and Desktop Support Domains

Mr Mokoena has overall responsibility for the management of operations whilst Mr Gammon looks after the provision of Desktop and Network services

Person	Role	ITIL	TOGAF	HEAT	Dell	Microsoft
F Mokoena	Operations Manager	X	X	X		X
G Gammon	Campus Support Manager	X	X	X	X	X
M Ehlers	CRM Manager	X		X	X	X
G Mokitle	Service Desk Agent			X	X	X
J Koekemoer	Service Desk Agent			X	X	X
V Thobokgale	Desktop Support Technician			X	X	X
L Teane	Desktop Support Technician			X	X	X
N Khorommbi	Desktop Support Technician			X	X	X
M P Hlatswayo	Desktop Support Technician			X	X	X
K Ndulkulwani	Desktop Support Technician			X	X	X
M Maloka	Desktop Support Technician			X	X	X
T Tshepe	Desktop Support Technician			X	X	X
K Matsemela	Desktop Support Technician			X	X	X
K Kabini	Desktop Support Technician			X	X	X
C Ferreira	Desktop Support Technician			X	X	X
T Mokgotla	Desktop Support Technician			X	X	X
R Kassie	Desktop Support Technician			X	X	X
G Mashila	Desktop Support Technician			X	X	X
M Munzhelele	Desktop Support Technician			X	X	X
A Mafolo	Desktop Support Technician			X	X	X
A Bessick	Desktop Support Technician			X	X	X
P Nxumalo	Desktop Support Technician			X	X	X

#### 3.4.9.2 Enterprise Networking Domain

The enterprise networking domain attends to the on campus, inter campus and external; data links.

Person	Role	ITIL	TOGAF	TCPIP	Alcatel
F Mynhardt	Enterprise Network Manager	X	X	X	X
S Lambropoulos	Systems Network Engineer	X	X	X	X
W Mabena	Network Support Technician	X		X	X
S Pillay	Network Support Technician	X		X	X
N Kassie	Network Support Technician	X		X	X

Table 8. Skills matrix.

### 3.4.9.3 Enterprise Systems Management Domain

This domain attends to the management and support of the enterprise systems, the ITS application, the Oracle eBusiness Suite as well as the associated databases and operating systems.

Person	Role	Application DBA	DBA	System admin	Printing	*nix	STT Trainer
A Caldwell	Enterprise Systems Manager	X	X	X			X
R Strydom	ITS Sys Admin		X	X	X		
L Nkonyeni	Sys Admin Oracle			X			
N Khan	Sys Admin Oracle			X			X
S Gwebu	Sys Admin Printing			X	X		
F Muller	Oracle DBA		X				
A Snyman	Linux Systems Admin					X	

Table 9. Skills matrix.

### 3.4.9.4 Solutions delivery domain

The solutions delivery domain provides systems integration services as well as support for the email, SQL Server database, backup and collaboration environments.

Person	Role	TOGAF	ITIL	Program ming	SQL	Mail	Collabora tion	Backup	Systems manage ment
C Sliep	Solutions Delivery Manager	X	X	X	X	X	X	X	X
P Nepfumbada	Systems Integrator			X	X				
R Loots	Systems Integrator			X	X				
Z Sekgejane	Collaboration Admin					X	X		
P Marais	Collaboration Manager					X	X		
A Coetzee	MS O/S Admin					X	X	X	X
L Teleki	DBA SQL Server				X		X		X
L Makua	DBA SQL Server				X		X		X

Table 10. Skills matrix.

### 3.4.9.5 Telecommunications domain

The telecommunications domain provides support for the telephony and call centre services in the UJ environment. They are also responsible for the compilation of the telephone usage reports which are relayed to the relevant managers for action and for the recovery of telephone expenditure from the users.

Person	Role	Telecommunication	System management	Financial management
B Sehanie	Control Technician Telecoms & Cabling	X	X	
G Duvenhage	Telecom & Cabling Support Technician	X		
C Sehanie	Telecom & Cabling Support Technician	X		
G Bence	Telecom & Cabling Support Technician	X		
C van der Berg	Telecom Accounting Sys Admin		X	X
Y N E August	Telecom Systems Administrator		X	X

Table 11. Skills matrix.

#### 3.4.9.6 Management Information System

This function, while residing in ICS, will move to the Institutional Planning Division in 2011.

Mrs Meyer continued in developing applications and technology that supports the validation of data and the extraction and publication of reports and remains heavily involved in the provision of information.

Person	Role	TOGAF	SQL	Crystal Reports
A Meyer	MIS Manager	X	X	X
M Rankokwadi	Data Quality Officer		X	

Table 12. Skills matrix.

## 4 Stakeholder report

### 4.1 Client Profile and Core Business Analysis

UJ ICS are the custodians of many diverse systems that they do not own. The key administrative systems, like the Student System, Financial, Human Resource Management and Payroll are owned by the various business units. ICS provides support in terms of the technology platforms and supporting environment.

Many of these systems are not being properly utilized as there are few documented business processes and hence many of the features of the systems have not been optimized.

ICS has assisted in this matter by piloting an application that delivers training manuals and on line training as well as on line assessments but the rate of adoption of this system has in many instances been slow. Opportunities for the optimization of using the UJ ICS environment have been identified in the strategy development.

## **4.2 Systems failures**

Several failures of the ITS student system occurred during registration period.

Two distinct failures modes were observed. The first was a failure of the ITS software due to sub-optimal code that did not allow the application to scale with load. This code was addressed during the registration week and fixed by ITS. The second failure mode was associated with the operating system environment and after collaboratively working on the problem a stable fix was implemented during the second half of 2010.

## **4.3 MIS environment**

The relocation of the analytical capability to the DIPQUIP environment has been prioritised.

# **5 Sustainability report**

## **5.1 Green manufacturing**

Dell, the major manufacturer of the equipment used by ICS, is a leading force in the quest for green IT manufacturing. Dell has been acclaimed for their programs to reduce environmentally damaging chemicals from their manufacturing processes as well as the levels of recycled material that are used in the production. Dell has implemented renewable energy sources to power some of their production plants and this is a growing area wherein they are actively lowering their carbon footprint.

## **5.2 Green operations**

The energy consumption of data centres has been compared to be equivalent to the energy used by the international airlines industry. It is a fact that every watt of energy that enters the data centre has to be removed as heat to keep equipment operational.

One way to optimize energy consumption is to make use of virtualisation techniques whereby one large machine is deployed as the basis for the instantiation of several smaller machines. This cuts down on the inefficiencies of running several smaller machines in parallel and provides the capability to supply computing power according to the requirement, thus using less energy and generating less heat.

The cooling of data centres has been revolutionised by new equipment that has been designed around new control algorithms in order to ensure that the cooling system operates at the optimal efficiency point. Whereas the traditional approach was to simply supply a lot of cooling, with large cooling units, that operate with fans running at fixed speed, the newer equipment makes use of distributed sensors to monitor the actual heat loads and then uses intelligent control systems to implement just enough, just in time cooling. UJ currently has this technology implemented at the Kingsway and Soweto campuses and a 30% decrease in energy consumption has been recorded at ARing 3 at APK.

The UJ data centres were showcased during a contribution at the international Datacenter Dynamic conference in Johannesburg.

The timeline to extend this equipment to DFC and APB has been extended due to budgetary constraints.

### 5.3 Staffing

This risk has previously been stated as well as mitigating actions that need to be taken.

## 6 Governance of the division

The ICS governance structure follows the organogram with each subdivision being represented by the relevant manager at the biweekly co-ordination meetings.

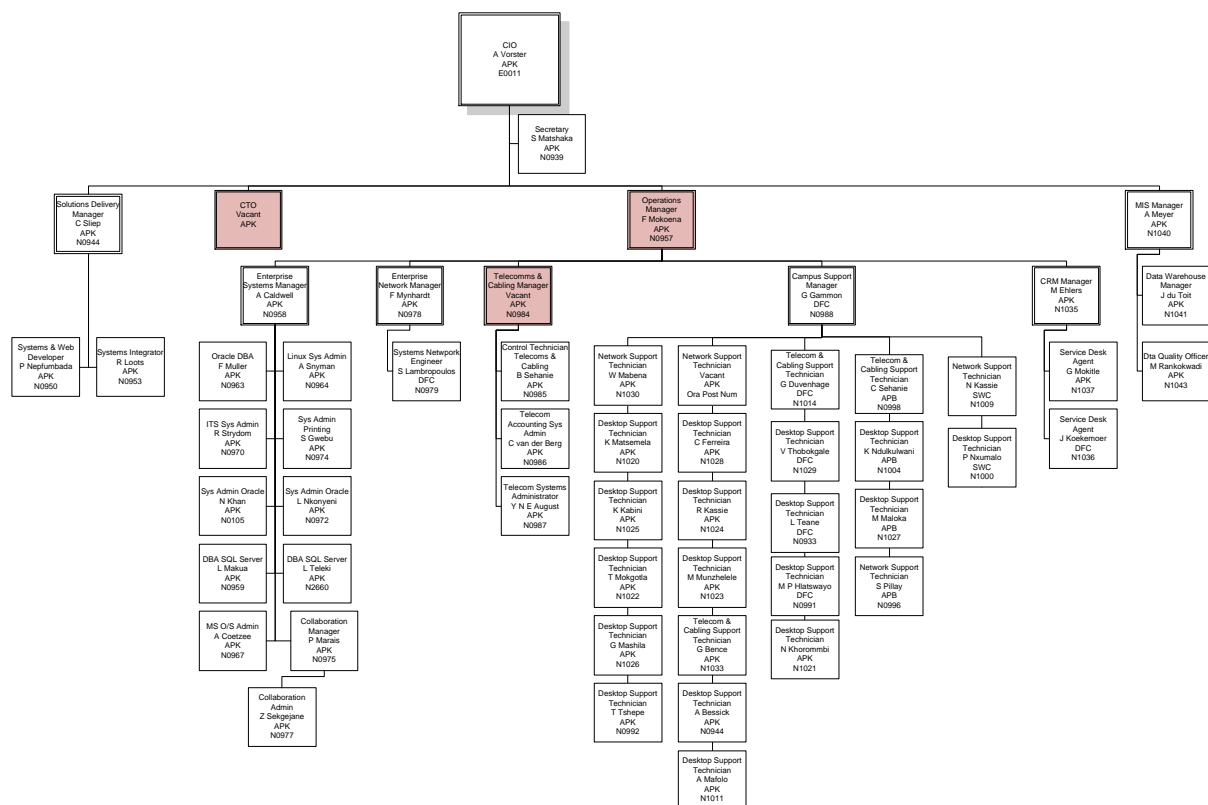


Figure 2. ICS organigram.

ICS has a biweekly management meeting to plan, schedule and give feedback on events.

There are weekly campus coordination meetings where the specifics regarding technical support to campuses are reviewed.

In addition to this there are weekly desktop technician meetings to keep practitioners abreast of new developments and to obtain feedback of events.

The governance system is supported by an ITIL 3 compliant service desk environment that allows for the task by task tracking of service requests and customer satisfaction.

ICS is represented in Management Executive Committees that provide advice and support to the MEC plus other special project committees that plan and coordinate projects/events related to the academic and stakeholder calendars, on matters related to ICT.

## 6.1 Quality management

The ITIL compliant HEAT service desk management system has built in quality indicators that are used to track employee performance as shown in Figure 5 below.

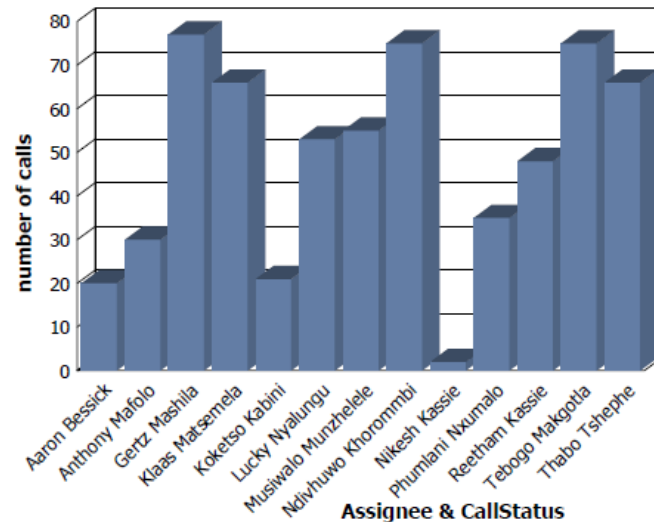


Figure 5. Typical HEAT report on desktop technician performance.

The HEAT system allows for the trending of calls, the monitoring of the quality of service delivery, and the evaluation of employee performance.

## 6.2 Risk management

### 6.2.1 Staffing

The staffing of the ICS function remains the single most important risk.

The proposed ICT Strategy for UJ will result in the extension of many services, as well as the establishment of new services, and both of these would have a staffing implication. The implementation of new technologies implies the consideration of total lifecycle management of the equipment and the assuring appropriate user support capacity.

### 6.2.2 Data quality

Data quality remains a significant risk for UJ.

There is an urgent need for a data quality forum that could concentrate on the lifecycle management of data.

### 6.2.3 Campus Master Plan Developments

The new Soweto Campus, plus new residencies in the Auckland Park and Soweto Campuses were successfully completed in 2010 and posed additional responsibilities on ICS. It also provided opportunities to pilot new technologies such as wireless connectivity of new residences. In all new large projects, ICS is now included in the planning phases to avoid scope creep and ensure adequate support functions after completion.

## 7 Financial review

The approved budget for ICS is sufficient to maintain operations provided that there is no escalation in the level of services or infrastructure. The rapid evolution of this environment poses unique challenges in the institutions investments decisions and needs close monitoring and regular evaluation.

<b><u>MANAGEMENT INCOME STATEMENT</u></b>	<b>2010</b>	
	<b>Full Year Approved Budget (R 1 000)</b>	<b>Actual Income &amp; Expense: Budget CC's (R 1 000)</b>
<b><u>EXPENSES</u></b>		
Permanent remuneration	25 354	21 413
Temporary salaries	-	188
Tutorial salaries	-	39
Invigilator salaries	-	-
Overtime	-	719
Other remuneration expenses	-	19
Recruitment	102	61
Staff training & development	647	788
Academic operating expenses	-	-
Books & periodicals	-	8
Paper, printing & copying expenses	205	60
Student expenses	-	-
Bursaries	-	-
Operating expenses	515	791
Stationary	108	54
Repairs & maintenance	1 603	1 957
Facility expenses	109	58
Municipal expenses	-	-
Marketing and advertising expenses	-	0
Prizes & rewards	36	-
Computer software expenses	14 264	11 850
Travel, conferences and membership expenses	385	207
Functions & entertainment	284	166
Telecommunication expenses	14 084	8 173
Assets < R 15 000	576	589
Finance charges	-	-
Corporate services expenses	15 143	12 519
Depreciation	-	7 973
Net transfer between budget and non-budget	-	(36)
Write offs	-	32
<b>TOTAL EXPENSES</b>	<b>73 416</b>	<b>67 627</b>

Table 13. Financial status

The table reflects an under expenditure of R 5.8 M of which R 2.9 M is associated with personnel costs due to the high vacancy ratio.

## **7.1 Strategic investments**

The 10 year strategy started to offer unique opportunities to incrementally fund functionalities that enhance the core academic project of the institution in an incremental way. The governance committees will guide the executive in prioritising investments in value-for- money projects on an annual basis . The focus changed towards a more strategic approach.

## **8 Social responsibilities**

### **8.1 Internship program**

ICS has a long standing internship program whereby young black ICT graduates or diplomats are given the opportunity to gain knowledge and competence by working with the ICS teams.

Whilst the EDTP SETA is reluctant to fund more than four interns for UJ the scheme had been propagated to other institutions and Wits will from 2011 be accepting interns on a similar basis.

This is not an earth shattering social contribution but some of our top practitioners have come this route and are doing well.

## **9 Conclusion**

The commitment of the ICS staff has again delivered services of a high calibre during 2010. The levels of availability that are maintained have surprised participants involved in the national HEI's benchmarking study.