

IT supporting a connected Monash

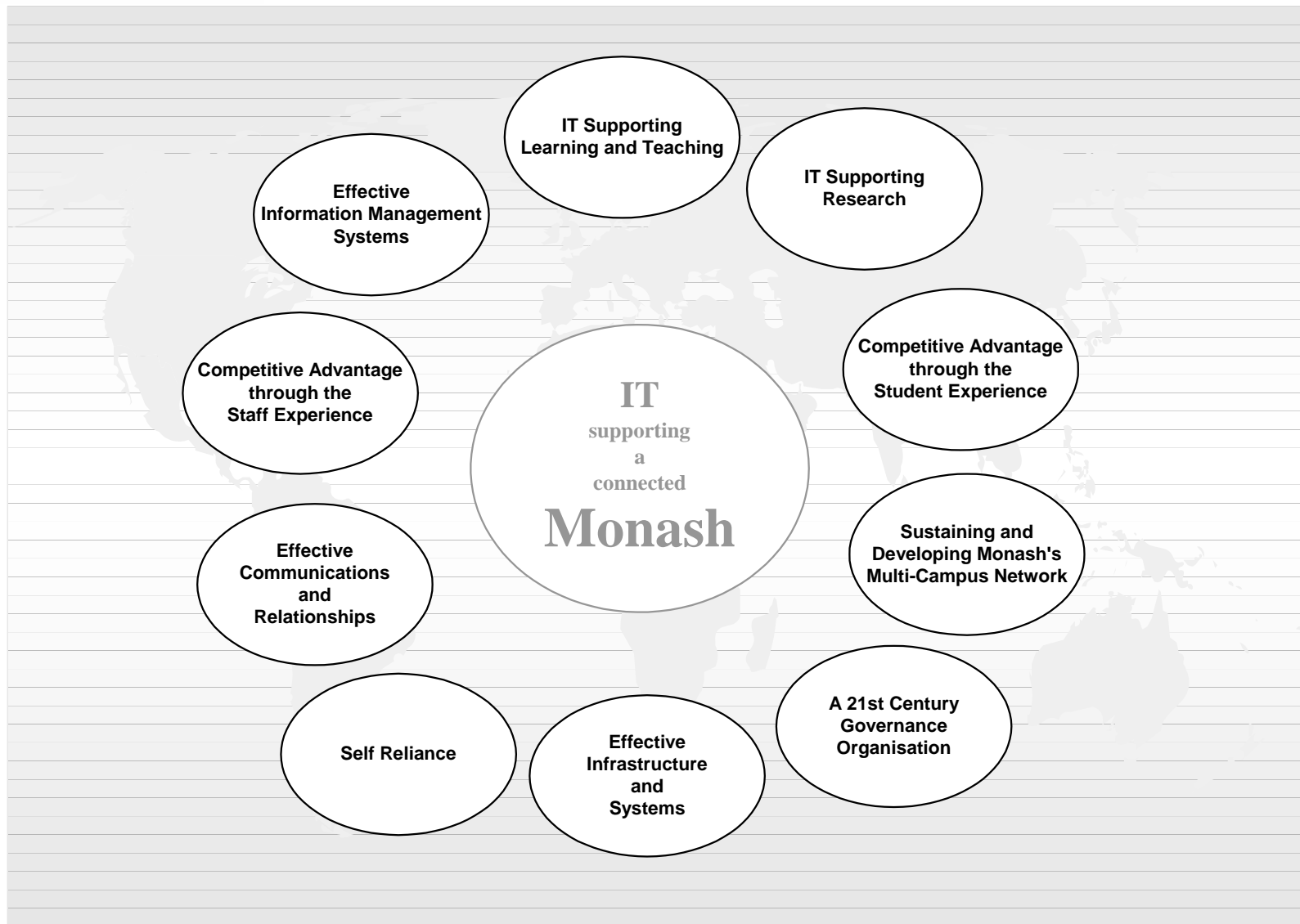


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EXECUTIVE SUMMARY

Background

The current Monash University Information Technology Strategic Plan (ITSP) was approved in June 2001 as an enabling plan and is reviewed and updated annually. This document is the 2004 Update and should be read in conjunction with the substantive Plan.

The university is developing a new and evolving planning framework. Information Technology planning will fit into this framework and align with the plans and timelines that result. This annual Update differs from previous ones in that its structure is aligned with the key themes in the new Support Services Plan 2005-2007.

Learning and Teaching

Information Technology applications and infrastructure play an increasingly significant role in the development and management of learning & teaching and research, and in the way staff and students engage with these core activities.

Support for learning and teaching will be enhanced by continued development and integration of the WebCT learning management system and by further integration of relevant services and resources. Continued exploration of ways to ensure appropriate access to information and resources and ongoing alignment with the university's *Learning and Teaching Plan* will also be a focus.

Research

A major program of activities is being planned to support the university's research performance. The establishment of services that integrate with a national eResearch initiative will assist researchers in many disciplines. It will enable teams of researchers to collaborate more effectively, and it will enable research facilities and resources to be shared nationally and internationally. An eResearch program will require attention to be given to issues such as training and support services for researchers, the management of large data sets, digital libraries, advanced networks and high performance computing. The information needs relating to the management and administration of research will also be reviewed and services enhanced.

Information Management

The university community needs to deal with an increasing volume and complexity of information to support its learning, teaching, research, management and administrative activities. An information management program is being developed to provide a systematic framework of policies and strategies that will enable the university to manage its information resources most effectively, to support its core activities and to meet legislative requirements.

In particular, the integration and consistency of data held within the university's official databases, enhanced university-wide reporting, and records management are leading strategies under review and development.

Governance and Self Reliance

Processes for planning the strategic deployment of IT have been in place at Monash for a number of years. The following activities will underpin future plans, improving the quality of service delivery and cost containment:

- Implementing the ITIL service management methodology, and enhanced project management and quality improvement processes
- Improving efficiency, especially through cost benefits arising from IT architecture and improved assets management
- Managing risk, particularly related to security, disaster recovery, and privacy
- Supporting other university activities that are aimed at generating revenue
- Improving communications with all stakeholders.

The Student and Staff Experience

IT systems and services are critical to the every day experiences of a diverse student and staff community at Monash. A major focus of this planning period relates to the development of processes that will improve communications across the university. The development of a

communications framework and more active engagement with both internal and external stakeholders (particularly students), is intended to improve consultation and processes for the dissemination of information and foster the professional development and collaboration of IT staff.

Security issues, wireless access and technologies supporting remote access (e.g. VPN) will be addressed to provide better support for the university's mobile user community, such as those moving between campuses, between home and work, between Monash Australia and overseas. Security and ease of use need to be balanced to meet the needs of staff.

Other initiatives to support staff include:

- Improving *desktop services* management and training
- Developing the *my.monash* portal to provide an expanded service offering to staff.

Other initiatives to enhance the student experience include:

- Providing up-to-date, flexible and integrated student facilities such as *learning commons*
- Developing an integrated fees payment system
- Continuing the development of the *my.monash* portal as the primary point of access to resources and services for students.

Systems and Infrastructure

Web services are a major source of information for and about the university and contribute significantly to the promotion of Monash. Improvements and enhancements to web services will focus on quality and usability, consolidation of servers, design and provision of user-focussed intranets and the continuing rollout of the web content management system.

The Nelson reforms have led to the development of the Higher Education Information Management System (HEIMS). Complying with the reporting requirements of this system, and consequential enhancements to Callista, is mandatory for Monash.

The university's IT infrastructure is a critical base on which all technology related services depend.

An increasing range of services to both staff and students is being delivered through the *my.monash* portal. The redevelopment of infrastructure underlying this critical facility must commence as a matter of urgency.

The new high-capacity data storage and backup system that is currently being implemented provides new options for storage of critical university data. Storage of critical data must be reviewed, considering issues such as the storage of documents on local machines, server consolidation, server storage and archiving policies, and the commencement of planning for the development of a new data centre.

The network will be extended to the home and other remote locations, and the need to maintain security will be addressed as part of this initiative. Rollout of the Next Generation Network and the VERN project will continue. This will enhance services university-wide, as well as providing specific network improvements to some of our more remote campuses.

Multi-Campus Network

ITS has established a provisioning framework of policies, plans and procedures for establishing IT services in new centres and campuses. A process of continual review of service delivery models is required and will be established, particularly in relation to the provision of campus support at a local level and the development of the new Malaysian campus.

IT SUPPORTING LEARNING AND TEACHING

Objective:

Provide IT systems and infrastructure to support high quality and flexible educational programs, and effective, accessible learning and teaching.

Goals:

- 1. Implement and support a standard range of educationally sound technologies**
- 2. Enhance the services that support learning and teaching through continuous review and improvement and the provision of support for appropriate emerging technologies**
- 3. Ensure technology services support appropriate physical and virtual learning and teaching spaces**
- 4. Support learning and teaching through excellence in the use of IT and continue to expand on the work of the *Learning and Teaching Plan***

Context:

IT continues to play an increasingly significant role in the development, delivery and management of services that support learning and teaching. The *Learning and Teaching Plan 2003 – 2005* highlights flexibility and student centredness as dimensions that should guide development. It further specifies the need to review progress, quality and learning outcomes of technology supported learning as a major factor in achieving its goals.

The diversity of the staff and student profile must be addressed as part of providing equitable access to IT services that underpin and support learning and teaching.

Continuous improvement in service and project management, including risk management, of those services that support learning and teaching is essential. A number of these services are developed and delivered in close collaboration with other units of the university and require effective governance, staff networks and coordinated procedures to optimise learning outcomes.

Areas to be targeted include:

- Learning Management Systems - including upgrades to current services, governance and project management; support for research into use and outcomes; appropriate use and archiving of versions of content
- Systems integration
- Maintenance of learning spaces and exploration of innovative approaches to learning environments

Continued exploration of the ways that students and teachers access academic and other information and continued development of appropriate ways to ensure access is required.

(All initiatives in this section of the IT Strategic Plan are specifically aligned with strategies in the *Learning and Teaching Plan 2003 – 2005*).

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Implement and support a standard range of educationally sound technologies				
Review the governance structure for university wide Learning Management Systems to manage the existing service, evaluate new versions, and plan and implement upgrades	DVC (Academic), CeLTS, ITS	End 2004	Review completed	Operational activity
Establish a programme steering committee to monitor and evaluate university-wide implementation of a standard range of pedagogically appropriate technologies (e.g. learning management systems)	DVC (Academic)	ASAP	Committee established	Operational activity
Continue the rollout of the enterprise version of WebCT (Vista)	ITS (FLT)	2005	Majority of units migrated to Vista	Capital development
2. Enhance the services that support learning and teaching through continuous review and improvement and the provision of support for appropriate emerging technologies				
Review appropriate technology requirements for learning and teaching spaces and associated infrastructure to ensure appropriate and equitable use of IT consistent with LTP goals	CeLTS, ITS, Faculties, DVC (Academic)	Ongoing	Annual upgrade plan developed and resourced	Operational activity
Consistently apply the procedure for the completion and processing of a Technology Impact Statement to be approved by appropriate IT service areas for all new and reviewed units and courses	Faculties, DVC (Academic)	Ongoing	Procedure applied consistently and implications resourced	Operational activity and possible capital development projects
Benchmark Monash educational technology against other Universities	DVC (Academic), CeLTS, ITS	2006	Benchmark report	Capital development
Support research on appropriate technologies that support pedagogically sound learning approaches	CeLTS, ITS	Ongoing	Reports tabled for consideration	Operational activity
Provide a channel to inform the university about new technologies with possible applications in learning and teaching, including encouraging sharing of the outcomes of trials of new technologies	CeLTS, ITS, Faculties	End 2005	Successful establishment	Operational activity
Establish a sustainable process to fund IT advice and support for innovative teaching projects using technology	CeLTS Dir, ITS (Exec Dir)	2006	Process established	TBD

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
3. Ensure technology services support appropriate physical and virtual learning and teaching spaces				
Develop standards and guidelines to ensure effective use of IT by teachers	DVC (Academic), CeLTS, ITS	End 2005	Standards and guidelines developed	Operational activity
Ensure active collaboration between relevant units in the planning, development and deployment of the necessary IT infrastructure and services to enable those units to fulfil their responsibilities to support learning and teaching	DVC (Academic)	Ongoing	Collaborative processes established	Operational activity
Liaise regularly with Facilities and Services, Faculties and the Conference Office regarding lecture theatre functionality, maintenance and upgrades	ITS (TFSU)	Ongoing	Forum meets regularly	Operational activity
Continually review and improve IT support for distance, offshore and global education (particularly in clinical situations)	CeLTS, ITS	Ongoing	Annual review undertaken	Operational activity
Extend the Lectures On-line service in consultation with the Library	Library, ITS	Ongoing	Service extended	TBD
4. Support learning and teaching through excellence in the use of IT and continue to expand on the work of the <i>Learning and Teaching Plan</i>				
Investigate options for ensuring secure and authentic on-line assessment	CeLTS, Faculties, ITS	As requested	Reports to Education Committee	TBD
Implement a pilot project to evaluate the use of e-portfolios	CeLTS	2006	Evaluation report received	TBD
Continue to expand digital library initiatives such as Exams On-line and e-Reserve	Library	Ongoing	Initiatives implemented	TBD
Investigate systems that may support a university-wide credit transfer process. (RPL, etc.)	Faculties	TBD	Project Concept developed	Capital development
Continue to develop an entry point (e.g. portal) for access to technology supported academic services for all students and staff	ITS	Ongoing	Portal functionality increased	Capital development

IT SUPPORTING RESEARCH

Objective:

Enable outstanding research to be undertaken at Monash through the provision of information services, advanced IT infrastructure and appropriate support services to researchers.

Goals:

1. Provide information services that assist the research process
2. Provide IT infrastructure that facilitates leading edge research across all disciplines
3. Provide IT services that support Monash researchers

Context:

Monash research performance is one of the key differentiators from its competitors. The university's *Excellence and Diversity* statement has highlighted the importance of excellence in research, and notes the intention to raise Monash's research ranking among the Group of Eight universities.

Research performance is also closely allied with the learning and teaching functions of the university.

The information requirements of a research programme are extensive and varied. In addition to information needs of specific research activities, the university must administer the various elements of research, make strategic decisions about research, report to government agencies and market its research outcomes to the world. The ResearchMaster research management system currently deployed requires extension or upgrading. Its positioning with other central and faculty systems within Monash must to be resolved, in order to address the needs of researchers, their faculties and university management.

The research demands placed on IT infrastructure are increasing, particularly from worldwide initiatives and trends such as eResearch, and the deployment of the Australian Synchrotron at Monash. These will further extend the demand for collaborative technologies, advanced broadband networks, storage and transfers of large data sets, high performance computing, simulation and visualisation technologies. Grid technologies and related middleware services are the focus of major international initiatives and also need to be supported. Collaborative technologies based on access grids and web services will be required by many researchers.

Most importantly, researchers, IT support staff and IT researchers must work as partners by promoting the use of existing services, developing new ones, and implementing policies that encourage desired research outcomes.

There are opportunities to establish a more functional and more effective environment for IT supporting research at Monash. Its form will develop more completely over the next few years as the university advances its position as a major centre for Australian research.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Provide information services that assist the research process				
<i>Managing research at Monash</i>				
Identify the most critical information elements that are required to support the DVC (Research) and CADRes in strategic decision-making and develop ways to meet critical gaps	DVC (Research), ITS	2005	Review document completed	Operational activity
Ensure effective rollout of ResearchMaster 4 modules and complete the integration of systems and data bases supporting research	RGEB, ITS	2005	Successful rollout	Capital development
Review other options for research management systems as they become available	RGEB, ITS	2005 - 2007	Adequate systems support	ITS, RGEB Operational activity
Enhance current MRGS databases to improve efficiencies and allow more comprehensive reporting through development of web-based interface and application of preferred database development environment	ITS	2005	Systems enhanced	Operational activity
<i>The administration of research at Monash</i>				
Identify the most critical administrative services required to support research at Monash and develop strategies for bridging any gaps	DVC (Research), RGEB, ITS	2005	Review document completed	Capital development
Ensure effective rollout of ResearchMaster 4 modules, including ethics, finance and web based entry of publications	RGEB, ITS	2005 - 2006	Successful rollout	Capital development
<i>Marketing research at Monash</i>				
Pilot Research Directory/ARROW, providing researchers with a means to record and promote their research	ITS, RGEB, Library	2005	Successful pilot	Operational activity, ARROW project funds
Encourage the use of the ARROW digital library to increase visibility of Monash research and integrate ARROW with other systems	DVC (Research), Library, ITS	Ongoing	Increasing fraction of Monash research captured by ARROW	ARROW project funds
<i>Satisfying government reporting</i>				
Ensure that research output by non-academic staff is included in DEST data collection and reporting, and that research funding is credited back to the	DVC (Research)	Ongoing	All Monash research output is	Operational activity

Initiatives	Accountability	Timing	Measurement	Resources/Budget
correct area			captured	
Embed the Research Directory and ARROW into publication registration and DEST data collection processes	RGEB, Library, ITS	2006	Successful replacement of current process	Operational activity, ARROW project funds
2. Provide IT infrastructure that facilitates leading edge research across all disciplines				
Appoint a senior project officer <ul style="list-style-type: none"> to develop a plan for an eResearch campus precinct at Monash and to identify the opportunities that might flow from the synchrotron and how this might impact IT infrastructure at Monash 	DVC (Research), CADRes, ITS	2005	Completed plan	Capital development
Provide and promote the use of Grid technologies to pilot and support new forms of international collaborative research	DVC (Research), CADRes, ITS	2005-2007	Identifiable uptake of services	Capital development
Deploy Access Grids on Monash campuses to encourage international collaboration between researchers	ITS, researchers in IT	2005-2007	Services deployed successfully	Capital development
Develop Grid middleware and deploy both pilot and production forms as appropriate	ITS, researchers in IT	2005-2007	Services deployed successfully	Capital development
Deploy advanced, high performing internal and external network services such as the Monash next generation network project, VERN, AARNet3 and GrangeNet, to support Monash researchers	ITS	2004 onwards	Meets operational KPIs	ITS and faculty operational funds, capital development.
Provide large scale, extensible data storage facilities to support Monash researchers, with suitable backup, archival and retrieval services	ITS	2005	Data management programme successfully implemented	2004/2005 Capital development
Review strategies of providing high performance computing facilities to researchers at Monash, including in-house equipment, and the use of VPAC and APAC	university HPC working party	End 2004	Completed review	Operational activity
Pilot Grid technologies to make use of unused desktop and server CPU cycles	ITS	2005	Successful trial	Capital development

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
3. Provide IT services that support Monash researchers				
Investigate possible collaborative technologies supporting research	DVC (Research), ITS	2005-2007	List of recommended technologies for further investigation	Capital development
Conduct a detailed needs analysis for a researchers' desktop	DVC (Research), ITS	2005-2007	Needs analysis completed	Capital development
Establish a Research Support Section to liaise with and assist Monash researchers to best utilise IT services	DVC (Research), ITS (Exec Dir)	Ongoing	Section established	Capital development
Develop an outreach program to assist Monash researchers and enable them to be more involved in international initiatives	ITS, RGEB	Ongoing	Plan approved	Capital development
Complete a risk analysis and support the university's IT security officers to assist researchers keep their systems secure and available, to prevent potentially disastrous loss of data	ITS (Security), Faculties	ASAP then ongoing	Completed audit, Training programme available	ITS and faculty operational funds
Encourage staff to register with Community of Science (COS) and list relevant areas of expertise to facilitate greater co-operation within Monash	DVC (Research)	End 2005	All research-active non-academic staff are registered in COS	Operational activity
Establish a training framework for IT staff, academic staff and other appropriate university staff that incorporates IT literacy, research skills, competency with specific relevant tools and research training partnerships.	ITS, SDU, RGEB	2005	Training framework established	Operational activity

EFFECTIVE INFORMATION MANAGEMENT SYSTEMS

Objective:

Manage information to better create and share knowledge

Goals:

1. **Develop an over-arching university-wide information management strategy that covers both structured and unstructured content**
2. **Contribute to the university strategic planning processes through the development of information management strategy**
3. **Develop and continuously review information management services**

Context:

The current Information Management activity is being undertaken as part of an ITS-funded project which formally commenced in May 2003. This project has expanded its scope to cover both structured and unstructured content.

The project has already delivered the following:

- a vision
- a definition of, and scope for Information Management
- a draft set of information management principles
- an ongoing dialogue between key university stakeholders
- identification of Information Management as one of the eight foci for the Support Services Plan for 2004-2006
- the successful bid (in collaboration with the Library) for the Australian Research Repositories Online to the World (ARROW) project
- an analysis of equivalent activities in US, UK

The project is currently entering a Data Collection phase, where a series of Information Usage focus groups will validate the scope model, identify service deficiencies and gaps and look for common themes that might form the basis for possible new services for 2005. The project will also produce the first version of a university-wide Information Management Strategy as input to 2005 planning processes.

At the conclusion of 2004 (assuming no further funding is received) an alternative mechanism will be needed to guide co-ordinated information management activities across the university. Developing such a co-ordination mechanism (referred to as Information Management Governance in the Accountability column below) is one of the planned deliverables for 2004.

At the 2004 ITS Strategic Planning seminar, both the DVC (Resources) and the Chair of Academic Board highlighted the importance of the Information Management activity to the university.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Develop an over-arching university-wide information management strategy that covers both structured and unstructured content				
Complete initial information management data collection exercise	IM Project	End 2004	Initial dataset	IM Project funding
Extend and validate initial data collection	IM Project	Mid 2005	Complete dataset	Capital development
Under the overall information management strategy, develop a university-wide reporting and analysis sub-strategy that utilises the university's structured data repositories to improve the performance of the university	Information Management Steering Committee	Approved sub-strategy by end 2004	Existence of endorsed sub-strategy	IM Project
Develop and implement Information Management governance model for Monash	IM Project	End 2004	Agreed governance model	Capital development
Develop framework for Information Management Resource Repository (IMR2)	IM Project	End 2004	Agreed framework	2004 Project funding
Populate the Information Management Resource Repository (IMR2) with policies and procedures for best practice information management, and a toolkit of case studies, checklists and applicable software	IM Governance	2005	Populated Info-Bank	Capital development
2. Contribute to the university strategic planning processes through the development of information management strategy				
Pilot information needs-driven strategic planning process	IM Project, Academic Planning Unit	End 2004	Validated process	IM Project
Incorporate Information Management principles into university strategic planning processes	DVC	Each planning cycle	Included in university planning framework	DVC
3. Develop and continuously review information management services				
Critically examine current information service offerings and identify service gaps	IM Governance	Ongoing	Identified service gaps	Additional operational funding
Document potential new information services	IM Governance	June-July each year	New project charters for	Additional operational funding

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
			prioritisation	
Implement prioritised new information services	IM Governance	January each year	New services successfully implemented	Capital development
Pilot the ARROW system to investigate ways in which Monash might make use of institutional repository technology	Library, ITS, IM Governance	2004-2006	Other uses of ARROW	IM and ARROW project funding
Implement production collaboration support service	ITS	2004 - 06	Successful production implementation	Capital development

A 21ST CENTURY GOVERNANCE ORGANISATION

Objective:

Govern the strategic management of IT via well-structured frameworks and processes within a culture of engagement, innovation and quality.

Goals:

1. **Ensure planning and service provision is consultative and innovative**
2. **Ensure IT services and development programs are implemented in accordance with the Monash Quality Review Cycle**
3. **Adopt best practice processes and procedures for IT development projects and service delivery**
4. **Manage risks associated with the development and operation of the IT environment to protect Monash**
5. **Ensure internal funding of IT supports the whole life cycle of each service**

Context:

IT systems and services provide the essential underpinnings for all of the functions of the university. The university is currently reshaping its strategic planning framework and processes. Consequently, IT planning cycles and methodologies must be harmonised with these reshaped university equivalents.

Senior management across the university are widely engaged with the IT project development portfolio process. However, there have been inconsistencies between projects in the level of involvement, communications and governance at the project steering committee level. The project management framework and guidelines are established, but there needs to be stronger emphasis placed at the beginning of projects on the role of the project sponsor and the appropriate representation of Steering Committees. Also the ongoing resource requirements and business governance for the resulting production services need to be better defined and understood.

In addition to their normal duties many IT staff are also investigating emerging and innovative technologies. In order to deliver the maximum value to the university, these activities should be supported and co-ordinated. Following a process of review, appropriate technologies should be endorsed for wider implementation.

IT service continuity and project risk mitigation is well developed. Further emphasis must be placed on whole-of-business continuity planning. This must be driven by business owners. Additionally, there has been an exponential increase in the number of attacks on Monash systems from the Internet. This has resulted in the need for increasing vigilance, monitoring and control of IT equipment. The extension of the Monash network to off campus locations has highlighted the need for extending the same vigilance, monitoring and control as is in place for on-campus equipment.

Quality should be inherent in everything that the university does. Consistent with this, the ITS Division will undertake a self-review in 2004, prepare for the AUQA audit and work closely with CHEQ on their planned annual review of services. Consistent quality standards in the delivery of IT services and support will be improved through implementation of best practice methodologies such as the IT Infrastructure Library (ITIL)

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Ensure planning and service provision is consultative and innovative				
Provide input into the development of the university planning framework to ensure that implications for IT are considered	ITS (Exec Dir), DVC	ASAP	Meetings held	Operational activity
Continue to review and update the IT Strategic Plan to ensure its alignment with higher level university planning	ITS (Planning & Project Office)	Annually	Annual Update published	Operational activity
Establish a forum to showcase new and emerging technologies to identify opportunities for collaboration and further exploitation	TWP	Annually	Forum conducted	Operational activity
Allocate funding to conduct and evaluate relevant pilot projects	ITS (Directors)	Annually	Evaluation report received	Operational activity
2. Ensure quality assurance programs for IT are implemented in accordance with the Monash Quality Review Cycle				
Collaborate with CHEQ to develop templates for the review of university-wide IT service provision	ITS (SM & QWP)	2005	Templates developed	Operational activity
Conduct reviews of university-wide IT service provision	ITS, Divisions, Faculties	Ongoing	Reviews conducted	Operational activity
Prepare for the internal review of the IT Services Division as part of the AUQA program	ITS (SM & QWP)	Sep 2004	Internal review conducted	Operational activity
Continue to benchmark IT performance and share best practice across key areas including participation in the CAUDIT benchmarking program	ITS (Exec Dir)	2004 - 06	Benchmark processes established	Operational activity
Conduct in-progress and post-implementation reviews for key IT development projects	ITS (Planning & Project Office)	Ongoing	Reviews conducted and lessons learned promulgated	Operational activity
Ensure ITS compliance with the process for the review and updating of SLAs and KPIs	ITS (Service Management Office)	Ongoing	Annual reviews and updates to SLAs and KPIs as required	Operational activity

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
3. Adopt best practice processes and procedures for IT development projects and service delivery				
Develop a plan to ensure project management methodologies and project governance are understood by sponsors and business owners before projects commence	ITS (Planning & Project Office)	Ongoing	Plans and procedures reviewed and monitored	Operational activity
Review procedures to ensure that project plans address whole of life resourcing and benefits realisation monitoring before project funds are released	ITS (Planning & Project Office)	Ongoing	Plans and procedures reviewed and monitored	Operational activity
Investigate ways to improve the coordination of cross-divisional systems, projects and services (eg. WebCT, Lectures online)	ITS (Planning & Project Office)	Ongoing	Plans and procedures reviewed and monitored	Operational activity
Develop a plan to extend ITIL Service management training and Service Mapping	ITS (SM&QWP), Faculties, Divisions	End 2004	Plan approved and funding secured	Capital development
4. Manage risks associated with the development and operation of the IT environment to protect Monash				
Review the ITS Risk profile on an annual basis	ITS (Security)	Annual	Report accepted	Operational activity
Implement the recommendations of the external Disaster Recovery audit	ITS (Security)	2005 - 06	Recommendations implemented	Operational activity and Development funding
Assess IT practices to ensure compliance with privacy legislative requirements	ITS, (Privacy Office)	2005	Assessment report complete	Capital development
Protect the Monash IT environment from internal and external threats by upgrading security monitoring and support services	ITS (Security)	2005	Project completed	Capital development
Provide mechanisms to protect the Monash IT environment from risks associated with extending the reach of the Monash network to off-campus machines	ITS (Security)	2005	Project completed	Capital development

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
5. Ensure internal funding of IT supports the whole life cycle of each service				
Promote the use of the ITS Benefits Realisation methodology to monitor return on investment in IT infrastructure and systems.	ITS (Planning & Project Office)	Jan 2005	Plans developed and monitored	Operational activity
Ensure that the Benefits Realisation plans (including ongoing review cycles) are implemented	Project Sponsors, DVC (Resources)	Ongoing	Benefits outcomes are reviewed annually	Operational activity
Ensure that resources (funding and staff) are provided for ongoing support of new services once implemented	Project Sponsors, ITS (Service Managers)	Ongoing	Funding secured	Annual operating budgets

COMPETITIVE ADVANTAGE THROUGH THE STUDENT EXPERIENCE

Objective:

Provide an experience of IT that is enabling and engaging for all students.

Goals:

1. **Provide convenient, integrated and effective access from any location for all students to relevant information and resources**
2. **Actively consult with students, ensure that opportunities are available for student and community feedback, and respond effectively**
3. **Provide equitable IT services and flexible learning environments that enable a high level of student satisfaction and productivity and meet the changing and diverse needs of all students**
4. **Ensure students have the skills necessary to access and use information and resources effectively**

Context:

Delivery of IT services to a diverse student community should be integrated across a range of service providers. It is therefore critical that these services (whoever provides them) are carefully planned, implemented, managed and continuously reviewed.

IT systems and services that have an impact on students include, but are not limited to, the following areas:

- Administration (e.g. enrolment, timetables, class allocation)
- Learning and Teaching (e.g. Learning Management systems, on-line content, communications)
- Library Services (e.g. Voyager, eReserve, Monash Lectures Online)
- Extra-curricula and personal support services (e.g. my.monash resources and access to Monash community services)
- Support for privately owned IT equipment

The pace of change in information technology use outside the university is changing the expectations of the student population. Many of the things that were once thought of as exciting and new (Monash Lectures Online, web enrolment, WebCT, my.monash) are now regarded by students as the sorts of things that a leading university like Monash would naturally provide. The challenge for Monash is to keep leading the way in this area, while still driving improvements in existing offerings and at the same time not becoming over seduced by the promise of the new. This will require a careful blend of innovation, vision, and engagement with those who work closely with the student population.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Provide seamless and effective access from any location for all students to relevant information and resources				
Continue to enhance the my.monash portal as the main access point for all student services and resources	ITS (FLT), Faculties, SSSD	Ongoing	Increased resources and services available	Operational activity
Continue to enhance IT systems that support prospective students	Faculties, MAPA, MI, ITS	End 2005	Prospective students have access to relevant information	Capital development and ongoing operational budget for maintenance
Increase the functionality of the <i>my.monash</i> portal for off campus and PG students and interaction with community services (e.g. MONYX)	ITS (FLT)	End 2005	Functionality for these groups is increased	Operational activity
Provide systems to support clubs and societies to develop an on-line presence	ITS (Dir - IS)	End 2005	Space provided	Operational activity
Simplify access to multiple computer systems through the use of a single login	ITS (Dir - IS)	Ongoing	Increase in systems accessible via single login	Capital development
2. Actively consult with students, ensure opportunities are available for student and community feedback, and respond effectively				
Develop a plan to actively engage with users of student IT services, encourage a high level of student feedback, and respond appropriately to enable the implementation of best practice student IT services	ITS (Dir - CS), ITS (SM&QWP)	Plan: End 04, Projects: 2005	Plan approved by DVC Resources for implementation. Ongoing operational and project funding secured.	ITS Operational activity and Capital development budgets
3. Provide IT services and flexible learning environments that enable a high level of student satisfaction and productivity and meet the changing and diverse needs of all students				
Provide on-campus facilities to support students' scholarly activities and embed in campus and other plans	ITS, Library, SSSD, Faculty managers	End 04	Recommendations received and approved for implementation	TBD
Work with the Library and Berwick Campus Manager to plan for and trial the	Campus Dir	2005	Learning Commons	Capital development

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
Learning Commons concept.	Berwick, Library, ITS		established	
Develop a university wide learning facilities plan (including computer suites and learning commons) that is aligned with campus and faculty plans.	Campus Dirs, Library, ITS, Faculty Mgrs	2005	Plans established	Operational activity
Investigate and report on provision of an integrated fees and payments system for students	SSSD, Corporate Finance, ITS	2005	Report completed	Capital development
Ensure internationalisation, disability, cultural and gender issues are addressed in system design and the SOE	Project Sponsors, ITS	Ongoing	Issues included in project charter, revised SOE	Project budgets and Operational activity
Co-ordinate surveys of student IT requirements and access to resources, determine the real level of need for specific student groups (including off-campus and off shore), and identify manageable solutions	CHEQ, Faculties, Divisions, ITS	Ongoing	Report produced	Operational activity
Implement collaborative technologies that support learning and teaching and community activities for students (eg. Chat, SMS)	ITS	mid 2005	Services available	Capital development
Continue to maintain and enhance computer laboratory facilities and services, including laboratory image updates, the Standard Operating Environment (SOE) and baseline hardware specifications	ITS and Faculties	Review after each semester	Complaints about laboratory facilities are reduced; annual report is approved	Operational activity
Continue to ensure that appropriate facilities are available for students with special needs in consultation with relevant university units including the Disability Liaison Office (DLO) and the Equal Opportunity and Employment Equity branch of Student and Staff Services	ITS (CS), Faculty IT Managers	Ongoing	Services comply with Inclusive Practices Disability Plan	Operational activity
Pilot and evaluate provision of laptop connectivity for students in selected teaching spaces	ITS (TFSU)	End 2005	Project concept developed	Capital development
Review IT service offerings for postgraduate students, particularly those off-campus, to facilitate their closer participation in the scholarly community	ITS	2005	Completed review	Operational activity
Continue to expand the scope of the current Monash University Lectures Online service	Library, ITS (TFSU)	Ongoing	Additional units are included in the MULO service	Capital development
Continue to support the Faculty of IT in the development of a 'CoolCampus'	ITS	End 2005	Pilot project	Capital development

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
forum to enhance the Monash student and staff experience			conducted and evaluated	
Extend the ask.monash service to all high demand areas	ITS (Dir - AS)	Ongoing	ask.monash covers designated high demand areas	Capital development
Integrate financial aid and student employment into comprehensive aid, fees and payments system for students	IAS	2006	Integrated system	Capital development
Provide effective ways to develop relationships with alumni	IAS	2005/6	Improved bi-directional communication with alumni	Capital development
4. Ensure students have the skills necessary to access and use information and resources effectively				
Ensure IT literacy is embedded in graduate attributes and monitor student's acquisition of IT literacy through the IT Training Steering Committee and the Graduate Attributes Working Party	DVC (Academic), IT Training Steering Committee, Graduate Attributes Working Party	Dependent on committee timelines	Revised graduate attributes	Operational activity
Identify and provide innovative and relevant information literacy and ICT skills development programs	ITS, Library	Ongoing	Programs provided	Capital development
Incorporate special needs into IT training programs (e.g. people with disabilities, international students, transitional students)	IT Training Steering Committee	Ongoing	Training programs incorporate special needs	Operational activity
Provide access to online training programs for ICT skills via the portal in support of the recommended ICT skills Graduate Attribute	ITS, Faculties	Ongoing	Training provided in support of new graduate attributes	Operational activity
Pilot the International Computer Driver's License (ICDL) for students	ITS	End 2004	Recommendations received	2004 Project

COMPETITIVE ADVANTAGE THROUGH THE STAFF EXPERIENCE

Objective:

Provide an effective staff IT work environment and client focussed support

Goals:

- 1. Ensure all staff have high standard workplace IT facilities that meet their needs**
- 2. Enable consistent transparent access to Monash resources from any location worldwide**
- 3. Ensure all staff have sufficient IT skills to effectively use Monash IT resources**
- 4. Provide IT support services that employ best practice standards, and measure performance against those standards**

Context:

IT systems and services are critically integrated into the experiences of Monash staff as they pursue their teaching, research and administrative endeavours. This includes those university-wide systems and services provided by ITS and those provided by Faculties, Divisions, the Library and other service providers.

There are now well over 25,000 computers and associated devices connected to the Monash staff network. The size, complexity and geographic diversity of the Monash staff experience presents considerable challenges in ensuring that Monash staff have access to high class facilities and the necessary support to maximise use of these facilities and systems.

Considerable progress has been made in ensuring that up to date equipment is cost-effectively acquired and renewed regularly across the university. A further focus on deploying desktop management systems and tools will enable improved support and reliability whilst effectively assessing and monitoring cost effectiveness.

Advances in mobile computing technologies and the need for Monash staff to be able to access Monash IT resources from locations other than the office, place a particular emphasis on supporting wireless technologies and connections from off-campus and globally. Security and ease of use need to be balanced to meet the needs of Monash staff and of the university as a whole.

A continuing emphasis will be placed on providing staff with opportunities to enhance their IT skills, and easily find information that helps them to access and use IT facilities.

Standards for IT service management and support will be improved through engagement with best practice methodologies such as the IT Infrastructure Library (ITIL), and by continuing to foster the professional development and collaboration of IT staff across the university.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Ensure all staff have high standard workplace IT facilities that meet their needs				
Maintain a policy and process for implementing a Standard Operating Environment (SOE) for the workplace that is reviewed and revised annually		Ongoing	Annual review	Operational activity
Implement a set of tools that enables effective desktop fleet management and that includes an appropriate replacement cycle for all equipment platforms	ITS (Dir - IS), Procurement Services	2005	Tools available	Operational activity
Continue to ensure that appropriate facilities are available for staff with special needs, in consultation with the Equity and Diversity Centre of Student and Staff Services	Director Equity and Diversity SSSD, ITS (Dir - CS), Faculty Managers	Ongoing	Services comply with Inclusive Practices Disability Plan	Operational activity
2. Enable consistent transparent access to Monash resources from any location worldwide				
Develop and publish guidelines for accessing Monash online services both nationally and internationally (e.g. develop resource kit for travelling off-campus)	ITS (Dir - CS)	Ongoing	Guidelines reviewed annually for accuracy	Operational activity
Support and enhance the use of mobile hand-held devices for email, scheduling and other relevant applications	ITS (Dir - IS)	Ongoing	Standards for supported models defined with connectivity tools for email and calendar available	Operational activity
Set standards for desktop video-conferencing and identify preferred suppliers	ITS (TFSU)	2005	Standards defined	Operational activity
Assess the benefits of using technologies such as Short Messaging System (SMS) and instant messaging to enhance staff communications	ITS (Dir - IS)	2005	Technologies available	Operational activity

Initiatives	Accountability	Timing	Measurement	Resources/Budget
3. Ensure all staff have sufficient IT skills to effectively use Monash IT resources				
In consultation with the Student & Staff Services Division, establish baseline IT competency levels for technical, administrative and academic positions, and ensure the integration of the IT skills matrix into standardised staff induction and development processes	ITS (Dir - CS), Manager SDU, SSSD	Ongoing	Skills matrix documents available on web	Operational activity Capital development
Improve the management of IT training by continuing to measure the access and uptake of training within Monash, and benchmark with appropriate external organisations	Manager SDU, SSSD, ITS (Training Manager)	2005	Report tabled with IT Training Steering Committee	Capital development
Under the guidance of the IT Training Steering Committee, enhance staff training by adopting the following strategies: <ul style="list-style-type: none"> • provide essential IT training for academic and general staff that covers all software in the standard operating environment and core university applications • maintain staff training facilities at all campuses • monitor, co-ordinate and standardise the development of online training programs/materials across the university • implement a central repository for training information that details courses, schedules and self paced learning resources, and publish in the <i>my.monash</i> portal • actively promote training opportunities at each campus • include training within all relevant IT projects as uniquely identified tasks within the project plan, and provide the facility for ongoing training for the life of the system 	ITS (Dir - CS), Manager SDU, SSSD	Ongoing	Report tabled to IT Training Steering Committee	Operational activity Capital development
Develop a range of client-focussed IT resource kits: orientation/induction, working from home, travel/nomadic workers, sessional/part-time staff	ITS (Dir - CS),	By 2006	Kits available on relevant web sites	Operational activity

4. Provide IT support services that employ best practice standards, and measure performance against those standards				
Enhance the devolved, multi level model of integrated support through ITS and local IT support groups, and the use of online knowledge bases and inquiry management systems (i.e. HEAT and <i>ask.monash</i> systems)	ITS (Dir - CS),	Ongoing	Annual report of ITS incidents logged	Operational activity
Implement a Service Management Framework with guidelines and procedures for service management based on industry best practice (e.g. IT Infrastructure Library – ITIL) to: <ul style="list-style-type: none"> • develop and maintain Service Statements for each ITS service and measure and regularly report performance based on stakeholder-nominated KPIs. • empower the service coordinator role to take responsibility for the end-to-end delivery of each service • apply effective change management methodologies to systems implementation, business process re-engineering initiatives and service changes 	ITS (Dir - CS),	2004-2006	External ITIL audit in 2006	Operational activity
Collaborate with organisations similar to Monash to develop industry standards for IT support, and benchmark service standards and key performance indicators against those standards	ITS (Dir - CS),	Ongoing	Report of service standards and KPI's against CAUDIT and Educause benchmarks	Operational activity
Implement remote desktop management systems to enable technical support staff to assist with inquiries and diagnose faults by accessing the customer's desktop remotely	ITS (EWS)	2005	Novell tools available to university units	Operational activity
Develop comprehensive professional development programs for IT staff across the university covering technical, service and management skills	ITS (Dir - Corp), ITS (Dir - CS), Faculties	Ongoing	Annual report	Operational activity
Develop career paths within Monash for IT staff that offer growth and advancement potential	ITS (Dir - Corp)	Ongoing	IT Career path information available	Operational activity

Continue to develop and enhance a services catalogue and appropriate service delivery models, service level agreements, pricing models, contracts and financial processes for the various categories of Monash Commercial clients	ITS (Dir - CS), ITS (Dir - Corp)	Ongoing	Services catalogue published and standard SLA developed	Operational activity
Review support services to ensure that appropriate levels of service can be provided to community organisations, consistent with the Community Service Policy	ITS (Dir - CS),	Ongoing	To be determined	Operational activity

EFFECTIVE COMMUNICATIONS AND RELATIONSHIPS

Objective:

Leverage information technology to develop and maintain excellent relationships through wide consultation and effective communications

Goals:

1. **Enhance communication and engagement between IT service providers and stakeholders**
2. **Improve understanding of student IT needs through engagement with the student community**
3. **Improve communication tools to foster streamlined and effective communication**
4. **Enable easy access to service and project information**
5. **Provide support for the university's community engagement objectives**

Context:

As a critical service underpinning the key operations of the university, it is essential that matters involving information technology (IT) are communicated across the university in a timely and relevant manner, as identified in *Excellence and Diversity* and the Support Service Plan 2004-07.

Effective communications encompass both dissemination of information and interactive consultation processes. Quality communications will enhance the relationship between users and providers of IT services and better relationships will lead to a thorough understanding of users' needs with respect to the provision of IT services.

The communication of IT is undergoing a maturing and continual improvement process. Communication of IT issues has particularly improved over the past three to four years between IT professionals across the university, and between IT support staff and end users (staff and students). However, targeted and non-technical communication with end-users about project progress and service issues needs to be a priority for 2005 and beyond.

ITS will develop a comprehensive Communications Framework and actively engage with other providers of IT services to offer a collaborative approach to communications. This increased focus on engagement aims to improve relationships between IT providers and the university community via enhanced communications. A particular emphasis on fostering relationships and 2-way engagement will result in beneficial outcomes for all users and providers of IT services.

IT services also need to provide support for all areas of the university to communicate with external stakeholders and build relationships with the wider community. Opportunities exist to extend current services beyond the university community in a way that promotes closer engagement.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Enhance communication and engagement between IT service providers and stakeholders				
Develop an IT communications framework to enhance the consistency and quality of information delivered to key target groups	ITS (Client Comms)	Q3, 2004	Delivery and signoff	Operational activity
Initiate an ITS - Faculty Manager engagement program	ITS (Dir- Corp)	Q4, 2004	Meetings: 2/3 times per year. Target - at least 1 meeting in 2004. Newsletter: 6 issues/year. Target - at least 2 issues 2004.	Operational activity
Continue annual meetings between ITS and faculties and divisions	ITS (Exec Dir)	Ongoing	Meetings held each year	Operational activity
Complement the university Service Level Agreement (SLA) framework by a process of ongoing service review, service development and communication	ITS (Dir – CS)		Service review as directed by CHEQ	Operational activity
Review the effectiveness of current IT forums: <ul style="list-style-type: none"> To ensure continuing good working relationships To enhance stakeholder involvement in development process in service-oriented forums 	ITS (Dir – CS)	Q2, 2005	Ongoing evaluation of effectiveness of forums.	Operational activity
2. Improve understanding of student IT needs through engagement with student community				
Review, confirm and develop recommendations from the Monash Experience Questionnaire (MEQ)	ITS (SMO) Faculty IT Managers	Q4, 2004	Delivery and signoff of report	Operational activity
Survey the effectiveness of the Student Computer Resource Guide & CD	ITS (Client Comms)	Q2, 2005	Survey results	Operational activity
Review processes and investigate ways to further enhance engagement with students with reference to student IT needs	ITS (Dir - CS), Faculty IT Managers	Q2, 2005	Processes established	Operational activity

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
3. Improve communication tools to foster streamlined and effective communication				
Establish mechanisms to improve email communication to specific target groups	ITS (Client Comms, IMS, FLT)	Q1, 2005	Review of current email and portal effectiveness with recommendations	Operational activity
Investigate opportunities to communicate electronically using channels other than email	ITS (Client Comms, FLT)	Q1, 2005	Review of current email and portal effectiveness with recommendations	Operational activity
4. Enable easy access to service and project information				
Develop ways to consistently and effectively communicate project status to the wider university community	ITS (Planning & Project Office)	Q4, 2004	Project status accessible	Operational activity
Continue to improve service status and interruption information	ITS (CS)	Q4, 2004	Establish traffic light indicators of service status on website	Operational activity
5. Provide support for the university's community engagement objectives				
Consult with the university community to determine ways in which IT can assist in this relationship building	Project sponsors	Annual project cycle	Relevant project concepts developed	Capital development

SUSTAINING AND DEVELOPING MONASH'S MULTI-CAMPUS NETWORK

Objective:

Provide equity of access to IT services and resources across all campuses

Goals:

- **Establish IT services at new campuses through a flexible, scalable and sustainable planning and provisioning methodology**
- **Review the level of IT services provided across all Monash locations with the view to optimise service levels and cost**

Context:

Over the last two decades, Monash has expanded from a single campus to a network of campuses, study centres and other locations (such as teaching hospitals, health centres and legal offices). This expansion has presented the university with a range of challenges. ITS has chosen to adopt a matrix organisational model to support the multi-campus network of Monash. This matrix structure should allow the university to provide a first class learning, teaching and research environment through the extension of the current services that support its Australian campuses. The goal for this environment should be to ensure that functionality for IT services is as consistent as possible across Monash locations.

One of the major challenges arising from this service extension to a global university community is the optimal way to design and implement a support model that services students and staff who are operating across multiple time zones (whether on-campus or at a range of off-campus sites).

In addition to time-zone issues, there are constraints imposed by the quality of the public IT infrastructure in some international locations, and by the level of investment available within the university to provide common information technology and telecommunications services to a global community. In dealing with these constraints, the university will be best served by an appropriate mix of locally and centrally provided infrastructure and support.

The university has renewed its focus on campus planning and campus identity. The Campus Urban Plans and Campus Development Plans will include IT elements and may have a significant impact on IT Infrastructure. IT services can be seen both as a way to support campus diversity and as a potential differentiator between Monash and its competitors.

Arising from its experience in establishing and supporting overseas and local centres and campuses, ITS has developed a provisioning framework of policies, plans and procedures. This can now be used to ensure the provision of IT services to new sites can be implemented efficiently and effectively. An area that needs attention is the process of continual review, both of this implementation framework, and of the services being provided and the assumptions made at implementation time. These assumptions may no longer always be appropriate.

Fundamental to all IT service provision across a multi-campus and multi-centre network is a network design that provides up to date, fast and reliable connectivity. Meeting the highest-level research requirements of the university in this area has spin off effects for the other core areas of the university. The Monash lead role in the Victorian Education and Research Network, providing wide area national and internal network bandwidth, places Monash in a strong position to support a matrix organization through high quality network infrastructure.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Establish IT services at new campuses through a flexible, scalable and sustainable planning and provisioning methodology				
Fund the employment of a Project Manager to oversee the planning and provision for IT infrastructure and services for the new Malaysian campus	DVC (Resources)	2005	PM employed	Malaysia development funds
Ensure consultation between senior managers responsible for development of the new Malaysian campus, key library staff, and the Project Manager occurs at the earliest opportunity in the planning process	DVC (Resources)	2005	Plans developed in a timely fashion	Malaysia development funds
Review and update the provisioning models for the deployment of IT services at new locations, including: <ul style="list-style-type: none"> ● options for costing of services ● an overall project management regime that reports into the university hierarchy ● formal risk management procedures ● adequate IT infrastructure standards in the building and grounds design ● supply of the equipment and services that leverage existing relationships and contractual arrangements ● initial commissioning of the host site by using a team of specialist Monash staff ● establishment and refinement of mainstream operations. 	ITS	2005	Models updated	Operational activity
2. Review the level of IT services provided across all Monash locations (campuses/centres) with the view to optimise service levels and cost				
Formalise the process for monitoring quality and enhancing operations and services at campuses and centres	ITS (SM&QWP)	2005	Process formalised	Operational activity
Define SLAs which clearly articulate performance levels and responsibilities for provision of IT services to campuses and centres	IT Managers, Campus Dirs, ITS	2005	SLAs established	Operational activity
Investigate benefits arising from establishing centralised facilities on each campus to provide integrated services to students (i.e. learning commons)	Campus Dirs, SSSD, Library, ITS	2005	Feasibility report completed	Operational activity

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
Review provision of IT services in South Africa to assess the effectiveness of current and future infrastructure needs	ITS	Late 2004	Findings tabled with DVC (Resources)	Operational activity
Investigate IT support implications for proposed campus diversity initiatives	ITS	As required	Findings tabled with DVC (Resources)	Operational activity
Ensure that the end-user IT experience is as consistent as possible (given cost, location, and service level constraints) across Monash sites	ITS (SMO), Faculties, Divisions	Ongoing	Service provided as per Service Statement	TBD
Accurately analyse IT cost and service implications for proposed initiatives at campuses and centres and provide this information as input into the university decision-making processes	ITS	As required	Analysis report provided to DVC (Resources)	Operational activity
Extend the reach of the proposed Victorian Education and Research Network to include regional Centres e.g . Rural Health sites.	ITS	TBD	Site links connected to VERN	DEST CDP funding

MANAGING FOR SELF RELIANCE

Objective:

Deliver quality IT services that advance Monash's self reliance and financial position and align with business requirements

Goals:

- 1. Foster an appropriate culture to effectively manage IT services in a changing funding environment**
- 2. Provide services that return value to the university through cost effectiveness and efficiency**
- 3. Reduce costs by optimising use of physical IT resources and assets**
- 4. Provide services and infrastructure support for university commercial activities**

Context:

The role for IT in supporting university self reliance is primarily in the better management of costs while supporting opportunities to generate new income. university investment in Information Technology has been increasing significantly as a proportion of total university spending. Although the breadth of application of IT to support university operations is also growing significantly, it is far from complete and further applications are continually emerging.

Strategic cost management is providing information on total costs and end users are starting to see the costs of their service consumption,. As a result, the balance between cost and benefits may change and should be reviewed as an ongoing part of IT service refinement.

Some IT services provide opportunities for economies of scale and greater centralisation would permit better service at lower cost. Other services can be decentralised to provide better service to the end user without increasing the total cost.

The Monash IT Architecture provides a foundation for improved standardisation, reduction of complexity and easier management of the university's systems and infrastructure. The initial Monash IT Architecture has been released and forms the basis for future development.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Foster an appropriate culture to effectively manage IT services in a changing funding environment				
Establish steering committees across all ITS services and review or develop Terms of Reference to ensure stakeholder management of the balance between cost and benefits	ITS (CS)	2005	Steering Committees established	Operational activity
Actively explore joint venture IT developments with other Universities sharing costs and potentially attracting external funding/grants	ITS (Directors)	Ongoing	Collaborative projects established	TBD
Provide training for university senior technologists on cost management	ITS (Dir – Corp)	Ongoing	Training conducted	Operational activity
Maintain Monash IT Architecture as a guide to IT development activity	ITS (Dir – Corp)	Ongoing	Annual updates	Operational activity
2. Provide services that return value to the university through cost effectiveness and efficiency				
Conduct a focussed external review of IT services, systems and methods to determine opportunities to: <ul style="list-style-type: none"> • retire those that are of low value, • combine services and systems across organisational units to eliminate unnecessary duplication • outsource services where appropriate 	ITS (Exec Dir)	July 2005	Review report accepted	Operational activity TBD, dependent on recommendations
Decrease support costs by improving access to IT training across the university and where possible utilise internal providers	IT Training Steering Committee	Ongoing	Training conducted	Capital development
Implement charging for IT services in a manner that encourages appropriate use of resources	ITS (Dir - Corp)	Ongoing		Operational activity

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
3. Reduce costs by optimising use of physical IT resources and assets				
Develop asset management plans for each major IT asset or class of IT assets	ITS (Dir - Corp)	2005	Asset management policies and plans produced	Operational activity
Use asset portfolio management techniques to reduce the cost of equipment replacement	ITS (Dir -Corp)	2005	Asset replacement forecast is operational	Operational activity
4. Provide services and infrastructure support for university commercial activities				
Provide systems to support better engagement with Alumni through enhanced provision of IT services	MAPA, ITS	End 2005	Project developed and funded	Capital development
Investigate the feasibility of providing IT consulting services and establish guidelines if appropriate	ITS (Directors)	End 2005	Feasibility report accepted	Operational activity
Investigate integrated systems to support the Student Recruitment-Enrolment Management-Financial Aid-Student Employment lifecycle	DVC (Resources)	2005	Report on options containing recommendations	Operational activity
Implement integrated Student Recruitment-Enrolment Management-Financial Aid-Student Employment system	DVC (Resources)	2006	Implemented system	Capital development

EFFECTIVE SYSTEMS

Objective:

Provide flexible, integrated systems that effectively support Monash's strategic objectives and business needs.

Goals:

- 1. Architect and provide systems that enhance the learning and teaching, research and administrative activities of the university**
- 2. Ensure that systems meet the business needs of the university through their continued development**
- 3. Provide a Monash web site on which information is easy to find, consistent, up to date and coherent**
- 4. Provide students and staff with a single point of access for their information and service needs**

Context:

ITS Applications Services is committed to a significant development programme in 2005. Major projects already underway that will require substantial resources and effort are: Callista, SAP, WebCT, Content Management System and Web redevelopment.

A major compliance issue is the finalisation of requirements and subsequent implementation of the changes to the student management system, Callista, as a result of the federal government's Nelson reforms.

Another major project for 2005 is the update of the SAP Human Resources and Financial systems. The software must be upgraded to enable continuing product support and the hardware must be replaced as it is over five years old and now obsolete. Licensing is currently being reviewed to meet the university's future requirements. A plan will be produced by late 2004 outlining the SAP hardware, licensing and support activities to be conducted over the next five years.

The *my.monash* portal has become a pervasive part of the student experience, and is becoming an increasingly significant part of the staff experience. The range of services and the breadth of those services continues to grow. This growth has a significant impact both in operational terms (for support and maintenance) and development terms (to deliver new services).

My.monash was developed in-house at a time when no mature commercial portal technologies were available. To reduce the labour intensive development effort required to support *my.monash*, implementation of a commercially supported portal environment for delivering enterprise-level services will commence in 2005 with services progressively migrated in subsequent years.

The Learning Management system, WebCT, will be upgraded to the enterprise version (Vista) in 2005 following on from the pilot in 2004. There will be a continuing need for cross-functional collaboration and effective project governance due to the wide range of stakeholders.

The Content Management System will continue to be developed in 2005. During 2004 it was recognised that the scope of the Content Management System project expanded significantly as a result of faculties and divisions recognising the potential of the system after initial exposure to it. Additional resources were subsequently allocated to the project to address the growth in scope and alleviate faculty concerns.

The Support Services planning seminar proposed the establishment of a Web Centre to provide web development services to underpin the quality of the Monash web presence. This will require a major effort in reviewing the current structure, with emphasis on marketing, design and usability issues.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Architect and provide systems that enhance the learning and teaching, research and administrative activities of the university				
Develop a business proposal to implement a university-wide electronic document and records management system	Manager, Records & Archives	2005 Proposed Project	Proposal developed	Capital development
Continue to promote and deploy the Content Management System	ITS (DIR - AS)	Dec 2005	Number of sites migrated	Capital development
Continue to promote and deploy a Learning Management System (WebCT Vista)	ITS (DIR - AS)	Dec 2005	Number of units increases	Capital development
Expand the functionality of the Course and Unit Publications Information Database (CUPID)	ITS (DIR - AS)	Dec 2005	Steering Committee recommendations	2005 ITS Operational Budget
Implement a system to support plagiarism detection	DVC (Academic)	TBD	System implemented	2004 funded project
Implement the recommendations of the Research Information Management working group	DVC (Research)	By mutual agreement	Recommendations implemented	Capital development
Develop a strategy for the implementation of an easy to use, integrated, flexible reporting environment	ITS (DIR - AS)	Dec 2005	Strategy developed	Capital development
Promote high quality user experience through usability and user interface design	ITS (WR&D)	Ongoing		ITS Operational activity
Implement the findings of the Application Integration Strategy	ITS (DIR - AS)	2005	Strategy implemented	Capital development
2. Ensure that systems meet the business needs of the university through their continued development				
Upgrade systems to comply with the legislative requirements of the Nelson Reforms (HEIMS)	SSSD & ITS	Jan 2005	Compliance with legislation	May require additional capital development funding in 2005
Implement the findings of the SAP Software and Hardware Upgrade plan	ITS (DIR - AS)	2005 project (possibly 2006)	SAP software and hardware upgraded	Capital development

Review the functionality within existing applications to explore opportunities, eliminate duplication and re-use or extend existing systems	ITS (DIR - AS)	Ongoing	Efficiency benefits realised	ITS Operational activity
Continue business improvements to ensure maximum return of investment in Enterprise Resource Planning (ERP) systems (eg. SAP, Callista)	SSSD, FiRM, Corporate Finance Division	Ongoing	Efficiency benefits realised	Development project
3. Provide a Monash web site on which information is easy to find, consistent, up to date and coherent				
Develop a business proposal for establishing a Web Centre to provide a central resource for site development and web support services	MAPA ITS (DIR - AS)	Proposal by June 2004	Proposal completed	Capital development
Review the structure of the Monash website with a view to meeting stakeholders' needs (intranet, extranet and portal)	Faculties, ITS, MAPA, SSSD	Dec 2005	Review conducted	Capital development
Implement a system to capture usage and access paths of the Monash web site to evaluate and identify areas for improvement	ITS (DIR - AS)	Dec 2005	System implemented	Capital development
4. Provide students and staff with a single point of access for all their information and service needs				
Replace the my.monash portal infrastructure	ITS (DIR - AS)	Proposed project for 2005 - 2007	Hardware replaced 2005, parallel system available 2006, migration complete 2007	Capital development
Continue to integrate the my.monash portal with existing systems	ITS (FLT)	Ongoing	Interfaces developed	TBD
Expand and integrate inquiry management systems	Faculties, SSSD, CeLTS, Library, ITS (DIR - AS)	Proposed project for 2005 - 2006	System expanded	Capital development

EFFECTIVE INFRASTRUCTURE

Objective:

Provide the appropriate technical infrastructure to underpin the ongoing and emerging strategic objectives and business goals of the university.

Goals:

1. **Maintain and enhance an enterprise wide network that delivers timely, consistent and advanced communication and support services**
2. **Provide an effective IT environment that delivers required levels of workstation, server capacity and data storage services**
3. **Provide highly reliable and consistent Enabling Services Infrastructure that underpins all university IT systems & services.**
4. **Provide secure, safe and reliable physical environments to accommodate critical IT equipment.**

Context:

Infrastructure is the underlying foundation upon which IT applications and services which support critical university processes, depend.

The attributes that are normally associated with infrastructure are;

- **security**, ensure data and services are not compromised,
- **scalability**, allow for growth and expansion,
- **resilience** ensure services can tolerate a degree of failure,
- **recoverability**, ensure services are made available as soon as possible after failure,
- **accessibility**, ensure effective use of services by those authorised to use them,
- **manageability**, ensure services can be managed cost effectively,
- **fitness for purpose**, ensure value by providing effective services for the minimum overall cost (not over or under engineered),
- **standards based**, to ensure services can be accessed in a well understood manner and inter-operate with other services.

Upgrading and maintaining infrastructure usually involves a large investment, requires significant resources and typically takes time to implement. Multiple complex dependencies require careful planning when changes are introduced in order to minimise disruption. With the reliance Monash has on its IT infrastructure, it is important to maintain and refresh the infrastructure to ensure it continues to support the university's goals, retaining and improving, as appropriate, the attributes mentioned above.

There is a tension between the stated platform needs from vendors, who EWSH to ensure their applications and equipment are able to perform to their maximum limits, with the need to restrain the ever increasing costs of supporting platforms. The number of supported platforms has risen from ~ 100 in 2000 to ~450 in 2004.

There are more than 23 different operating systems commonly used on the Monash network. The cost of supporting such diversity is significant.

Critical university data is increasingly being stored locally on workstations without consideration of protection from data corruption or the sharing of the data across the university.

Increasingly staff and students EWSH to access information stored on Monash systems from anywhere in the world at any time. This places considerable pressure to ensure services remain available and are supported on a 24x7 basis.

The criticality of infrastructure requires that equipment is housed in a secure, safe, and reliable manner. Some of the existing physical facilities are over 30 years old and in need of a replacement.

The location of the Synchrotron next to the Clayton campus presents significant opportunity for ITS to provide services in support of synchrotron research activities, including high capacity, data networks, storage facilities and compute facilities.

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
1. Maintain and enhance an enterprise wide network that delivers timely, consistent and advanced communication and support services				
Expand the rollout of wireless services and ensure appropriate support	ITS (NIS)	2005 –and beyond	Access extended	Multi-year capital development funding as per project plan.
Continue the rollout of the Next Generation Network (NGN)	ITS (NIS)	2005	Rollout completed	Capital development
Establish the Monash connections to the Victorian Education and Research Network (VERN)	ITS (NIS)	2004 - 06	Connections established as per project plan	2005 - 2006 Capital development
Implement PABX renewal and Disaster Recovery risk mitigation	ITS (NIS)	2005 - 06	Project completed	2005 – 2006 Capital development
2. Provide an effective IT environment that delivers required levels of workstation, server capacity and data storage services to meet university needs.				
<i>Workstations</i>				
Provide a mechanism to ensure that corporate data stored on workstations is synchronised with, and reliably stored on, central data repositories	ITS (EWS)	2005 - 06	Mechanisms implemented	Capital development
Pilot an alternative desktop environment appropriate for the majority of users (i.e. Linux desktop/OpenOffice or the Sun Java Desktop)	ITS (Dir - IS)			
Provide a portfolio of services for remote access to Monash environment, including secure access from home	ITS (EWS, NIS & CS)	2005	Portfolio available	Operational activity
Implement a user friendly print interface, enabling the ability to locate and print to available printers	ITS (EWS)	2005	Interface available	Capital development
Provide a mechanism to distribute software and configurations defined by the Standard Operation Environments	SOE Steering Committee, ITS (EWS)	End 2005	Mechanisms implemented	Capital development
Implement a mechanism for management of software licences to ensure that software licensing agreements are not breached, and to inform the community of availability of licensed software	ITS (Dir - IS)	End 2005	Mechanism implemented and web page created	Operational activity

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
<i>Server Platforms</i>				
Develop plans to optimise the use of server resources	ITS (AS, SS & EWS)	Mid 2005	Plans developed	Operational activity
Provide server resources in a responsive, flexible and cost-effective manner	ITS (SS & EWS)	Ongoing	Server platforms meet service requirements	Operational activity
Evaluate and pilot emerging technologies and implement where benefits exist (e.g. virtual machines, clustering, load balancing and blade servers)	ITS (SS & EWS)	Ongoing	Recommendations developed	Operational activity
Implement automated processes for the rapid build, recovery and software maintenance of Windows and Novell servers	ITS (SS & EWS)	2005	Processes implemented	Capital development
Develop technology refresh plans for servers as a subset of the Asset Management initiative	ITS (SS & EWS)	Ongoing	Plans developed and updated	Operational activity
<i>Data Storage</i>				
Continue the Data Management Programme	ITS (Dir - IS)	2005	Project completed	Capital development
Enhance the Backup Facility by implementing a data archival service	ITS (PF)	2005	System implemented	Capital development
Develop a strategy for the separation of data from host platform dependencies to increase flexibility and reliability of service delivery	ITS (PF)	2005	Strategy developed	Operational activity
Investigate storage mechanisms for sharing and distribution of files amongst collaborative groups internal and external to Monash	ITS (IMS)	2005	Recommendations published	Operational activity
3. Provide secure, safe and reliable physical environments to accommodate critical IT equipment.				
Plan for the upgrade of Data Centre facilities.	ITS (PF)			
<ul style="list-style-type: none"> • Develop plans for refurbishment of Building 28 Data Centre and utility infrastructure 		2005		Capital development
<ul style="list-style-type: none"> • Undertake a feasibility study of building a new Data Centre • Commence refurbishment/building 		2005 2006 - 08		Capital development Capital development

<i>Initiatives</i>	<i>Accountability</i>	<i>Timing</i>	<i>Measurement</i>	<i>Resources/Budget</i>
4. Provide highly reliable and consistent enabling applications which under pin all university IT systems & services				
Migrate to directory enabled network services	ITS (NIS)	2006		
Implement single sign-on for selected web services	ITS (IMS)	2005	Single sign-on implemented	
Complete Central Mail Hub Re-engineering project : <ul style="list-style-type: none"> • Removed reliance on legacy hardware and software • Enhanced mailing list functionality • Improved DR capability 	ITS (IMS)	End 2005	Project completed	Capital development
Migrate the Calendar service to a new environment: <ul style="list-style-type: none"> • Provide MS Outlook connectivity • Provide a web interface • Provide DR capability 	ITS (IMS)	End 2004	Project completed	Operational activity
Review the current authenticated newsgroup service (Netscape Collabra) and identify university needs	ITS (IMS)	2005	Recommendations published	Operational activity
Review the role and operation of internet content repositories e.g. FTP	ITS (IMS)	2005	Recommendations published	Operational activity
Investigate mechanisms for sharing and distribution of files amongst collaborative groups internal and external to Monash	ITS (IMS)	2005	Recommendations published	Operational activity

GLOSSARY

ARROW	Australian Research Repositories Online to the World. (DEST funded project)
CeLTS	Centre for Learning and Teaching Support
HPC working party	High Performance Computing working party
ITS (Client Comms)	IT Services, Client Communications.
ITS (Corp)	IT Services, Corporate Services Department
ITS (DIR - AS)	IT Services, Director, Applications Services Department
ITS (DIR - CS)	IT Services, Director, Client Services Department
ITS (DIR - Corp)	IT Services, Director, Corporate Services Department
ITS (DIR - IS)	IT Services, Director, Infrastructure Services Department
ITS (Exec Dir)	IT Services, Executive Director
ITS (FLT)	IT Services, Flexible Learning and Teaching
ITS (IMS)	IT Services, Identity and Messaging Services
ITS (IS)	IT Services, Infrastructure Services
ITS (NIS)	IT Services, Network Infrastructure Services
ITS (PF)	IT Services, Production Facilities
ITS (Security)	IT Services, Security and Risk Management Office
ITS (SM & QWP)	IT Services, Service Management and Quality Working Party
ITS (SMO),	IT Services, Service Management Office
ITS (SS)	IT Services, Shared Systems
ITS (TFSU)	IT Services, Technical Facilities Support Unit
ITS (EWS)	IT Services, Workstation Infrastructure Services
ITS (WR&D)	IT Services, Web Resources and Development
MAPA	Marketing and Public Relations
MI	Monash International
RGEB	Research Grants and Ethics Branch
SDU	Staff Development Unit
SOE Steering Committee	Standard Operating Environment Steering Committee
SSSD	Student and Staff Services Division
