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Information User Funding Mechanism

Proposal to the UCSC Executive Vice Chancellor

From Planning & Budget (P&B), Information Technology Services (ITS), the Funding Model Advisory Group (FMAG)

4/4/08
Version 1.1

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Document Control

Change Record

Date	Author	Version	Change Reference
1/14/08	BDuisenberg/TLawson	0.1 (Draft)	Captured Troy Lawson's Outline into the ITS document template
1/18/08	BDuisenberg/MMcCue	0.2 (Draft)	Incorporated Magge's draft of the exec summary and Troy's updates to the metric section.
1/28/08	BDuisenberg	0.3 (Draft)	Notes from 1/18/08 FMAG review of the document outline (FMAG Members attending: Carolyn Hall and David Symonik)
1/30/08	BDuisenberg	0.4 (Draft)	Notes from 1/28/08 FMAG review of section 3.5 and the metric/model (FMAG Members attending: Brian, Troy, Carolyn, David, Elise, Sue, Marie – Magge and Darryl absent)
2/7/08	BDuisenberg/TLawson	0.5 (Draft)	Includes latest updates to section 3 (3rd Draft) from Troy.
2/21/08	BDuisenberg	0.6 (Draft)	Includes Appendix A, 2nd Draft of Section 2, and 2nd Draft of Section 4. Added Residential Student population calculation count timing to section 3.2.6.
2/27/08	BDuisenberg	0.7 (Draft)	Update to section 1 from Magge. Minor changes to section 3 and 4 (Track Changes on since version 0.6 – Display of changes must be enabled to view)
3/7/08	BDuisenberg	0.8 Draft	Include Comments and changes from David Turner and Janine Roeth, and include a few changes to section 2 and 3 as advised by Mark Cianca (Mark suggested moving a few sections – these suggestions are commented, but I have not moved the sections yet).

Date	Author	Version	Description
			Includes a change from Sue Matthews to section 3.2.3
3/14/08	BDuisenberg	0.9	Moved sections as commented in Draft v0.8 (moved section 2.4 to 2.2 & section 3.2.8 to 3.3.1 . Includes minor changes to sections 4.4 and 4.5 (includes suggested edits from Carolyn Hall in sections 4.4 & 4.5) – This version was sent to Mark Cianca for his review and editing.
3/17/08	BDuisenberg/MMcCue	0.9a Draft	Replaced section 4.2. With update provided by Magge McCue (this section 4.2 was reviewed by Doug Hartline and Darryl Quan. Also, includes input and edits from Troy Lawson). Minor edits by Brian Duisenberg. A copy of the new section 4.2 has been provided to Mark Cianca for his review and edits.
3/18/08	BDuisenberg/FMAG	0.9b Draft	Includes minor updates and comments to document as made in the FMAG meeting 3/18/08. Also included a minor sentence addition to section 2.2 opening paragraph as suggested by Mark Cianca (this change was reviewed by Janine Roeth). Note: this version has been provided to Mark Cianca for final edits – per the FMAG meeting, Magge McCue will be editing section 4.2 and providing to Brian and Mark for inclusion with Mark's edits.
3/21/08	Mark Cianca/Troy Lawson, Magge McCue	FINAL DRAFT	Mark Cianca edited the entire document (w/the exception of section 4.2) to provide one voice and correct typos. Magge updated and made additions to section 4.2. Edits made by Brian in this version were under the advisement of Magge and Troy.
4/2/08	Troy Lawson	1.0	Changes up to version 0.9c have been accepted. Track Changes are still on to make final review easier. Changes since version 0.9C: Update to section 3.5 to clarify proposed use of IU metric in campus annual budgetary process. Update to section 4.2 (Reserves)

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				w/addition of a new section 4.3 to better showcase the recommendations regarding capital project impact. In Appendix A "Network Jack" service definition - Carolyn Hall suggested modifying or removing note #2 regarding capital projects reserve. Troy and Magge agreed to remove this note, as the topic is now covered in section 4.3 of the IU Proposal. In appendix A "Local Phone Service" Troy and Magge suggested, and Adele Guerzon agreed to remove details of what constitutes a local call. Hard copy distribution list added.
4/4/08	BDuisenberg	1.1		Changes included in version 1.0 reviewed by Mark Cianca. Minor edits to Appendix A to bring inline with Campus Style Guide – as suggested by Marie Logan and OK'd by the FMAG and Troy. All changes accepted.

Note: [Brian Duisenberg] 4/17/08
Pages in "Appendix B" of this copy have been reordered and numbered
for easy reference in campus distribution

Reviewers

Sign Off Date	Reviewer	Position	Sign Off
4.4.08	Magge McCue	Project Co-Sponsor: Director, ITS – Business Services	*Magge McCue*
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FMAG: Funding Model Advisory Group – See Appendix D (Group Charge/Request Letter from Larry Merkley and Meredith Michaels)

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1 Executive Summary

1.1   Problem/Opportunity Description

Through the campus's IT Transformation Program, ITS was provided with a five-year funding plan (covering fiscal years 2005-06 through 2009-2010) that included different funding sources intended to support the consolidated ITS organization. This five-year funding plan included allocations to be derived from "increased recharge" based on an Information User (IU) headcount metric and model.

The inclusion of a funding stream based on an IU model reflected previous campus efforts to develop a headcount-based approach for funding IT services. Since 2002, UCSC has been considering converting the current port/jack and line-based charging metric for network and telecommunications services to a headcount-based charging metric (based on an "Information User" metric or "IU"). With the emergence of wireless technology, the port and line-based charging mechanism had become antiquated. In some cases, units installed hubs into which they plugged multiple jacks so as to avoid the per port/jack charge.

Since 2003, several groups have undertaken efforts to research, develop and propose options for funding IT services on campus. However no change to the current port/jack metric has been implemented.

Since consolidation, the portfolio of services under consideration for inclusion in a headcount based charging metric expanded to include other ubiquitous IT services such as the central help desk, accounts and desktop services as well as certain enterprise services like e-mail.

A "transitional year" IU model was implemented for the 2007-08 fiscal year that included and funded e-mail service, and portions of help desk and desktop support services. The metric for network and telecommunications services did not change.

In June 2007, Campus Provost/Executive Vice Chancellor Kliger convened the Funding Model Advisory Group (FMAG – See *Appendix D*) to assess and develop an ongoing Information User (IU) - based funding mechanism for Information Technology (IT) services provided by the ITS Division.

1.2   IU Proposal Summary

ITS has been funded by a mixture of core and recharge funds. The IU funding stream adds a third funding mechanism to ITS' ongoing funding base. IU is an explicitly hybrid mechanism that combines elements that reflect both the central budget allocation process and the recharge rate cost recovery process.

The IU mechanism will charge campus units an assessment based on their IU count for services which have been reviewed through campus budget and governance

processes. That is, the IU assessment will be informed by the campus input to ITS' governance process. The actual IU mechanism will distribute costs (based on an IU count) to campus units in a manner similar to recharge activities.

The IU funding mechanism is intended to provide funding for the resource requirements of an umbrella of IT services that meet the criteria established by the FMAG (see Section 2) and cyclically reviewed by a to-be-formed ITC subcommittee.

The IU model will include different levels and kinds of information user populations, including faculty, staff, and, to a lesser degree, students. Information users (or Info Users) at the different levels will pay different percentages of the IU assessment.

While FMAG has defined the criteria of services to be considered for future inclusion in the IU funding stream, the actual services to be included will be determined based on the amount of available funding in any given year.

Additionally, as part of this project, FMAG is recommending the creation of a new ITC subcommittee that will review services and projects under consideration for inclusion in IU funding streams. This new subcommittee will function in a way that is analogous to the current Direct Costing Committee (DCC), reviewing the services and their associated costing.

2 IU Services

2.1 Summary

To ensure that ITS-provided services funded through IU are universally required IT services, the FMAG along with ITS and P&B have developed a set of criteria for considering IU service eligibility. These criteria are referred to as the "IU Service Criteria" (See Section 2.3 below).

The FMAG, with close support from ITS and P&B, utilized and refined these criteria during a process of evaluating every ITS service for its eligibility to be funded by IU. The result of this process is a list of all ITS services with brief service descriptions and an associated reference to the IU Service Criteria to denote why a service may or may not be considered for funding through IU. The resulting list of ITS Services is referred to as the "Eligible IU Services List for 2008-09" (See Section 2.4 and *Appendix A*).

2.2 Discussion of Service Definitions & Levels

For every service that is funded by IU, the IU Services Criteria require that the service have a documented description and identified service levels that define the parameters of the service. This may include metrics to measure service performance or availability or other important customer measures. The ITS Service Catalog and the underpinnings of each service description serve to provide these definitions for the IU.

The process of applying the IU Service Criteria to determine IU service eligibility requires that ITS services and associated sub-service descriptions must include enough detail to allow ITS customers to clearly understand the service they are provided and how/when/if they may utilize that service.

The FMAG used a combination of service descriptions in the Eligible IU Services List, references in the ITS Service Catalog and discussions with ITS Service Managers and Providers to understand the service levels of a service. Some of the services had formal Service Level Agreements though these were not reviewed in depth by the FMAG.

Service descriptions and levels are required to manage customer expectations of IU included services for each fiscal year's IU assessment/rate. To meet this requirement, ITS must minimally offer a service description via the ITS Service Catalog, and is encouraged to develop formal Service Level Agreements with measurable service level objectives.

Example: Just because the campus decides to fund wireless via IU does not mean everyone can expect to immediately be able to use wireless anywhere on campus (A

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clearly articulated service catalog description or SLA would describe such details and set such service level expectations).

2.3 IU Services Criteria

The following are proposed criteria for determining services that are eligible to be funded through the IU funding mechanism.

1. Service is provided by ITS

- (e.g. Dispatch may be funded through ITS but the service is not provided by ITS)

2. Population of users is broad & campuswide

- Size of population partly a driver of cost
- Note: Will not include services where the campus at large should not be funding the needs of selected few (e.g. cluster computing,)

3. Basic level of network/telecom backbone and connectivity services
Examples

- accounts (e.g. password maintenance, IDM)
- phone (e.g. local calling, line charges)
- network (e.g. line charges)

4. Basic Services (Including services that minimize campus risk (campuswide) and services that enhance productivity campuswide) Examples:

- E-mail
- Calendaring
- Phone (e.g. E911, Reverse 911)
- Network (e.g. Security - Firewall Intrusion Detection)

5. Service level agreements are established and costs for this service are easily discernable & allocable

a. Service definitions & expected service levels must be clearly defined for all services within the Info-User umbrella of services (e.g. wireless/ CruzNet and cable infrastructure)

b. Costs included in Info-User must be reasonably allocable.

6. Services included should not undermine the campus's ability to diversify resources

a. Do not include services and/or service levels and associated costs that can be defined as direct costs per OMB A-21 and that the campus hopes to recover from Federal Funds.

b. Potential of a service to be included in a future student IT fee is to be considered, but not a reason to exclude the service under current IU.

2.4   Eligible IU Services List

The Eligible IU Services List is a listing of each ITS service category that is listed in the ITS Service Catalog along with brief descriptions of each sub-service of those service categories.

For each sub-service description there is an associated reference to the IU Service Criteria to explain why a services should or should not be considered eligible for funding through IU. Services listed on the left side of this list are proposed eligible for IU funding, and services on the right side of the list are proposed as ineligible for IU funding. The proposed Eligible IU Services List for FY09 is contained in *Appendix A*.

2.5   Services to be Funded Through the IU Assessment for Fiscal Year 2009 ("Proposed List of IU Services for 2008-09")

This proposal is recommending the funding of the following ITS services through IU for 2008-09. While not all services that are eligible to be included for 2008-09 are listed, this "Proposed List of IU Services for 2008-09" will at a minimum replace the ITS Networking Port and Telecommunications Line Rates with an IU assessment; and the inclusion of these Network, Telephone, and few other services will not impact the overall ITS budget (See Section 3 and Appendix B – the IU Cost Recovery Model options utilize the 07/08 costs adjusted for inflation to calculate and the projected IU assessment for 2008-09).

- Network
- Telephone
- Accounts/IDM
- CruzMail
- Desktop Support/Asset Management
- Help Desk
- UCOP PPS Cost/Fee

3 IU Cost Recovery Model

3.1 Summary

The only funding available through the IU funding mechanism is that which the campus is willing and able to assess and collect from itself.

IU is neither a pure recharge cost recovery mode, nor a form of core/central funding; it is a hybrid model containing characteristics of both recharge and core funding.

Recognizing that the cost of IU services is in part driven by weighted IU FTE, IU funding will scale with growth and contraction in FTE (volume) similar to a recharge.

Augmentations to IU funding over and above changes in FTE will be vetted and approved through the campus budget process used for core-funded allocations.

3.2 IU Metric

The IU funding model applies differential weights to defined populations to arrive at a weighted IU FTE metric. A divisions' weighted IU FTE as a percent of total campus weighted IU FTE determines that division's share of the total IU cost recovery.

3.2.1 IU Populations & Percentage Weightings

The IU funding model incorporates the following populations and associated differential weights.

- Info User non-student payroll FTE   100.0%
- Other non-student payroll FTE   33.0%
- Graduate major count   50.0%
- Undergraduate enrollment FTE   2.5%
- Residential student headcount   27.0%

3.2.2 IU Population Weights

The weights assigned to the populations in section 3.2.1 were derived using a combination of considerations including:

- The populations' direct usage of projected IU services
- The historical distribution of these service costs
- A review of how other UC campuses have implemented FTE-based metrics for recovering IT costs (See Appendix C)
- The principle that all units benefit to some extent from the central IT infrastructure and must share in its cost.

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While acknowledging that the determination of differential population weights was not entirely an analytical exercise, the IU Funding Model Advisory Group ultimately arrived at collective agreement that these population weights are reasonable.

3.2.3   Non-Student Payroll FTE Classification

An Info User non-student employee is expected to typically use basic network and phone connectivity services as part of their normal job duties. The IU cost recovery model relies on an employee's job title code to inform whether this is a reasonable expectation for a given employee.

The payroll system organizes specific job title codes into a hierarchal structure called the Class Title Outline (CTO). The classification of non-student payroll FTE as either IU or "Other" is primarily determined in reference to these CTO groups. By utilizing CTO groups, newly created job title codes will automatically be designated as either IU or "Other".

Non-student payroll FTE on job title codes within the following CTO groups will, as a general rule, be classified as "Other" for purposes of the IU cost recovery model.

CTO Code	Class Title Outline Description
A10	RECREATIONAL SERVICES
A20	RESIDENTIAL SERVICES
C15	FOOD PREP & DISTR-COOKS & BAKERS
C20	FOOD PREP & DISTR-SUPRV & WORKERS
G15	PHYSICAL PLANT SVCS - AG & GROUNDS
G25	PHYSICAL PLANT SVCS - MAINTENANCE
G35	CUSTODIAL SERVICES
G55	AUTO & AIRCRAFT EQUIP-MAINTENANCE
G65	AUTOMOTIVE EQUIPMENT - OPERATION
I10	ANIMAL CARE SERVICES - TECHNICIANS

The following specific job title codes found in the above CTO groups are exceptions to this general rule and will be classified as IU: 4001 Principal Recreation Supervisor; 4002 Senior Recreation Supervisor; 4102 Child Development Center Manager; 4109 Child Development Center Coordinator Supervisor; 8151 Inspector-Planner-Estimator; 8155 Material Planner.

Additionally, the following specific job title codes found in CTO groups other than those listed above will be classified as "Other" for purposes of the IU cost recovery model: 4823 Mail Processor; 4824 Assistant Mail Processor; 5333 Senior Parking Representative; 6192 Senior Musician; 6318 Wardrobe Technician; 6334 Scene Technician; 8773 Piano Technician; 9901 Camp Counselor; 9947 Nest & Hack Site Attendant; 9995 Unclassified (Shakespeare Santa Cruz)

All non-student payroll FTE on specific job title codes meeting neither the above general rule, nor the exceptions, will be classified as IU.

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3.2.4 Undergraduate Enrollment FTE Population

The weighted undergraduate enrollment FTE is distributed to the academic divisions and colleges. Rather than attempting to capture the cost of this population's direct usage of all projected IU services, the recovery of cost has been limited to those IU services related to an undergraduate student's academic support needs – i.e. connectivity support in general assignment classrooms, computer labs and public access terminals, as well as a component of wireless.

3.2.5 Units Treated Differentially

The Arboretum, University Extension and the University Affiliated Research Center have been identified as organizations with non-student payroll FTE that would normally be classified as IU, but will realize relatively little direct benefit from the projected IU services in the near future. Balancing this recognition with the belief that all units benefit indirectly from the central IT infrastructure, the IU cost recovery model treats all non-student payroll FTE in these organizations as "Other" with the associated reduced weighting regardless of job title codes.

3.2.6 Timing of IU Population Counts

Non-student populations are determined by payroll FTE calculated as actual time paid on all fund sources as reported on the January Distribution of Payroll Expense preceding the applicable IU year.

Residential student headcount will be taken as of the 3rd week winter quarter preceding the applicable IU year.

Graduate major and undergraduate enrollment FTE population counts will lag the applicable IU year by two years and calculated as a 3-quarter average for that academic year. Example, the 2008-09 IU model will in part be based on the 2006-07 academic year 3-quarter average for graduate major counts and undergraduate enrollment FTE.

3.2.7 Distribution of IU Assessment

Total IU assessment will be calculated annually and distributed in twelve equal monthly charges. ITS will have a predictable budget; units will have predictable expenses. IU cost recovery model will adjust to expansion/contraction on an annual basis. In the event of an extraordinary mid-year expansion or contraction of weighted IU FTE within a particular organization, a negotiated mid-year adjustment to the IU annual assessment for that particular organization may be warranted.

3.3 Assessment Options

Each organization's current ratio of assigned network ports and telephone lines to weighted IU FTE is unique. The change in metric from ports/lines to weighted IU FTE for recovering network and telephone service costs will necessarily result in some organizations realizing a cost savings while others will experience an increase in cost solely due to the change in model. To help mitigate the transitional impact of including network and telephone in the IU funding model, three alternative phasing

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options are presented. These phasing options are funded internally within the model whereby no additional external (Central) funding is required.

3.3.1 ITS Savings Credit

The ITS division has a relatively high ratio of network ports to weighted IU FTE. As the current port/line recharge rate structure for network and phone gets folded into the IU cost recovery model for 2008-09, ITS stands to realize substantial savings solely due to the change in model in the absence of any mitigating adjustment.

An objective of the IU cost recovery model is to provide a funding mechanism such that the campus can make additional investments in ITS for new/enhanced services in accord with the 5 year funding envelope.

Acknowledging that a cost savings is equivalent to additional investment, ITS' projected savings in network and phone costs from the change to the IU cost recovery model will be incorporated by permanently reducing the total IU cost to be recovered.

Consequently, ITS' projected savings from the change to the IU cost recovery model is distributed proportionately to all other organizations within the IU cost recovery model.

3.3.2 Assessment Option 1 — Four Year Phasing

The initial 2008-09 projected cost variance (both positive and negative) due to the change in metric from ports/lines to weighted IU FTE for the recovery of network and telephone service costs will be phased in over a four year period in the following manner (see *Appendix B* for details):
- 2008-09 75% of the initial cost variance will be reversed
- 2009-10 50% of the initial cost variance will be reversed
- 2010-11 25% of the initial cost variance will be reversed
- 2011-12 the full initial cost variance will be realized

3.3.3 Assessment Option 2 — Selective Budget Realignment

Selectively realign budget prior to implementation of phasing option #1 described above. IU will recover public access, computer lab and general assignment classroom network connectivity costs via the undergraduate enrollment FTE population associated with the academic divisions. The Library as well as ITS' Instructional Computing and Media Services units have borne these costs historically.

Option 2 selectively realigns budget from the Library and ITS in the amount of projected savings in the units formerly bearing these costs to the academic divisions. These savings from the Library and ITS will be distributed to the academic divisions up to any increased initial cost variance in proportion to their undergraduate enrollment FTE (see *Appendix B* for details). Note that any budgetary realignment of ITS' initial cost savings reduces the ITS Savings Credit by a like amount.

3.3.4 Assessment Option 3 — Maximum Budget Realignment

With the sole objective of minimizing the net financial impact of recovering network and telephone costs via the IU model, realign budget to the maximum

extent possible subject to fund type restrictions prior to implementation of phasing option #1 described above (see *Appendix B* for details). Note that any budgetary realignment of ITS' initial cost savings reduces the ITS savings credit by a like amount.

3.4 Federal Funds

In consultation with the UCOP Office of Costing Policy and Analysis and the campus's Extramural Funds Office, the IU assessment is NOT in compliance with OMB-A-21 requirements for direct costing to federal funds. The IU assessment is a federally unallowable expense.

 In general, the appropriateness of using an FTE-based metric to recover IT costs from federal funds is a topic of current debate. However, the costs of the initial suite of services to be funded by the IU model have been covered predominantly by administrative cost pools included in the calculation of the campus's federally negotiated indirect cost rate. The campus cannot direct charge federal funds for costs already factored into the campus's indirect cost rate.

3.5 Annual Calculation of Total IU Assessment

Annual changes to the total amount to be recovered via the IU funding mechanism are influenced by four primary factors.
- Growth and contraction of the total calculated campus weighted IU FTE.
- Mandatory system-wide salary and benefit cost increases
- Campus decisions on augmentations or reductions to ITS
- One-time funding requirements to support capital project connectivity (see section 4.3 for recommendation) – until such time that capital construction budgets assume these costs.

Each year the total amount to be recovered through the IU funding mechanism will be calculated in the following manner:

Previous year total IU recovery

+/(-)   Previous year per IU FTE rate times the change in weighted IU FTE

- o   Amount not to be less than that required to fund mandatory system-wide salary and benefit cost increases. Annual salary allocations and benefit funding will be subject to the same campus processes and policies applicable to campus general funds.

+/(-)   New year campus investments/reductions to ITS funded via IU

+/(-)   New year adjustment to fund capital project connectivity

Equals New year total IU recovery

By the end of each February preceding the applicable IU year, all population counts required by the IU model will be available. At this time each year, a tentative new year total IU recovery amount and units' relative contribution will be calculated. The final new year total IU recovery amount will depend on additional investments the campus decides to make in IU services subject to the campus budget process.

4 Proposed Implementation

4.1 Summary

As described in the Proposed List of IU Services for FY09 (Section 2.5) and in the IU Cost Recovery Model (Section 3), the IU assessment and resulting per FTE rate is expected to encompass and supersede the ITS Networking Port and Telecommunications Line Rates, and will go further to include costs from several other universally utilized ITS services with little or no budgetary impact to ITS. This proposal further recommends that a reserve component be included in IU for those services that are funded through IU (Section 4.2).

The IU funding mechanism – along with its components parts – will need to be proposed to the campus and EVC annually along with any proposed changes to the IU Cost Recovery Model, IU Assessment, IU Services Criteria and possible affect of such changes on ITS recharge rates or the complete ITS funding model.

Furthermore, the campus Information Technology Committee (ITC) should integrate the IU funding model in carrying out its charge of reviewing, evaluating, and recommending strategies, plans, and policies for campus information technology in order to support and advance campus priorities. It is the recommendation of ITS Business Services, P&B, and the FMAG that the elements of this IU Proposal will fulfill these purposes for 2008-09, and that a sub-committee of ITC should be created to fulfill this role for subsequent fiscal years. ITS Business Services & P&B would be required to advise this ITC sub-committee in fulfilling this purpose, as has been relationship of these units with the FMAG in developing this proposal.

4.2 IU Reserves

The IU 2008-09 base budget for network and telecommunications services includes $313,000 in equipment reserve funding. This reserve funding is composed of both depreciation and working capital reserve funding and has been included in both the administrative network and telecommunications services budgets as well as in the Colleges and University Housing Services (CUHS)/Student Communications Services (SCS) network and telecommunications services budgets.

In July, ITS began a major review of the campus's IT infrastructure under the direction of the new Core Technologies Director. The reserve contributions included in the network and telecommunications rates budgets do not meet the needs articulated by this work. This gap is projected to be in excess of $5M. Neither the recharge Port/Line Rate structure nor this proposed IU mechanism provides an easy solution to this gap. Progress toward the funding of this gap will require an investment in IT subject to the campus budget process. The proposed IU funding model provides a mechanism to implement such IT campus investment decisions.

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FMAG recommends that the campus commit to using reserves generated within IU only for the renewal and replacement needs of services funded via IU.

4.3 Capital Project Connectivity

Historically the network and telecommunications recharge budgets have funded the connectivity requirements of state funded capital projects. The IU 2008-09 base budget excludes funding for these capital project connectivity requirements.

FMAG recommends that these connectivity costs be included in the capital project budgets and not recovered by the IU model.

Until an alternative funding source is identified to cover these connectivity costs, the annual calculation of the total IU assessment (See Section 3.5) incorporates an adjustment to provide the one-time funding requirements to support capital project connectivity. This amount is separately reported to aid its removal upon a campus decision to fund these costs by other means.

4.4 ITC Subcommittee

It is a recommendation of this proposal that ITC in delivering its charge to "Recommend the campus's resource commitment to information technology activities (computing, communications, information systems, and learning technologies)" must be informed by the funding mechanisms (core, recharge, IU) available to ITS and the campus's commitments to ITS via these mechanisms (What the campus is willing to assess itself for IT services and associated service levels).

To support ITC in meeting this need and to carry on the work of the maintenance of the IU funding mechanism in subsequent fiscal years, we recommend that an ITC subcommittee be created to take over the charge of the FMAG and also to take on a role of annually reviewing and advising the EVC, ITC, and the DCC on the complete ITS funding model (IU Assessment, Core allocations review, and Recharge Rates review).

If this sub-committee is not established, the FMAG or similar body will need to continue in its current role, but should also be charged with the role of annually reviewing and advising the EVC, ITC, and the DCC on the complete ITS funding model.

4.4.1 Minimum Requirement

It has been the role of the FMAG, and would at a minimum be the role of this proposed ITC sub-committee to engage in the review of, and advising to the EVC on, revisions to IU. IU items requiring ongoing review and revision include:
- IU service criteria
- Eligible IU Services List (Appendix A)
- Proposed List of IU Services
- IU Population Definitions & Weights
- IU Cost Recovery Model & IU Reserve

4.4.2 Proposed Additional Requirements

This sub-committee would inform recommendations regarding IT service changes, IT campus investments and, potentially, fee-for-service rates. This sub-committee would provide a venue for ITC members to gain a better understanding of all of ITS' budget – promoting transparency, accountability and an appreciation of the inherent trade-offs that exist in making ITS portfolio and service level decisions.

4.5 Determining Scope of IU Services for Subsequent Fiscal Years

Services eligible and proposed to be included in IU for subsequent fiscal years will be provided to the EVC by the proposed subcommittee of ITC or the similarly charged body by December of each year for the following fiscal year. Based on this proposal, and through the direction of the EVC, ITS & P&B will define the list of services to actually fund through IU for the next fiscal year by the end of January.

For the umbrella of services funded through IU, the individual life cycles of such services managed within the overall resource constraints will be determined/recommended by ITC. It is the role of ITC to review, advise on, and recommend such changes. In carrying out this role, ITC will

- review and recommend annual changes to service definitions and service levels for IU services; and these recommendations must be informed by, and include the associated impact to the IU assessment.

- consider service tradeoffs; a decision regarding one IU service ultimately impacts the feasible set of possibilities for all other IU services. Such tradeoff recommendations must be informed by, and include the associated impact to the IU assessment.

- when necessary, review and recommend the removal of a service from IU either through termination, or changing the service's funding mechanism to core or recharge.

4.6 Ongoing Management of the IU Cost Recovery Model

Recommended changes to the IU Cost Recovery Model for subsequent fiscal years will be provided to the EVC by the proposed subcommittee of ITC or the similarly charged body by January 31 of each year for the next fiscal year. Following this review, ITS & P&B will carry out the necessary operational changes to effect these and any EVC approved IU service changes by the first day of the next fiscal year.

Examples of recovery model issues/changes that may need to be addressed and proposed annually are:

- How does the definition of what FTE titles are considered IU change over time?

- How is it decided that particular units ought to be treated specially (e.g. UNEX, UARC), or not, over time?

- How do requests for changing the population metric weightings get managed over time?

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- How are adequate reserves to be established, maintained and utilized to ensure the renewal and sustainability of the entire suite of IT services?

    o Consideration of funding streams (IU, Core, & Recharge) must be included in ITC's review of strategic plans and the setting of IT project priorities; and resulting recommendations must include renewal and replacement schedules and reserve contribution planning (For recommending changes to the IU assessment or recharge rate it is suggested that existing costing policies required by the DCC be followed in this process)

5 Appendix A – Eligible IU Services List 2008-09

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Eligible IU Services List 2008 -09 (ITS Services Proposed to be Included and not included in the IU Assessment for FY 2009)

Proposed Includes		Proposed Outs	
Service	**Description**	**Service**	**Description**
Email & Calendar, & Collaboration (Newsgroups)			
CruzMail	Campus e-mail System including routing of all mail sent to and from UCSC ID e-mail accounts and the Web client interface to that system. Criteria: Population of users is broad and campuswide. Enhances productivity campuswide. Notes: IU base budget for Cruzmail reflects current service levels.	**ADM Mail and other mail systems**	Other e-mail systems and server/hosts not affiliated with the CruzMail system including server hosts that are forwarded mail from CruzMail. Note: In most cases the e-mail is still routed through CruzMail servers - this routing of e-mail through CruzMail service is included in IU. Criteria: Population of users is not broad and campuswide.
CruzTime	Campus Calendaring System Criteria: Population of users is broad and campuswide. Enhances productivity campuswide	**CruzTime**	Population: CruzTime service not available for students
		Non-CruzTime calendaring systems	e.g. Divisional/Department Microsoft Exchange servers Criteria: Population of users is not broad and campuswide.
		Newsgroups	Local UCSC-related newsgroups may be used for classes at the request of the instructor, for administrative

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			projects, and for registered UCSC organizations. Criteria: While this service is available to all divisions at no cost, it is in support of divisional (not campuswide) services implementation; and as such, the populations utilizing this service is not broad and campuswide.

Accounts			
UCSC IDs/Cruz ID	Management and maintenance of the systems and services associate with UCSC IDs/CruzIDs. Includes identity management and authentication mechanisms which control access to CruzMail, CruzNet, and campus computing and networking resources Cruz ID: http://its.ucsc.edu/cruzid/index.php IDM: http://its.ucsc.edu/idm/index.php Criteria: Population of users is broad and campuswide. Enhances productivity campuswide. Notes: IU base budget for Accounts services reflects the funding snapshot taken in 2007 and current service levels. Current funding does not fund one staff person nor does it fully fund ongoing hardware and software costs.		

E-mail Accounts	Accounts services for maintaining UCSC ID e-mail addresses (UCSCID@ ucsc.edu). Criteria: Population of users is broad and campuswide. Enhances productivity campuswide.		
Campus Business System Accounts	Management and maintenance of the systems and services associate the user accounts for campus business systems (e.g. FIS, AIS, PPS) Criteria: Population of users of Account Management is broad and campuswide. Enhances productivity campuswide.		

Telephone			
Telephone Jack	Telephone jack on the UCSC campus telephone network. Required for a landline. Telephones can be either analog or digital. Campus telephone equipment is 20+ years old and requires a major upgrade. Until the upgrade occurs, there is limited availability of digital telephone numbers. Cable maintenance of this wired service is included for existing telephone jacks on the UCSC campus telephone network.	**Telephone/equipment**	Telephones vary in features and sizes. Digital vs Analog, single line vs multiple lines are just two examples. Criteria: Certain phones and features are not available or used campuswide. Population of users is not broad and campuswide

	Criteria: Population of users is broad and campuswide. Provides a basic level of network/telecom connectivity services. NOTE 1: IU base budget does NOT include appropriate reserves to fund equipment upgrades or replacement of the Ericsson switch. NOTE 2: IU base budget does not include funding to sufficiently cover voice plant operations and maintenance. NOTE 3: IU base budget does not include funding to sufficiently cover hires and reclassifications that occurred during the 07-08 fiscal year and which are not reflected in the IU base snapshot.		
Voicemail (basic)	Basic Voicemail service on the UCSC campus telephone network. This includes a voicemail box with a limit of 20 voicemail messages for faculty/staff and 10 voicemail messages per student residence phone. Currently voicemail is at 80% capacity and full subscription may change this service. Criteria: Population of users is broad and campuswide. Provides a basic	**Enhanced and Premium voicemail**	Provides larger voicemail boxes. Enhanced voicemail has a 40-message voicemail box and Premium has a 70-message voicemail box. There are a limited number of large voicemail boxes available. Criteria: Not available or used campuswide. Population of users is not broad and campuswide.

| | service to the majority of telephone customers.

Notes: IU base budget does not include appropriate reserves for voicemail system replacements. (See IU Proposal section 4.2) | | |
|---|---|---|---|
| **Local and Local Toll Phone Calls** | Unlimited local (on & off campus) and local toll phone calls from the UCSC campus telephone network. This includes metro Santa Cruz and portions of Santa Cruz and Santa Clara Counties.

Criteria: Population of users is broad and campuswide. This service is bundled with the Telephone Jack since telephone service is required to make local phone calls. | **Long distance - International** | Long distance international calls vary in cost depending on duration of the call and the international location.

Criteria: Population of users is not broad and campuswide

Population: CruzTime service not available for students |
| **Long Distance - Domestic** | Long distance national or domestic phone calls that are placed via the UCSC campus telephone network (Ericsson Switch)

Criteria: Faculty and staff users on the UCSC campus telephone network are broad and campuswide | **Long Distance - Domestic** | Long distance national or domestic phone calls that are NOT placed via the UCSC campus telephone network (Ericsson Switch) but placed via a telephone network outside of the campus.

Criteria: Population of users is not broad and campuswide.

Populations: Faculty and staff off the campus and not using the campus phone system/network. Students & |

			Students in the on campus residences.
Toll Free (800)	Access to toll free phone numbers Toll-free area codes include 800, 877 and 888 Criteria: Population of users is broad and campuswide. This service is bundled with the Telephone Jack since telephone service is required to make local phone calls.		
Basic Teleconferencing	Teleconference up to 8 phones using the campus phone service. Teleconference up to 3 non campus phones (AT&T phone service) Criteria: Basic service that is available to the campus.	**Premium Teleconferencing**	Via AT&T or ReadyTalk (web conferencing) is a service with various costs based on the number of teleconference participants and conference duration. Criteria: On customer request. Not used campuswide or by a broad population of users
Directory Services **- Voice Activated** **- Telephone Operator** **- On-Line Web Directory** **- UCSC Telephone Book**	Voice activated Campus Directory (dial 411 from campus phone or 831-459-0111 from off campus). Provides a non-operator (person) automated assistance in locating campus phone numbers of faculty and staff. Telephone Operator (dial 0) is available Mon-Fri 8-5 excluding holidays and campus closure. Criteria: Basic service that is available	**Outside (non UCSC) Directory Assistance**	Directory assistance from outside of UCSC (dial 6-411) Criteria: Population of users is not broad and campuswide

	to the campus and public.		
Emergency Blue light and Elevator phones	Public Safety Telephones around the campus (not including installation) Criteria: Basic service that is available to all faculty, students, staff and guests.		
Emergency 911 (E-911)	Emergency number – dial 911 from any campus telephone. Supports E911 requirements. Criteria: Population of users is broad and campuswide. It is a basic service that minimizes campus risk		
Reverse 911	An emergency notification service that can provide mass notification to the campus community, via voice, fax, e-mail or text. The system can deliver 32 calls simultaneously. A 15-second message delivered to 3500 faculty and staff would take approximately 30 minutes. We have 10,000 active numbers but only approximately faculty/staff 3500 subscribers. We don't believe this system would be effective to contact students' because so few of them use the landline service. We have about 4500 lines into the residential rooms,		

	but no idea of how many phones are in use. Criteria: Population of users that benefit is broad and campuswide. This service can minimize risk and enhance productivity.		
Cell Phone Infrastructure	Cell phone coverage. ITS Telecommunication Services work with a variety of wireless telephone providers to bring the campus wireless technology. Micro cellular antennas are installed at numerous locations on campus, providing campus coverage for T Mobile, Cingular, Sprint/Nextel and Verizon. Cell phones are not provided. Criteria: Population of users is broad and campuswide. It is a basic service that minimizes campus risk		
Repair Service	A telephone number (9-3111) and process is available to respond to telephone outages. Monday – Friday, a 24-hour response will occur to a single phone outage (excluding holidays). For major outages, other notification mechanisms are in place for immediate attention from Telecom Technicians. Criteria: Basic service support that is		

	available to the campus.		
Billing Services	Provide monthly billing for Telephone services via the Pinnacle billing system. Reports are available and used by the admin offices of various divisions. Criteria: Basic service available to all divisions with telephone and network services.		
		Auto Attendant services - **Bulletin board** - **Announcement**	Automated announcements or bulletin board features. Automated Attendant - A voicemail system that allows callers to hear selected information or be connected to different staff by pressing keys on their telephones. Automated Call Distribution (ACD) - Calls coming in to a central telephone number are distributed among a designated pool of telephones, allowing multiple staff to handle the incoming call volume. Criteria: On customer request. Not used campuswide or by a broad population of users.
Project consulting – Scope & Costs Only	Telecom consulting services to scope and cost all projects only. Various resources are available.	**Project consulting, project coordination/contractor (Small /Large Projects)**	Telecom consulting services for small to large projects. Various resources are available.

	Administrative, Engineering and Project Managers. Criteria: Basic service available to all divisions.		Administrative, Engineering and Project Managers. Criteria: On customer request. Not used campuswide or by a broad population of users. NOTES: Projected volumes and revenues may be impacted by budgetary climate. What provisions or adjustments will be implemented to mitigate against deficits in these activities?
		Campus Payphones	Support billing and trouble reporting for the few pay phones that remain Criteria: Basic service that is has limited availability to the campus. There are 10 pay phones across campus.
		Moves, Adds, Changes	All telephone and feature arrangement services. Examples: - Change telephone number - Move telephone number to another location - Add feature group call pickup - Change telephone equipment - Temporary telephone(s) for conference Criteria: On customer request. Not

			used campuswide or by a broad population of users.
		800 megahertz Radio	Two way radio service over the campus 800MHz radio system. Requires the purchase and maintenance of base stations, mobile and portable radios. A small number of radios are available for rental for special events on campus. Criteria: On customer request. Not used campuswide or by a broad population of users. Limited usage. (e.g. Police, Student Affairs)
		Dispatch support*	Criteria: Not an ITS service.

Network (Wired & Wireless)			
Network Jack (10/100/1000)	Maintenance of 10/100/1000 Mbit/sec network connections. Gigabit (1000 Mbit/sec) Ethernet is only available in some campus locations due to old switch infrastructure and lack of appropriate wiring. Network connections provide line-rate, unrestricted access to campus network resources, general Internet connectivity, Internet2 and NLR[1] access. Multicast connectivity is	**Moves, Adds, Changes**	Network jack service request to add, move or change connectivity. Examples include: - Change location of network jack - Temporary network jack(s) to support conferences or other group meetings Criteria: On customer request. Not used campuswide or by a broad population of users. Available to everyone as a discretionary expense.

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[1] Internet2 and NLR (National LambdaRail) are both national R&E networks. They interconnect universities and research institutions via high-speed networks that provide advanced services

included.

Cable modems for FSH – Family Student Housing (repair, maintain and upgrade). Provides Family Student Housing with network connectivity. Similar to the network jack for resnet.

Criteria: Basic service that is available to the campus. Provides a basic level of network connectivity services.

NOTE 1: IU base budget does NOT include reserves sufficient to replace campus' aging network (over ½ the campus's network equipment is over 7-8 years).

NOTE 2: IU base budget does not include funding to sufficiently cover hires and reclassifications that occurred during the 07-08 fiscal year and which are not reflected in the IU base snapshot.

Cable Infrastructure - Campus	Maintaining and repairing of existing cable (both copper and fiber) on the UCSC campus. This also may include some buildings off campus but within an acceptable distance. Example would include 2300 Delaware.	**Cable Infrastructure – Remote Sites**	Maintaining and repairing of existing cable (both copper and fiber) for remote or off campus locations such as Mt. Hamilton. Includes extremely limited

			documentation; no services related to long term telecommunications master planning or cabling upgrades to meet BICSI standards. Criteria: Limited to remote and off campus locations.
	. Criteria: Basic service that is available to the campus.		
Wireless Network	Wireless Access Points (WAPs) are located in select interior common area locations on campus. Approximately 25% of the campus (interior only) is covered by 300 WAPs. Basic maintenance and repair of these existing WAPs is included. Encryption is not available between the client machine and the WAP, thus the wireless network does not provide privacy of data transmission through the air. Consequently, only a limited set of protocols are permitted when using wireless connections. The wireless network is only intended for Internet use with desktops and laptops. Minimal tools are available to monitor bandwidth issues. 90% of the WAPs have 802.11g radios, the balance have 802.11b. Criteria: Basic service that is available to the campus. This service is available to faculty, staff, students, and guests.	**Install Wireless Access Point (WAP)**	Wireless access points can be requested if the customer agrees to pay for the hardware and installation. Installation charges will vary depending on wiring/cabling needs. Current Wireless management hardware limits the number of access points that can be installed. Criteria: On customer request. However can be used by a broad population of users.

	NOTES: IU base has no capacity to support wireless expansion.		
Monitoring	Network Operations provides up/down monitoring of the campus network infrastructure. Network status (devices not responding) is publicly available via the web, as are network utilization and latency graphs. Intrusion Detection System (IDS) for monitoring external campus traffic. The IDS notifies the security team of potentially successful attacks against campus computers, as well as campus computers that are attempting to compromise external resources. The current IDS is capable of examining approximately 20% of the campus-external traffic, so most attacks aren't visible to the IDS. Criteria: Basic service that is available to the campus.		
DNS/DHCP	Domain Name Server DNS serves as the "phone book" for the Internet by translating, hostnames e.g. www.*ucsc.edu*, into addresses that networking equipment needs to deliver information. Dynamic Host Configuration Protocol (DHCP) is a		

	protocol used so devices can be added to the network. Criteria: Basic service that is available to the campus.		
Product Lifecycle Development	Analyze future network developments and needs e.g. IPv6 or moving from wireless 802.11b to 802.11g. This is limited proactive planning for necessary technology changes as a result of normal product lifecycles. Criteria: Basic service that is available to the campus.		
Firewall - Data Center	Data Center firewall and border firewall. Criteria: Basic service that is available to the campus. Provides a basic level of network security services.	**Firewall** - Application - Departmental	Departmental and Application firewalls. Typically outside of the ITS Data Center. Criteria: On customer request. Not used campuswide or by a broad population of users.
		Wiring Projects	Wiring requirements to support network connectivity. Where the building cable is not sufficient to support services. Projects include new data or telephone wiring and other unique/special network move, add, and change work. Criteria: On customer request. Will probably be used by the requestor/customer in a specific

			location. However can be used by a broad population of users.
Project consulting – Scope & Costs Only	Network consulting services to only scope and cost work to be done. This includes all projects. Various resources are available. Administrative, Engineering and Project Managers. Criteria: Basic service available to all divisions. Consulting services for small to large projects.	**Project consulting, project coordination/contract or (Small?/Large Projects)**	Network consulting services for small to large projects. Various expertise are available. Administrative, Engineering and Project Managers. Criteria: On customer request. Not used campuswide or by a broad population of users. NOTES: Projected volumes and revenues may be impacted by budgetary climate. What provisions or adjustments will be implemented to mitigate against deficits in these activities?
		Campus Special Projects (experimental networks or high-bandwidth needs)	Increase network bandwidth/capacity and emerging technologies that will support the future growth and needs of the campus. Examples include video conferencing. Criteria: Does not have a broad population of users.

Data Center & Servers (Server Hosting & Virtual Server Hosting)			
Data Center and	That infrastructure and service which	**Data Center and**	That infrastructure and service which

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Servers	supports IU funded applications & services . - Server Backup and Recovery - Server Configuration Services - Server Monitoring in Datacenter (standard & custom) - Server Hosting - Physical Security - Conditioned Power - Precision Environment (e.g. HVAC) Criteria: Population of users is broad and campuswide. Enhances productivity campuswide.	Servers	supports Non-IU funded applications & service. (Example: Infrastructure which supports the Ticket Office Ticketing System virtual server environment). - Server Backup and Recovery - Server Configuration Services - Server Monitoring in Datacenter (standard & custom) - Server Hosting - Physical Security - Conditioned Power - Precision Environment (e.g. HVAC) Criteria: Population of users is not broad and campuswide.
Operators	Data Center staff that is allocable to IU Services	Operators	Data Center staff not allocable to IU Services
		Data Center Printing	Data Center Printing Services: secure printing environment for documents that need to be printed in high security Criteria: Not available to all, does not enhance productivity campuswide

Help Desk & Standard Desktop Support			
Help Desk	Provides single point of contact between campus technology users for ITS technicians to facilitate and track the provision of ITS services, answer questions, and resolve computing	Divisional Support	IT support that is specific to a division or unit. Paid for by the division (e.g. LITs/DLs, ResNet) Criteria: Population of users is not

	problems Criteria: Population of users is broad and campuswide. Enhances productivity campuswide. Note: At this time, IU base budget only covers a small portion of this service.		broad and campuswide. Does not enhance productivity campuswide.
Standard Desktop Support	Support for computer desktops for ITS supported desktop hardware, operating systems, and Core Software Criteria: Population of users is broad and campuswide. Enhances productivity campuswide. Note: At this time, IU base budget only covers a small portion of this service.	**Desktop Software Purchase**	Divisions are responsible for purchase and licensing of desktop software. Note: Divisions are responsible for tracking all licenses for software that they purchase
Asset Management	Systems and services used to track the IT assets supported by Desktop Services. This is currently a pilot project to test Asset management – but this will be rolled out to most staff and faculty desktops if funding is available. See notes below and under desktop hardware and software. Criteria: Population of users is broad and campuswide. Enhances productivity campuswide. Note: ITS is requesting the funds to expand the service past the pilot phase of the asset management project -	**Asset Management**	Population: Asset Management service will not be available for students

asset management will most likely become a service of Desktop Support Services. Keep in mind that current asset management is at a level of 800 desktops
for this year (220 installed as of 12/6/07- full 800 by the end of March), and not all desktops out there are "Standard" or expected to
be. In other words, this will be broadly available to the campus, but not for all users.

LANDesk
Future expansion of LANDesk deployment would include increasing the number of desktops with the LANDesk agent installed from 700 up to around 4000. By deploying LANDesk to all standard desktops:
- The Support Center can keep machines up to date on security patches
- for both operating systems and standard applications.
- Anti-virus and anti-spyware would be provided as a managed service
- eliminating the need for divisions to purchase separate security products.
- Use of remote control functions would allow more efficient and faster

	• desktop support/troubleshooting by eliminating unnecessary office visits. • Standard software can be installed quickly in response to requests. • Reports on security status and inventory based on live data can inform • desktop planning and purchasing.		
		Desktop Hardware	Divisions are responsible for hardware purchase, replacement, and third party maintenance costs. Note: Divisions are currently responsible for tracking these assets. Asset Management service may be used in the future to aid the divisions in this function.
		Software Licensing	This service makes select software available for purchase through educational or volume discounts by facilitating campuswide agreements with University software vendors who provide educational discounts for Apple, Microsoft, Filemaker, Adobe, and other products. Also coordinates site license and volume purchase agreements of software in association with the UC Office of the President. This service helps you save money by pooling our resources. Note: ITS is not providing software

			license tracking service. Criteria: Population of users is broad and campuswide. Enhances productivity campuswide, but population is not a driver of cost. (This service is part of the IT administrative architecture) Note: As the desktop asset management takes on more of a role in software licensing/tracking – population may become a driver of cost.

Business & Administrative Services Costs & PMG Project Management			
IU Admin Costs	Administrative cost directly associated with IU Services/Activities. – ITS Business and Administrative services Note: Administrative costs are included in the Info User in a way that reflects their historic inclusion in network and telecommunications services budgets that are being converted to the IU base.	**Non IU Admin Costs**	Administrative costs not associated with IU Services and Activities
		Project Management	IT Project Advisory Services: Available to divisions and departments at no cost. 1. Initiating project work - problem definition, background research, brainstorming ideas, project selection, and help in the development of a

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proposal. If needed for larger scale projects, ITS can provide project management as well (usually for a cost).

    2. Coaching through the project phases - assisting project leads in developing and managing steps in a project life cycle, as well as utilization of the template documents such as proposals, scorecards, charters, change requests, and closure statements.

    3. Planning assistance: ITS staff can help in identifying resources, breakdown work, building schedules, auditing phases, and reviewing progress.

    4. Training and consultation - ITS is available to lead seminars, discussion roundtables and courses in project management. As well, help by providing individual mentorship and focused consulting in areas such as project structure, sponsorship, governance, risk management and resource allocation.

Criteria: Population of users is not broad and campuswide.

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Policy & Guidelines	

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		Regulation and Policy Compliance	This service facilitates the development and implementation of campus policies, procedures, and guidelines that address these campus IT requirements. This includes documentation in support of federal, California State, UC, and UCSC requirements, and facilitation and training with respect to campus IT security requirements. Areas of focus include compliance with: Health Insurance Portability and Accountability Act (HIPAA) Payment Card Industry (PCI) requirements UC Electronic Communications Policy (ECP) UC information security requirements (IS-3) Criteria: Although this function minimizes IT risks campuswide and enhances productivity campuswide, the population of users is broad but is not a driver of costs. (This service is part of the IT administrative architecture)
Business Systems, Application Development, & Advisory Services			
		Advisory Services	Advisory Services to help clients understand which of Business Systems services (Application Development,

Attachment II

			System Selection, and Application Portfolio Management and Support) are best tailored to their individual situations. Criteria: While this service is available to all divisions at no cost, it is in support of divisional (not campuswide) services implementation; and as such, the populations utilizing this service is not broad and campuswide.
		Application Development and System Selection	Functional requirements gathering and documentation from both management and operational perspectives. Solutions research to provide the customer with a variety of options and provide a written analysis designed to facilitate selection of the best solution given the functional requirements. Develop or facilitate the purchase and implementation of solutions to meet these division specific needs. Criteria: This service is in support of divisional (not campuswide) services implementation; and as such, the populations utilizing this service in not broad and campuswide.
		Application Portfolio Management and Support	An application portfolio is a group of commercial, open-source or, custom developed software applications that promote a department or division's administrative functions. Application portfolio management includes a full array of support activities including

			application installation, maintenance and upgrades, as well as hosting, security, backup, recovery, and technical support. Application support services include consolidation of related applications to provide better overall functionality and offering user support and training in business systems function. Criteria: This service is in support of divisional (not campuswide) services implementation; and as such, the populations utilizing this service in not broad and campuswide.
Web Services			
Personal Web Pages	Personal website space (web page hosting) for any UC Santa Cruz faculty, student or staff member. Criteria: Service is available to a broad and campuswide population and is utilized by a broad population.		
Web Hosting	Website space (web page hosting) for any UC Santa Cruz division or department. Includes 4 hours of free web site development consulting. – does not include access to content management systems. Criteria: Service is available to a broad and campuswide population and is utilized by a broad population.		

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		Departmental Web Development	Service to design, build, and maintain your department website or find a consultant that can accommodate your needs. Criteria: This service is in support of divisional (not campuswide) services implementation; and as such, the populations utilizing this service in not broad and campuswide.

		Instructional Technology	
		• Classroom Support • Course Materials Development & Hosting • Distance Education • Faculty Instructional Technology Center (FITC) • Faculty Instructional Technology Workshops • Instructional Application &	Criteria: Population of users is not broad and campuswide.

		Server Support • Instructional Computer Labs • Instructional Design Support • WebCT– Learning Management System • Narrative Evaluations Consulting & Support • Printing in Computing Labs • Scantron Scoring • Student Technology Workshops • Unix Timeshare System • Virtual Computing Labs (Beta)	

Media and Event Support			
		• Special Events Support	Criteria: Population of users is not broad and campuswide.

		• Technical Design & Consultation • Video & Media Production • Video Conferencing	

6 Appendix B – IU Cost Recovery Model

Distribution of Cost Variances Due to Moving from the Current Port/Line Metric of Recovering Network and Telecomm Costs to an Info User Metric
Transition Mitigation Option #1 - Initial Cost Variance Phased in over 4 Year Period

	2008-09 Network/Telecomm via Port/Line Rates		2008-09 Network/Telecomm via Info User Model		2008-09 Model Variance	Info User Model Multi-Year Transitional Phasing Adjustments		
						2008-09 75%	2009-10 50%	2010-11 25%
Model Parameters								
2007-08 Network/Telecom Base plus Inflation		$6,740,100		$6,740,100				
ITS Savings Credit				($283,100)				
		$6,740,100		$6,457,000	($283,100)			
Info Worker FTE			100.0%					
Other non-Student FTE			33.0%					
Graduate Majors			50.0%					
Undergraduate FTE			2.5%					
Residential Students			27.0%					
Distribution of Costs								
Chancellor/CPEVC Units	1.90%	128,100	1.48%	95,300	(32,800)	24,600	16,400	8,200
Academic Units								
Arts Division	3.21%	216,400	3.51%	226,700	10,300	(7,725)	(5,150)	(2,575)
Division of Graduate Studies	0.20%	13,500	0.17%	10,800	(2,700)	2,025	1,350	675
Colleges - Academic	1.02%	68,600	0.88%	56,700	(11,900)	8,925	5,950	2,975
Engineering	6.58%	443,200	5.50%	355,200	(88,000)	66,000	44,000	22,000
Humanities Division	4.36%	293,900	5.97%	385,400	91,500	(68,625)	(45,750)	(22,875)
Library	2.97%	200,000	1.56%	101,000	(99,000)	74,250	49,500	24,750
Physical & Biological Sciences	11.45%	771,900	13.68%	883,000	111,100	(83,400)	(55,600)	(27,800)
Silicon Valley Center	0.38%	25,600	0.12%	7,600	(18,000)	13,500	9,000	4,500
Social Sciences Division	8.98%	605,000	10.74%	693,300	88,300	(66,225)	(44,150)	(22,075)
Summer Session	0.07%	4,600	0.04%	2,900	(1,700)	1,275	850	425
UCOLO UCO Lick Observatory	0.20%	13,200	0.56%	36,000	22,800	(17,100)	(11,400)	(5,700)
University Affiliated Research Center	0.11%	7,400	0.58%	37,600	30,200	(22,650)	(15,100)	(7,550)
University Extension	0.00%	0	0.26%	16,800	16,800	(12,600)	(8,400)	(4,200)
Vice Chancellor Research	0.35%	23,300	0.34%	22,200	(1,100)	825	550	275
Total Academic Units	39.86%	2,686,600	43.91%	2,835,200	148,600	(111,525)	(74,350)	(37,175)
Business and Administrative Svcs	7.65%	515,700	8.09%	522,100	6,400	(4,800)	(3,200)	(1,600)
Information Technology Services Div	8.09%	545,400	4.06%	262,300	(283,100)	0	0	0
Student Affairs (excluding CUHS)	6.91%	465,600	5.66%	365,400	(100,200)	75,150	50,100	25,050
Colleges and University Housing Services								
Colleges - Housing/Student Life	3.14%	211,800	1.42%	91,700	(120,100)	90,075	60,050	30,025
Residential Students	26.38%	1,778,300	29.82%	1,925,800	147,500	(110,625)	(73,750)	(36,875)
Housing Administration	2.58%	173,600	3.09%	199,500	25,900	(19,425)	(12,950)	(6,475)
	32.10%	2,163,700	34.33%	2,217,000	53,300	(39,975)	(26,650)	(13,325)
University Relations	1.34%	90,100	1.24%	80,200	(9,900)	7,425	4,950	2,475
Multicampus Research Units	2.15%	145,000	1.23%	79,500	(65,500)	49,125	32,750	16,375
Total:	**100.00%**	**$6,740,200**	**100.00%**	**$6,457,000**	**($283,200)**	**$0**	**$0**	**$0**
$/Information User:				**$1,043**				

Distribution of Cost Variances Due to Moving from the Current Port/Line Metric of Recovering Network and Telecomm Costs to an Info User Metric
Transition Mitigation Option #2 - Selective Budget Realignment
Public Access, Instructional Computing Lab and General Assignment Classroom network connectivity costs shifting to academic divisions

	2008-09 Network/Telecomm via Port/Line Rates		2008-09 Network/Telecomm via Info User Model		2008-09 Model Variance	Selective Budget Realignment	Info User Model Multi-Year Transitional Phasing Adjustments		
							2008-09 75%	2009-10 50%	2010-11 25%
Model Parameters									
2007-08 Network/Telecom Base plus Inflation		$6,740,100		$6,740,100					
ITS Savings Credit				($110,300)					
		$6,740,100		$6,629,800	($110,300)				
Info Worker FTE			100.0%						
Other non-Student FTE			33.0%						
Graduate Majors			50.0%						
Undergraduate FTE			2.5%						
Residential Students			27.0%						
Distribution of Costs									
Chancellor/CPEVC Units	1.90%	128,100	1.48%	97,800	(30,300)		22,725	15,150	7,575
Academic Units									
Arts Division	3.21%	216,400	3.51%	232,800	16,400	16,400	0	0	0
Colleges - Academic	1.02%	68,600	0.88%	58,200	(10,400)		7,800	5,200	2,600
Division of Graduate Studies	0.20%	13,500	0.17%	11,100	(2,400)		1,800	1,200	600
Engineering	6.58%	443,200	5.50%	364,700	(78,500)		58,875	39,250	19,625
Humanities Division	4.36%	293,900	5.97%	395,700	101,800	64,906	(27,670)	(18,447)	(9,223)
Library	2.97%	200,000	1.56%	103,700	(96,300)	(96,300)	0	0	0
Physical & Biological Sciences	11.45%	771,900	13.68%	906,700	134,800	80,156	(41,133)	(27,422)	(13,711)
Silicon Valley Center	0.38%	25,600	0.12%	7,800	(17,800)		13,350	8,900	4,450
Social Sciences Division	8.98%	605,000	10.74%	711,800	106,800	100,538	(4,697)	(3,131)	(1,566)
Summer Session	0.07%	4,600	0.04%	2,900	(1,700)		1,275	850	425
UCOLO UCO Lick Observatory	0.20%	13,200	0.56%	36,900	23,700		(17,775)	(11,850)	(5,925)
University Affiliated Research Center	0.11%	7,400	0.58%	38,600	31,200		(23,400)	(15,600)	(7,800)
University Extension	0.00%	0	0.26%	17,200	17,200		(12,900)	(8,600)	(4,300)
Vice Chancellor Research	0.35%	23,300	0.34%	22,800	(500)		375	250	125
Total Academic Units	39.86%	2,686,600	43.91%	2,910,900	224,300	165,700	(44,100)	(29,400)	(14,700)
Business and Administrative Svcs	7.65%	515,700	8.09%	536,100	20,400		(15,300)	(10,200)	(5,100)
Information Technology Services Div	8.09%	545,400	4.06%	269,400	(276,000)	(165,700)	0	0	0
Student Affairs (excluding CUHS)	6.91%	465,600	5.66%	375,200	(90,400)		67,800	45,200	22,600
Colleges and University Housing Services									
Colleges - Housing/Student Life	3.14%	211,800	1.42%	94,100	(117,700)		88,275	58,850	29,425
Residential Students	26.38%	1,778,300	29.82%	1,977,300	199,000		(149,250)	(99,500)	(49,750)
Housing Administration	2.58%	173,600	3.09%	204,900	31,300		(23,475)	(15,650)	(7,825)
	32.10%	2,163,700	34.33%	2,276,300	112,600		(84,450)	(56,300)	(28,150)
University Relations	1.34%	90,100	1.24%	82,300	(7,800)		5,850	3,900	1,950
Multicampus Research Units	2.15%	145,000	1.23%	81,700	(63,300)		47,475	31,650	15,825
Total:	100.00%	$6,740,200	100.00%	$6,629,700	($110,500)	$0	$0	$0	$0
$/Information User:				$1,071					

Distribution of Cost Variances Due to Moving from the Current Port/Line Metric of Recovering Network and Telecomm Costs to an Info User Metric
Transition Mitigation Option #3 - Maximum Budget Realignment Subject to Fund Type Restrictions

	2008-09 Network/Telecomm via Port/Line Rates		2008-09 Network/Telecomm via Info User Model		2008-09 Model Variance	Maximum Budget Realignment	Info User Model Multi-Year Transitional Phasing Adjustments 2008-09 75%	2009-10 50%	2010-11 25%
Model Parameters									
2007-08 Network/Telecom Base plus Inflation		$6,740,100		$6,740,100					
ITS Savings Credit				($148,300)					
		$6,740,100		$6,591,800	($148,300)				
Info Worker FTE			100.0%						
Other non-Student FTE			33.0%						
Graduate Majors			50.0%						
Undergraduate FTE			2.5%						
Residential Students			27.0%						
Distribution of Costs									
Chancellor/CPEVC Units	1.90%	128,100	1.48%	97,300	(30,800)	(31,800)	(750)	(500)	(250)
Academic Units									
Arts Division	3.21%	216,400	3.51%	231,500	15,100	15,100	0	0	0
Colleges - Academic	1.02%	68,600	0.88%	57,800	(10,800)	(10,800)	0	0	0
Division of Graduate Studies	0.20%	13,500	0.17%	11,000	(2,500)	(2,500)	0	0	0
Engineering	6.58%	443,200	5.50%	362,600	(80,600)	(80,600)	0	0	0
Humanities Division	4.36%	293,900	5.97%	393,500	99,600	99,600	0	0	0
Library	2.97%	200,000	1.56%	103,100	(96,900)	(96,900)	0	0	0
Physical & Biological Sciences	11.45%	771,900	13.68%	901,500	129,600	129,600	0	0	0
Silicon Valley Center	0.38%	25,600	0.12%	7,700	(17,900)	(17,900)	0	0	0
Social Sciences Division	8.98%	605,000	10.74%	707,800	102,800	102,800	0	0	0
Summer Session	0.07%	4,600	0.04%	2,900	(1,700)	(1,700)	0	0	0
UCOLO UCO Lick Observatory	0.20%	13,200	0.56%	36,700	23,500	23,500	0	0	0
University Affiliated Research Center	0.11%	7,400	0.58%	38,400	31,000	31,000	0	0	0
University Extension	0.00%	0	0.26%	17,100	17,100	0	(13,125)	(8,750)	(4,375)
Vice Chancellor Research	0.35%	23,300	0.34%	22,700	(600)	(600)	0	0	0
Total Academic Units	39.86%	2,686,600	43.91%	2,894,300	207,700	190,600	(13,125)	(8,750)	(4,375)
Business and Administrative Svcs	7.65%	515,700	8.09%	533,000	17,300	12,000	(3,975)	(2,650)	(1,325)
Information Technology Services Div	8.09%	545,400	4.06%	267,800	(277,600)	(129,300)	0	0	0
Student Affairs (excluding CUHS)	6.91%	465,600	5.66%	373,000	(92,600)	(33,300)	44,475	29,650	14,825
Colleges and University Housing Services									
Colleges - Housing/Student Life	3.14%	211,800	1.42%	93,600	(118,200)	0	88,650	59,100	29,550
Residential Students	26.38%	1,778,300	29.82%	1,966,000	187,700	0	(140,775)	(93,850)	(46,925)
Housing Administration	2.58%	173,600	3.09%	203,700	30,100	0	(22,575)	(15,050)	(7,525)
	32.10%	2,163,700	34.33%	2,263,300	99,600	0	(74,700)	(49,800)	(24,900)
University Relations	1.34%	90,100	1.24%	81,800	(8,300)	(8,200)	75	50	25
Multicampus Research Units	2.15%	145,000	1.23%	81,200	(63,800)	0	48,000	32,000	16,000
Total:	100.00%	$6,740,200	100.00%	$6,591,700	($148,500)	$0	$0	$0	$0
$/Information User:				$1,065					

Distribution of 2008-09 Cost Recovery under Information User Model
Comparison of Transition Mitigation Options without 2008-09 Info User Increment

	Percent Weighted IU FTE	Transition Option #1 - 4 Year Phasing			Transition Option #2 - Selective Budget Realignment				Transition Option #3 - Maximum Budget Realignment			
			Phasing 75% Adj	Total Cost		Budget Realignment	Phasing 75% Adj	Net Total Cost		Budget Realignment	Phasing 75% Adj	Net Total Cost
Model Parameters												
2007-08 Network/Telecom plus Inflation		$6,740,100			$6,740,100				$6,740,100			
2007-08 Info User Increment plus Inflation		$780,000			$780,000				$780,000			
2008-09 Capital Project Connectivity - One-time		$357,000			$357,000				$357,000			
2008-09 Info User Increment - Potential		$0			$0				$0			
ITS Savings Credit		($283,100)			($110,300)				($148,300)			
Total Recovery 2008-09		**$7,594,000**			**$7,766,800**				**$7,728,800**			
Info Worker FTE	100.0%											
Other non-Student FTE	33.0%											
Graduate Majors	50.0%											
Undergraduate FTE	2.5%											
Residential Students	27.0%											
Distribution of Costs												
Chancellor/CPEVC Units	1.48%	112,100	24,600	136,700	114,600	0	22,725	137,325	114,100	(31,800)	(750)	145,150
Academic Units												
Arts Division	3.51%	266,700	(7,725)	258,975	272,700	16,400	0	256,300	271,400	15,100	0	256,300
Colleges - Academic	0.88%	66,600	2,025	68,625	68,100	0	7,800	75,900	67,800	(10,800)	0	78,600
Division of Graduate Studies	0.17%	12,700	8,925	21,625	13,000	0	1,800	14,800	12,900	(2,500)	0	15,400
Engineering	5.50%	417,700	66,000	483,700	427,200	0	58,875	486,075	425,200	(80,600)	0	505,800
Humanities Division	5.97%	453,300	(68,625)	384,675	463,600	64,906	(27,670)	371,023	461,300	99,600	0	361,700
Library	1.56%	118,800	74,250	193,050	121,500	(96,300)	0	217,800	120,900	(96,900)	0	217,800
Physical & Biological Sciences	13.68%	1,038,500	(83,400)	955,100	1,062,200	80,156	(41,133)	940,911	1,057,000	129,600	0	927,400
Silicon Valley Center	0.12%	8,900	13,500	22,400	9,100	0	13,350	22,450	9,000	(17,900)	0	26,900
Social Sciences Division	10.74%	815,400	(66,225)	749,175	833,900	100,538	(4,697)	728,666	829,800	102,800	0	727,000
Summer Session	0.04%	3,400	1,275	4,675	3,400	0	1,275	4,675	3,400	(1,700)	0	5,100
UCOLO UCO Lick Observatory	0.56%	42,300	(17,100)	25,200	43,300	0	(17,775)	25,525	43,000	23,500	0	19,500
University Affiliated Research Center	0.58%	44,300	(22,650)	21,650	45,300	0	(23,400)	21,900	45,000	31,000	0	14,000
University Extension	0.26%	19,800	(12,600)	7,200	20,200	0	(12,900)	7,300	20,100	0	(13,125)	6,975
Vice Chancellor Research	0.34%	26,100	825	26,925	26,700	0	375	27,075	26,600	(600)	0	27,200
Total Academic Units	43.91%	3,334,500	(111,525)	3,222,975	3,410,200	165,700	(44,100)	3,200,400	3,393,400	190,600	(13,125)	3,189,675
Business and Administrative Svcs	8.09%	614,000	(4,800)	609,200	628,000	0	(15,300)	612,700	624,900	12,000	(3,975)	608,925
Information Technology Services Div	4.06%	308,500	0	308,500	315,500	(165,700)	0	481,200	314,000	(129,300)	0	443,300
Student Affairs (excluding CUHS)	5.66%	429,700	75,150	504,850	439,500	0	67,800	507,300	437,400	(33,300)	44,475	515,175
Colleges and University Housing Services												
Colleges - Housing/Student Life	1.42%	107,800	90,075	197,875	110,300	0	88,275	198,575	109,800	0	88,650	198,450
Residential Students	29.82%	2,264,900	(110,625)	2,154,275	2,316,400	0	(149,250)	2,167,150	2,305,100	0	(140,775)	2,164,325
Housing Administration	3.09%	234,700	(19,425)	215,275	240,000	0	(23,475)	216,525	238,800	0	(22,575)	216,225
	34.33%	2,607,400	(39,975)	2,567,425	2,666,700	0	(84,450)	2,582,250	2,653,700	0	(74,700)	2,579,000
University Relations	1.24%	94,300	7,425	101,725	96,400	0	5,850	102,250	95,900	(8,200)	75	104,175
Multicampus Research Units	1.23%	93,500	49,125	142,625	95,700	0	47,475	143,175	95,200	0	48,000	143,200
Total:	**100.00%**	**$7,594,000**	**$0**	**$7,594,000**	**$7,766,600**	**$0**	**$0**	**$7,766,600**	**$7,728,600**	**$0**	**$0**	**$7,728,600**
$/Information User:		**$1,226**			**$1,254**				**$1,248**			

Distribution of 2008-09 Cost Recovery under Information User Model
Comparison of Transition Mitigation Options with 2008-09 Info User Increment of $750K

	Percent Weighted IU FTE	Transition Option #1 - 4 Year Phasing			Transition Option #2 - Selective Budget Realignment				Transition Option #3 - Maximum Budget Realignment			
			Phasing 75% Adj	Total Cost		Budget Realignment	Phasing 75% Adj	Net Total Cost		Budget Realignment	Phasing 75% Adj	Net Total Cost
Model Parameters												
2007-08 Network/Telecom plus Inflation		$6,740,100			$6,740,100				$6,740,100			
2007-08 Info User Increment plus Inflation		$780,000			$780,000				$780,000			
2008-09 Capital Project Connectivity - One-time		$357,000			$357,000				$357,000			
2008-09 Info User Increment - Potential		$750,000			$750,000				$750,000			
ITS Savings Credit		($283,100)			($110,300)				($148,300)			
Total Recovery 2008-09		**$8,344,000**			**$8,516,800**				**$8,478,800**			
Info Worker FTE	100.0%											
Other non-Student FTE	33.0%											
Graduate Majors	50.0%											
Undergraduate FTE	2.5%											
Residential Students	27.0%											
Distribution of Costs												
Chancellor/CPEVC Units	1.48%	123,100	24,600	147,700	125,700	0	22,725	148,425	125,100	(31,800)	(750)	156,150
Academic Units												
Arts Division	3.51%	293,000	(7,725)	285,275	299,100	16,400	0	282,700	297,700	15,100	0	282,600
Colleges - Academic	0.88%	73,200	2,025	75,225	74,700	0	7,800	82,500	74,400	(10,800)	0	85,200
Division of Graduate Studies	0.17%	14,000	8,925	22,925	14,300	0	1,800	16,100	14,200	(2,500)	0	16,700
Engineering	5.50%	459,000	66,000	525,000	468,500	0	58,875	527,375	466,400	(80,600)	0	547,000
Humanities Division	5.97%	498,100	(68,625)	429,475	508,400	64,906	(27,670)	415,823	506,100	99,600	0	406,500
Library	1.56%	130,600	74,250	204,850	133,300	(96,300)	0	229,600	132,700	(96,900)	0	229,600
Physical & Biological Sciences	13.68%	1,141,100	(83,400)	1,057,700	1,164,700	80,156	(41,133)	1,043,411	1,159,500	129,600	0	1,029,900
Silicon Valley Center	0.12%	9,800	13,500	23,300	10,000	0	13,350	23,350	9,900	(17,900)	0	27,800
Social Sciences Division	10.74%	895,900	(66,225)	829,675	914,500	100,538	(4,697)	809,266	910,400	102,800	0	807,600
Summer Session	0.04%	3,700	1,275	4,975	3,800	0	1,275	5,075	3,800	(1,700)	0	5,500
UCOLO UCO Lick Observatory	0.56%	46,500	(17,100)	29,400	47,400	0	(17,775)	29,625	47,200	23,500	0	23,700
University Affiliated Research Center	0.58%	48,600	(22,650)	25,950	49,600	0	(23,400)	26,200	49,400	31,000	0	18,400
University Extension	0.26%	21,700	(12,600)	9,100	22,200	0	(12,900)	9,300	22,100	0	(13,125)	8,975
Vice Chancellor Research	0.34%	28,700	825	29,525	29,300	0	375	29,675	29,200	(600)	0	29,800
Total Academic Units	43.91%	3,663,900	(111,525)	3,552,375	3,739,800	165,700	(44,100)	3,530,000	3,723,000	190,600	(13,125)	3,519,275
Business and Administrative Svcs	8.09%	674,700	(4,800)	669,900	688,600	0	(15,300)	673,300	685,600	12,000	(3,975)	669,625
Information Technology Services Div	4.06%	339,000	0	339,000	346,000	(165,700)	0	511,700	344,500	(129,300)	0	473,800
Student Affairs (excluding CUHS)	5.66%	472,200	75,150	547,350	481,900	0	67,800	549,700	479,800	(33,300)	44,475	557,575
Colleges and University Housing Services												
Colleges - Housing/Student Life	1.42%	118,500	90,075	208,575	120,900	0	88,275	209,175	120,400	0	88,650	209,050
Residential Students	29.82%	2,488,500	(110,625)	2,377,875	2,540,100	0	(149,250)	2,390,850	2,528,700	0	(140,775)	2,387,925
Housing Administration	3.09%	257,900	(19,425)	238,475	263,200	0	(23,475)	239,725	262,000	0	(22,575)	239,425
	34.33%	2,864,900	(39,975)	2,824,925	2,924,200	0	(84,450)	2,839,750	2,911,100	0	(74,700)	2,836,400
University Relations	1.24%	103,600	7,425	111,025	105,700	0	5,850	111,550	105,300	(8,200)	75	113,575
Multicampus Research Units	1.23%	102,800	49,125	151,925	104,900	0	47,475	152,375	104,400	0	48,000	152,400
Total:	**100.00%**	**$8,344,200**	**$0**	**$8,344,200**	**$8,516,800**	**$0**	**$0**	**$8,516,800**	**$8,478,800**	**$0**	**$0**	**$8,478,800**
$/Information User:		**$1,348**			**$1,375**				**$1,369**			

7 Appendix C – Comparison of IU at Other Universities

	Questions	UCLA Technology Infrastructure Fee (TIF)	UCR Communication Worker Fee (CWF)	UCSD Communication User Fee (CUF)
	Services Questions			
1	What services are **included** in the FTE based charge?	TIF services: ○ Connection to internet, backbone ○ Infrastructure cabling/contract project management ○ Email, messaging and calendaring ○ Antivirus software, web proxy, ftp servers, storage ○ 800MHz system for campus emergency services ○ Campus wireless in common areas ○ Network for general assignment classrooms ○ Components of Help Desk related to services above ○ Repositioning IT Initiative (funding targeted to Technical Infrastructure jointly managed by CIO and Budget Office)	CWF services: ○ Internet/Intranet access ○ Webmail and calendaring ○ Network security including anti-virus, spyware ○ DNS/DHCP ○ Renewal and replacement of backbone, building entry devices, distribution electronics, outside/inside cable plant and fiber ○ R&D for emerging services: VOIP, hybrid approach for wireless	CUF services: ○ Voice services: basic voice (digital or analog line), customer service, feature packages for phones, line repairs, technical support, local and long distance toll (after 7/1/2006) ○ Data services: switched Ethernet, on and off-campus network access, email, DHCP, line repairs, technical support. ○ Wiring: Fiber optic cables between buildings and cat-5, or better, cables inside buildings. ○ Equipment: Upgrades for backbone and building network switches. ○ Wireless: Wireless data network access in selected public areas, classrooms, and in new building upgrade projects.
2	What services are **excluded** from FTE based charge?	TIF does not cover: ○ Installations, moves or changes for data and voice lines ○ Telephone and computer instruments	CWF does not cover ○ Installations, moves or changes for data and voice lines ○ Telephone and computer instruments	CUF does not cover: ○ Installations, moves or changes for data and voice lines. ○ Telephone and computer instruments

	Questions	UCLA **Technology Infrastructure Fee (TIF)**	UCR **Communication Worker Fee (CWF)**	UCSD **Communication User Fee (CUF)**
		o Voice line and features o Local and long distance toll calls o Voicemail o Other directly billed services such as CATV and bandwidth	o Voice line and features o Local and long distance toll calls o Voicemail o Other directly billed services such as CATV and bandwidth	o International toll and calling cards o Dial in data services o Voicemail o Experimental networks and exceptionally high bandwidth needs o Special-use rooms and computer labs
3	How are services defined in terms of service levels?	SLAs established with each major customer.	No specific SLAs other than mission and description of service	
4	Is there any degree of customer segmentation and different charges for students, staff or faculty?	o FTE is calculated monthly from actual time worked in PPS (adjusted for 9/12 academics) factoring in transfers of payroll expense. o All faculty, staff and student employees included regardless of title, fund or physical location. The only exception is that work-study funds are excluded. o No differentiation between clients.	o FTE 1s calculated monthly from actual time worked in PPS. o A number of title codes are excluded from CWF. NON-CWF are filtered out by title code	o FTE is calculated monthly from actual time worked in PPS (adjusted for 9/12 academics) factoring in transfers of payroll expense. o Non-communication Users are filtered out by title code. A communication User is a UCSD employee who makes use of a telephone or network during daily work. The list of Communication User Worker title codes may be reviewed annually. o Undergraduate and graduate students excluded (as a function of employment).

	Questions	UCLA Technology Infrastructure Fee (TIF)	UCR Communication Worker Fee (CWF)	UCSD Communication User Fee (CUF)
5	Is there any degree of customer segmentation and different charges for users at remote locations?		Process for exclusions from CWF are primarily for off-site locations not on the network. This is based on employee ID. Units have to apply for the exemption annually, which is managed by the payroll office. There are actually very few exemptions (about a dozen).	o CUF uses the campus directory database and assigns a code to each employee. These codes are used to identify if employee is on-campus, out of state (no charge), off-campus, or medical center. Recognizing that these locations do not participate in all services, UCSD modifies the CUF based on service cost pools that do apply. o Each location has a different rate based on the services it receives. On campus 100%, Off-campus ≈ 42%, Medical Center ≈ 31%, Out of State 0%.
6	Are there different charges for residential halls?	o UCLA has a decentralized (federated) model consisting of 30+ organizations that manage their own network and wireless within buildings. Residential halls are one of these federated units o There are direct charges for bandwidth in the residential	Charge calculated annually at 100% CWF plus an internet premium. Count is based on Fall pillow count and is billed quarterly. Residents pay the twelve-month equivalent.	o Housing students are included at ≈ 25% of full CUF fee. A housing student is not equal to a Comm. Worker because the services haven't been equal over the years. They took the CUF and divided by 2 because of "lousy" cable modem service, and then

	Questions	UCLA Technology Infrastructure Fee (TIF)	UCR Communication Worker Fee (CWF)	UCSD Communication User Fee (CUF)
		halls.		divided by 2 again because students had to share data service. Now there is no port sharing and the service is good. They look like they should now be full CUF (excluding voice service). o Students use at least as much bandwidth as full Communication User. o Student count is based on "bedcount" and billed monthly.
7	Are there different charges for students?	Part of the payroll FTE calculation	Part of the payroll FTE calculation Undergraduate Assistant 1 & 2 are calculated at 50%	Academic VC made decision to pay for grad students based on enrollment, not employment. Grad students use about 1/3 of services, so they are charged 30% of full FTE charge. The student title code did not work in the FTE model. Charge students annually based on third week census and billed monthly (in order to keep model simple). Grad student enrollment calculations are maintained on an Excel spreadsheet.
8	Are there different charges for Post-docs?	Part of the payroll FTE calculation	Part of the payroll FTE calculation	o 45% of CUF in 2007-08, and then increasing by 5% annually until 2011 when the charge reaches 60% of full CUF. o To determine FTE they

	Questions	UCLA Technology Infrastructure Fee (TIF)	UCR Communication Worker Fee (CWF)	UCSD Communication User Fee (CUF)
				calculate an average post-doc salary to derive a denominator that is used to determine % FTE.
9	How are public computer labs charged?		Charged by active ports multiplied by 100% CWF, minus CWF based on calculated FTE.	o Charged per computer at approximate ratio of 4 computers to 1 CUF. Labs held responsible for part of distribution costs. Seen as a proxy for recovering costs for commuting undergraduate population. o Public labs require lots of service and would not generate enough revenue based on an FTE charge. o Includes the Library's public computers, computer labs, and Univ. Extension training labs. o Lab cost covers internet, backbone and local calling.
10	What principles were used as a framework for those determinations?	o TIF uses true FTE counts without targeting certain job classification for exclusion. This avoids the need to manage multiple rates, and argument over who is an IU. o Communications and Technology Services (CTS) has three separate funding buckets. These include TIF,	The driver for implementing a CWF was to separate network for telephone services so as to make costs associated with both transparent. Previously voice had subsidized network.	o Fairness o No increase in admin costs o No opportunity to "cheat" o Stability/predictability of costs o Predictability of revenue for planning o Allow grants and contracts to budget for costs.

	Questions	UCLA Technology Infrastructure Fee (TIF)	UCR Communication Worker Fee (CWF)	UCSD Communication User Fee (CUF)
		recharge for service, and voice applications (also fee for service)		
11	What is included in the cost of services? Hardware? Software? Maintenance? Equipment Replacement? Admin. Support?		o Renewal and replacement on an average 6-year replacement cycle including core/backbone, building entry devices, distribution electronics, outside cable plant, inside cable plant, communications closets, email, calendaring, and security. 7.5 year replacement cycle for fiber. o The CWF fees have remained the same since 2002. A proposed increase for this year has yet to be approved. This year they will pilot a tiered CWF – one covering traditional services, and one that allows VOIP.	
12	Were there any policy implications that had to be used in light of using an IU metric? For instance, are there policies that	o Within $13m TIF revenue, there is flexibility to move money around within $13m of covered services. o Campus policy on number of jacks is based on 2 –3 jacks per 100sf of office space. o Email is divided into two	UCR subsidizes network renewal and replacement (I2 funds) and outside cable plant costs for new buildings and construction. .	VC assessments provide a subsidy to buydown costs of the new model. Departments are charged $60 instead of full $90. Expectation is that subsidy will decrease and CUF will increase.

	Questions	UCLA **Technology Infrastructure Fee (TIF)**	UCR **Communication Worker Fee (CWF)**	UCSD **Communication User Fee (CUF)**
	limit the # of jacks per office of sf? If email is included, are there policies around storage?	applications, one for Admin, and one for student/academic. There is one storage environment. Storage is limited at 50mb but is growing to 100mb.		
	Process Questions			
13	Who/which title codes are included in the IU? What was the process to develop, vet and get approval for this list?	All FTE are billed the same and receive the same services.	A number of title codes are excluded from CWF.	Ask - Do users require voice/data in their job duties? Very few examples exist where employees do not (landscapers, physical plant). Build in the right to review title codes annually. Staff are run through title code filter and location code filter to determine which rate to charge.
14	What was/is the governance structure in place through implementation and on into operations for the IU model and which services were included?	POSSE – policy board on sales and services approves miscellaneous services in recharge and TIF.	Committee for Sales and Services (COSSA) and Chancellor.	Initially had a number of committees involved (Academic Senate, Computing Committee, Budget Office), plus established permanent VC level advisory committee with faculty reps. Approved by campus budget committee (Chancellor & VCs)
	Other Questions			
15	How does your campus address contracts and grants?	UCLA expresses confidence that the TIF FTE model meets regulatory requirements with respect to contracts and grants. If a department has concerns about whether the cost is	UCR initially allowed redirect of CWF only if unit could document that the CWF was an unallowable expense on a specific grant. Currently, all CWF charges based on contract and	UCSD expresses confidence that the CUF FTE model meets regulatory requirements with respect to contracts and grants.

	Questions	UCLA **Technology Infrastructure Fee (TIF)**	UCR **Communication Worker Fee (CWF)**	UCSD **Communication User Fee (CUF)**
		allowable, the department is able to self-specify an alternative "FOAPAL" via a web accessible feature of the billing system. Departments are strongly encouraged to include the TIF as a direct cost in any new extramural proposals. At a time of increased merit and benefit costs coupled with reduced grant funding, the additional burden of the TIF on contracts and grants has become a sore point with the UCLA faculty. To address this political issue, UCLA is considering phasing in the TIF on contracts and grants over four years – 25%, 50%, 75%, 100%	grant funds are being redirected to Campus EVC.	UCSD engaged outside auditors and received written opinion of compliance. Internally, UCSD extensively engaged the Controllers Office, Internal Auditors, Planning and Budget and Divisional Financial Officers. A key component of compliance was the targeting of substantial campus subsidies to federally unallowable expenses such as the initial capital costs of establishing backbone, switches and wiring. The renewal and replacement of these costs are built into the federally chargeable CUF.

8 Appendix D – FMAG Charge Letter

April 23, 2007

ASSISTANT DEAN CALOSS
DIRECTOR HALL
ASSISTANT VICE CHANCELLOR HERRERA-MAHONEY
INTERIM DIRECTOR WILLATS

Dear Colleagues,

We are writing to request your participation on a campus advisory group that is being formed to provide oversight and feedback on the development of an IT funding model for the campus.

Another team, comprised of ITS and Planning and Budget staff, will form a work group which is developing the details and formal implementation plan for funding services provided by the Information Technology Services (ITS) Division to the entire campus. You will meet regularly with the work group to review a range of policy issues, ask questions, and receive updates on progress. The work of both groups will be assisted by a dedicated project manager.

We have committed to the EVC that a proposed implementation will be ready for review and consultation no later than November 2007, allowing a final decision by March 1, 2008 and implementation effective July 1, 2008.

As part of your role, we expect you will communicate progress and next steps to key groups of which you are members, including the Assistant Deans and Campus Academic Support (CAS) groups. This would allow for broad discussion and input as the details are worked out.

As discussed with Principal Officers, the proposed longer-term funding model for IT is based on the following principles:

- An open and collaborative process to establish priorities for IT investment and support for the campus.
- Predictability to the campus about what IT costs will look like going forward.
- Increased accountability and linkage between funding and service requirements.
- Access to a variety of funding sources including central funds, one-time funds, and recharge income).

Funding Proposal for 2008-09 and Beyond

Consistent with campus discussions, the work group will be developing the details associated with a longer-term funding model as follows:

- The amount of funding for ITS, in the future, would not be pegged to a specific dollar amount (although previous commitments regarding increases in central funds would be honored). All increases in investments would be based on proposals for specific adjustments in services.

- A user-based metric would be one of the primary means to fund universally required infrastructure and direct user IT services. This rate would encompass and supersede the Networking port and Telecommunications line rate, and would go further to encompass many activities currently funded by core funds. The concept is to use, to the extent feasible, one mechanism to fund the services that support nearly every UCSC employee uses when they sit down at their desks to start work in the morning.
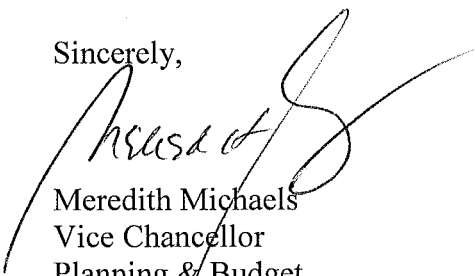
While ITS would set minimum standards, and processes to enforce campus wide standards, individual units would be responsible for costs associated with the acquisition, maintenance and replacement of the unit's local specific local IT equipment and software/license needs. Further, ITS would work with units on unique local IT needs, with the expectation that units would be charged separately for service needs outside the general IT catalog and/or significantly greater than what is provided to the campus at large.

The work group is charged with a number of specific tasks related to the user-based model, including:
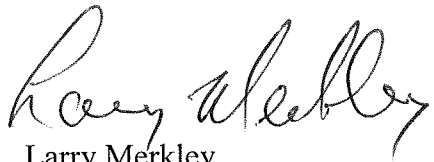
- Defining the entire range of services to be covered by the user-based metric—what is included, what is not.
- Identifying the associated cost of those services.
- Working out details of the user-based metric, building upon the initial work done to implement a user-based model on an interim basis in 2007-08.
- Establishing a planned reserve.
- Calculating the base budget dollars that might be released as a result of the new funding model, and recommending the deployment of these dollars.

We look forward to collaborating with you on this important campus effort, and thank you, in advance for the time you will be dedicating to this activity.

Sincerely,

Meredith Michaels
Vice Chancellor
Planning & Budget

Larry Merkley
Vice Provost
Information Technology Services

Cc: Campus Provost/EVC Kliger
        Deans
        Vice Chancellors
        Vice Provosts
        Campus Librarian
        Assistant Vice Chancellor Eckert
        Principal Analyst Lawson
        Divisional Business Director McCue
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