

Billing Model for Voice Services at Rutgers, The State University of New Jersey



Prepared by the Telecommunications Division
Enterprise Systems and Services
Office of Information Technology
October 26, 2005 Revision 1.0

Table of Contents

Executive Summary	3
The Methodology	3
Services Rendered	3
Cost Synopsis	3
System Cost /Revenue Synopsis	4
All Campuses	4
Campus Cost /Revenue Synopsis	4
New Brunswick/Piscataway	4
Newark	5
Camden	5
Estimated Annual Contributions	5
Assumptions and Notes	5

Executive Summary

The Telecommunications Division (TD) in Enterprise Systems and Services (ESS) manages all phone system operations and administers all phone related charges and expenses for New Brunswick and Newark campuses. At present, the Camden campus manages its own PBX (Private Branch eXchange) and administers its call accounting and maintenance. The purpose of this document is to define a rational methodology for charging each campus for their respective phone services. This model is designed to recover actual costs for lines and equipment as well as capture a defined surplus that the Central Administration has been receiving via the voice clearing account.

The Methodology

The basis for all calculations and subsequent apportionment of charges is the total expense to the University for phone services, encompassing lines and tolls (long distance). Final values are derived from apportioned costs of each campus with a calculated surcharge imposed accordingly. Surcharge factors are 1.53 for lines and equipment, and 1.58 for long distance calling. Baseline data is from the 2003-2004 fiscal year since this is a representation of aggregate information for all three campuses. Maintenance costs are not charged to the campuses, but funded out of the net profit to Central Administration. Apportionments of costs are derived from the number of lines servicing each campus. It is important to note that consistency of methodology is guaranteed with regard to all campuses. Student lines are excluded from these calculations.

Services Rendered

The overall charges to each campus for voice services are not simply a markup exclusive of value. Administration of vendor bills, service calls for maintenance, overall technical guidance for phone systems and call accounting are all provided through the telephone services office of TD. These costs are not charged back to the individual campuses.

Cost Synopsis

*Line Costs:

Per line:	\$10.55/month
Charge to customer base:	\$17.20/month

** These are baseline and representative charges since PRI (Primary Rate Interface), DID (Direct Inward Dialing), Central office termination charges, etc. are not incorporated.*

Tolls:

Average cost per minute:	\$0.07
Average charge per minute:	\$0.12

Maintenance:

Actual Cost	\$340,783
Charge to campuses	\$0.00

Apportionments of costs are derived from the number of lines servicing each campus.

Campus	Percentage Apportionment of Cost
New Brunswick / Piscataway	78.25
Newark	14.50
Camden	7.25
Total	100.00

System Cost /Revenue Synopsis

All Campuses

Accounting Code	Item	Cost	Revenue
3010	Installation	\$84,000.00	\$84,000.00
3020	Verizon Lines	\$2,436,557.00	\$3,730,175.00
3030	Cell Usage	\$160,000.00	\$160,000.00
3040	AT&T Long Distance	\$1,265,812.00	\$2,000,646.00
	Maintenance	\$340,783.00	\$0.00
	Sub-Total	\$4,287,152.00	\$5,974,821.00

Campus Cost /Revenue Synopsis

New Brunswick/Piscataway

Accounting Code	Item	Cost	Revenue
3010	Installation	\$65,730.00	\$65,730.00
3020	Verizon Lines	\$1,906,605.85	\$2,917,106.95
3030	Cell Usage	\$125,200.00	\$125,200.00
3040	AT&T Long Distance	\$990,497.89	\$1,564,986.67
	Maintenance	\$266,662.70	\$0.00
	Central Administration	\$1,318,327.18	\$0.00
	Sub-Total	\$4,673,023.62	\$4,673,023.62

Newark

Accounting Code	Item	Cost	Revenue
3010	Installation	\$12,180.00	\$12,180.00
3020	Verizon Lines	\$353,300.77	\$540,550.17
3030	Cell Usage	\$23,200.00	\$23,200.00
3040	AT&T Long Distance	\$183,542.74	\$289,997.53
	Maintenance	\$49,413.54	\$0.00
	Central Administration	\$244,290.65	\$0.00
	Sub-Total	\$865,927.70	\$865,927.70

Camden

Accounting Code	Item	Cost	Revenue
3010	Installation	\$6,090.00	\$6,090.00
3020	Verizon Lines	\$176,650.38	\$270,275.09
3030	Cell Usage	\$11,600.00	\$11,600.00
3040	AT&T Long Distance	\$91,771.37	\$144,998.76
	Maintenance	\$24,706.77	\$0.00
	Central Administration	\$122,145.33	\$0.00
	Sub-Total	\$432,963.85	\$432,963.85

Estimated Annual Contributions

It is anticipated that each campus will contribute their portion of the total profit toward the Central Administration voice clearing account. The calculated values are as follows:

New Brunswick / Piscataway	\$1,318,327
Newark	\$244,291
Camden	\$122,145

Assumptions and Notes

Costs of TIE lines between New Brunswick / Piscataway and Camden and New Brunswick / Piscataway and Newark are not part of the above calculations. These costs with the exception of the end terminations are presently borne by NB/Piscataway.