

Network Cost Recovery Report

Financial Policies Committee of the University Faculty
Joe Thomas, Co-Chair, 2001-2002

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Network Cost Recovery Update

- Modifications to the Original Recommendations
- Revised Allocation Factors
- Network Cost Components
- Network Cost Recovery Elements
- Definitions of Network Rates Elements
- Frequently Asked Questions

Network Cost Recovery - Modifications

- Realigned cost pools: Edge, backbone/infrastructure, and WAN/Internet
- Recover edge costs via port charges
- Recover infrastructure via administrative charges
 - Includes public ports & wireless (RedRover)
 - Excludes ResNet portion of the infrastructure cost
- Recover WAN cost via usage charge
 - Usage is measured at the IP address
 - Base charge of \$X/months per IP address includes Y MBs/month
 - Per MB usage charge above Y MBs
- Recover ResNet edge and infrastructure via port fee and WAN cost is recovered as above

Allocation of Costs

	Task Force Model			Revised Model		
	Edge	Infrastructure	WAN	Edge	Infrastructure	WAN
Campus Wiring	100%	0%	0%	0%	100%	0%
Data Network-Edge	100%	0%	0%	100%	0%	0%
Staffing						
Network Planning/Design Engineers						
Electronics Replacement and upgrades						
Electronics Replacement interest and depreciation						
Data Network-Backbone	0%	60%	40%	0%	100%	0%
Staffing						
Network Planning/Design Engineers						
Electronics Replacement and Upgrades						
Routine capital replacements and upgrades						
Electronics Replacement interest and depreciation						
Maintenance						
Internet	0%	0%	100%	0%	0%	100%
T3/OC3 charges						
NyserNet 2000 fees						
Network Operations Center	0%	0%	100%	0%	100%	0%
24/7 staffing costs						
Operations Support						
Shift Operators						
Network Mgmt Tools/Other						
Plant Maintenance and Support	0%	0%	100%	6%	92%	2%
Staffing						
Service provisioning and maintenance engineers						
Utilities						
General Plant Maintenance						
Inventory Management and Materials						
Service Teams						
Electronics Replacement interest and depreciation						
General Support Costs	0%	0%	100%	30%	32%	38%
Enterprise Applications						
Apogee						
Security Scanning						
CIT Administrative Overhead						
University Overhead						
Publications						
Client Systems						
Tech Mgmt						
Network Development Costs (Video IP)						

Network Cost Components

FY03 Costs Allocated to Edge, Infrastructure and WAN				
	Revised Model		Task Force Model	
				Change
Edge	\$	2,257,851	\$	1,863,010
Academic/Admin	\$	1,333,363	\$	1,130,752
ResNet	\$	632,198	\$	484,383
Public Ports	\$	292,290	\$	247,875
Infrastructure	\$	5,172,073	\$	1,134,911
Academic/Admin	\$	4,396,262	\$	839,834
ResNet	\$	775,811	\$	295,077
WAN	\$	1,425,174	\$	5,857,178
Academic/Admin	\$	678,949	\$	4,196,067
ResNet	\$	712,587	\$	1,522,866
Public Ports	\$	33,638	\$	138,245
	\$	8,855,098	\$	8,855,098
				\$0
Summary				
Academic/Admin	\$	6,408,574	\$	6,166,653
ResNet	\$	2,120,596	\$	2,302,326
Public Ports	\$	325,928	\$	386,120
	\$	8,855,098	\$	8,855,098
				\$241,921
				(\$181,729)
				(\$60,192)
				\$0

Network Cost Recovery Elements

Network Cost Recovery

	Academic and Administrative *	ResNet **	Total
Edge cost via port charges **	\$ 1,333,363	\$ 1,408,009	\$ 2,741,372
Infrastructure & public ports via CAM *	\$ 4,722,190	**	\$ 4,722,190
WAN via usage charge	\$ 678,949	\$ 712,587	\$ 1,391,536
	\$ 6,734,502	\$ 2,120,596	\$ 8,855,098

* Administrative charge (CAM) Includes \$325,928 of costs assigned to public ports

** ResNet port charges include \$775,811 of infrastructure cost

Monthly Port Charges

	Current Rate Structure (1)				Revised Model		Task Force Model	
	FY02		FY03					
Academic/Admin	\$	28.00	\$	29.35	\$	8.70	\$	7.38
ResNet (2)	\$	22.78	\$	44.45	\$	26.74	\$	9.20

(1) Basic 10/100 port and usage

(2) Revised ResNet port rate recovers ResNet share of infrastructure

Network Rates Elements

- **Wide Area Network (WAN) Expenses:** All devices on Cornell's data network that send or receive data over the Internet - that is, using Cornell's external Internet connections - will be subject to a Wide Area Network (WAN) usage fee. The WAN fee is directly associated with the IP number used by a device to send or receive data.

The base usage fee will be $\$X_1$ /month for an IP supporting a single device or $\$X_2$ /month for IP's that support more than one device. This base IP fee allows the total inbound and outbound transmission of Y bytes of data. Data use beyond Y bytes will be billed at a rate of $\$x$ /Mbytes.

- **Campus Network Infrastructure:** Cornell Information Technology Services will calculate all expenses associated with maintaining the Campus Area Network (CAN), excluding WAN expenses outlined above or data port expenses outlined below. This network infrastructure expense will be billed based on the Administrative Charge algorithm or Campus Allocation Model (CAM).

Network Rates Elements

- **Academic/Administrative Data Ports:** Individual data ports will be charged at a rate of \$X per month. Multiple devices may be connected to a charged port. However, WAN fees as outlined above apply.
- **ResNet Data Ports:** Individual data ports will be charged at a rate of \$X per month. This port fee includes ResNet portion of costs associated with Campus Network Infrastructure expenses. It is important to note that ResNet CAN fees are not recovered through the CAM funding algorithm.
- **Public Ports:** The Provost will establish a committee that will designate some ports - that are open to use by a broad segment of the Cornell community - as “public ports.” The committee will address all requests for the designation or establishment of public ports. The University will recover all public ports costs via CAM.
- **Wireless:** At this time, Cornell RedRover wireless service expenses are recovered through the Campus Network Infrastructure funding process. However, RedRover may not be used as the primary network service for campus faculty, staff or residential students.