

Residence Hall Upgrade  
College Avenue Campus  
Spring 2009



Prepared by  
Network Operations & Architecture  
Telecommunications Division  
June 15, 2009

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## **Executive Summary**

The Telecommunications Division (TD) regularly assesses the Rutgers University Network (RUNet). Consequently, equipment is identified for replacement when it either no longer supports requirements at the university, or is no longer supported by the manufacturer/vendor. (See: [http://www.td.rutgers.edu/papers/RUNet\\_Evergreen\\_012407.pdf](http://www.td.rutgers.edu/papers/RUNet_Evergreen_012407.pdf))

As part of this overall “Evergreening” effort, locations are identified for upgrades, in priority order, based on a number of factors, including end of product support (End of Life/EoL), port density, etc.

The Telecommunications Division (TD) was provided with Housing funds in fiscal year 2008-2009 in support of residential hall improvements. Based on the current “Evergreening” schedule, Frelinghuysen was identified to receive equipment upgrades.

## **Upgrade Details**

The target of this upgrade cycle was to remove various devices from the Frelinghuysen residence halls. The installation was completed during the January 2009 semester break.

### **New Equipment Purchases:**

*College Avenue Campus:*

#### ***Frelinghuysen:***

Completed January 14-15, 2009

Replaced the following devices: (2) WS-C5505, (1) WS-C2948G, (1) WS-C2948G-GE-TX

Replacement equipment: (2) 4506

### **Removed Equipment:**

The (2) WS-C5505 devices removed from Frelinghuysen have been decommissioned and will be used for trade-in credit on future ResNet equipment orders. The (1) WS-C2948G and (1) WS-C2948G-GE-TX have been returned to stock and will be used as off-the-shelf spare devices. No trade-in credits were applied to this order.

## **Proposed “Next Phase” Residence Hall Upgrades**

TD would propose the next upgrade cycle target the following residence halls:

*College Avenue Campus:*

***River Dorms (Hardenberg, Campbell)***

***BAMM (Barr, Allen, Metzger, Mattia)***

## Expense Summary

<b>Supplier</b>	<b>PO</b>	<b>Description</b>	<b>Cost</b>
ePlus	S1073798	Cisco devices	\$47,792.16
ePlus	S1073798	Cisco SmartNet	\$ 3,979.36
Network Installation (NI)		ISP Cable & Termination	\$ 2,130.68
<b>TOTAL:</b>			<b>\$53,902.20</b>

## Frelinghuysen Maintenance Schedule

### Network Maintenance - Week of January 9, 2009

ID: 2876  
Description: Infrastructure Redesign - Frelinghuysen Dorms (as01-fh-alex and as03-fh-alex)  
Disruption: Outage  
Campus: CAC  
Start Date: 01/15/2009 0830  
End Date: 01/15/2009 1630  
Summary: Network Operations will upgrade the layer 2 network infrastructure in Frelinghuysen Dorms. The current installation of a 5505 and a 2948G, will be transitioned to a 4506 series access switch with 10/100/1000 capabilities.

No network connectivity will be available to clients uplinked through as01-fh-alex and as03-fh-alex at this time.

Affected: as01-fh-alex  
as03-fh-alex  
Type: Scheduled  
---

ID: 2875  
Description: Infrastructure Redesign - Frelinghuysen Dorms (as02-fh-alex)  
Disruption: Outage  
Campus: CAC  
Start Date: 01/14/2009 0830  
End Date: 01/14/2009 1630  
Summary: Network Operations will upgrade the layer 2 network infrastructure in Frelinghuysen Dorms. The current installation, a 5505, will be transitioned to a 4506 series access switch with 10/100/1000 capabilities.

No network connectivity will be available to clients uplinked through as02-fh-alex at this time.

Affected: as02-fh-alex 5505  
Frelinghuysen Classroom 1900  
as04-fh2flrtmp-alex  
Type: Scheduled

# Equipment Replacement Detail Sheet

## Frelinghuysen Switch Upgrade Device Replacement

### TC 201

**Recovered**  
WS-C5505  
WS-C2948G

66556888  
FOX06250508

**Deployed**  
WS-C4506 FOX1226GAW6

### TC 501

**Recovered**  
WS-C5505  
WS-C2948G-GE-TX

66556887  
JPE0929Y040

**Deployed**  
WS-C4506 FOX1226GAVY

# ePlus Quote (Cisco equipment/ongoing maintenance costs)



**Requestor Address**  
 Rutgers University  
 110 Frelinghuysen Rd, Hill Center Rm 020 110 Frelinghuysen Rd, Hill Center Rm 020  
 Piscataway, NJ 08854  
 Charle Robinson  
 (732)445-7536  
 Project Number:  
 Project Name: Frelinghuysen Dorm Upgrade  
 RFP # 364

**Ship To Address**  
 Rutgers University  
 Piscataway, NJ 08854  
 Charle Robinson  
 (732)445-7536

Quoted On 8/11/2008  
 Quote Number 20829619

## Hardware

Qty	Mo Part	Mo Name	Description	List Price	Ext List Price	Dis %	Sell Price	Ext Sell Price
2	WS-C4506-E	Cisco	Cat4500 E-Series 6-Slot Chassis, fan, no ps	\$4,995.00	\$9,990.00	40.20%	\$2,967.01	\$5,974.02
2	PWR-C45-1300ACV	Cisco	Catalyst 4500 1300W AC Power Supply (Data and PoE)	\$1,495.00	\$2,990.00	40.20%	\$894.01	\$1,788.02
2	CAB-LS20P-C19-US	Cisco	NEMA L5-20 to IEC-C19 6ft US	\$0.00	\$0.00	40.20%	\$0.00	\$0.00
2	WS-X4013+	Cisco	Catalyst 4500 Supervisor II-Plus (IOS), 20E,Console(RJ-45)	\$5,995.00	\$11,990.00	40.20%	\$3,585.01	\$7,170.02
10	WS-X4548-GB-RJ45	Cisco	Catalyst 4500 Enhanced 48-Port 10/100/1000 Base-T (RJ-45)	\$5,495.00	\$54,950.00	40.20%	\$3,288.01	\$32,880.10

## Smart Nets

Qty	Mo Part	Mo Name	Description	List Price	Ext List Price	Dis %	Sell Price	Ext Sell Price
2	CON-SNT-C4508E	Cisco	SMARTNET 8X5XNBD Cat4500 E-Series 8-Slot Chassis, fan, no - First Year	\$1,848.00	\$3,696.00	0.00%	\$0.00	\$0.00
2	CON-SNT-C4508E	Cisco	SMARTNET 8X5XNBD Cat4500 E-Series 8-Slot Chassis, fan, no - Second Year Co-Termed to Jan 31, 2011	\$2,928.00	\$5,852.00	32.00%	\$1,969.68	\$3,979.36

ePlus Contact: Michael Green  
 Phone Number: (212)401-5035  
 Fax Number: (212)401-5135  
 Email: [mgreen@eplus.com](mailto:mgreen@eplus.com)

Product Total \$47,782.18  
 Service Total \$3,878.38  
**Deal Total \$51,771.52**

This quote will expire in 30 days.



Purchasing Department  
 Rutgers, The State University of New Jersey  
 ASB III, 3 Rutgers Plaza, 2nd Floor  
 New Brunswick, NJ 08901-8559  
 Phone: 732/932-4370  
 Fax: 732/932-4390  
 http://purchasing.rutgers.edu

**SUPPLIER:**  
 ePlus  
 One Penn Plaza  
 Ste 600  
 New York, NY 10119

Attention: Green, M

**PURCHASE ORDER**

Purchase Order No.	Revision	Page
S1073798	0	1 of 1

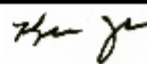
THIS P.O. # MUST APPEAR ON INVOICES, PACKING SLIPS AND ANY CORRESPONDENCE RELATED TO THIS PURCHASE  
 Acceptance of the purchase agreement is expressly contingent on acceptance of all the terms and conditions listed on the Rutgers Purchasing website which are hereby incorporated by reference. The general terms and conditions of purchase of services and merchandise are provided at http://purchasing.rutgers.edu. These are an integral part of the purchase agreement and may not be altered or modified.

**SHIP TO:**  
 Robinson, Charles  
 Hill Center  
 110 Frelinghuysen Road, Rm 020  
 Piscataway, NJ 08854-8019

DATE OF ORDER / BUYER / TELEPHONE / E-MAIL		REVISED DATE OF ORDER / BUYER / TELEPHONE / E-MAIL	
18-AUG-08 732/932-4375 EXT 2326 JAMMURR@CAMDEN.RUTGERS.EDU Murray, J			
PAYMENT TERMS	SHIP VIA	F.O.B.	REQUESTER
Net 30		FOB Destination	Robinson, Charles

No	SHIP No	QTY	UOM	DESCRIPTION	DELIVERY DATE	UNIT PRICE	EXTENSION
1				RFP #364 Equipment and SmartNet as outlined on Quote 20829619 -- RFP # 364 -- Rutgers Project: Frelinghuysen Dorms	04-SEP-08		\$ 51,771.52

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY  
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<b>INVOICE IN DUPLICATE - BILL TO:</b>		<b>TOTAL</b>	<b>\$ 51,771.52</b>
Rutgers, The State University of New Jersey Accounts Payable 65 Davidson Road, Rm 302 Piscataway, NJ 08854-5802 732/445-2717		SIGNATURE  Kevin Lyons, Ph.D. Director, Purchasing Department	

## Network Installation Services Quotes (Wiring Costs)

# RUTGERS

Office of Information Technology, ESS, TD  
63 Road 1, Livingston Campus  
Piscataway, NJ 08854  
Bernard Sinkiewicz - Sinkiewi@rci.rutgers.edu  
732 445-6000 Fax 732-445 1481

August 12, 2008

To: Charlie Robinson  
Office of information Technology, ESS, TD  
Hill Center, Busch Campus  
chrobins@td.rutgers.edu

From: Bernard Sinkiewicz

Subject: OIT ESS 08-0275  
Bldg# - 3117 Frelinghuysen Hall

As requested, the following estimate lists the costs associated with the scope of work required to meet the project objectives that you have discussed with the Network Installation Group manager, Bernard Sinkiewicz.

**Note: This estimate is valid for (30) thirty days from the date of this proposal**

**General scope of work:**

Provide and install new patch cords to accommodate electronics replacement in 2nd and 5th floor TC's.

Other contracted services	\$0.00
ISP Cable and Termination	\$2,130.68
CAD and Documentation	\$0.00
Facilities Work	\$0.00
Connectivity	N/A
Voice	N/A
OSP Cable and Termination	N/A
Grand Total	<u>\$2,130.68</u>

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If you choose to proceed with this proposal, you should use the following information to provide us with a RIAS Internal Purchase Order:

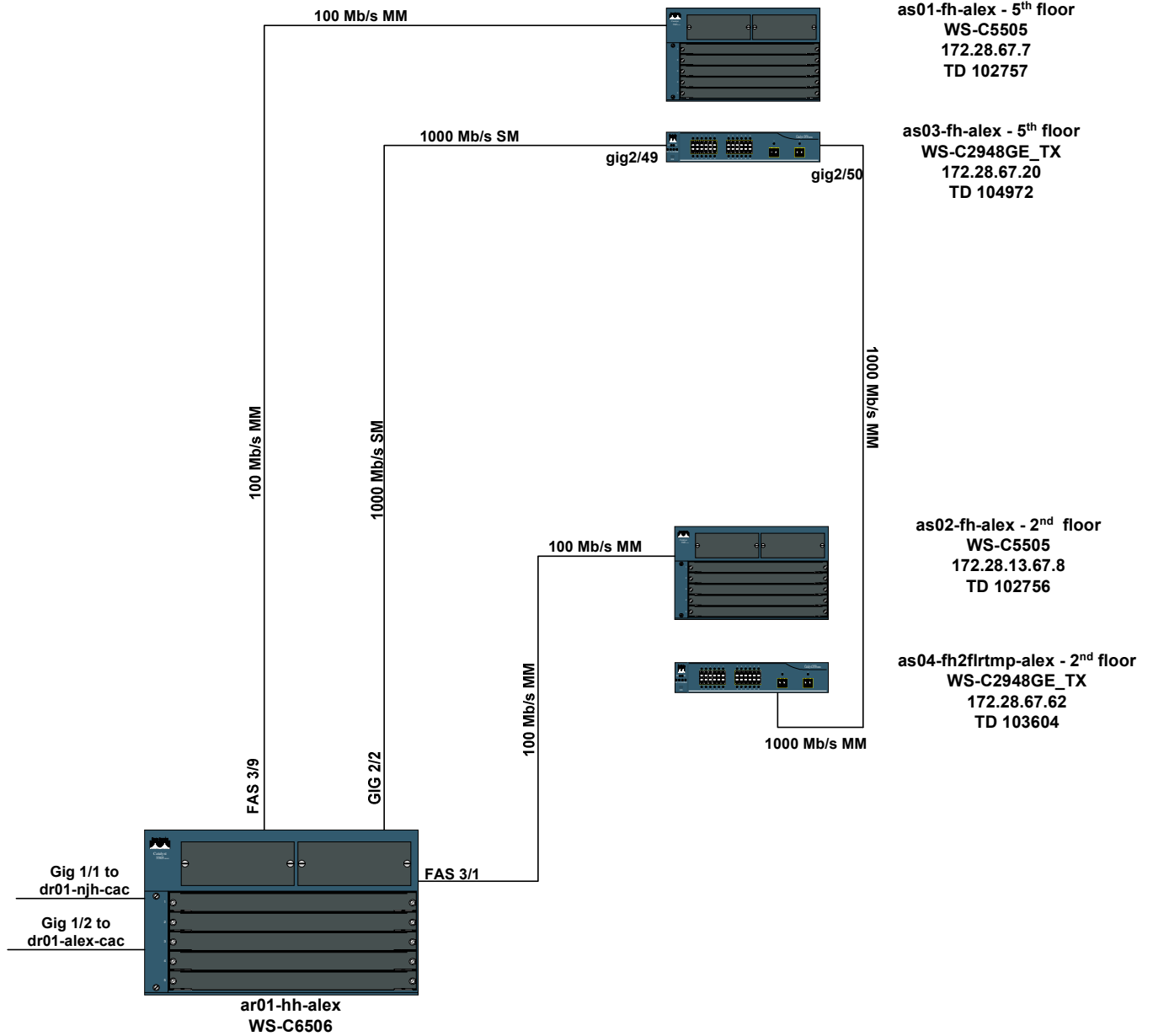
Supplier Site: IPO: OIT ESS Network Installation Item # 382  
Description: Wiring and Cable Plant Installation and Maintenance

Contact Name: Charlie Robinson  
Project Number: Frelinghuysen Hall  
Quote Number: 08-0275  
Project Manager: Bernard Sinkiewicz

If you have a question about this estimate, please contact Bernard Sinkiewicz. He can be reached at (732) 445-6000 or by e-mail at sinkiewi@rci.rutgers.edu.

# Network Diagram – Before

## FRELINGHUYSEN HALL Network Device Infrastructure Map (Before)



Christopher Faas  
1/5/2009

