

RUNet Upgrade
Newark Campus
Fall 2009



Prepared by
Network Operations & Architecture
Telecommunications Division
October 2, 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)

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.

Based on the current “Evergreening” schedule, Smith Hall was identified to receive equipment upgrades. TD provided funding in the amount of \$137,422.73.

Upgrade Details

The target of this upgrade cycle was to remove various devices from Smith Hall.

New Equipment Purchases:

Completed: August 21, 2009

Replaced the following devices: (12) WS-C2980G, (2) WS-C2948G

Replacement equipment: (6) WS-C4506

Removed Equipment:

The (12) WS-C2980G have been returned to stock and will be used as off-the-shelf spare devices. (2) WS-C2948G have been redeployed to locations on Cook campus (details in "Equipment Replacement Detail Sheet". No trade-in credits were applied to this order.

Expense Summary

Supplier	PO	Description	Cost
ePlus	S1190388	Cisco devices	\$120,387.41
ePlus	S1190388	Cisco SmartNet	\$11,938.08
Network Installation (NI)		ISP Cable & Termination	\$5,097.24
TOTAL:			\$137,422.73

Network Maintenance Announcements (3)

Network Maintenance - Week of August 17, 2009

Network Maintenance - Wednesday, 08/19/2009 to Thursday, 08/20/2009

ID: 3179
Description: Smith Hall Room 226 layer 2 infrastructure redesign
Disruption: Outage
Campus: Newark
Start Date: 08/19/2009 0700
End Date: 08/19/2009 1100
Type: Scheduled

Network Operations will be upgrading the layer 2 devices in Smith Hall room 226. There will be no network connectivity during this time.

AFFECTED DEVICES
As01-smttc2-hilh
As02-smttc2-hilh
As03-smttc2-hilh
As04-smttc2-hilh
As05-smttc2-hilh

Network Maintenance Reminder - Wednesday, 08/19/2009 to Thursday, 08/20/2009

ID: 3180
Description: Smith Room 351 layer 2 Infrastructure Redesign
Disruption: Outage
Campus: Newark
Start Date: 08/20/2009 0700
End Date: 08/20/2009 1100
Type: Scheduled

Network Maintenance Reminder - Thursday, 08/20/2009 to Friday, 08/21/2009

ID: 3181
Description: Smith Hall TC4314 layer 2 Infrastructure Redesign
Disruption: Outage
Campus: Newark
Start Date: 08/21/2009 0700
End Date: 08/21/2009 1100
Type: Scheduled

Equipment Replacement Detail Sheet

Smith Hall Switch Upgrade Device Replacement

*Unless otherwise noted, the recovered devices were placed in Hill Center, Busch Campus Room 055 as spares.

TC 226

RECOVERED			DEPLOYED		
WS-C2980G	TD#100059	S/N FOX04194744	WS-C4506	TD#105693	S/NFOX1312G5CD
WS-C2980G	TD#100061	S/N FOX04194770	WS-C4506	TD#105692	S/N FOX1311GU08
WS-C2980G	TD#100123	S/N FOX04311340			
WS-C2980G	TD#104801	S/N FOX06411D61			
WS-C2948G	TD#104725	S/N FOX04185419*			

*This device has been re-deployed as as01-asb3tc1-ccc to Cook Campus Admin Bldg on 9/18/09

TC 351

RECOVERED			DEPLOYED		
WS-C2980G	TD#100062	S/N FOX04195250	WS-C4506	TD#105696	S/N F0X1311GTXL
WS-C2980G	TD#100060	S/N FOX04195084	WS-C4506	TD#105691	S/N FOX1312G5CC
WS-C2980G	TD#100091	S/N FOX04301035			
WS-C2980G	TD#100092	S/N FOX04210113			

TC 4314

RECOVERED			DEPLOYED		
WS-C2980G	TD#100090	S/N FOX04301109	WS-C4506	TD#105695	S/NFOX1311GTXM
WS-C2980G	TD#100089	S/N FOX04300999	WS-C4506	TD#105694	S/N FOX1312G58D
WS-C2980G	TD#103771	S/N FOX03450568			
WS-C2980G	TD#100093	S/N FOX04301020			
WS-C2948G	TD#103789	S/N FOX06490V1M*			

*This device has been re-deployed as as01-newl6269-pal to the Newell Apts on Cook Campus on 9/14/09

ePlus Quote (Cisco equipment/ongoing maintenance costs)



Requestor Address
 Rutgers University
 110 Frelinghuysen Rd, Hill Center Rm 020
 Piscataway, NJ 08854
 Charlie Robinson
 (732)445-7536
 Project Number:
 Project Name: Smith Hall Spring 09 Upgrade Worksheet
 RFP # 364

Ship To Address
 Rutgers University
 110 Frelinghuysen Rd, Hill Center Rm 020
 Piscataway, NJ 08854
 Charlie Robinson
 (732)445-7536

Quoted On 5/19/09
Quote Number 20947828

Smith Hall 226
 Hardware

Qty	Mfg P/N	Mfg 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%	\$2,987.01	\$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-US520-C19-US	Cisco	NEMA 5-20 to IEC-C19 14ft US	\$0.00	\$0.00	40.20%	\$0.00	\$0.00
2	S45IPBK9-12231SGA	Cisco	Cisco CAT4500 IOS IP BASE SSH	\$0.00	\$0.00	40.20%	\$0.00	\$0.00
2	WS-X4013+	Cisco	Catalyst 4500 Supervisor II-Plus (IOS), 2GE,Console(RJ-45)	\$5,995.00	\$11,990.00	40.20%	\$3,585.01	\$7,170.02
8	WS-X4548-GB-RJ45	Cisco	Catalyst 4500 Enhanced 48-Port 10/100/1000 Base-T (RJ-45)	\$5,495.00	\$43,960.00	40.20%	\$3,286.01	\$26,288.08

Smart Nets

Qty	Mfg P/N	Mfg Name	Description	List Price	Ext List Price	Dis %	Sell Price	Ext Sell Price
2	CON-SNT-C4506E	Cisco	SMARTNET 8XSXNBD Cat4500 E-Series 6-Slot Chassis, fan, no - First Year	\$1,848.00	\$3,696.00	0.00%	\$0.00	\$0.00
2	CON-SNT-C4506E	Cisco	SMARTNET 8XSXNBD Cat4500 E-Series 6-Slot Chassis, fan, no - Second Year 9/30/11	\$2,926.00	\$5,852.00	32.00%	\$1,989.68	\$3,979.36

Smith Hall 351
 Hardware

Qty	Mfg P/N	Mfg 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%	\$2,987.01	\$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-US520-C19-US	Cisco	NEMA 5-20 to IEC-C19 14ft US	\$0.00	\$0.00	40.20%	\$0.00	\$0.00
2	S45IPBK9-12231SGA	Cisco	Cisco CAT4500 IOS IP BASE SSH	\$0.00	\$0.00	40.20%	\$0.00	\$0.00
2	WS-X4013+	Cisco	Catalyst 4500 Supervisor II-Plus (IOS), 2GE,Console(RJ-45)	\$5,995.00	\$11,990.00	40.20%	\$3,585.01	\$7,170.02
7	WS-X4548-GB-RJ45	Cisco	Catalyst 4500 Enhanced 48-Port 10/100/1000 Base-T (RJ-45)	\$5,495.00	\$38,465.00	40.20%	\$3,286.01	\$23,002.07

Smart Nets

Qty	Mfg P/N	Mfg Name	Description	List Price	Ext List Price	Dis %	Sell Price	Ext Sell Price
2	CON-SNT-C4506E	Cisco	SMARTNET 8XSXNBD Cat4500 E-Series 6-Slot Chassis, fan, no - First Year	\$1,848.00	\$3,696.00	0.00%	\$0.00	\$0.00
2	CON-SNT-C4506E	Cisco	SMARTNET 8XSXNBD Cat4500 E-Series 6-Slot Chassis, fan, no - Second Year 9/30/11	\$2,926.00	\$5,852.00	32.00%	\$1,989.68	\$3,979.36

Smith Hall 431
 Hardware

Qty	Mfg P/N	Mfg 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%	\$2,987.01	\$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-US520-C19-US	Cisco	NEMA 5-20 to IEC-C19 14ft US	\$0.00	\$0.00	40.20%	\$0.00	\$0.00
2	S45IPBK9-12231SGA	Cisco	Cisco CAT4500 IOS IP BASE SSH	\$0.00	\$0.00	40.20%	\$0.00	\$0.00

8	WS-X4548-GB-RJ45	Cisco	Catalyst 4500 Enhanced 48-Port 10/100/1000 Base-T (RJ45)	\$5,495.00	\$43,960.00	40.20%	\$3,286.01	\$26,288.08
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Smart Nets

Qty	Mfg P/N	Mfg Name	Description	List Price	Ext List Price	Dis %	Sell Price	Ext Sell Price
2	CON-SNT-C4506E	Cisco	SMARTNET 8X5XNBD Cat4500 E-Series 6-Slot Chassis, fan, no - First Year	\$1,848.00	\$3,696.00	0.00%	\$0.00	\$0.00
2	CON-SNT-C4506E	Cisco	SMARTNET 8X5XNBD Cat4500 E-Series 6-Slot Chassis, fan, no - Second Year 9/30/11	\$2,926.00	\$5,852.00	32.00%	\$1,989.68	\$3,979.36

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

Product Total	\$120,374.41
Service Total	\$11,938.08
Deal Total	\$132,312.49

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
1190388	0	1 of 1

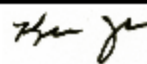
THIS P.O. # MUST APPEAR ON INVOICES, PACKING SLIPS AND ANY CORRESPONDENCE RELATED TO THIS PURCHASE. Acceptance of the purchase agreement is expressly contingent on acceptance of all the terms and conditions listed on the Rutgers Purchasing website which are hereby incorporated by reference. The general 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	
21-MAY-09 732/932-4375 EXT 2329	Laible, K KARENLA@RCL.RUTGERS.EDU		
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 Product Total \$120,374.41 – Service Total \$11,938.08 as outlined on EPlus Quote 20947828 – RFP # 364 – CONTRACT # 3030226 – Rutgers Project: Smith Hall Upgrade This Purchase Order is subject to P.L. 1975, C.127 (N.J.A.C. 17:27), where applicable and is not valid until the requirements have been met.	10-JUN-09		\$ 132,312.49

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
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INVOICE IN DUPLICATE - BILL TO:		TOTAL	\$ 132,312.49
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

July 16, 2009

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

From: Bernard Sinkiewicz

Subject: OIT ESS 09-0220
Bldg# - 7223 Smith 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:

Remove and re-patch all patch panels in TC 226, TC 351, and TC 431 to accommodate new Chassis switches.
Provide and install all new, necessary patch cables.
Re-use existing cables where applicable.

Other contracted services	\$0.00
ISP Cable and Termination	\$5,097.24
CAD and Documentation	\$0.00
Facilities Work	\$0.00
Connectivity	N/A
Voice	N/A
OSP Cable and Termination	N/A
Grand Total	\$5,097.24

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: Smith Hall
Quote Number: 09-0220
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

Smith Hall Upgrade Before



Network Diagram – After

Smith Hall Upgrade After

