A PLAN *FOR*

IT Infrastructure Upgrades

for

Telephonic, Wireless Access, and Integrated Communication Services

WHY DOES SSU NEED THIS PROJECT?

SSU's current IT infrastructure has capacity limits and operational constraints requiring a network architecture upgrade.

- **SSU PBX TELEPHONY: We are exposed to operational risks with current antiquated technology and limited infrastructure (e.g., copper wiring with analog to digital interfaces, estimated 600 end user instruments, 1,000 phone lines, with past experience of multi-day outages of campus communications, mission-critical services, and emergency response capabilities involving phone lines).**

- **PLANNED AND EMERGING TECHNOLOGIES: SSU cannot implement initiatives such as: VOIP, Unified Communications, and Wireless upgrade.**

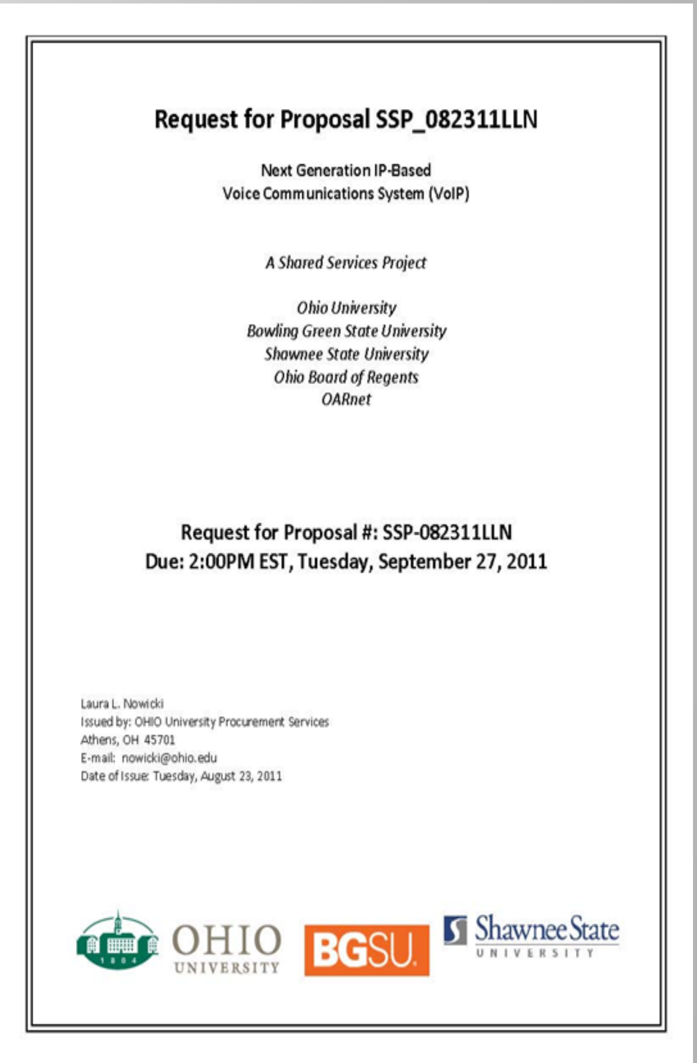
- **CAPACITY: SSU broadband capacity will reach limit within 2 years, based on usage data.**

  - **SSU WAN connectivity is limited to 1GB**
  - **Cannot support upgrade to 10GB**
  - **Cannot support OARnet expansion to 100GB**

ORIGINAL IT SHARED SERVICES PROJECT: VOICE OVER INTERNET PROTOCOL (VoIP)

Began Shared Service Initiative with OU and BGSU in 2011

- **PURPOSE: To leverage IUC shared services purchasing capability for VOIP equipment and implementation**
- **Allows Unified Communications, that includes:**
  - **Replacement of all existing instruments with state-of-the art technology**
  - **Provides for enhanced services, such as:**
    - **Web Conferencing, E911, and Call Center technology**
    - **Enables the integration of all communication services (email, phone, fax, instant messaging, video)**
  - **No planned increase to departmental telephony expenditures**



Request for Proposal SSP_082311LLN

Next Generation IP-Based
Voice Communications System (VoIP)

A Shared Services Project

Ohio University
Bowling Green State University
Shawnee State University
Ohio Board of Regents
OARnet

Request for Proposal #: SSP-082311LLN
Due: 2:00PM EST, Tuesday, September 27, 2011

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Date of Issue: Tuesday, August 23, 2011

OHIO UNIVERSITY BGSU. Shawnee State UNIVERSITY

PIVOTAL GROWTH AND STRATEGIC OPPORTUNITY FOR SSU

- **SSU benefits significantly from a unique investment opportunity in technology infrastructure i.e., VOIP, Broadband and Wireless acquisition that affords:**
  - **Essential expansion of infrastructure at SSU IT core, academic and administrative connection points**
  - **A ten-fold boost in bandwidth potential on campus, from current 1GB limit to 10GB**
  - **Enables ability to integrate planned initiatives including VoIP telephony, Unified Communications and Wireless access point (AP) refresh**

An IT Plan that positions SSU for Growth

- **Mission Critical Upgrade to accommodate Continuous Needs for Academic , Student, and Institutional Operations**
- **Planning Network Capacity for Demand**
- **Promotes SSU Research and Partnership**
- **Leverages IT Investment**

Essentials for a Healthier SSU: Strengthen IT's Core and Improve IT's Conditioning.

CONTRACTUAL OPPORTUNITY

VoIP Telephony

- Contract Cost: $1.2M
- Advantages:
  - $200k savings with Shared Services Initiative
  - Discounts of 68% on equipment - 39% on annual support
  - Cisco Enterprise Licensing – <u>unattainable</u> without shared services agreement (requires 5,000 users)
- Estimated Savings:
  - Approximately $578,000

CONTRACTUAL OPPORTUNITY

Network Infrastructure Upgrade

- Contract Cost: $2.05M
- Advantages:
  - Fully scalable network design
  - Discounts of 68% on equipment - 39% on annual support
- Estimated Savings:
  - Approximately $964,705

CONTRACTUAL OPPORTUNITY

Wireless Access Point Upgrade

- Contract Cost: $350,000
- Advantages:
  - Integrated Network Design
  - Discounts of 68% on equipment - 39% on annual support
  - Supports planned growth in mobile wireless access required for academic & administrative usage
- Estimated Savings:
  - Approximately $165,000

Consolidated Financing

- **TOTAL COST:**
  - **VoIP $1.20M**
  - **Network Infrastructure Upgrade $2.05M**
  - **Wireless Access Point Upgrade $0.35M**

- **Cisco Financing via Key Government Financials:**

  - **Total Cost: $3.62Million**
    - ***With Capital Funds of $800K appropriated, will finance $2.82M***
  - **Payment over 5 Years**
  - **Finance at 0%**

- **Project concluded in 18 months**

- **University owns equipment**

- **Opportunity for comparable savings will not be available in the future**

- **Estimated total savings realized $1,707,705**

Identified Sources of Funding

- Capital Funds
- General Operating Budget:
  - Budgeted contingencies for projects
  - Redirection of UIS department funds
    - (Future Internal Budget Reallocations re: "technology network usage tax")
- Auxiliary Revenue – where appropriate
- State "last mile" funds
- Student technology fee increase (within state-approved tuition rates limits)
- SSUDF "loan" (line of credit model)

Preliminary Plan for Payment

Note: Each year's payment will be developed during budget development process.

Year 1 (current year - FY13)		**Impact on Fund Balance**	
Budgeted wireless connectivity funds (UIS)	$108,000.00	Within operating budget	$0.00
Budgeted project funds (contingency)	$367,000.00	Within operating budget	$0.00
Capital Funds	$800,000.00	None - capital funds	$0.00
State "last mile" funds	TBD		$0.00
	$1,275,000.00		$0.00
Year 2 (FY14)		**Impact on Fund Balance**	
Increase in student technology fee (new revenue)	$243,000.00	New Revenue offset costs	$0.00
Current year auxiliary transfer (portion)	$130,000.00	Within current year budget	$0.00
Released Funds (arbitrage reserve)	$247,000.00	Reduces fund balance	-$247,000.00
SSUDF Funds*	$375,000.00	Reduces fund balance	-$375,000.00
State "last mile" funds	TBD		$0.00
	$995,000.00		-$622,000.00
Year 3 (FY15)		**Impact on Fund Balance**	
Student technology fee increase	$243,000.00	Current year budgeted technology fee revenue offset costs	$0.00
Current year auxiliary transfer (portion)	$71,324.60	Within current year budget	$0.00
SSUDF Funds *	$125,000.00	Reduces fund balance	-$125,000.00
	$439,324.60		-$125,000.00
Year 4 (FY16)		**Impact on Fund Balance**	
Student technology fee increase	$243,000.00	Current year budgeted technology fee revenue offset costs	$0.00
Current year auxiliary transfer (portion)	$71,324.60	Within current year budget	$0.00
SSUDF Funds (If needed)	$125,000.00	Reduces fund balance	-$125,000.00
	$439,324.60		-$125,000.00
Year 5 (FY17)		**Impact on Fund Balance**	
Student technology fee increase	$243,000.00	Current year budgeted technology fee revenue offset costs	$0.00
Current year auxiliary transfer (portion)	$71,324.61	Within current year budget	$0.00
SSUDF Funds (If needed)	$125,000.00	Reduces fund balance	-$125,000.00
	$439,324.61		-$125,000.00
*Terms and repayment schedule to be developed			
Total Annual Payments	$3,587,973.81	Estimated 5 - year University Fund Balance Reduction	-$997,000.00

Key Factors for the Payment Plan

AY13/14 Increase student technology fee from $4.14/cr hour to $6.50/cr hour -(does not consider future inflationary adjustments)	**BOT approval of tuition rates**
Internal protocol to institute a technology usage tax	**Anticipate no increase in telephone line costs to departments; UIS will assess need for usage tax for bandwidth**
Utilize $800,000 of capital funds for the project in year 1 only	**Major benefit because does not affect fund balance**
SSUDF Loan – develop favorable payback schedule and terms	

Financial and Operational Considerations

- **Considers enrollment and revenue issues for the next 5 years**
- **Recognizes institution's cash flow requirements including enrollment change scenarios**
- **Considers other projects that may require general operating funding**
- **Every effort to minimize impact on University's fund balance and cash requirements:**
  - Year 1 – no impact on fund balance
  - Year 2 – uses new revenue and a variety of funding sources; preparatory to potential revenue issues beginning FY14
  - Years 3 and 4 – front-loaded payments in years 1 and 2 in order to reduce payments for remaining years
  - Appropriate usage of Capital funds – sufficient funds remain for planned projects
  - Measured increase in student technology fee
    - Allocates greater proportion of approved tuition rates to technology fees but total tuition rate will remain compliant with any required tuition rate cap
  - SSUDF – Up to $750,000 with repayment schedule – cash flow support
  - Redirection of related current-year allocations in general operating, auxiliary, and Plant budgets
  - Secondary funding sources could include:
    - Course/Lab fee fund balances
    - Other auxiliary revenue sources
- **Considers the substantial impact of adequate technology capabilities for immediate and future academic growth**
- **Takes advantage of an opportunity for significant savings for critical infrastructure needs**

Thoughts, Ideas, Questions