

**SUBMIT BID TO:**  
PURCHASING DEPARTMENT  
UNIVERSITY OF FLORIDA  
ELMORE HALL, Room 102  
PO Box 115250  
GAINESVILLE, FL 32611-5250  
Phone: (352) 392-1331 - FAX: (352) 392-8837  
Web Address: www.purchasing.ufl.edu

**UF UNIVERSITY of FLORIDA**  
**INVITATION TO BID**

**Acknowledgment Form**

<b>Page 1 of Pages 50</b>		BID WILL BE OPENED <b>Friday, September 4, 2009 at 11:00 AM ET</b> and may not be withdrawn within 45 days after such date and time. <b>Mandatory Pre-Bid August 24, 2009 at 2:00 PM ET, in Weimer Hall Conf Rm 3032</b>		BID NO. <b>ITB10KO-111</b>	
UNIVERSITY MAILING DATE: <b>8/14/2009</b>		PURCHASING AGENT <b>KO/qrh</b>		BID TITLE: <b>21<sup>st</sup> Century Newsroom Systems Integrator</b>	
VENDOR NAME		Delivery will be _____ days ARO			
VENDOR MAILING ADDRESS		REASON FOR NOT SUBMITTING BID			
CITY - STATE - ZIP CODE		<b>POSTING OF BID TABULATIONS</b>			
AREA CODE	TELEPHONE NO.	Bid tabulations with intended award(s) will be posted electronically for review by interested parties at <a href="http://www.purchasing.ufl.edu">www.purchasing.ufl.edu</a> and will remain posted for a period of 72 hours excluding Saturdays, Sundays, or state holidays. Failure to file a protest in accordance with Board of Governors (BOG) Regulation 18.002 or failure to post the bond or other security as required in the BOG regulations 18.002 and 18.003(3), shall constitute a waiver of protest proceedings.			
	FAX NO.				
	WEB ADDRESS				
	EMAIL ADDRESS				

*I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a bid for the same materials, supplies, or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the vendor and that the vendor is in compliance with all the requirements of the Invitation to Bid, including but not limited to, certification requirements. In submitting a bid on behalf of the Board of Trustees, hereinafter known as the University, the vendor offers and agrees that if the bid is accepted the vendor will convey, sell, assign, or transfer to the University all rights, title and interest in and to all causes of action it may now or hereafter acquire under the Anti-trust laws of the United States and the University for price fixing relating to the particular commodities or services purchased or acquired by the University. At the University's discretion, such assignment shall be made and become effective at the time the purchasing agency tenders final payment to the vendor.*

\_\_\_\_\_  
**AUTHORIZED SIGNATURE (MANUAL)**  
\_\_\_\_\_  
**NAME AND TITLE (TYPED)**

**GENERAL CONDITIONS**

**SEALED BIDS:** All bid sheets and this form must be executed and submitted in a sealed envelope. (DO NOT INCLUDE MORE THAN ONE BID PER ENVELOPE.) The face of the envelope shall contain, in addition to the above address, the date, and time of the bid opening and the bid number. Bids not submitted on the attached bid form shall be rejected. All bids are subject to the conditions specified herein. Those which do not comply with these conditions are subject to rejection.

1. **EXECUTION OF BID:** Bid must contain an original manual signature of authorized representative in the space provided above. Bid must be typed or printed in ink. Use of erasable ink is not permitted. All corrections to prices made by vendor must be initialed.

2. **NO BID:** If not submitting a bid, respond by returning only this vendor acknowledgment form, marking it "NO BID", and explain the reason in the space provided above. Failure to respond to a procurement solicitation without giving justifiable reason for such failure, nonconformance to contract conditions, or other pertinent factors deemed reasonable and valid shall be cause for removal of the supplier's name from the bid mailing list. NOTE: To qualify as a respondent, vendor must submit a "NO BID", and it must be received no later than the stated bid opening date and hour.

3. **BID OPENING:** Shall be public, on the date, location and the time specified on the bid form. It is the vendor's responsibility to assure that the bid is delivered at the proper time and place of the bid opening. Bids which for any reason are not so delivered will not be considered. A bid may not be altered after opening of the bids. NOTE: Bid tabulations will be posted electronically at [www.purchasing.ufl.edu](http://www.purchasing.ufl.edu). Bid tabulations will not be provided by telephone.

4. **PRICES, TERMS AND PAYMENT:** Firm prices shall be bid and will include all packing, handling, shipping charges, and delivery to the destination shown herein.  
(a) **TAXES:** The University does not pay Federal Excise and Sales taxes on direct purchases of tangible personal property or services. The Florida Tax Exempt Number is 11-06-024056-57C. This exemption does not apply to purchases of tangible personal property or services made by vendors who use the tangible personal property or services in the performance of contracts for the improvement of University-owned real property as defined in Chapter 192, F.S.  
(b) **DISCOUNTS:** Vendors are encouraged to reflect trade discounts in the unit prices quoted; however, vendors may offer a discount for prompt payment. Prompt

payment discounts will not be considered in the bid award. However, every effort will be made to take the discount within the time offered.

(c) **MISTAKES:** Vendors are expected to examine the specifications, delivery schedule, bid prices, extensions, and all instructions pertaining to supplies and services. Failure to do so will be at vendor's risk. In case of a mistake in extensions the unit price will govern.

(d) **INVOICING AND PAYMENT:** Payment will be made by the University of Florida after the items awarded to a vendor have been received, inspected, and found to comply with award specifications, free of damage or defect and properly invoiced. All invoices shall bear the purchase order number. Payment for partial shipments shall not be made unless specified. An original invoice shall be submitted. Failure to follow these instructions may result in delay in processing invoices for payment. Payment shall be made in accordance with Section 215.422 (1) (2) F.S. **VENDOR OMBUDSMAN:** The University's vendor ombudsman, whose duties include acting as an advocate for vendors may be experiencing problems in obtaining payment from the University, may be contacted at 352-392-1241.

(e) **ANNUAL APPROPRIATIONS:** The University's performance and obligation to pay under any contract awarded is contingent upon an annual appropriation by the Legislature.

(f) **CONDITION AND PACKAGING:** It is understood and agreed that any item offered or shipped as a result of this bid shall be a new, current standard production model available at the time of this bid. All containers shall be suitable for storage or shipment, and all prices shall include standard commercial packaging.

(g) **SAFETY STANDARDS:** Unless otherwise stipulated in the bid, all manufactured items and fabricated assemblies shall comply with applicable requirements of Occupational Safety and Health Act and any standards hereunder.

5. **CONFLICT OF INTEREST:** The award hereunder is subject to the provisions of Chapter 112, F.S. All vendors must disclose with their bid the name of any officer, director, or agent who is also an employee of the University of Florida. Further, all vendors must disclose the name of any University employee who owns, directly or indirectly, an interest of five percent (5%) or more in the vendor's firm or any of its branches.

6. **AWARDS:** As the best interest of the University may require, the right is reserved to make award(s) by individual item, group of items, all or none or a combination thereof; to reject any and all bids or waive any minor irregularity or technicality in bids received. When it is determined there is no competition to the

lowest responsible vendor, evaluation of other bids are not required. Vendors are cautioned to make no assumptions unless their bid has been evaluated as being responsive.

**7. INTERPRETATIONS/DISPUTES:** Any questions concerning conditions or specifications shall be directed in writing to the Purchasing Department. Inquiries must reference the date of bid opening and bid number. No interpretations shall be considered binding unless provided in writing by the University in response to requests in full compliance with this provision.

**8 NOTICE OF BID PROTEST BONDING REQUIREMENT:** Any person or entity who files an action protesting a decision or an intended decision pertaining to a competitive solicitation shall at the time of filing the formal protest, post with the University a bond payable to the University in an amount equal to: 10% of the estimated value of the protestor's bid or proposal; 10% of the estimated expenditure during the contract term; \$10,000.00; or whichever is less. The bond shall be conditioned upon the payment of all costs which may be adjudged against the person or entity filing the protest action. In lieu of a bond, the University may accept a cashier's check, bank official check or money order in the amount of the bond. **FAILURE OF THE PROTESTING PERSON OR ENTITY TO FILE THE REQUIRED BOND, CASHIER'S CHECK, BANK OFFICIAL CHECK OR MONEY ORDER AT THE TIME OF THE FILING THE FORMAL PROTEST SHALL RESULT IN DENIAL OF THE PROTEST.**

**9. GOVERNMENTAL RESTRICTIONS:** In the event any governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship or performance of the items offered in this bid prior to their delivery, it shall be the responsibility of the successful vendor to notify the purchaser at once, indicating in writing the specific regulation which requires an alteration. The University reserves the right to accept any such alteration, including any price adjustments occasioned thereby, or to cancel the contract at no expense to the University.

**10. LEGAL REQUIREMENTS:** Applicable provision of all Federal, State, county and local laws, and of all ordinances, rules and regulations shall govern development, submittal and evaluation of all bids received in response hereto and shall govern any and all claims and disputes which may arise between person(s) submitting a bid response hereto and the University, by and through its officers, employees and authorized representatives, or any other person, natural or otherwise; and lack of knowledge by any vendor shall not constitute a cognizable defense against the legal effect thereof.

**11. LOBBYING:** Vendor is prohibited from using funds provided under any contract or purchase order for the purpose of lobbying the Legislature or any official, officer, commission, board, authority, council, committee, or department of the executive branch or the judicial branch of state government.

**12. ADVERTISING:** In submitting a bid, the vendor agrees not to use the results therefrom as a part of any commercial advertising. Vendor may not use the names, logos, or trademarks of the University, its employees, or affiliates without the prior written consent of the University.

**13. ASSIGNMENT:** Any contract or purchase order issued pursuant to this Invitation to Bid and the monies which may become due hereunder are not assignable except with the prior written approval of the purchaser.

**14. LIABILITY:** The vendor agrees to indemnify and save the University of Florida, the State of Florida and the Florida Board of Governors, their officers, agents, and employees harmless from any and all judgments, orders, awards, costs and expenses, including attorney's fees, and also all claims on account of damages to property, including loss of use thereof, or bodily injury (including death) which may be hereafter sustained by the vendor, its employees, its subcontractors, or the University of Florida, the State of Florida and the Florida Board of Governors, their officers, agents, or employees, or third persons, arising out of or in connection with any contract awarded and which are the result of the vendor's breach of contract or of the negligent acts of the vendor, its officers, agents, and employees. This clause does not apply to contracts between government agencies.

**15. FACILITIES:** The University reserves the right to inspect the vendor's facilities at any time with prior notice.

**16. ADDITIONAL QUANTITIES:** For a period not exceeding ninety (90) days from the date of acceptance of any offer by the University of Florida, the right is reserved to acquire additional quantities up to but not exceeding those shown on bid or the bid level at the prices bid in this invitation. If additional quantities are not acceptable, the bid sheets must be noted "BID IS FOR SPECIFIED QUANTITY ONLY".

**17. SERVICE AND WARRANTY:** Unless otherwise specified, the vendor shall define any warranty service and replacements that will be provided during and subsequent to this contract. Vendors must explain on an attached sheet to what extent warranty and service facilities are provided.

**18. SAMPLES:** Samples of items, when called for, must be furnished free of expense, on or before bid opening time and date, and if not destroyed, may upon request, be returned at the vendor's expense. Each individual sample must be labeled with vendor's name, manufacturer's brand name and number, bid number and item reference. Request for return of samples shall be accompanied by instructions which include shipping authorization and name of carrier and must be received with the bid. If instructions are not received within this time, the commodities shall be disposed of by the University.

**19. INSPECTION, ACCEPTANCE AND TITLE:** Inspection and acceptance will be at destination unless otherwise provided. Title and risk of loss or damage of all items shall be the responsibility of the contract supplier until accepted by the University, unless loss or damage results from negligence by the University. The contract

supplier shall be responsible for filing, processing and collecting all damage claims. However, to assist him in the expeditious handling of damage claims, the University will:

- (a) Record any evidence of visible damage on all copies of the delivering carrier's Bill of Lading.
- (b) Report damage (Visible or Concealed) to the carrier and contract supplier confirming such reports in writing within 15 days of delivery, requesting that the carrier inspect the damaged merchandise.
- (c) Retain the item and its shipping container, including inner packing material until inspection is performed by the carrier, and disposition given by the contract supplier.
- (d) Provide the contract supplier with a copy of the carrier's Bill of Lading and damage inspection report.

**20. PATENTS, COPYRIGHTS, TRADEMARKS, ROYALTIES** and other Intellectual Property: The vendor, without exception, shall indemnify and save harmless the University and its employees from liability of any nature or kind, including cost and expenses for or on account of any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the University of Florida. If the vendor uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the bid prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work.

**21. CONFLICT BETWEEN DOCUMENTS:** If any terms and conditions contained within the documents that are a part of this ITB or resulting contract are in conflict with any other terms and conditions contained therein, then the various documents comprising this ITB or resulting contract, as applicable, shall govern in the following order of precedence: change order, purchase order, addenda, special conditions, general conditions, specifications, departmental description of work, and bid.

**22. MANUFACTURERS' NAMES AND APPROVED EQUIVALENTS:** Any manufacturer's names, trade names, brand names, information and/or catalog numbers listed in a specification are for information and not intended to limit competition. If bids are based on equivalent products, indicate on the bid form the manufacturer's name and number. Vendor shall submit with the bid, cuts, sketches, and descriptive literature, and/or complete specifications. Reference to literature submitted with a previous bid will not satisfy this provision. The vendor shall also explain in detail the reasons why the proposed equivalent will meet the specifications and not be considered an exception thereto. The University of Florida reserves the right to determine acceptance of item(s) as an approved equivalent. Bids which do not comply with these requirements are subject to rejection. Bids lacking any written indication of intent to quote an alternate brand will be received and considered in complete compliance with the specifications as listed on the bid form.

**23. NONCONFORMANCE TO CONTRACT CONDITIONS:** Items may be tested and/or inspected for compliance with specifications by any appropriate testing facilities. Should the items fail, the University may require the vendor to reimburse the University for costs incurred by the University in connection with the examination or testing. The data derived from any tests for compliance with specifications are public records and open to examination thereto in accordance with Chapter 119, F.S. Items delivered not conforming to specifications may be rejected and returned at vendor's expense. These items and items not delivered as per delivery data in bid and/or purchase order may result in vendor being found in default in which event any and all reprocurement costs may be charged against the defaulting vendor. Any violation of these conditions may also result in the vendor's name being removed from the University of Florida's vendor file.

**24. PUBLIC RECORDS:** Any material submitted in response to this Invitation to Bid will become a public document pursuant to Section 119.07 F.S. This includes material which the responding vendor might consider to be confidential or a trade secret. Any claim of confidentiality is waived upon submission, effective after opening pursuant to Section 119.07 F.S.

**25. DELIVERY:** Unless actual date of delivery is specified (or if specified delivery cannot be met), show number of days required to make delivery after receipt of purchase order in space provided. Delivery time may become a basis for making an award (see Special Conditions). Delivery shall be within the normal working hours of the University of Florida, Monday through Friday, unless otherwise specified.

**26. PUBLIC PRINTING - PREFERENCE GIVEN PRINTING WITHIN THE STATE:** The University of Florida shall give preference to vendors located within the state when awarding contracts to have materials printed, whenever such printing can be done at no greater expense than, and at a level of quality comparable to, that obtainable from a vendor located outside of the state.

- (a) **CONTRACTS NOT TO BE SUBLET:** In accordance with Class B Printing Laws and Regulations "Printing shall be awarded only to printing firms. No contract shall be awarded to any broker, agent, or independent contractor offering printing manufactured by other firms or persons."
- (b) **DISQUALIFICATION OF VENDOR:** Reasonable grounds for believing that a vendor is involved in more than one bid for the same work will be cause for rejection of all bids in which such vendors are believed to be involved. Any or all bids will be rejected if there is reason to believe that collusion exists between vendors. Bids in which the prices obviously are unbalanced will be subject to rejection.
- (c) **TRADE CUSTOMS:** Current trade customs of the printing industry are recognized unless accepted by Special Conditions or Specifications herein.
- (d) **COMMUNICATIONS:** It is expected that all materials and proofs will be picked up and delivered by the printer or his representative, unless otherwise specified. Upon request, materials will be forwarded by registered mail.
- (e) **RETURN OF MATERIAL:** All copy, photos, artwork, and other materials supplied by the University of Florida must be handled carefully and returned in good condition upon completion of the job. Such return is a condition of the contract and payment will not be made until return is affected.

**AWARD** - Award will be made on an "All-or-None Offer Total Offer" basis. Any contract awarded pursuant to this Bid / RFP will be awarded to the single best bidder/proposer or to none at all.

**CANCELLATION** - University Purchasing, by written notice, may terminate in whole or in part any purchase order resulting from this Invitation to Bid, when such action is in the best interest of the University. If the purchase order is terminated, the University shall be liable only for payment of services rendered prior to the effective date of the termination. Services rendered will be interpreted to include the cost of items already delivered, plus the reasonable cost of supply action short of delivery.

**RIGHT TO TERMINATE** - In the event that any of the provisions of a contract resulting from the bid award are violated by the successful bidder, the University may serve written notice upon such bidder of its intention to terminate the contract. Such notice is to state the reason(s) for such intention to terminate the contract, and unless within ten (10) days after serving such notice upon the bidder, such violation shall cease and satisfactory arrangements for correction are made, the contract shall, upon expiration of said ten (10) days, cease and terminate, but the liability of such bidder and his surety for any and all such violations(s) shall not be affected by any such termination.

**AVAILABILITY OF FUNDS** - The State of Florida's and the University's performance and obligation to pay under this contract is contingent upon an annual appropriation by the Legislature of the State of Florida.

**ASSEMBLY AND/OR PLACEMENT** - It will be the responsibility of the successful bidder to supply the necessary labor and materials for the placement of all equipment as specified in the Invitation to Bid and assure proper adjustment and satisfactory operation of all features prior to acceptance by the University.

**DEBRIS** - Successful bidder shall be responsible for the prompt removal of all debris which is a result of delivery, assembly, or installation.

**MANDATORY PRE-BID CONFERENCE** - A mandatory pre-bid conference will be held on Monday, August 24, 2009 at 2:00 PM ET. The purpose of this conference is to hear any and all questions arising from this Invitation to Bid. Answers to any questions that might arise will be in the form of an Addendum to the Invitation to Bid, prior to the bid opening. All such revisions must be acknowledged by signature and returned with the bid proposal. Failure to attend this meeting will result in the rejection of your bid.

**CANCELLATION** - All contract obligations shall prevail for at least \_\_\_\_\_ days after the effective date of the contract. After that period, for the protection of both parties, the contract resulting from the bid award may be canceled in whole, or in part by either party, by giving thirty (30) days prior written notice to the other party.

**QUALIFICATIONS OF BIDDERS** - This bid will be awarded only to a responsible bidder qualified by experience to provide the work specified.

If the bidder has not been pre-qualified with University Purchasing within the fiscal year (July 1 through June 30), the following evidence of eligibility may be required to be submitted:

- A. Evidence that bidder is licensed by the appropriate government agency to perform the work specified.
- B. Experience record showing bidder's training and experience in similar work.
- C. List and briefly describe projects of similar size and/or complexity which have been completed satisfactorily. List should include names of contracts, dates of contracts, location, and names and addresses of owners.

**INVITATION TO BID FORM** - All bids should be submitted on the University of Florida Invitation to Bid/Bidders Acknowledgment form with one (1) complete original bid and one (1) complete photocopy in a sealed envelope, with the following information on the outside of the envelope: bid number, date and time of bid opening, and Company name in order to be considered in the award.

**FAXED BIDS** - Faxed bids are authorized in response to this Invitation to Bid. Notify the purchasing office prior to faxing the bid.

It is the responsibility of the vendor to insure that the fax is received in the Purchasing and Disbursement Services office, prior to bid opening.

**EQUAL OPPORTUNITY STATEMENT** - The State Universities have established equal opportunity practices which conform to both the spirit and the letter of all laws against discrimination and prohibits discrimination based on race, creed, color, sex, age, national origin, marital status or religion. To be considered for inclusion as a supplier under this agreement, the proposer commits to the following:

- A. The provisions of Executive Order 11246, September 24, 1966, and the rules, regulations, and relevant orders of the Secretary of Labor are applicable to each order placed against this agreement regardless of value.

- B. If the proposer expects to receive \$10,000 in orders during the first 12 months of this agreement, a complete certificate of non-segregated facilities shall be attached to the proposal response.
- C. If the proposer expects to receive \$50,000 in orders during the first 12 months of this agreement and employs more than 50 people, standard form 100 (EEOO-1) must be filed prior to March 1 of each year.
- D. If the proposer expects to receive \$50,000 in orders during the first 12 months and employs more than 50 people, a written program for affirmative action compliance must be maintained by the proposer, subject to review upon request by the user agencies of this agreement.

If you have already complied with the above, please indicate \_\_\_\_\_.

**INQUIRIES** - The University will not give verbal answers to inquiries regarding the specifications, or verbal instructions prior to or after the award of the bid. A verbal statement regarding same by any person shall be non-binding. The University is not liable for any increased costs resulting from the Bidder accepting verbal direction. All changes, if necessary, shall be made by written addendum to the bid.

Any explanation desired by Vendors must be requested of the University of Florida Purchasing and Disbursement Services in writing, and if an explanation is necessary, a reply shall be made in the form of an addendum, a copy of which will be forwarded to each Vendor who has received a set of the bid documents from the University. Vendors obtaining bid documents from any other source must notify the University of their name, address, telephone, and facsimile numbers in order to receive any addenda. Direct all inquiries to Karen Olitsky at [kolitsk@ufl.edu](mailto:kolitsk@ufl.edu).

**INSURANCE – NON-CONSTRUCTION** – The Contractor shall purchase from and maintain with a company or companies, lawfully authorized to do business in Florida and acceptable to the University, such insurance as will protect the Contractor from claims arising out of or resulting from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. All insurance policies shall be issued and countersigned by representatives of such companies duly authorized for the State of Florida and shall be written on ISO standard forms or their equivalents. The Contractor shall file with the University Certificates of Insurance prior to the commencement of the work and shall file certificates of insurance evidencing the renewal of such policies at least thirty (30) days prior to the date the each applicable insurance policy is scheduled to expire.

Contractors Liability Insurance - The Contractor shall provide the ISO Commercial General Liability policy for general liability coverage's for limits of not less than of \$500,000 per occurrence. Coverage's shall be maintained without interruption from date of commencement of work until date of final payment.

Worker's Compensation - The Contractor shall secure and maintain for the life of this Agreement, valid Worker's Compensation Insurance as required by Chapter 440, Florida Statutes.

Automobile Liability - The Contractor shall secure and maintain during the life of this Agreement, Automobile Liability insurance on all vehicles against bodily injury and property damage in the amount of at least, \$500,000 per occurrence.

**PROTECTION OF PROPERTY** - The successful bidder shall at all times guard against damage or loss to the property of the University or of other vendors or contractors and shall be held responsible for replacing or repairing any such loss or damage. The University may withhold payment or make such deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the successful bidder or his agents. The contractor shall provide all barricades and take all necessary precautions to protect buildings and personnel.

**OSHA REGULATIONS** - It is the responsibility of the contractor to insure that ALL OSHA regulations applying to this job are adhered to at all times.

**PRISON REHABILITATIVE INDUSTRIES** - It is expressly understood and agreed that any articles which are the subject of, or required to carry out this contract shall be purchased from Pride of Florida in the same manner and under the procedures set forth in Section 946.515 (2), (4), Florida Statutes; and for purposes of this contract the person, firm or other business entity carrying out the provisions of this contract shall be deemed to be substituted for this agency insofar as dealings with such corporation. Contact, Terrie Brooks, Bid Administrator, PRIDE of Florida, 2720 Blair Stone RD, Suite G, Tallahassee, FL 32301

**BID DELIVERY** - If this bid will be mailed through the U. S. Postal Service as regular mail, address the bid to the PO Box as shown on the Invitation to Bid Acknowledgment Form.

If a company representative plans to attend the bid opening; if the bid will be hand delivered; or if the bid will be delivered by a service other than the U. S. Postal Service regular mail, i.e., Federal Express, Airborne, United Parcel Service, Courier, U. S. Postal Express Mail, etc., address the bid to the Building and room number as shown on the Invitation to Bid Acknowledgment form.

**PUBLIC ENTITY CRIME** - A person or affiliate who has been placed on the convicted vendor list by the Department of Management Services, State of Florida, may not submit a proposal on a contract to provide any goods or services, including construction, repairs, or leases and may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant for the University of Florida for a period of 36 months from the date of being placed on the convicted vendor list, a "person" or "affiliate" includes any natural person or any entity, including predecessor or successor entities or any entity under the control of any natural person who is active in its management and who has been convicted of a public entity crime (Rule 6C1-3.020 FAC).

**FEDERAL DEBARMENT** - By signing this bid/proposal, the offeror certifies, to the best of its knowledge or belief, that the offeror and its principals are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency; or have not within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them in connection with a public contract or subcontract; or are not criminally or civilly charged by a governmental entity with commission of offenses; or has not within a three year period preceding this offer had a contract terminated for default by any Federal agency. (Federal Acquisition Regulation 52.209-5)

**DISCRIMINATION** – An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not award or perform work as a contractor, supplier, subcontractor or consultant under contract with any public entity, and may not transact business with any public entity.

**MINORITY BUSINESS ENTERPRISE** - The University of Florida is an equal opportunity institution and, as such, encourages the use of Minority Business Enterprises (MBEs) in the provision of construction related services. MBEs should have a fair and equal opportunity to compete for dollars spent by the University of Florida to procure construction-related services. Competition ensures that prices are competitive and a broad vendor base is available. For questions regarding the University's MBE policy and MBE opportunities contact Faylene Welcome, Director of Small Business and Vendor Diversity, (352) 392-1331.

**AMERICANS WITH DISABILITY ACT** - If special accommodations are needed in order to attend a pre-proposal meeting or a proposal opening, contact Quintina R. Hale at 352-392-1331 X219 or email at qhale@ufl.edu, three business days prior to either Pre-Proposal meeting or Proposal opening.

**NOTICE TO CONTRACTOR:** - The University shall consider the employment by any contractor of unauthorized aliens a violation of section 274A(e) of the Immigration and Nationality Act. Such violation shall be cause for unilateral cancellation of this contract.

**USE OF TERMS:** - The terms University of Florida, University, (dept's initials Ex: OIR) and (Departments name Ex: Office of Instructional Resources) are used synonymously in this Request For Proposal/Invitation to Bid unless otherwise indicated. The terms vendor, proposer and contractor are used synonymously in this RFP/ITB unless otherwise indicated.

**ERRORS** – The University is not liable for any errors or misinterpretations made by the proposer in responding to this Request for Proposal.

**CONTRACTOR SHALL IMPLEMENT** - a drug-free workplace program in accordance with the requirements of Section 440.102, Florida Statutes.

**Bid Specifications for  
the Systems Integrator**

University of Florida  
**21<sup>st</sup> Century  
Newsroom**



**COLLEGE OF JOURNALISM  
AND COMMUNICATIONS**

## **COLLEGE OF JOURNALISM AND COMMUNICATIONS**



This is an **ALL-OR-NOTHING** bid. Please read all specifications thoroughly.

All bids must meet or exceed these specifications. If the integrator is unable to meet any specifications, it should be so noted on the reply as well as a reason why that specification is not met.

Delivery shall be F.O.B. (Destination) to:

**COLLEGE OF JOURNALISM AND COMMUNICATIONS**

2200 Weimer Hall

Gainesville, Fl. 32611

**Section One**

**GENERAL SCOPE OF WORK**

**1. The COLLEGE OF JOURNALISM AND COMMUNICATIONS will contract a Systems Integrator who will install, test, and implement all required elements of the Harris Equipment Package and other components of the 21<sup>st</sup> Century Newsroom. (See Addenda A and B). This will also include all aspects of the Professional Communications document. See below:**

# Scope of Work

## **I. Project Description**

### **1. The Project**

Weimer Hall, located on the main campus of the University of Florida (UF) in Gainesville, houses the College of Journalism and Communications (CJC). Weimer Hall is considered to be among the finest educational journalism facilities in the country. The 21<sup>st</sup> Century Newsroom project, described in this document, will enhance the current infrastructure and solidify the elite status of the facility.

The main objective for this project is to build a “21<sup>st</sup> Century Newsroom” and install a central digital storage system that will improve the current digital media workflow for the College of Journalism and Communications at the University of Florida.

A project overview of the proposed workflow is detailed in the following sub-section.

Along with the workflow enhancement, a new digital baseband infrastructure is to be constructed.

A centralized data storage system as well as a new digital baseband system will provide a seamless means of signal connectivity to and from the numerous edit suites, Newsroom, and the Broadcast Production locations for the facility.

As part of the project, the systems integrator is required to provide the following;

1. A detailed project timeline.
2. A detailed design in CAD for all new systems, which is required to follow the specifications, defined in Section III of this document.
3. Installation of the new equipment and testing of the new systems (Detailed in addenda A and B).
4. Training for the engineering and operation of said systems.
5. Full documentation of the as-built installation.

## 2. Project Overview

As previously stated, the new data and baseband infrastructures will allow for a much improved system-wide workflow. A variety of digital media formats will be ingested into the system in various methods. Using video tape machines and a PC-based ingest application, tapes can be ingested into the system and catalogued in the media database. Additionally, files may be transferred to the system from other sources with network access or from the World Wide Web. Users will continue to have the capability to use portable drives to move media content (audio, video, stills) to and from the system.

As part of the new workflow process, media content will be transcoded, to meet customer format requirements, as they are moved from the ingest server to a centralized storage system. Simultaneous low-resolution (Low-Res) proxies will be generated, and then be accessible from a browse client. The browse clients can access media content from any location that has permissions to connect to the network (local or VPN Access), and will have the capability of searching the media database based upon title, date recorded, format, duration, and program type. The browse clients will allow off-line edit capability and EDL generation for use with Final Cut Pro editors. The application will also support "WMF" or "QuickTime" file playback. After ingest, users will have the capability of flagging material for archive on a LTO-3 tape archive system. The central storage system will be adequate in size to accommodate media storage for students to be purged on a semester-by-semester basis. An application server will also have the capability for storing shared media for the purpose of web content creation. A Windows domain controller will be utilized for assigning folder access permissions. Shared storage application passwords and network permissions will provide additional security.

The facilities in which the new systems are to be installed involve the build out of three rooms located in the west end of the ground floor of Weimer Hall. These include the 21<sup>st</sup> Century Newsroom/studio, a viewing/teleconference room and a reception area. The equipment racks will be housed in an Engineering equipment room on the 1<sup>st</sup> floor in room 1024a. There will be an additional FCP/News Lab located on the 2<sup>nd</sup> floor in room 2138, Low res editors will be located in the existing WUFT Newsroom. Ties to the other CJC Multimedia Properties will be determined during the project.

A new multi-viewer system is to provide routable and configurable displays for the 21<sup>st</sup> Century Newsroom/studio area. The system will also allow connectivity to other large display systems located in various remote locations.

A wideband digital routing system will be installed to control digital video and audio internal to the 21<sup>st</sup> Century Newsroom/studio as well as to existing TV and radio broadcast station facilities.

Connectivity to an existing intercom system will provide for communications with the TV and radio broadcast station facilities, as well as between the Engineering equipment room and 21<sup>st</sup> Century Newsroom/studio.

Included in the Newsroom will be supplemental lighting fixtures for production, as well as a HD-SD studio camera with the appropriate pedestal and studio controls to be used as a mobile camera system for the Newsroom area. Studio-type breakout boxes will be located in various locations to provide power, intercom, and CCU connectivity.

The 21<sup>st</sup> Century Newsroom/studio will be configured as a hybrid work area that includes (in part) a traditional television studio, a fully functional television newsroom and a media room with video wall and surround-sound audio system. There will be numerous workstations for media production, Web content creation, and media asset management.

The adjacent Viewing/Teleconference Room and reception area will have LCD displays that are to be connected to the new system. The quantity of LCDs in the newsroom, conference room and reception area is yet to be determined. The Viewing Room will also include an audio system and teleconferencing equipment with output accessible through a multi-viewer system. HD-SDI will be utilized to provide additional multi-viewer outputs to various LCD displays in predetermined locations within the CJC facility. Detailed below is a basic block diagram that reflects some of the hardware to be utilized.

### **3. Work Site**

The work site for the project is located in Weimer Hall, as previously stated. The facility is located at G037/1024a Stadium Road in Gainesville, Florida. The work areas in the building are expected to be clean and clear of any obstruction prior to the first shipment of equipment. Parking will be on-site in designated areas and will require all members of the installation crew to obtain parking permits.

Inside space will be available at the site for the storage and staging of equipment and supplies in an area designated by the University of Florida.

The University will make every reasonable effort to maintain a secure facility; however, the University will not take responsibility for an integrator's equipment, supplies, or any project equipment that has not been signed for by UF.

The integrator will be responsible for the unloading of any equipment or materials at the work site that the integrator is supplying for the project. The integrator will also be responsible for keeping their work area clean, orderly, and safe. The integrator will remove all trash from their work area at the end of each work day. Integrators will be expected to follow all OSHA regulations.

#### **4. Timeline and Plan**

UF will start this project once the Integrator is selected from among all bidders. A strict time line will be determined at this point. UF is very eager to have this up and running ASAP!! All equipment from the Harris Package has been delivered and ready to be installed.

#### **5. Key Goals**

##### 1. Architectural

- a. Work in conjunction with the University to identify and recommend technical requirements and issues related to building
  - i. Room layouts-space planning
  - ii. Access flooring, cable tray plans, cut outs, etc.
  - iii. Special construction details

##### 2. Electrical

- a. Work in conjunction with the University to identify and recommend electrical requirements related to the technical portion of the project.
  - i. Technical power requirements for each room and each enclosure
  - ii. Power grounding
  - iii. Technical grounding
  - iv. Conduit requirements
  - v. UPS
- b. Identify building wiring requirements related to technical equipment connectivity.
  - i. Camera
  - ii. Fiber
  - iii. Router Control
  - iv. A/V panels (RTS, MIC, etc.)

3. Mechanical

a. Work in conjunction with the University to identify and recommend requirements on the following:

- i. Heat loads
- ii. Mechanical noise
- iii. Temperature and humidity requirements

4. Define technical Infrastructure

- a. Design concepts, with conceptual drawings
- b. Signal types
- c. Cables and connectors
- d. Patch panels and the use of in the system
- e. Cabling and lacing standards
- f. Equipment mounting standards
- g. Equipment grounding standards
- h. Signal grounding standards
- i. Documentation standards
- j. Equipment system names
- k. Signal mnemonics
- l. Cabling distribution infrastructure
  - i. Conduit
  - ii. Raceways
  - iii. Ladder trays
  - iv. Delivery systems
  - v. Cable/multi cable/fiber

5. Gig-e and Fiber Networks

- a. Transmissions
- b. Technical Infrastructure

6. Reference signals

- a. NTSC reference requirements
- b. SD-SDI reference requirements
- c. HD-SDI reference requirements
- d. AES reference requirements
- e. DARS reference requirements
- f. Timecode reference requirements
- g. Clock reference requirements
- h. Test Signals
- i. Determine patch bay requirements

7. Routing

- a. NTSC routing requirements
- b. SD-SDI routing requirements
- c. SD-HDI routing requirements
- d. Analog stereo audio routing requirements
- e. AES routing requirements
- f. Control routing requirements
- g. Timecode routing requirements
- h. Tie line management requirements
- i. Determine patch bay requirements

8. Distribution

- a. NTSC distribution requirements
- b. SD-SDI distribution requirements
- c. SD-HDI distribution requirements
- d. Analog stereo audio distribution requirements
- e. AES distribution requirements
- f. Control distribution requirements
- g. Timecode distribution requirements
- h. Determine patch bay requirements

9. Signal Processing

- a. NTSC to component SD-SDI processing requirements
- b. Analog component/RGB to component SD-SDI processing requirements
- c. SD-SDI to HD-SDI processing requirements
- d. SD-SDI to SMPTE 310 processing requirements
- e. HD-SDI to SMPTE 310 processing requirements
- f. SD-SDI to NTSC processing requirements
- g. SD-SDI to Analog component/RGB/SVGA processing requirements
- h. HD-SDI to SD-SDI processing requirements
- i. Analog stereo audio to AES processing requirements
- j. AES to analog stereo audio processing requirements
- k. Multiplexing processing requirements
- l. De-multiplexing processing requirements
- m. Determine patch bay requirements

10. Source and Destination

- a. Source table

- b. Destination table
  - c. Signal naming conventions
  - d. Fiber
11. Digital Transport Stream Multiplexing and Coding
- a. External content delivery
  - b. Customer content delivery system
    - i. Digital
    - ii. Analog
  - c. Internal content system
  - d. Recording & playout of digital content
  - e. Metadata requirements
12. Data & Asset Management System
- a. Archiving requirements
  - b. Recording and playing out system
  - c. Data management
  - d. Asset management
  - e. VTR requirements
  - f. Server requirements
  - g. Determine storage size requirement
  - h. Determine storage location
  - i. Determine projected data growth
  - j. Determine backup & restore requirements
  - k. Determine archiving requirement
  - l. Determine storage monitoring requirement
  - m. Determine user access requirement
  - n. Determine bandwidth requirement

- o. Determine connectivity requirement between sites (firewall settings)
  - p. Develop backup and restore procedure
  - q. Develop archiving policies
  - r. Develop user groups based on access requirement
  - s. Identify Ingest and play out system (location, format, performance)
  - t. Disaster recovery plan
13. Audio System
- a. Audio content delivery system
  - b. Customer audio content system
  - c. Internal audio requirements (including Embedded requirements)
  - d. Dolby E requirements
  - e. Dolby Digital requirements
  - f. SAP and multilingual requirements
14. Automation – to interface with Edit Systems
- a. Playout control
  - b. Ingest control
  - c. Conceptual layout
  - d. External play-list interface
  - e. External sources
  - f. Ingest requirement
  - g. Data movement requirement
  - h. Redundancy requirement
  - i. Disaster recovery plan
15. Intercom System
- a. Station locations
  - b. IFB requirements

16. Information Services Infrastructure

- a. Topology
- b. Wide area network
- c. Local area network
- d. VLAN and subnets
- e. Network Management

**6. Plasma/LCD displays for key areas - required specifications**

- a. Newsroom
  - i. Space planning
  - ii. Distance specifications
  - iii. Screen Size
  - iv. Height
  - v. Mounting configuration
- b. Viewing/Conference Room
  - i. Space planning
  - ii. Distance specifications
  - iii. Screen Size
  - iv. Height
  - v. Mounting configuration
- c. Remote sites
  - i. Space planning
  - ii. Distance specifications
  - iii. Screen Size
  - iv. Height
  - v. Mounting configuration

## **II. Project Standards**

### **1. Design and Installation**

The design concept for this project is that all sub-systems be engineered and installed in line with current methodology, current standards and innovative thinking. The system design should be developed with an ergonomically sound manner, and utilize carefully planned cable management, allowing for ease of use and accessibility to perform systems maintenance.

The functionality of each area will be discussed further in this document.

The design build drawings will be broken down into groups based on signal flow, video, audio, control and intercom, etc. Each area should have drawings for each signal type. Mixing signal types on one drawing is not acceptable. The drawings should be drawn such that the signals flow from left to right.

The installation of this project will be carried out to a very high standard, with neat and labeled cabling. There are currently no plans to use plenum cabling in the work area.

The systems integrator, in collaboration with UF, will be responsible for a line item inventory of any or all Owner Furnished Equipment that will need to be repurposed in the new area.

More information on standards is discussed further in this document.

### **2. Project Approval Process**

At the completion of major sections of the design, copies of the drawings will be presented to UF for approval. This applies to schematic drawings, elevations, and the console layouts. These drawings will be signed indicating the approval to build the system based on the signed design drawings. However, changes required to correct poor design, and/or to address systems that are not operating to specification are the responsibility of the integrator, who will bear that cost for the change.

Once the system is installed and demonstrated to the University that it is complete and functional to this manufacturers specification, with the exception of punch items, UF will sign to accept that the project is substantially complete. When all the punch items have been resolved, all training has been completed, and a full and final documentation package has been delivered to the University, the University will sign the final acceptance form indicating that the project is complete.

### **3. Documentation Standards**

A complete set of build documents will be provided to UF for approval before the build begins. When approved, a final set of the approved drawings will be provided to UF in VidCad / AutoCad format on CD and hard plotted copies.

### **3.1 Rack and Console Layouts**

The systems integrator shall provide plan and elevation drawings showing the exact location of all equipment mounted in the equipment racks and in custom consoles.

### **3.2 Console Design and Layout**

The systems integrator shall provide drawings showing custom consoles and other custom furniture. These drawings shall provide sufficient detail for UF, which will clearly reflect the layout of the consoles. They will also be sufficiently detailed so that the console manufacturer can utilize them to develop the build schedule. Any errors in the console design are the responsibility of the systems integrator and UF.

### **3.3 System Documentation**

Once the project reaches the point of “Substantial Completion”, the University will receive a set of “red lined” as-built drawings to use until the project’s as-built documentation package has been completed.

The as-built package will include:

1. Two bound architectural “D” size copies, as well as an electronic copy of the system drawings.
2. Two bound copies, as well as an electronic copy of the system wire list and equipment list.
3. All unused accessories, hardware, and panels that were shipped with or were part of the installed equipment; these parts will be packaged and marked as to which piece of equipment they relate to.
4. All software; the software will be packaged and marked as to which piece of equipment it relates to.
5. An electronic copy and a hard copy of any equipment configurations or setups.
6. An electronic copy and a hard copy of all passwords.

### **3.4 Cable Numbering**

1. Every cable assigned a number shall be clearly shown on the drawings and in the cable database.

2. Cable number signal designations prefix shall be as follows:

V = Analog composite video

R = Red or Pr channel of analog component video

B = Blue or Pb channel of analog component video

G = Green or Y channel of analog component video

DV = Digital video (any format)

A = Analog audio

DA = Digital audio (any format)

CTL = Control

DAT = Data (including LAN or WAN)

CLK = Clock

TC = Timecode

IC = Intercom

REF = Reference

For example, a digital video cable would be labeled DV1020, or a digital audio cable could be labeled DA3214.

3. Cable numbering shall follow some type of logical order. As an example, each area of the system shall have its own block of cable numbers such as all cable numbers in MCR are in the 2000's or all cables used with the satellite receivers are numbered 4000. Cable numbers will be labeled on both ends of the wire.

4. For analog audio, odd channels shall use odd cable numbers. Likewise, even channels shall use even numbers, i.e., channel 1 (left) would have an odd number and channel 2 (right) would have an even number. For example, a left channel audio signal of stereo pair would be labeled A0123, and the right channel would be labeled A0124.

5. In multiple level AES digital audio systems, numbers for cables carrying AES streams with channels 1 and 2 shall have odd numbers and those carrying channels 3 and 4 shall have even numbers.

6. Each multi-pair cable will be assigned its own cable number to maintain the numbering conventions for jack-fields or patch panels. Assign a base number to the overall jacket and individual cable numbers to the pairs within the jacket. The numbers should sequence in the cable color order as per the manufacturer.

7. Clear indication of whether an analog audio shield should or should not be connected at each end of the cable shall be shown on the drawings.
8. All cables attached to a patch point will use the patch point as a driver for its cable number. The first one or two letters defines the signal type. The first two numbers would define the patch panel number, and the last two numbers would define the point on the patch panel to which the cable is connected. For example, a digital video cable attached to patch panel 5 on port 23 would be DV0523. The bottom row of the patch panel would continue the numbering from the top. This would dictate that on a 24-position patch panel, the cable on the bottom of patch point 23 in the example above would be DV0547.
9. The labeling of patch points on the drawings must follow this format. The patch panels will be numbered in sequence from the top of the rack down. The patch points on the top row of a rack will be labeled as T01 through T24 for a 24-row patch bay. The designation T is for top. The bottom row shall be labeled B25 through B48. The B designation is for bottom.
10. Patch panel labels will be machine printed. On the panels, each source jack will be marked with the name of the source signal (MCR PGM, VTR02, SAT03, etc.) and the source equipment (DVDA01, DAC02, AVFS 01, etc.). The destination jack will be marked with the destination equipment and the connection on that equipment: example, RTR01 J23 or SWR02 input 6. Crucial "live circuits" will be labeled in red.
11. Each piece of equipment shown on the drawings shall have a unique system name. The system names will all have a prefix string followed by a number. The prefix string identifies the function of the device. The following is a list of examples that must be adhered to.
  - V-ADC = Video Analog to Digital Converter
  - V-DAC = Video Digital to Analog Converter
  - DVFS = Digital Video Frame Synchronizer
  - AVFS = Analog Video Frame Sync
  - DVDA = Standard Definition Digital Video Distribution Amplifier
  - HDVDA = High Definition Digital Video DA
  - VDA = NTSC Video Distribution Amplifier
  - A-ADC = Audio Analog to Digital Converter
  - A-DAC = Audio Digital to Analog Converter
  - A-EMB = Audio Embedder
  - A-DSB = Audio De-Embedder

ADA = Analog Audio Distribution Amplifier

DADA = Digital Audio Distribution Amplifier

ADLY = Audio Delay

VDLY = Video Delay

VS = Video Server

VTR = Video Tape Recorder

MON = Monitor

WFM = Waveform Monitor

#### **4. Cable and Connectors**

The following are the cable types specified for this project:

Belden 1505A for analog video and HD/SD for short lengths

Belden 1694 for analog and HD/SD signals for extended lengths

Belden 9451 for analog audio signals

Belden 1800B for AES

Belden 7881A & 7918A for data networking

Belden 1419A or equivalent for serial data communications

*If it is determined that a cable type is needed that has not been specified above, please submit that request in writing to the University of Florida for approval.*

The following are the connector types specified for this project:

ADC BNC-1N (BNC type connector for Belden 1505A)

ADC BNC-8N (BNC type connector for Belden 1694A)

Neutrik NC3FX (female) or NC3MX (male) XLR connectors

*If it is determined that a connector type is needed that has not been specified above, please submit that request in writing to the University of Florida for approval.*

## 5. Cabling Standards

### 5.1 Rack Cabling

1. Obtain all cables related to the rack being wired. These should have been identified on the run sheets for source or destination.
2. Cables shall be sorted by cable type, signal type, and color.
3. A plan for placement of cable bundles within each rack shall exist.
4. The following standard must be followed when laying out bundles in a rack from the back of the equipment to the back of the rack in the following order:

Back of Equipment

Analog Audio

Digital Audio 110 Ohm AES

Microphone Level

Digital Audio 75 Ohm AES

Analog Video

Reference

Digital Video Standard Definition

Digital Video High Definition

Timecode

Control

Data Network

5. From the rear of the rack, start with the innermost bundle and wire from the top to the bottom of the rack.
6. Take care not to cross any wires within bundles. The bundle should have a perfectly round shape that will not cross each other, from top to bottom.
7. Tie wraps should be properly sized and appropriately spaced. Velcro Ties will be used for HD and SD cabling.
8. Cable ties will be randomly spaced with no more than 12 inches between ties.
9. No cable shall span more than 12 inches without support in the interior of the rack.

10. Care should be taken when tightening cable ties. Ties should allow for cables to move slightly within the bundle at the tie location. Ties should not distort the geometry of the cable in any way. Velcro ties will be used for HD and SD cabling.
11. When securing data network cabling, it must be ensured that no cable is pinched or dented. These particular cable ties should be looser than all others.
12. Excess tie length shall be cut close to the latch to prevent chances of arm and hand scratching when reaching into the rack.
13. Cable bundles shall be laced in a manner to allow access to connectors and service points on equipment without the need to cut the lacing.
14. No signal cables should run parallel with AC power cords with racks and consoles, etc.
15. Service loops shall be provided on all equipment mounted with slides. The loop shall provide enough length to allow the mount to be fully extended.
16. Equipment mounted in racks and consoles where rear access is not provided shall also be cabled with service loops. These loops shall be long enough to allow for their removal and rewiring from the front, preferably allowing the equipment to sit on the closest surface while disconnecting or rewiring it. Equipment mounted in racks and consoles where rear access is limited by obstructions behind, above, or below affected equipment shall follow the same rule.
17. Inside racks or consoles, all cables of like signal types shall be laced together, i.e., all video cables bundled together, all sync cables bundled together, etc.
18. Any cable bundles that are in open view of the room's occupants shall be sleeved with some type of decorative cover.
19. All connector shells (covers) shall be metallic, either plated or solid type.
20. All cables require enough additional length on each end to allow for re-termination, if necessary.
21. Cables shall have a bend radius of no less than three times the diameter of the cable.
22. Once all terminations have been made, they shall be inspected to ensure all connections are in the locked position.
23. Connected ends shall be highlighted on Shop/Redline set of drawings.

## 5.2 Floor and Ceiling Cable Management

1. For all schemes of routing, no point in the path shall be subject to a bend radius of less than 10 times the cable diameter, or subjected to the bend radius less than that as specified by the manufacturer.
2. Where applicable, cable pathways which are established beneath raised floors must remain free and clear of electrical conduits, plumbing, and fire system detectors. No pathway that is run within two feet of electrical conduits or raceway shall run parallel with it for more than 10 feet. Cables will not be run on diagonals and only in directions parallel to the walls and/or racks. Exceptions have to be approved in advance by UF.
3. No cable shall be spliced, barreled, or connected anywhere except at its final destination. If a cable is too short for any reason, it must be removed and replaced with a new one.
4. No unused cables, unless planned for a specific purpose, should be left anywhere. On longer runs when spares are usually pulled, they must be documented and labeled. All spares must be noted on Shop/Redline set of drawings.
5. Bundles within pathways shall only include cables that carry one type of signal.
6. Cables within bundles shall not cross over each other but should run parallel to one another.
7. Cables shall be neatly bundled when placed in pathways, cable trays, and ladders.
8. Cables shall be run to enable the future removal of cable without the need to unweave or untangle them.
9. When installing cables in trays, attention must be taken to protecting and avoiding any fire detection equipment.
10. Cables in ceilings or vertical runs shall run in cable trays and must be supported or tied every 24 inches.
11. Care shall be taken to ensure that cables being run through conduits will not be abraded during the pull.
12. In no case shall bundles be run along and tied to rack exteriors, electrical conduit, plumbing, or any other items
13. All cables shall have additional length added at each end to allow the cable to be re-terminated if necessary.
14. Cables carrying high level signals shall be kept separate from those carrying low level signals.

15. Cables above the ceilings shall not be laced and shall follow pathways determined by UF and the integrator.
16. Cables crossing electrical conduits or cabling shall cross at a 90-degree angle.
17. The following cable color code shall be used on this project:

Digital SD Video Purple

Digital HD Video Orange

Digital Audio Purple

Analog Video Blue

Analog Component Red/Blue/Green

Sync Black

Tri-Level Sync Black

Key White

Analog Audio, Mono Brown

Analog Audio, Left (ch1) Black

Analog Audio, Right (ch2) Red

Timecode and Clock Green

Control/Data Gray

LAN 1000 Base T Blue

LAN Cross-over Red

Intercom Yellow

Multi-Core "Snake" Cable Per Manufacturer

This color code does not pertain to cables provided with equipment by the manufacturer.

18. All cables shall be labeled on both ends.
19. Cable labels shall be the self-laminating type and machine printed.
20. Cable labels shall be placed 12 inches from the cable end of the connector.

21. All cables will be tested for continuity and connectivity performance after installation.

## **6. Equipment Rack and Mounting Standards**

1. All new Middle Atlantic racks will be used (UF furnished).
2. Overall condition of the racks must be observed and any concerns should be noted and brought to the systems integrator Project Manager's attention so that they can be rectified.
3. Once unpacked, inspect the racks and follow the instructions above if any damage or problems are noted.
4. Align front rack rails evenly and tighten mounting bolts. This will prevent the rails from sliding during shipment and placement at final destination.
5. Loosen rear rack rails and set them as far forward as possible. Leave these loose until all equipment is loaded in rack.
6. Mount power strips to the far rear of rack. If only one is used it must be placed to the left, as viewed from the rear. If more than one is used, mount it according to the customer's request.
7. Lacing bars are to be mounted to the right and rear of the rack, as viewed from the rear. The amount of lacing bars shall be determined by the amount of cables.
8. Place ground bar in front of left rear power strip and tighten.
9. Locate rack layout for specific rack being worked on.
10. Load rack from bottom to top.
11. When unpacking each piece of equipment, all accessories and manuals must be secured together.
12. Using a permanent marker, mark accessories with make, model, and rack number. If there are two of a kind in the same rack, mark the actual rack height, as well.
13. Once all equipment for a specific rack being worked on is loaded, place the rear rack rails to align with the longest piece of equipment and tighten mounting bolts.
14. Attach all rear supports that came with the equipment. Some modification may be required.
15. All equipment will be mounted to the racks with rack screws using all of the screw holes located in the equipment face plate.
16. All heavy equipment mounted using only the face plate should have additional support at the rear. Such support should be attached to the rear rack rails.

17. All equipment that needs routine service should be mounted on sliding rack shelves or runners if the lid has to be removed for service. One such example would be video tape recorders.

18. Install all power cords. These should not be tied to the rack in any way. AC cord length should be tied into a loop of consistent size and two tie wraps, attached evenly on both ends of the loop, should be applied. This will create a neat elongated bundle. Any excess cable length is to be removed and new ends installed with the proper Hubbell AC connector.

19. If equipment is on a slider, make sure there is sufficient cord to extend the equipment out to the end of slides for servicing. Pay close attention to allow movement for this purpose.

20. Install a ground wire from each piece of equipment to the ground bar. Most manufacturers have a lug to attach ground wire to. If one is not available, locate an appropriate grounding location. Ground wires should be neatly placed to match power cord placement. Ensure ground wire is kept as short as possible. Proper ground resistance shall be no more than .01 ohms.

21. If the equipment is on a slider, make sure there is sufficient ground wire to extend the equipment out to the end of slides for servicing. Pay close attention to allow movement for this purpose.

22. Ensure that ground wire is easily accessible for any future removal of equipment.

23. Place any remaining accessories with the manual.

24. Place all manuals in a project manual box.

25. Note on the Shop/Redline set of rack layout drawings the make and model of all equipment mounted in the rack.

26. The racks shall have sufficient airflow and spacing to keep the equipment from over heating. Airflow and cooling will be from the bottom.

27. The end racks shall have side panels.

28. All racks shall have vented tops.

29. All unused spaces in the racks shall have blank panels fitted into the unused space.

30. Forced cooling will be installed where necessary.

## **7. System Testing**

### **7.1 Equipment Operation Tests**

1. The systems integrator will test all equipment in the system, whether provided by them or by UF, to verify proper operation. Any equipment supplied by the systems integrator, if found to be defective, is the responsibility of the systems integrator and manufacturer to have repaired.
2. UF will be responsible for the repair of any defective equipment furnished by them.

### **7.2 System Interconnect Continuity Tests**

The systems integrator shall verify signal continuity of cables installed by them. Testing shall verify that the correct signal, at the correct level, is present at the destination of the cable. This includes, but is not limited to, testing for signal degradation due to crushed coaxial cables, poor connector installation, analog audio polarity reversal, missing phase on balanced audio, analog audio shield wiring errors, multi-conductor control wiring errors, serial communications wiring errors, etc.

### **7.3 System Alignment**

1. The system shall be adjusted to provide for properly equalized and level-adjusted analog video levels.
2. The timing of the video signals shall be done such that synchronous switching at the switchers and the routers is achieved.
3. The level of audio signals will be properly adjusted to provide a system with input to output gain of +4 dB.
4. The nominal level for analog audio shall be 0dBu.
5. The nominal level for digital AES audio shall be -22dBFS.
6. Adjustments and tests shall be performed on digital video systems to ensure compliance with SMPTE 252M, 259M, 292M and 296M.
7. Any other adjustments needed to provide proper system operation shall be performed.
8. The manufacturer must provide product on-site commissioning for any major product or system.

## **7.4 Proof of Performance**

The systems integrator shall perform sample path tests witnessed by a UF representative as part of a formal proof of performance procedure. This is in addition to providing the Final Test Statement.

## **7.5 Final Test Statement**

The systems integrator shall supply a written and signed statement indicating that the system was designed, constructed and tested in strict conformance with every specification listed in this document. Where exceptions were approved by UF, they shall be noted as such in this statement.

## **7.6 Training**

System orientation training will be provided to UF by the systems integrator. Four sessions will be held at mutually agreeable times.

All major components of the new systems (the baseband router, media management system, and archive systems for example) must have on-site training provided by the manufacturers of said equipment.

## **8. Power and Grounding**

### **8.1 Responsibilities**

All power will be supplied and connected by UF. The systems integrator will work with the University to confirm that the power required by the system, the racks and the consoles is adequate.

### **8.2 Equipment Racks and Consoles**

Each rack shall receive two 20 amp circuits from different breakers. All equipment should be supplied with redundant power supplies when available. All the primary power supplies should be connected to the primary 20 amp circuits and all the redundant power supplies should be connected to the redundant 20 amp circuit. The power will be hardwired by an electrician contracted by UF.

Each rack is required to contain enough power distribution for all of the loaded equipment. All power cords are to be neatly laced and dressed in, and should meet the local electrical codes. Any "wall warts" or external transformer power supplies should be secured to the power outlets by tie wraps.

### **8.3 Grounding**

An isolated technical ground connection will be provided by UF. The system should provide a 0.01 ohm path to ground. All the equipment and racks should be connected to this ground. This grounding system will be extended and connected to the racks by an electrician contracted by UF.

## **8.4 UPS System**

Power will be supplied to the equipment in the technical spaces via a UPS System. Though the integrator will not be providing the UPS system, it may be useful to note that the UPS system will meet or exceed the following specifications:

1. The UPS must have enough capacity to supply full power to all the equipment in the Engineering and Newsroom areas.
2. The UPS system should not generate more than 65dba of acoustic noise (measured at 1 meter) when in the off-line mode.
3. The UPS system will be equipped with transient and surge suppression.

## **9. Defined areas in project**

Room Mnemonics:

ENG = Engineering Room

NWSRM = Newsroom

CONFRM = Conference Room

EDIT “#” = Edit stations

## **10. HVAC**

UF will be responsible for the HVAC system. The system integrator will work with UF to determine that the HVAC is adequate.

## **11. Types of Signals**

The system must be able to switch, distribute, and record the following signals:

SD SDI embedded video

HD SDI embedded video

NTSC video

Analog balanced audio

AES audio

RS422

RS232

Parallel control

LAN 100base T

LAN 1000base T

Fiber channel

Intercom various

Fiber

## **12. Synchronizing System**

The system consists of a test signal/sync pulse generator with a redundant power supply.

The synchronizing and test signals should include:

1. NTSC black burst
2. SDI test signals
3. SDI color bars
4. SDI black
5. Tri-level sync
6. DARS digital audio reference
7. Clock and timecode

All video equipment must receive the appropriate synchronizing signal.

## **13. Time and Timecode Systems**

The Harris system provides the necessary timecode or house clock signal that must be distributed to all the VTRs, servers, and automation timecode inputs. The timecode will be derived and locked to a GPS receive system. With a configuration as such, the GPS receivers are locked to the start of the NTSC four-field sequence, which will coincide with a specific point in the GPS code.

## **14. Signal Flow**

The signal flow of the system must follow that of the conceptual drawings that have been provided with this document. The drawings will indicate the flow of the system and the typical conversions that are required, as well as the distribution required. The drawings are by no means design build documents and are to be used as reference when designing the system.

The following guidelines should be considered when designing the signal paths for this project:

1. The input and output connection on all sources will have patch points.
2. Each source will have an associated distribution amplifier (DA). A re-clocked/equalized distribution type amplifier will be implemented when required due to cable length or connections. The first output of this DA will connect to the main routing switcher. The last output will connect to a self-terminating patch style jack for test purposes.
3. All inputs and outputs of the main routing switcher will have patch points.
4. Other than tie lines, no path will have more than one patch point between devices.
5. Any analog signals will be converted to digital with embedded audio (SMPTE 259M/272M) prior to entering the system.
6. The input to any converter will be wired through a patch point.
7. Any connections to outside LANs, such as the University office LAN, must pass through a hardware firewall.

### **III. Requirements for Bidders**

1. Integrator must be bondable.
2. Integrator must be insured to the requirements of the University of Florida.
3. Integrator must be licensed to do business in the State of Florida.
4. Integrator shall be responsible for installing OFE equipment and supplying all required materials, cable, connectors and any additional hardware to complete the project according to the technical drawings provided.
5. Integrator must supply Qualifications Documentation, Case Studies of 5 recent projects similar in scope, completed within the State of Florida. Include: contact names and project detail.
6. Integrator must possess a valid Low Voltage License. No sub-contractor license acceptable.
7. 1 year P/L on site warranty coverage and service requirements.
  - a. Phone response within 4 hours
  - b. On site within 24 hours after phone response.
  - c. Four scheduled routine maintenance visits during year.
  - d. Service calls as requested by end user.

## Addendum A: Harris Package Equipment list:

2.1 STORAGE SYSTEM & INTERFACE TO LAB FINAL CUT PRO (FCP) EDITORS -PHASE 1 9TB STORAGE	33
2.2 & 2.4 SERVER AND NEWSROOM EDITING SYSTEM & ETHERNET SWITCHES -PHASE 1	34
3.1 CLOCK SYSTEM & REFERENCE DISTRIBUTION	36
3.3 VIDEO & AUDIO DISTRIBUTION	37
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TEST & MEASUREMENT	40
CONTROL SYSTEM	41
SERVICES	42

<b>2.1 Storage System and Interface to Lab FCP Editors</b>			
<b>No.</b>	<b>Qty</b>	<b>Part #</b>	<b>Description</b>
1	1	NXIQ3000NLS	9TB Nearline Storage (7RU) with: -3x SW License with OneFS OS, Autobalance, Flex-Protect AP, NFS, CIFS, HTTP/WebDAV, FTP, NDMP, SNMP & Cluster Mgmt -3x Infiniband Nodes with 12 SATA-2 250GB HDD -1x 8-port IB switch -3x IB 3m cable -1 yr SW/HW support
2	3	NXIQSmartCon	Single node license for SmartConnect Advanced (Enterprise Edition)

**2.2 & 2.4: Server, Newsroom Editing System, Ethernet Switches**

3	4	NX3601HDX	NEXIO AMP SD/HD SAN SERVER NEXIO NX3601HDX SD/HD shared storage baseband video server (3RU). Configurable in software for 2 or 3 HD channels or 4 or 6 SD channels. SDI/HD-SDI interface card, dual port, redundant, 4Gbps fiber channel interface connection to shared storage, hot swappable redundant power supplies, redundant boot drives, two Gigabit Ethernet ports, NXOS operating software, RAIDSoft license, Channel control, Digitize & Transfer Manager applications
4	2	NXA3601LRE2	NEXIO AMP 2 CHANNEL LOW RESOLUTION ENCODER NEXIO AMP real time in server low res proxy creation for 2 channels
5	2	NXS3116C15	SBOD ARRAY, 16X 300GB, 15K RPM Nexio SBOD Shared Storage Chassis. 4Gbps Fibre channel switched fabric disk array with sixteen 300GB, 15K rpm, 4Gbps interface, disk drives. Includes dual hot swappable power supplies and dual redundant fibre channel controllers
6	1	NXUSBTC	BOX TIME CODE MODULE USB USB powered House Timecode Input to NEXIO
7	2	NXFS1644	SWITCH, FABRIC 20 PORT 4 GIGABIT WITH NXS-XPAC-3 CABLE Fibre Channel Switch, 16 port/4Gbps Fabric switch with 4 10Gbps InterSwitch link (ISL) ports. 1RU form factor, dual power supplies, includes 10Gbps ISL cable (7.5cm/3in.), rackmount kit and user and installation manual
8	1	NXES8810	Extreme BlackDiamond 8810 10 slot chassis. Includes fan tray and blank front panels Extreme BlackDiamond 8810 10 slot chassis. Includes fan tray and blank front panels

9	1	NXES88-MSM-G8X	Extreme BlackDiamond management switch unit w/ 8 gigabit ethernet ports Extreme BlackDiamond management switch unit with 8 gigabit ethernet ports
10	4	NXES8800G48T	Extreme BlackDiamond 48 port 10/100/1000 BaseT RJ-45
11	3	NXES8800SPS	Extreme BlackDiamond 700W/1200W 100-240 AC power supply unit

12	1	NXES45024	EXTREME SUMMIT X450E-2P Extreme Summit X450e-24p, 24 port 10/100/1000BaseT Ethernet switch for NEXIO LAN and FTP Order 2 of these if want redundant Ethernet option
13	1	NXESPSU45024	EPS-LD External Power Supply (RPS) for 450e-24p External Power Supply, for NXES45024 only
14	1	NX1000MGX	NEXIO 1RU MEDIA GATEWAY NEXIO Media Gateway 1000. 1RU chassis with 2-port 4Gbps fiber channel interface connection to shared storage, hot-swappable redundant power supplies, redundant boot drives, six Gigabit Ethernet ports and FTP Server software
15	1	NX1000ICM	NEXIO 1RU INGEST CONTROL MANAGER Ingest Control Manager, includes hardware platform and 1 client license
16	3	NX1000FCP	NEXIO, NEXIO FCP INTEGRATION GATEWAY NEXIO FCP Integration Gateway, introduces a way of integrating Apple Final Cut Pro non-linear editing software with the NEXIO server system. Consists of NXA1000FCP (Harris applications -CIFS Server, LLM) installed on Harris supplied hardware (NX1000MGX) and plug-in applications (NEXIO Browser, NEXIO Export, NRCS Tool) to be installed on customer provided Apple Final Cut Pro workstations. For the first time, this allows third party editing directly on the NEXIO SAN
17	2	NX1010PTCD	NEXIO PROXY TRANSCODER Nexio Proxy Transcoder. 1RU server, reads NEXIO high-resolution files via onboard FC port, transcodes up to four independent parallel streams faster than real time and writes transcoded low-resolution files to NEXIO Browse Server
18	1	NX2101LRS	NX2101LRS -NEXIO BROWSE SERVER NEXIO Browse Server (2RU storage server with 4x 1TB media drives standard, 8x and 12x optional). Provides RAID storage of proxy files, capability to attach 28 proxy viewers (PRXPlayer - standard or NXMB -standard with MOS gateway) and 28 proxy editors (Velocity PRX -optional)
19	2	NXA1000PRX10	VELOCITY PRX EDITOR 10-USER LICENSE PACK NXA1000PRX10, Velocity PRX low resolution proxy editor. Contains ten Velocity PRX licenses
20	1	NX3000IOL	NEXIO INSTANTONLINE 3 Nexio InstantOnline III Conforming Engine. InstantOnline III is an automatic conforming engine which enables EDLs, Velocity projects / timelines, Final Cut Pro sequences and media files to be conformed into high-resolution clips

21	1	NX1001MG	NEXIO MOS GATEWAY Nexio MOS Gateway (1RU application server with redundant power supplies and boot drives), maintains a database of Nexio content, processes commands between MOS-compliant NRCS (ENPS, iNEWS and Octopus) and Nexio MOS Playlist Manager, informs NRCS of media status, and supports Nexio ActiveX plug-ins on NRCS workstations (NXMB MediaBase and NXLRB Low Resolution Browse which exposes live media inventory on the Nexio server system, and through which operators access clip information, preview clips, create placeholder clips, searches media, and drags items from MediaBase into a script)
22	1	NX1001MPLM	NEXIO MOS PLAYLIST MOS Playlist Manager (1RU application server with redundant power supplies and boot drives), connects to the MOS Gateway through the Nexio LAN and to the Trigger Panel as a keyboard pass-through, dynamically builds and displays local playlists for playing Nexio to air using MOS rundown information from NRCS and media status from MOS Gateway, and generates on-air control commands from manual operator input on Trigger Panel

23	1	NXA1000RM	NEXIO REMOTE SOFTWARE Nexio Remote Software
24	1	NXA1000RMXT	ADDITIONAL SEAT LICENSE Additional Seat License for Nexio Remote

### 3.1 Clock System and Reference Distribution

No.	Qty	Part #	Description
25	8	ADC-5116	ANALOG DIGITAL CLOCK (16" WALL MOUNT) Analog Digital Clock (16" Wall Mount)
26	1	DTD-5230-G	DIGITAL TIME DISPLAY*RED Single Display Rackmount Digital Clock, 1RU (Green LEDs)
27	1	FR6822+QXFE	FRAME, 2RU, ETHERNET, HTTP, FANS, ONE PS, QSEE Frame, 2RU, Ethernet resource card including HTTP protocol for communication, no back, all blanks with fan (includes one 6800+ AC power supply), support QSEE-compliant
28	1	6800+AC	AC POWER SUPPLY FOR FR6822+QXFE, FR6802+QXF OR +XF AC power supply for FR6822+ QXFE, FR6802+ QXF or + XF frame
29	4	ARG6800+D	ARG6800+ WITH DUAL REAR CONNECTOR PANEL USING 10X3-PIN AUDIO CONN Remote Gain, Signal Activity Analog Audio DA, with dual rear connector panel using 10 x 3-pin audio connector

30	6	VEA6800+D	VEA6800+ WITH 10 I/O REAR METRAL CONNECTORS Analog Video Equalizing Distribution Amplifier, with 10 I/O rear connector
<b>3.3 Video and Audio Distribution</b>			
No.	Qty	Part #	Description
31	3	FR6822+QXFE	FRAME, 2RU, ETHERNET, HTTP, FANS, ONE PS, QSEE Frame, 2RU, Ethernet resource card including HTTP protocol for communication, no back, all blanks with fan (includes one 6800+ AC power supply), support QSEE-compliant
32	3	6800+AC	AC POWER SUPPLY FOR FR6822+QXFE, FR6802+QXF OR +XF AC power supply for FR6822+ QXFE, FR6802+ QXF or + XF frame
33	3	ARG6800+D	ARG6800+ WITH DUAL REAR CONNECTOR PANEL USING 10X3-PIN AUDIO CONN Remote Gain, Signal Activity Analog Audio DA, with dual rear connector panel using 10 x 3-pin audio connector
34	3	VEA6800+D	VEA6800+ WITH 10 I/O REAR METRAL CONNECTORS Analog Video Equalizing Distribution Amplifier, with 10 I/O rear connector
35	10	DA-H6802+D	1X8 DA, 3G/HD/SD/ASI NON-RCLK, 2 SLOTS Single 1x8 distribution amplifier, 3G/HD/SD/ASI non-reclocking, 2 slots
36	4	DADHR6802+D	DUAL 1X4 OR SNGL 1X8 DA, 3G/HD/SD/ASI W/ RCLK Dual 1x4 or single 1x8 distribution amplifier, 3G/HD/SD/ASI with reclocking, 2 slots
37	10	AES6800+CD	AES6800+C WITH 10 I/O REAR METROL CONNECTOR AES/EBU Coax Distribution Amplifier, with 10 I/O rear connector

<b>3.4 Video and Audio Conversion</b>			
No.	Qty	Part #	Description
38	4	FR6822+QXFE	FRAME, 2RU, ETHERNET, HTTP, FANS, ONE PS, QSEE Frame, 2RU, Ethernet resource card including HTTP protocol for communication, no back, all blanks with fan (includes one 6800+ AC power supply), support QSEE-compliant
39	4	6800+AC	AC POWER SUPPLY FOR FR6822+QXFE, FR6802+QXF OR +XF AC power supply for FR6822+ QXFE, FR6802+ QXF or + XF frame

40	2	DAS6801+D	COMPOSITE A/V DECODER/SYNCH/PROCAMP & AUDIO MUX Composite-to-SDI A/V decoder / synchronizer / processor with 4-ch audio mux/embedder, 2 discrete AES inputs and outputs (balanced and unbalanced), includes double-slot backmodule, QSEE-compliant
41	2	DAS68OPT+3D	3D-DECODER OPTION FOR DAS6800+D (SOFTKEY OPTION) 3D video decoder option for DAS6800+ D (software license key option)
42	2	DES6800+D	DES6800+ WITH 10 I/O REAR METROL CONNECTOR NTSC/PAL to 4:2:2 Decoder/Synchronizer, 12-bit, with double-slot rear connector
43	2	ADC6800+A4BCD	AUDIO ANALOG TO DIGITAL CONVERSION*4CH ANALOG IN* 2 FRAME SLOTS REQUIRED*AUDIO CONNECTOR TYPE Audio Analog to Digital Conversion, four channels analog audio input, two AES coax and/or two AES balanced output. For use in FR6802+ series frame, requires 2 frame slots, with 10 I/O rear connector
44	4	HMX6801+C2D	2 CHANNEL UNBALANCED HD/SD AES MULTIPLEXER HD/SD-SDI Multiplexer, auto-sensing, with 2 coaxial (unbalanced) AES inputs and double-slot rear connector
45	2	ENS6801+D	SD TO ANALOG VIDEO 12-BIT DIGITAL ENCODER SYNCHRONIZER, WITH DOUBLE-SLOT REAR CONNECTOR, QSEE-COMPLIANT SD to Analog Video 12-bit Digital Encoder Synchronizer, with double-slot rear connector, QSEE-compliant
46	2	EAS6800+C2A4D	BROADCAST-QUALITY AUDIO/VIDEO SD TO ANALOG ENCODER, UNBALANCED (COAX) AES INPUTS, WITH DOUBLE-SLOT REAR CONNECTOR, QSEE-COMPLIANT Broadcast-Quality audio/video SD to analog encoder, unbalanced (coax) AES inputs, with double-slot rear connector, QSEE-compliant
47	1	VAM6800+A4D	COMPOSITE VIDEO AND ANALOG AUDIO MONITOR, 1 SD-SDI OUTPUT, 4 COMPOSITE OUTPUTS, 4 ANALOG AUDIO OUTPUTS, WITH DOUBLE-SLOT REAR CONNECTOR, QSEE-COMPLIANT Composite Video and Analog Audio Monitor, 1 SD-SDI output, 4 composite outputs, 4 analog audio outputs, with double-slot rear connector, QSEE-compliant
48	1	VTM6801+D	VIDEO TRIPLE MONITORING DA WITH DOUBLE-SLOT REAR CONNECTOR, 3 INDEPENDENT SD-SDI INPUTS WITH 1 EQUALIZED, RECLOCKED SDI OUTPUT AND ONE ANALOG COMPOSITE OUTPUT PER INPUT, CCS-COMPATIBLE Video Triple Monitoring Distribution Amplifier, with double-slot rear connector
49	2	DAC6800+BCA4D	4 CHANNEL AES DIGITAL TO ANALOG CONVERTER 2-Input AES (Balanced or Coaxial) to 4-Channel Analog Audio Converter with

			double-slot rear connector
50	4	HDX6801+C2D	HD/SD TV 2 CHANNEL UNBALANCED AES DEMULTIPLEXER AND PROCESSING AMPLIFIER HD-SDI AES Demultiplexer, 2 coaxial (unbalanced) AES outputs, with double-slot rear connector
51	1	XHD6801+UCT	6800+ HDTV*UP/CROSS CONVERTER*QSEE COMPLIANT 6800++ HDTV Up/Cross converter. 2 x Pgm outputs, 2 x pgm/monitor outputs, 4 x reclocked outputs, genlock. QSEE compliant, requires 3 available 6800++ frame slots
52	1	X85HD-AV-2PS	X85*1RU CONV & SYNC, VIDEO/AUDIO, LC, NO 3G, 2 PSU

### 3.7 and 3.8 Router and Multiviewer System

No.	Qty	Part #	Description
53	1	PT-FR-15	PLATINUM 15RU FRAME ASSY Platinum 15RU Frame Assembly (includes (2)-PS, -RES)
54	2	PT-128X256-3G15	PLATINUM 128X256 3GB/S CROSSPOINT FOR 15RU Platinum 128x256 3Gb/s cross-point for 15RU
55	2	PT-PS	Platinum & MX 750W AC redundant power supply
56	1	PT-RES	Platinum & MX resource controller module
57	1	PT-SYNC	PLATINUM SYNC MODULE Platinum Sync module
58	1	PT-ATDM32-X15	PLATINUM MX ATDM PT FOR 32 SLOTS AUDIO IN 15RU Platinum and MX ATDM crosspoint for 32 slots audio in 15RU
59	4	PT-HS-IB+	PLATINUM 8 HD-SDI INPUT MODULE WITH BACK PANEL PLUS Platinum & MX 8 3G/HD/SD/ASI in with options and back panel
60	4	PT-HSROBG+	PLATINUM 8 HD-SDI GREEN OUTPUT MODULE WITH BACK PANEL PLUS Platinum 8 3G/HD/SD/ASI out with options and back panel, energy efficient
61	1	PT-DEC-IB	PLATINUM 8 ANALOG VIDEO TO SDI DECODER INPUT MODULE W/ BACK PANEL Platinum 8 analog to SDI decoder input module with back panel

62	1	PT-ADCT-IB	PLATINUM PT-ADCT-FMI Platinum 16 stereo to balanced AES input module with back panel (requires TDM crosspoint)
63	1	PT-DACT-OB	PLATINUM PT-DACT-OB TDM Platinum 16 balanced AES to stereo output with back panel (requires TDM crosspoint)
64	2	RCP-ABA1EXYP	ETHERNET-ENABLED FULL XY ALPHANUMERIC REMOTE CONTROL PANEL, 1RU, FOR LEITCH ROUTING SWITCHER SYSTEMS Ethernet Remote Control Panel, 1RU, Ethernet and XY, Alphanumeric Breakaway, programmable
65	2	NUCLEUSRTR	2RU NETWORK CONTROL PANEL INCLUDES ROUTING CONTROL SOFTWARE OPTION User Configurable Network Control Panel, 2RU, includes Routing Control software option
66	2	NUC-OPTCEN	NUCLEUS PANEL LICENSE FOR CENTRIO CONTROL Nucleus Panel license for CENTRIO control
67	2	NUC-OPTPROC	NUCLEUS*PROCESSING CONTROL SOFTWARE OPTION Nucleus Processing Control software option
68	4	CEN-OUTMV	CENTRIO MULTIVIEWER OUTPUT MODULE CENTRIO Output Multiviewer module
69	4	CEN-OPTUMD	TALLY/UMD LICENSE*PER CENTRIO Tally/UMD License (per CENTRIO)
70	4	CEN-OPT-PTMETER	AUDIO METERING, REQ'D PER CENTRIO 15RU OR 28RU Audio metering for CENTRIO including analog and 5.1 for 15RU and 28RU
71	4	CEN-OPT-ONSCRN	ON SCREEN CONTROL*PER CENTRIO On screen Control (per CENTRIO)
72	1	CENGPIO24E	CENTRIO 24X24 GPIO WITH ETHERNET 24x24 GPIO with Ethernet

<b>Test and Measurement Systems</b>			
<b>No.</b>	<b>Qty</b>	<b>Part #</b>	<b>Description</b>
73	1	CENOPT-TESTM	TEST AND MEASUREMENT*PER CENTRIO Test and Measurement (per CENTRIO)
74	1	AVM717	HD/SD-SDI MONITOR INTEGRAL 17 INCH LCD/SPEAKERS Multi-format, HD/SD-SDI, with integral 17 inch wide screen color LCD display and stereo speakers

<b>Control System</b>			
<b>No.</b>	<b>Qty</b>	<b>Part #</b>	<b>Description</b>
75	1	NAVIGATOR SRV	NAVIGATOR MONITOR/CONTROL S/W APP SERVER LICENSE Navigator monitor/control software application, SERVER License. (Purchased on a per server basis.) Features include Administrator Network Build Mode, Client account administration, Device SQL database, Device control, Graphical navigation / GUI page capability, Network alarm log. Includes 1 year software warranty

Services					
No.	Qty	Part #	Description		
76	1	SYSCOM 900-SVC	<p>ONSITE SYSTEM AND PROJECT SUPPORT*900K+ 8%LP SYSCOM PAKs are consolidated system level services for larger system projects 900K and above. SYSCOM PAKs allow customers to budget for system implementation needs of the project at the time of purchase. 1) HW SYSCOM PAKs cover non-Automation or Digital Asset Management (D.A.M.) products. 2) SW SYSCOM PAKs cover D-Series, ADC and D.A.M. SYSCOM PAKs include Designated Project Manager (PMO), Pre-site survey and evaluation, Work-flow analysis and report, commissioning (Onsite and over-the-phone), Networking support, GoLive support, Operational, Maintenance and Technology Training, Follow-up Review, Ongoing Maintenance Plan Layout, 30-day free remote dial-up support trial (where application and network capabilities exist), Include all travel and expenses</p>		

## Addendum B: Additional Items to be Installed:

- Install speakers and supply and install wiring for 7.1 audio in G037 newsroom and 5.1 audio in viewing/videoconference room.
- Install 10 LCD Monitors in different places TBD.
- Install Networking between G037, 2138, G215 and 1024A and between 1024A and 3219.
- Furnish and install Lighting Package in G037 to include Lighting Grid.
- Install Local cable from Ground Mechanical Room to G037 and 1024A.
- Install 10 Cox Communications Cable Boxes in Room 1024A for Router Sources.
- Install HD Camera in G037 to include Telemetric Fiber Run to 1024A/1317 TBD. Furnish fiber.
- Install Multiple HD-SDI/Audio feeds from 1024 to G037.
- Install interconnect to WUFT's Production Facility. HD-SDI/Audio/RTS.
- Install interconnect to WUFT's MCR Facility. HD-SDI/Audio/RTS.
- Install and connect WhisperRoom in G037.

