



Lexington-Fayette Urban County Government

10th Channel Addition to Simulcast Cell

Proposal

October 29, 2015

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AIRBUS DS COMMUNICATIONS

October 29, 2015

Robert Stack, Director
Division of Enhanced 911
Lexington-Fayette Urban County Government
200 E. Main St., Room 313
Lexington, KY 40507

Reference: [LEX20151001-1](#)

Dear Director Stack:

Airbus DS Communications is honored to present this proposal to add a 10th channel to the existing Lexington-Fayette Urban County Government simulcast cell. I think you'll find our proposal addresses your request and needs for additional traffic capacity on the simulcast cell.

On behalf of Airbus DS Communications, thank you for this opportunity. We greatly appreciate our partnership!

Respectfully submitted,

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1 Proposal Scope

This proposed project adds one channel to each of the four existing sites in the Lexington-Fayette Urban County Government (LFUCG) simulcast cell and at a new 5th site at the PSOC. The scope of this project will include:

1. Modification of the existing radio network design to provide an additional voice channel
2. Factory production of five rack assemblies, 1 per radio site
3. Factory provisioning and production testing of supplied equipment
4. Installation of two new 20-amp power circuits at each radio site
5. A new 750W lightning arrestor will replace the existing arrestor currently installed for lightning protection of the #2 transmit antenna line.
6. Sweeping the existing #2 transmit antenna line to verify condition
7. Installation and integration of provided racks and equipment at each of the 5 radio sites
 - Add one additional TB9400 series repeater with a Rack Power Distribution Unit at each of the five simulcast sites.
 - Add one additional ceramic combiner to the transmit antenna network to accommodate the additional repeater.
 - Add one additional Cisco switch with TAC support at each simulcast site.
 - Add one RF Power meter at each simulcast site.
 - Miscellaneous RF and Ethernet cables, brackets and ties to install and interconnect the new equipment at each simulcast site.
 - Installation of all equipment at each simulcast site into an open rack.
 - Supplied racks and components will be integrated into the existing site grounding infrastructure at each of the five radio sites.
 - The new base station will connect to the existing GPS Disciplined Time & Frequency Reference for the 1 PPS timing and 10 MHz reference and to ports on the RX multi-coupler.
8. Provisioning of the additional channel group into the radio network
 - Re-programming of the RFSS System and Simulcast Site Controller to accommodate the additional channel.
 - Modification of the existing SolarWinds configuration for monitoring of the new equipment
9. Field commissioning and alignment of supplied equipment and components
10. Validation of the functional operation of the channel group once brought on-air
11. Updating of the existing as-built documentation to reflect the network modification

This project is providing new 8-channel combiners for WDKY, WKYT, WLEX and WVRB. The combiner for the new PSOC site is already included in that project.

In addition to the new equipment being added, the existing 9th channel base station currently deployed at WDKY, WKYT, WLEX and WVRB will be relocated to the new equipment rack and connected to the new 8-channel transmit combiner. The #2 transmit antenna currently connected to the existing 9th channel base station will be re-utilized and reconnected to the output of the new 8-channel combiner.

Assumptions:

The successful completion of the work described in this proposal is based and dependent on the following assumptions;

- Work will be coordinated with the Lexington PSOC deployment
- Radio sites have adequate floor space to accommodate the new equipment
- No expansion of site backup power equipment is required
- Electrical panels have space and capacity for the addition of 2 new 20-Amp Circuits
- Grounding systems at all sites are adequate
- Existing antennas and lines are in good condition and acceptable for re-use
- All leasing will be performed by LFUCG
- Frequencies to be utilized for the additional channel are coordinated by LFUCG and available
- LFUCG has a valid broadcast license for all required frequencies used on the system
- Work will be performed during normal business hours
- Additional spares are not required nor included

Deliverables to LFUCG:

As part of the proposal the following abbreviated deliverables are anticipated to be provided by Airbus DS Communications to LFUCG in connection with this proposed Scope of Work;

- Project Schedule
- Updated network overview diagram reflective of the new topology
- Updated Network Equipment Configuration document reflective of new equipment

- Update Floor Plans showing the proposed placement of new equipment for coordination
- Results from factory RF testing of components and rack assemblies
- Results from field commissioning showing final equipment settings
- Updated As-Built drawings for each site

2 Equipment List

Airbus DS Communications will provide the following equipment:

Description	Quantity
RF Power Monitor	5
RF Power monitor Plate	5
Rack Power Distribution Unit	5
RF Rack: Four Post 43U Open Rack	5
RF Cable Kit	5
Network Cable Kit	5
TB9435 700/800 MHz Repeater	5
Repeater Auxiliary Support Bracket	5
Ceramic Combiner, 800 MHz, 8 Channel	5
Phase 1 Trunked Radio Channel License 1 per logical radio Channel Controlled	1
SW Simulcast Trunk Site Controller P25 Phase 1 license/1 per RF Repeater Controlled	5

Airbus DS Communications will provide the following services:

- Develop and execute an Installation Plan
- Field installation, testing and commissioning of new equipment above
- As-built documentation
- Maintenance

LFUCG will be required to provide:

- Adequate space at each site for the new rack
- Access to the sites
- Transmit and Receive Frequencies for the new channel

3 Warranty and Maintenance

The equipment in this proposal includes 1-year standard manufacturer hardware and software warranties. The expiration of this 1-year warranty coincides with the expiration of the existing Maintenance Agreement and no additional warranty or maintenance are included in this proposal.

Renewal of the Maintenance Agreement will be adjusted, as necessary, to include the additional equipment provided under this proposal.

Warranty and maintenance terms and conditions are governed by the existing contract, and any change orders and amendments thereto.

4 Optional Firewalls for Windstream Interfaces

As an option, Airbus DS Communications will provide engineering, configuration and provision of firewall equipment to provide additional network security at the Windstream interfaces at each site.

The equipment includes a 1-year standard hardware and software warranty and support during the remainder of the existing LFUCG Maintenance Agreement.

Included in this option is:

1	Services	Engineering to design and configure new firewalls to add to the Windstream interfaces at all sites.
6	L95110-0016-01	Sonicwall SOHO TZ Network Security/Firewall Appliances

Not included in this proposal, is the installation of the equipment which can be done by LFUCG Technicians at their convenience.

5 Pricing

This proposal is governed by and subject to the terms and conditions included in the Purchase Agreement dated May 17th, 2012 and all subsequent amendments and change orders.

Frequencies are to be provided by and are the responsibility of LFUCG.

Description	Quantity	Price
10 th Channel Equipment for Simulcast Cell	As shown below	\$168,750
RF Power Monitor	5	Included
RF Power monitor Plate	5	Included
Rack Power Distribution Unit	5	Included
RF Rack: Four Post 43U Open Rack	5	Included
RF Cable Kit	5	Included
Network Cable Kit	5	Included
TB9435 700/800 MHz Repeater	5	Included
Repeater Auxiliary Support Bracket	5	Included
Ceramic Combiner, 800 MHz, 8 Channel	4*	Included
Phase 1 Trunked Radio Channel License 1 per logical radio Channel Controlled	1	Included
SW Simulcast Trunk Site Controller P25 Phase 1 license/1 per RF Repeater Controlled	5	Included
Miscellaneous installation equipment	Lot	Included
Engineering and Maintenance	Lot	\$62,500
Design, install and commission one additional channel at all simulcast sites. Includes Maintenance (hardware repair, software maintenance and on-site support) to match the current Maintenance Agreement		
Total		\$231,250

*5th Combiner being provided by PSOC project.

Options:

Add Firewalls to Windstream Interfaces	Lot	\$5,404
Years 2-8 (2017-2023 – Extended Maintenance (software maintenance and hardware repair) for 10 th channel only	Per Year	\$4,369

Pricing Terms and Conditions



- This proposal is governed by and subject to the terms and conditions included in the Purchase Agreement dated May 17th, 2012 and all subsequent amendments and change orders.
- Pricing is valid for 60 days from the date shown
- All prices are in USD
- Pricing assumes that LFUCG is an exempted agency for sales tax purposes
- Payment Terms: NET 30 based on project acceptance

6 Key Contacts

KEY CONTACTS

We are committed to serving LFUCG needs to enable your first responders with quality equipment and services.

If LFUCG should have any questions regarding this proposal, please contact:

	Sales Contact:	Coty Cooper Regional Account Manager Coty.Cooper@Airbus-DSComm.com Ph. 214.608.9457
	Technical Contact:	Sherman Banks Technical Sales Engineer Sherman.Banks@Airbus-DSComm.com Ph. 469.585.8458