

Statement of Work

Originating Office:

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Background:

The U.S. Probation Office for the Western District of Kentucky is soliciting bids for the installation of a new cable plant in our fourth floor office suite located in the U.S. Courthouse Louisville, Kentucky. This 'statement of work' (SOW) details the installation of network data cable and terminations required to support an Ethernet data network as well as the implementation of a VoIP system for each Courthouse.

The solicitation requests separate pricing for the installation, termination and certification of multiple CAT6 or CAT6A (enhanced) cables in each Courthouse as detailed in attachments *BG*, *LOU*, *OW* and *PAD*. The contracting officer will determine the final selection of either CAT6 or CAT6A cabling and terminations based on the provided pricing and Court requirements.

This SOW details specifics for this installation within the Louisville Courthouse.

For the purposes of this solicitation, the attachments to this document are also provided in electronic form - Microsoft Excel format. Bidders are encouraged, but not required to breakdown their costs on the Spreadsheet for each associated 'Conduit ID' and return them with a total cost for completing the work.

General Specifics:

The Courthouse described within this SOW is owned and operated by the U.S. General Services Administration (GSA). This installation is subject to GSA's building rules and regulations. In addition, the applicable sections of the National Electric Code (NEC) are to be followed.

All materials, not provided by the Probation Office, required to complete this SOW shall conform to the TIA/EIA specifications for the implementation of a CAT6 or CAT6A data network - e.g., TIA 568-B.2-1 or TIA 568-B.2.10 respectively. These materials not only apply to the cabling installed, but also to all terminations and/or necessary interconnects. Materials should come with a manufacturers warranty against defects of at least 20 years.

The installation shall follow the CAT6 or CAT6A specifications (as appropriate) for run length, minimum cable bends, and recommended conduit fill-rate. For purposes of this SOW, all conduit is assumed to be 1" OD unless otherwise specified.

All cable drops shall be certified at the appropriate level (CAT6 or CAT6A) through the use of an industry approved test suite and tool, such as the Fluke DTX CableAnalyzer or equivalent. Test results are to be provided to the Court as part of this contract.

All cables and terminations being installed shall be color-coded as referenced by the ‘Cable Type(s)’ columns in the attached tables. The assigned colors are:

<u>Intended Use</u>	<u>Cable Color</u>	<u>Termination Color</u>
V (voice)	White.	Ivory
D (data)	Black.	Orange
P (printer)	Black.	Green
A (analog).	Black.	Blue
W (public)	Black.	Red

Unless specifically identified, all cable runs will be in conduit and/or through open ceiling plenum space, accessed via standard ceiling tiles. A “difficulty” rating as well as any specific details are included in the attachments. “Difficulty” is defined as exceptional conditions which complicate the cable installation - please refer to the “comments” column of the tables for any special conditions.

All cabling installed as part of the SOW are to be terminated at either the Main Distribution Frame (MDF) or Intermediate Distribution Frame (IDF) specified using an appropriate patch or termination panel technology. Internal connections to equipment from the MDF or IDF will be accomplished using appropriate length patch cables.

Non-MDF/IDF terminations will be on appropriate color female modules - e.g., data jacks - using an appropriate faceplate or surface mounted box (SMB) to accommodate the number of cables per conduit run. Information regarding the data jack(s) as well as faceplate/SMB counts are under the “Termination” section for each Courthouse. Unused ‘ports’ on faceplate of SMB shall be covered/closed with the appropriate device.

A final ‘material list’ is detailed for each Courthouse in the attachments, summarizing cable lengths and terminations (including any ancillary materials). Commscope brand Systemax components are referenced in the table, but equivalent substitutions are acceptable.

CAD drawings for the Courthouses are provided as part of this SOW, in both PDF as well as DWG format. ‘D’ size paper copies are available upon request. Cable locations are marked on the plans as well as any needed pipe-chase or access points between floors. The cable length measurement included in the attachments are taken from the CAD drawings and allowances are added for any vertical cabling needed.

The CO for this SOW will coordinate Courthouse access and work schedules as necessary. The winning bidder will be required to provide any requested information in order to complete a *mandatory* background check and clearance procedure as required by the U.S. Marshal’s Service office in Louisville.

The bidder is expected to provide all necessary tools and equipment to complete the SOW, with the exception of tall ladders needed to reach the tall ceilings in some locations. The Court will arrange with the local maintenance staff for any over-height ladders required.

Detailed Specifics - Fourth Floor Office Suite, Louisville Courthouse:

The US Probation Office is located at:
400 US Courthouse (4th floor, east wing)
601 W. Broadway
Louisville, KY 40202

The planned U.S. Probation Office cable plant extends on one-half of the fourth floor of the Courthouse, including the “wing” area and consists of dedicated ‘home runs’ from the indicated end-points to a single ‘Intermediate Distribution Frame’ (IDF) located within this fourth floor space.

For this SOW, a total of 56 conduit locations (125 cables total) are to be installed. Of these, thirteen (13) new drops will require a single-gang wall box be cut into hollow plaster-board. Unless otherwise detailed, conduit is provided from the wall box to an above ceiling plenum space - i.e., the conduit is stubbed out above ceiling. Pull strings are provided in some conduit, and existing cable being replaced can be used upon request for pull strings. Table ‘LOU4’ (USPOKYW-LOU4-SOW.xlsx) attached details the cable installation for this Courthouse.

As previously stated, all cables will be terminated at a single IDF location located within the U.S. Probation Office’s space. The following is a breakdown of the cables pulled and length:

0-50'	3
51-100'	22
101-150'	6
151-200'	10
201-250'	11
251-300'	3

All locations are to be terminated by the appropriate color CAT6 or CAT6A jack and mounted in the associated wall plate. Terminations at the IDF will be on a modular patch panel or equivalent, mounted to an existing wall bracket/rack. The preferred termination at the IDF is with the same or similar terminator as at the associated wall plate (including color); an equivalent substitution is acceptable as long as the port count for each panel specified remains the same.

As indicated on the attached tables, the following 'conduit Ids' require the "cutting in" of new low-voltage wall outlets:

4-005	4-009	4-013	4-015	4-016
4-017	4-018	4-020	4-021	4-022
4-042	4-051	4-052		

These locations for these new wall outlets are in hollow wall spaces, covered with industry standard gypsum wall board. The contractor will be responsible for the "cutting-in" of these new wall outlets as well as the requisite cleanup.

Drop List

U.S. Probation Office - Louisville Courthouse

Conduit ID	Run Length (ft)	# Cables	Cable Type(s)	Difficulty	Comments	Horz. Cbl Length
4-001	112	2	D V	Easy		92
4-002	100	2	D V	Easy		80
4-003	82	2	D V	Easy		62
4-004	82	2	D V	Easy		62
4-005	85	4	D D V V	Moderate	New Wall Box, needs to be 'Cut-in'	65
4-006	71	2	D V	Easy		51
4-007	52	4	D D V V	Easy		32
4-008	54	4	D D V V	Easy		34
4-009	73	4	D D V A	Moderate	New Wall Box, needs to be 'Cut-in'	53
4-010	58	2	D V	Easy		38
4-011	78	2	D V	Easy		58
4-012	79	2	D V	Easy		59
4-013	88	4	D D V V	Moderate	New Wall Box, needs to be 'Cut-in'	64
4-014		N/A	-----	-----	Unused	
4-015	111	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	91
4-016	98	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	78
4-017	88	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	68
4-018	116	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	96
4-019	132	2	D V	Easy		112
4-020	40	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	20
4-021	97	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	77
4-022	113	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	93
4-023	150	2	D V	Easy		130
4-024	164	2	D V	Easy		144
4-025	176	2	D V	Easy		156
4-026	179	2	D V	Easy		159
4-027	201	2	D V	Easy		181
4-028	203	2	D V	Easy		183
4-029	225	2	D V	Easy		205
4-030	228	2	D V	Easy		208
4-031	252	2	D V	Easy		232
4-032	260	2	D V	Easy		240
4-033	242	2	D V	Easy		222
4-034	238	2	D V	Easy		218
4-035	256	2	D V	Easy		236
4-036	247	2	D V	Easy		227

4-037	223	2	D V	Easy		203
4-038	223	2	D V	Easy		203
4-039	200	2	D V	Easy		180
4-040	196	2	D V	Easy		176
4-041	175	2	D V	Easy		155
4-042	166	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	146
4-043	171	2	D V	Easy		151
4-044	178	2	D V	Easy		158
4-045	187	2	D V	Easy		167
4-046	203	2	D V	Easy		183
4-047	226	2	D V	Easy		206
4-048	70	2	D V	Easy		50
4-049	61	2	D V	Easy		41
4-050	61	2	D V	Easy		41
4-051	36	3	D V A	Moderate	New Wall Box, needs to be 'Cut-in'	16
4-052	30	2	D V	Moderate	New Wall Box, needs to be 'Cut-in'	10
4-053	57	4	D D V V	Easy		37
4-054	57	2	D V	Easy		37
4-055	88	4	D D V V	Easy		68
4-056	92	2	D V	Easy		72

Termination Count(s) - Both Ends

Conduit ID	Ivory (VOICE) Jacks	Orange (DATA) Jacks	Green (PRINTER) Jacks	Blue (ANALOG) Jacks	Red (PUBLIC) Jacks	Faceplate/SMB (# Ports)	* NEW * Voltage Box Needed	Low-
4-001	2	2				Faceplate (4)		
4-002	2	2				Faceplate (4)		1
4-003	2	2				Faceplate (4)		
4-004	2	2				Faceplate (4)		
4-005	4	4				Faceplate (4)		
4-006	2	2				Faceplate (4)		1
4-007	4	4				Faceplate (4)		
4-008	4	4				Faceplate (4)		
4-009	2	4			1	Faceplate (4)		1
4-010	2	2				Faceplate (4)		
4-011	2	2				Faceplate (4)		
4-012	2	2				Faceplate (4)		
4-013	4	4				Faceplate (4)		1
4-014	---	---	---	---	---	Faceplate (4)		
4-015	2	2				Faceplate (4)		1
4-016	2	2				Faceplate (4)		1
4-017	2	2				Faceplate (4)		1
4-018	2	2				Faceplate (4)		1
4-019	2	2				Faceplate (4)		
4-020	2	2				Faceplate (4)		1
4-021	2	2				Faceplate (4)		1
4-022	2	2				Faceplate (4)		1
4-023	2	2				Faceplate (4)		
4-024	2	2				Faceplate (4)		
4-025	2	2				Faceplate (4)		
4-026	2	2				Faceplate (4)		
4-027	2	2				Faceplate (4)		
4-028	2	2				Faceplate (4)		
4-029	2	2				Faceplate (4)		
4-030	2	2				Faceplate (4)		

4-031	2	2			Faceplate (4)	
4-032	2	2			Faceplate (4)	
4-033	2	2			Faceplate (4)	
4-034	2	2			Faceplate (4)	
4-035	2	2			Faceplate (4)	
4-036	2	2			Faceplate (4)	
4-037	2	2			Faceplate (4)	
4-038	2	2			Faceplate (4)	
4-039	2	2			Faceplate (4)	
4-040	2	2			Faceplate (4)	
4-041	2	2			Faceplate (4)	
4-042	2	2			Faceplate (4)	1
4-043	2	2			Faceplate (4)	
4-044	2	2			Faceplate (4)	
4-045	2	2			Faceplate (4)	
4-046	2	2			Faceplate (4)	
4-047	2	2			Faceplate (4)	
4-048	2	2			Faceplate (4)	
4-049	2	2			Faceplate (4)	
4-050	2	2			Faceplate (4)	
4-051	2	2	1		Faceplate (4)	1
4-052	2	2			Faceplate (4)	1
4-053	4	4			Faceplate (4)	
4-054	2	2			Faceplate (4)	
4-055	4	4			Faceplate (4)	
4-056	2	2			Faceplate (4)	
Total:	<u>122</u>	<u>124</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>14</u>

Materials List

Cable Summary:	Quantity
0-50':	3
51-100':	22
101-150':	6
151-200':	10
201-250':	11
251-300':	3

		SystiMax Part #	
Supplies Needed:		CAT6	CAT6A
Ivory (VOICE) Jacks:	122	MGS400-246	MGS500-246
Orange (DATA) Jacks:	124	MGS400-112	MGS500-112
Blue (ANALOG) Jacks:	4	MGS400-318	MGS500-318
Low-Voltage Wall Boxes:	14	n/a	n/a
Faceplates (4-port):	56	M14L-246	M14L-246
Faceplate Blanks:	99	M21A-246	M21A-246
IDF Termination Panel(s) 24-Port:	1	M2100-24	M2100-24
IDF Termination Panel(s) 48-Port:	4	M2100-48	M2100-48