Duties and Tasks		Total Items
A	**Conduct a Needs Analysis**	**16**
1	Define and develop scope of work	7
2	Review and validate client's technology plan (master plan) (e.g., site survey, client representations, client network topology)	3
3	Identify client use expectations and functional requirements (e.g., stakeholder meetings, user stories, benchmarking, client expectations, project methodology)	6
B	**Design Hardware Network Topology**	**19**
1	Align hardware requirements of existing and new devices, connections, and AV network technologies	3
2	Determine that infrastructure requirements meet topology and AV network technology requirements (e.g., multicast, Quality of Service (QOS), Energy Management of switch)	4
3	Verify switch and distribution architecture meet bandwidth requirements (e.g., cabling, stacking, transceivers, port count, and connectivity)	3
4	Determine environmental needs (e.g., noise, BTU, installation location, space requirements) and power supply needs (e.g., amperage, voltage, grounding)	3
5	Verify Power over Ethernet (POE) class is budgeted correctly	3
6	Validate interoperability between new and existing network hardware	3
C	**Design Software Network Topology**	**15**
1	Align software requirements of existing and new devices, connections, and AV network technologies	3
2	Identify and qualify switch and switch port designations (e.g., QOS, class of service (COS), routing, IGMP snooping/querier)	3
3	Develop a traffic management strategy	3
4	Validate interoperability between new and existing network softwares	3
5	Determine and define VLAN strategy	3
D	**Perform System Deployment**	**27**
1	Verify site readiness (e.g., power, existing network system, racking, dust free)	4
2	Verify or perform physical network infrastructure testing and validation	4
3	Deploy switches, routers, and other network devices (e.g., power-on, update firmware, configure, cable management)	3
4	Deploy AV end-point devices (e.g., power-on, update firmware, configure)	3
5	Verify AV end-point communications are working as designed	5
6	Verify primary networking system communications are working as designed	5
7	Verify redundant networking system communications are working as designed including in fault state	3
E	**Verify System Performance**	**13**
1	Validate system functions according to initial design requirements	5
2	Verify system stability over time and load conditions	4
3	Demonstrate to client or client's representative that system performs to design requirements	4
F	**Conduct Project Closeout**	**10**
1	Finalize AV network project documentation (e.g., configurations, passwords, hardware, ip addresses, performance verification, manuals)	4
2	Provide end users with training according to skill level (e.g., management, operators, support staff)	3
3	Identify and communicate potential risks and vulnerabilities based on deployed design	3
	Total Items	**100**