VOLUME 1, SECTION 9:

TECHNICAL NARRATIVE TO AMPLIFY TECHNICAL NARRATIVE TABLES

9.0 TECHNICAL NARRATIVE TO AMPLIFY TECHNICAL NARRATIVE TABLES

In Section 9.0 each of the technical volume narrative requirements for mandatory services and optional services proposed by Level 3 is addressed. The original table number, ID number, and narrative requirement are provided for reference.

9.1 TECHNICAL NARRATIVE REQUIREMENTS FOR MANDATORY IP-BASED SERVICES

All items in this section are from Table J.9.1.1.3 (a).

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
1	C.2.4.1.1.4 (2)	No	The following IPS capabilities are mandatory unless marked optional: 2. The contractor shall support appropriate access services (such as dial-up VS analog data service, dial-up ISDN, DSL, cable high speed access, FRS, PLS, satellite, or ATMS) to connect customers' SDPs to the contractor's IPS.
Response Level 3 will support appropriate access services (such as dial-up VS analog data service, dial-up ISDN, DSL, cable high speed access, FRS, PLS, satellite, or ATMS) to connect customers' SDPs to the Level 3 IPS.			
2	C.2.4.1.3.2 (1)	No	User-to-Network Interface for IPS UNI Type 1 Interface/Access Type: Asynchronous Transfer Mode Service Network-Side Interface: 1. T1 2. T3

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			3. OC-3c 4. OC-12c Protocol Type: IPv4/v6 over ATMS
Response [redacted]			
3	C.2.4.1.3.2 (2)	No	User-to-Network Interface for IPS UNI Type 2 Interface Type and Standard: Cable High Speed Access Payload Data Rate or Bandwidth: 320 Kbps up to 10 Mbps Signaling Type: Point-to-Point Protocol, IPv4/v6

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
Response [redacted]			
4	C.2.4.1.3.2 (3)	No	User-to-Network Interface for IPS UNI Type 3 Interface Type and Standard: Circuit Switched Data Service Payload Data Rate or Bandwidth: 1. ISDN at 64 Kbps 2. ISDN at 128 Kbps 3. ISDN dial backup at 64 Kbps 4. ISDN dial backup at 128 Kbps Signaling Type: Point-to-Point Protocol, IPv4/v6
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
5	C.2.4.1.3.2 (4)	No	User-to-Network Interface for IPS UNI Type 4 Interface Type and Standard: Ethernet Access Payload Data Rate or Bandwidth: 1. 1 Mbps up to 1 GbE (Gigabit Ethernet) 2. 10 GbE (Optional) Signaling Type: IPv4/v6 over Ethernet
Response [redacted]			
6	C.2.4.1.3.2 (5)	No	User-to-Network Interface for IPS UNI Type 5 Interface Type and Standard: Frame Relay Service

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			Payload Data Rate or Bandwidth: 1. 56 Kbps with 32 Kbps CIR 2. Fractional T1 (a) 128 Kbps with 64 Kbps CIR (b) 256 Kbps with 128 Kbps CIR (c) 384 Kbps with 128 Kbps CIR (d) 512 Kbps with 256 Kbps CIR (e) 768 Kbps with 384 Kbps CIR 3. T1 (a) 1.536 Mbps with 768 Kbps CIR (b) 1.536 Mbps with 1024 Kbps CIR 4. Fractional T3 (a) 3 Mbps (b) 6 Mbps (c) 12 Mbps (d) 24 Mbps (e) 45 Mbps 5. T3 Signaling Type: IPv4/v6 over FRS

Response

[redacted]

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
7	C.2.4.1.3.2 (6)	No	User-to-Network Interface for IPS UNI Type 6 Interface Type and Standard: IP over SONETS Payload Data Rate or Bandwidth: 1. 0C-3c 2. OC-12c 3. OC-48c 4. OC-192c Signaling Type: IP/PPP over SONETS
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
8	C.2.4.1.3.2 (7)	No	User-to-Network Interface for IPS UNI Type 7 Interface Type and Standard: Private Line Service Payload Data Rate or Bandwidth: 1. DS0 2. Fractional T1 3. T1 4. Fractional T3 5. T3 6. OC-3c 7. OC-12c 8. OC-48c 9. OC-192c Signaling Type: IPv4/v6 over PLS
[redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
9	C.2.4.1.3.2 (8)	No	User-to-Network Interface for IPS UNI Type 8 Interface Type and Standard: Voice Service Payload Data Rate or Bandwidth: Analog dialup at 56 Kbps Signaling Type: Point-to-Point Protocol, IPv4/v6
Response			
[redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
10	C.2.4.1.3.2 (9)	No	User-to-Network Interface for IPS UNI Type 9 Interface Type and Standard: DSL Service Payload Data Rate or Bandwidth: xDSL access at 1.5 to 6 Mbps Signaling Type: Point-to-Point Protocol, IPv4/v6
Response [redacted]			
11	C.2.4.1.3.2 (10)	No	User-to-Network Interface for IPS UNI Type 10 Interface Type and Standard: Multimode/Wireless LAN Service Payload Data Rate or Bandwidth: See Section C.2.14.3.3.1 MWLANS User-to-Network Interfaces
Response Not proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.			
12	C.2.4.1.3.2 (11)	No	User-to-Network Interface for IPS

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			UNI Type 11 Interface Type and Standard: Wireless Access Payload Data Rate or Bandwidth: See Section C.2.16.2.3.3.1 Wireless Access Arrangement Interfaces
Response Not proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.			
13	C.2.4.1.3.2 (12)	No	User-to-Network Interface for IPS UNI Type 12 Interface Type and Standard: Satellite Access Payload Data Rate or Bandwidth: See Section C.2.16.2.4.3.1 Satellite Access Arrangement Interfaces
Response Not proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.			
14	C.2.7.3.3.1 (1)	No	Interface for Intranet and Extranet Network-Based IP VPNs UNI Type 1 Interface/Access Type: Ethernet Access Network-Side Interface: 1. 1 Mbps up to 1 GbE (Gigabit Ethernet) 2. 10 GbE (Optional) Protocol Type: IPv4/v6 over Ethernet
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
15	C.2.7.3.3.1 (2)	No	Interface for Intranet and Extranet Network-Based IP VPNs UNI Type 2 Interface/Access Type: Private Line Service Network-Side Interface: 1. DS0 2. Fractional T1 3. T1 4. T3 5. Fractional T3 6. OC-3c 7. OC-12c 8. OC-48c 9. OC-192c Protocol Type: IPv4/v6 over PLS
Response			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
16	C.2.7.3.3.1 (3)	No	Interface for Intranet and Extranet Network-Based IP VPNs

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			UNI Type 3 Interface/Access Type: IP over SONETS Network-Side Interface: 1. OC-3c 2. OC-12c 3. OC-48c 4. OC-192c Protocol Type: IP/PPP over SONETS
Response [redacted]			
17	C.2.7.3.3.2 (1)	No	Interface for Remote Access Network-Based IP VPNs

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			UNI Type 1 Interface/Access Type: Voice Service Network-Side Interface: Analog dialup at 56 kbps Protocol Type: Point-to-Point Protocol, IPv4/v6
Response [redacted]			
18	C.2.7.3.3.2 (2)	No	Interface for Remote Access Network-Based IP VPNs UNI Type 2 Interface/Access Type: DSL Service Network-Side Interface: xDSL access at 1.5 to 6 Mbps Protocol Type: Point-to-Point Protocol, IPv4/v6
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
19	C.2.7.3.3.2 (3)	No	Interface for Remote Access Network-Based IP VPNs UNI Type 3 Interface/Access Type: Cable high speed access Network-Side Interface: 320 Kbps up to 10 Mbps Protocol Type: Point-to-Point Protocol, IPv4/v6
Response [redacted]			
20	C.2.7.3.3.2 (4)	No	Interface for Remote Access Network-Based IP VPNs UNI Type 4 Interface/Access Type: Multimode/Wireless LAN Service Network-Side Interface: See Section C.2.14.3.3.1 MWLANS User-to-Network Interfaces
Response Not proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
21	C.2.7.3.3.2 (5)	No	Interface for Remote Access Network-Based IP VPNs UNI Type 5 Interface/Access Type: Wireless Access Network-Side Interface: See Section C.2.16.2.3.3.1 Wireless Access Arrangement Interfaces
Response Not Proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.			
22	C.2.7.3.3.2 (6)	No	Interface for Remote Access Network-Based IP VPNs UNI Type 6 Interface/Access Type: Satellite Access Network-Side Interface: See Section C.2.16.2.4.3.1 Satellite Access Arrangement Interfaces
Response Not Proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.			
23	C.2.7.3.3.2 (7)	No	Interface for Remote Access Network-Based IP VPNs UNI Type 7 Interface/Access Type: Circuit Switched Data Service Network-Side Interface: 1. ISDN at 64 Kbps 2. ISDN at 128 Kbps 3. ISDN dial backup at 64 Kbps 4. ISDN dial backup at 128 Kbps Protocol Type: Point-to-Point Protocol, IPv4/v6

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
Response [redacted]			
24	C.2.7.4.3.1 (1)	No	Interface for Intranet and Extranet Connectivity UNI Type 1 Interface/Access Type: Asynchronous Transfer Mode Service Network-Side Interface: 1. T1 2. T3 3. OC-3c 4. OC-12c Protocol Type: IPv4/v6 over ATMS
Response MTSS will use our PB-VPN or IPS service as applicable. Please see the relevant section for UNI options.			
25	C.2.7.4.3.1 (2)	No	Interface for Intranet and Extranet Connectivity

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			UNI Type 2 Interface/Access Type: Ethernet Access Network-Side Interface: 1. 1 Mbps up to 1 GbE (Gigabit Ethernet) 2. 10 GbE (Optional) Protocol Type: IPv4/v6 over Ethernet
Response MTSS will use our PB-VPN or IPS service as applicable. Please see the relevant section for UNI options.			
26	C.2.7.4.3.1 (3)	No	Interface for Intranet and Extranet Connectivity UNI Type 3 Interface/Access Type: Frame Relay Service Network-Side Interface: 1. 56 Kbps with 32 Kbps CIR 2. Fractional T1 (a) 128 Kbps with 64 Kbps CIR (b) 256 Kbps with 128 Kbps CIR (c) 512 Kbps with 256 Kbps CIR (d) 768 Kbps with 384 Kbps CIR 3. T1 (a) 1.536 Mbps with 768 Kbps CIR (b) 1.536 Mbps with 1024 Kbps CIR 4. Fractional T3 5. T3

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			Protocol Type: IPv4/v6 over FRS
Response [redacted] Please see the relevant section for UNI options.			
27	C.2.7.4.3.1 (4)	No	Interface for Intranet and Extranet Connectivity UNI Type 4 Interface/Access Type: IP over SONETS Network-Side Interface: 1. OC-3c 2. OC-12c 3. OC-48c 4. OC-192c Protocol Type: IP/PPP over SONETS
Response [redacted]. Please see the relevant section for UNI options.			
28	C.2.7.4.3.1 (5)	No	Interface for Intranet and Extranet Connectivity UNI Type 5 Interface/Access Type: Private Line Service Network-Side Interface: 1. T1 2. Fractional T3 3. T3 4. OC-3c 5. OC-12c 6. OC-48c 7. OC-192c Protocol Type: IPv4/v6 over PLS

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
Response [redacted] Please see the relevant section for UNI options.			
29	C.2.7.4.3.2 (1)	No	Interface for Remote Access Connectivity UNI Type 1 Interface/Access Type: Cable high speed access Network-Side Interface: 320 kbps up to 10 Mbps Protocol Type: Point-to-Point Protocol, IPv4/v6
Response [redacted] Please see the relevant section for UNI options.			
30	C.2.7.4.3.2 (2)	No	Interface for Remote Access Connectivity UNI Type 2 Interface/Access Type: Circuit Switched Data Service Network-Side Interface: 1. ISDN at 64 Kbps 2. ISDN at 128 Kbps 3. ISDN dial backup at 64 Kbps 4. ISDN dial backup at 128 Kbps Protocol Type: Point-to-Point Protocol, IPv4/v6
Response [redacted] Please see the relevant section for UNI options.			
31	C.2.7.4.3.2 (3)	No	Interface for Remote Access Connectivity UNI Type 3 Interface/Access Type: Voice Service

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			Network-Side Interface: Analog dialup at 56 Kbps Protocol Type: Point-to-Point Protocol, IPv4/v6
Response [redacted] Please see the relevant section for UNI options.			
32	C.2.7.4.3.2 (4)	No	Interface for Remote Access Connectivity UNI Type 4 Interface/Access Type: DSL Service Network-Side Interface: xDSL access at 1.5 to 6 Mbps Protocol Type: Point-to-Point Protocol, IPv4/v6
Response [redacted] Please see the relevant section for UNI options.			
33	C.2.7.4.3.2 (5)	No	Interface for Remote Access Connectivity UNI Type 5 Interface/Access Type: Multimode/Wireless LAN Service Network-Side Interface: See Section C.2.14.3.3.1 MWLANS User-to-Network Interfaces
Response [redacted] Please see the relevant section for UNI options.			
34	C.2.7.4.3.2 (6)	No	Interface for Remote Access Connectivity UNI Type 6 Interface/Access Type: Wireless Access Network-Side Interface: See Section C.2.16.2.3.3.1 Wireless Access Arrangement Interfaces

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
Response [redacted] Please see the relevant section for UNI options.			
35	C.2.7.4.3.2 (7)	No	Interface for Remote Access Connectivity UNI Type 7 Interface/Access Type: Satellite Access Network-Side Interface: See Section C.2.16.2.4.3.1 Satellite Access Arrangement Interfaces
Response [redacted] Please see the relevant section for UNI options.			
36	C.2.7.8.1.4 (2)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: 2. The contractor shall enable a routing prioritization scheme or class of service to distinguish between IP services.
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
37	C.2.7.8.1.4 (3)(d)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: 3. The contractor shall provide the following minimum capabilities: d. The contractor's VOIPTS shall interoperate with private agency network dial plans.
Response Level 3's VOIPTS offering will interoperate with private agency network dial plans.			
38	C.2.7.8.1.4 (4)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: The contractor shall provide gateways for interoperability with the contractors VOIPTS and the PSTN, or agency UNIs. Access Gateway
Response [redacted]			
39	C.2.7.8.1.4 (4)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: The contractor shall provide gateways for interoperability with the contractors VOIPTS and the PSTN, or agency UNIs.

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			Trunking Gateway
Response [redacted]			
40	C.2.7.8.1.4 (4)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: The contractor shall provide gateways for interoperability with the contractors VOIPTS and the PSTN, or agency UNIs. PSTN Gateway
Response [redacted]			
41	C.2.7.8.1.4 (6)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: 6. The contractor shall verify with the agency that the agency firewall is compatible with this service.
Response [redacted]			
42	C.2.7.8.1.4 (8)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: 8. The contractor shall state the minimum and optimal requirements for agency-owned voice equipment (such as PBX's or other voice

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			systems) to be compatible and interoperate with the contractor's VOIPTS.
Response [redacted]			
43	C.2.7.8.1.4 (11)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: 11. The contractor shall ensure security practices and safeguards are provided to minimize susceptibility to security issues and prevent unauthorized access.
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
[redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
44	C.2.7.8.1.4 (11)	No	The following Voice over Internet Protocol Transport Service

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			capabilities are mandatory: 11. The contractor shall ensure security practices and policies are updated and audited regularly.
Response Requirement addressed in response to ID 43.			
45	C.2.7.8.1.4 (11)(a)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: a. Denial of service – The contractor shall provide safeguards to prevent hackers, worms, or viruses from denying legitimate VOIPTS users and subscribers from accessing VOIPTS.
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
46	C.2.7.8.1.4 (11)(b)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: b. Intrusion – The contractor shall provide safeguards to mitigate attempts to illegitimately use VOIPTS service.
Response Requirement addressed in response to ID 45.			
47	C.2.7.8.1.4 (11)(c)	No	The following Voice over Internet Protocol Transport Service capabilities are mandatory: c. Invasion of Privacy – The contractor shall ensure VOIPTS is private and that unauthorized third parties cannot eavesdrop or intercept VOIPTS communications.
Response Level 3's will ensure VOIPTS is private and that unauthorized third parties cannot eavesdrop or intercept VOIPTS communications by implementing [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
48	C.2.7.8.3.2 (1)	No	Voice Over Internet Protocol Transport Service Interfaces UNI Type 1 Interface Type: Ethernet port: RJ-45 (Std: IEEE 802.3) Payload Data Rate or Bandwidth: Up to 100 Mbps Signaling Type: SIP, H.323, MGCP
Response Level 3 supports SIP, H.323 (where commercially available), and MGCP (where commercially available) for this requirement.			
49	C.2.11.9.1.4 (1) (f)	No	1. The contractor shall provide network architecture design services. This shall include but is not limited to technical support to assist agencies with network architecture planning and design, solutions development, and the identification and evaluation of network solutions and technologies to meet agency business concepts and requirements f. Identification of cost and performance tradeoffs
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
50	C.2.11.9.1.4 (1) (a)	No	1. The contractor shall provide network architecture design services. This shall include but is not limited to technical support to assist agencies with network architecture planning and design, solutions development, and the identification and evaluation of network solutions and technologies to meet agency business concepts and requirements. a. Requirements gathering, definition, and analysis
Response [redacted]			
51	C.2.11.9.1.4 (1) (b)	No	1. The contractor shall provide network architecture design services. This shall include but is not limited to technical support to assist agencies with network architecture planning and design, solutions development, and the identification and evaluation of network solutions and technologies to meet agency business concepts and requirements b. Development of specifications
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
52	C.2.11.9.1.4 (1) (c)	No	1. The contractor shall provide network architecture design services. This shall include but is not limited to technical support to assist agencies with network architecture planning and design, solutions development, and the identification and evaluation of network solutions and technologies to meet agency business concepts and requirements c. Development and evaluation of alternative technical approaches
Response As the requirements for each project are analyzed, the architecture and design solution will be scrutinized using various technical approaches. Each approach will be considered for cost-effectiveness, applicability to the solution and appropriateness for the customer needs. In addition, reliability, maintenance requirements and vendor support services will also be considered to ensure the best possible solution is created for the customer.			
53	C.2.11.9.1.4 (1) (d)	No	1. The contractor shall provide network architecture design services. This shall include but is not limited to technical support to assist agencies with network architecture planning and design, solutions development, and the identification and evaluation of network solutions and technologies to meet agency business concepts and requirements d. Computer aided design, modeling and/or simulation
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
54	C.2.11.9.1.4 (1) (e)	No	1. The contractor shall provide network architecture design services. This shall include but is not limited to technical support to assist agencies with network architecture planning and design, solutions development, and the identification and evaluation of network solutions and technologies to meet agency business concepts and requirements e. Network design recommendations
Response [redacted]			
55	C.2.11.9.1.4 (1) (g)	No	1. The contractor shall provide network architecture design services. This shall include but is not limited to technical support to assist agencies with network architecture planning and design, solutions development, and the identification and evaluation of network solutions and technologies to meet agency business concepts and requirements g. Feasibility and capacity analysis.
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
56	C.2.11.9.1.4 (1) (h.)	No	1. The contractor shall provide network architecture design services. This shall include but is not limited to technical support to assist agencies with network architecture planning and design, solutions development, and the identification and evaluation of network solutions and technologies to meet agency business concepts and requirements h. Preliminary planning
Response [redacted]			
57	C.2.11.9.1.4 (2)	No	2. The contractor shall provide network and related systems design validation. The contractor shall review and validate the design of existing or proposed networks, related services, and systems identified by the subscribing agency.
Response [redacted]			
58	C.2.11.9.1.4 (2)	No	2. The review shall include but is not limited to network performance,

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability.
Response [redacted]			
59	C.2.11.9.1.4 (2) (a)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability a. Assessment of network strengths, weaknesses, and vulnerabilities
Response [redacted]			
60	C.2.11.9.1.4 (2) (b)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability b. Capacity and traffic pattern analysis on current and projected traffic loads
[redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
61	C.2.11.9.1.4 (2) (c)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability c. Measurement and assessment of network performance and availability
Response [redacted]			
62	C.2.11.9.1.4 (2) (d)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability d. Recommendations for network optimization, simplification, or cost reduction.
Response [redacted]			
63	C.2.11.9.1.4 (2) (e)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
			e. Identification of critical applications, protocols and vital data impacting the network
Response [redacted]			
64	C.2.11.9.1.4 (2) (f)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability f Network discovery including development of a topology map
Response [redacted]			
65	C.2.11.9.1.4 (2) (g)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability g. Development of strategies to improve reliability, availability, and security
Response Included in the review will be the development of strategies to improve reliability, availability and security of the network. Information assurance and data availability are key factors to the successful operation of any network system. The Level 3 Team understands this requirement as it is critical to the successful deployment of services to			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
the customer.			
66	C.2.11.9.1.4 (2) (h)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability h. Develop and validate current infrastructure drawings/schematics.
Response Included in the review will be the development and validation of the current infrastructure drawings and schematics.			
67	C.2.11.9.1.4 (2) (i)	No	2. The review shall include but is not limited to network performance, routing, IP addressing, numbering plans, physical/logical redundancy and diversity, network equipment, security, interoperability, and scalability i. Validate service interoperability with other networks and systems
Response [redacted]			
68	C.2.11.9.1.4 (3)	No	3. The contractor shall evaluate network technologies alternatives and approaches to meet agency requirements.
Response The Level 3 Team will evaluate network technologies, alternatives and approaches to meet agency requirements.			
69	C.2.11.9.1.4 (4)	No	4. The contractor shall perform modeling and simulation of applications and network services prior to implementation in a production environment.

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
Response [redacted] Typically this is done in a laboratory environment on a test network designed to simulate the real world.			
70	C.2.11.9.1.4 (5)	No	5. The contractor shall ensure rigorous and thorough testing is performed under a controlled test bed environment or the contractor's production network, according to subscribing agency's needs, to verify and evaluate the suitability and compatibility of new services.
Response The Level 3 Team will ensure rigorous and thorough testing is performed under a controlled test bed environment or the Level 3 Team's production network, according to subscribing agency's needs, to verify and evaluate the suitability and compatibility of new services.			
71	C.2.11.9.1.4 (5)	No	5. The contractor shall validate and verify that the services and/or applications under test operate according to the agency's requirements and objectives.
Response The Level 3 Team will validate and verify that the services and/or applications under test operate according to the agency's requirements and objectives.			
72	C.2.11.9.1.4 (6) (a)	No	6. The contractor shall provide technical support to facilitate the transition of services into a sustainable pilot or production service that operates on the agencies networks. a. Evaluation of the impact of new services upon agency networks
Response [redacted]			

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ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
[redacted]			
73	C.2.11.9.1.4 (6) (b)	No	6. The contractor shall provide technical support to facilitate the transition of services into a sustainable pilot or production service that operates on the agencies networks. b. Development of transition plans
Response The Level 3 Team will provide technical support to facilitate the transition of services into a sustainable pilot or production service that operates on the agencies networks including the development of transition plans.			
74	C.2.11.9.1.4 (6) (c)	No	6. The contractor shall provide technical support to facilitate the transition of services into a sustainable pilot or production service that operates on the agencies networks. c. Implementation support.
Response The Level 3 Team will provide technical support to facilitate the transition of services into a sustainable pilot or production service that operates on the agencies networks that includes implementation support.			

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