

VOLUME 1, SECTION 9 (continued):
TECHNICAL NARRATIVE TO AMPLIFY
TECHNICAL NARRATIVE TABLES



ID	RFP Section	Optional Capability	Technical Narrative Requirements for Mandatory IP-Based Services
75	C.2.11.9.1.4 (6) (d)	No	<p>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.</p> <p>d. Development of test and acceptance plans and criteria</p>
<p>Response</p> <p>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 test and acceptance plans and criteria.</p>			
76	C.2.11.9.1.4 (6) (e)	No	<p>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</p> <p>e. Measurement and assessment of network performance.</p>
<p>Response</p> <p>The Level 3 Team will provide technical support to facilitate the transition of services into a [REDACTED] that operates on the agencies networks including the [REDACTED]</p>			
77	C.2.11.9.1.4 (7) (a)	No	<p>7. The contractor shall provide design and engineering services for engineering prototypes relative to Network services to include but are not limited to</p> <p>a. Installation of network hardware and software</p>
<p>Response</p> <p>The Level 3 Team will provide design and engineering services for engineering prototypes relative to Network services to include but are not limited to the installation of network hardware and software.</p>			



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78	C.2.11.9.1.4 (7) (b)	No	7. The contractor shall provide design and engineering services for engineering prototypes relative to Networx services to include but are not limited to b. Configuration of network devices such as routers, switches, and gateways
<p>Response</p> <p>The Level 3 Team will provide design and engineering services for engineering [REDACTED] relative to Networx services to include but are not limited to the requirement stated in part b above. [REDACTED]</p>			
79	C.2.11.9.1.4 (7) (c)	No	7. The contractor shall provide design and engineering services for engineering prototypes relative to Networx services to include but are not limited to c. Installation of on-premises cable and network drops
<p>Response</p> <p>The Level 3 Team will provide design and engineering services for engineering prototypes relative to Networx services to include but are not limited to the installation of on-premises cable and network drops.</p>			
80	C.2.11.9.1.4 (7) (d)	No	7. The contractor shall provide design and engineering services for engineering prototypes relative to Networx services to include but are not limited to d. Performing testing and acceptance procedures.

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<p>Response</p> <p>The Level 3 Team will provide design and engineering services for engineering prototypes relative to Network services to include but are not limited to the performance testing and acceptance procedures.</p>			
81	C.5.2.2	No	<p>Part A of the NS/EP FRIP shall include technical systems, administration, management, and operational areas in the contract addressing how the 14 basic functional requirements will be supported for the above services (See Section C.7 for format).</p>
<p>Response</p> <p>[REDACTED]</p> <p>When services are purchased, the Government agency customer has the opportunity to request [REDACTED]. The customer can specify the category of priority provisioning and restoration for the services they are purchasing. Category E is available for Emergency priority. Level 3's TSP priority sequence follows the Executive Order-required sequence.</p> <p>Upon award of a contract from a specific Government agency for services proposed by Level 3 under this procurement, we will provide the Network Program Management Office with a [REDACTED]. [REDACTED] This plan will be specific to the location and types of services purchased by the Government agency and reflect the agency's TSP restoration requests.</p> <p>Part A of the FRIP will contain the specific information on how the 14 functional requirements specified in RFP Section C.5.2.1 will be fulfilled for that customer. The plan will address the following information as applicable:</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>			

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82	C.5.2.7(2)	No	<p>If the National Capital Region is covered in the contract, the contractor shall (2)The NS/EP FRIP Part B shall address technical systems and administration, management, and operations requirements for the National Capital Region.</p>
<p>Response</p> <p>Upon award of a contract from a specific Government agency for services proposed by Level 3 under this procurement, we will provide the Network Program Management Office with a copy of a NS/EP FRIP as required by the RFP in Section C.5.2.2. This plan will be specific to the location and types of services purchased by the Government agency and reflect the agency's TSP restoration requests.</p> <p>Part B of the FRIP will address technical systems and administration, management, and operations requirements for the National Capital Region. We already have extensive infrastructure – fiber, POPs and equipment at locations where the vast majority of agencies reside.</p>			



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<p>As with Part A, Part B of the FRIP will be customized to the agency and the service ordered. The plan will be based on the following underlying features of our network and infrastructure in the Washington D.C. area:</p> <ul style="list-style-type: none"> • Diverse access, routers and switches. Level 3 will offer geographically separate network switches/routers to serve Federal agencies in the National Capital Region. For IP-based services, each customer will have the option of diversity. This includes access diversity, POP diversity, and switch or router diversity where available. • Network redundancy and resiliency. The National Capital Region has three major pipelines connecting it to the other metropolitan areas in the U.S. that act as separate, redundant paths for traffic. Even if one of the three goes down, service remains active as the traffic is rerouted, since each of these pipelines is a part of Level 3's nationwide SONETS-based Self-Healing Rings architecture. • Limitless bandwidth capability. Level 3 spent years designing and building the Washington DC network with the primary goal of redundancy and diversity throughout. Two overlapping UPSR rings run throughout the main business district, each with 12 conduits running side-by-side. Each conduit is initially provisioned with a 96-fiber bundle, but is capable of carrying hundreds of fibers. Today only 2 or 3 conduits are being used – therefore the bandwidth capability for future build-outs is virtually unlimited. • Space Availability. Level 3 has three POPs in the National Capital Region: 2 synergy sites in downtown Washington DC and one large Gateway hub in McLean, VA. The POPs have plenty of spare capacity, routers, and switches – and are under continual re-engineering to stay ahead of the growth curve. This enables Level 3 to commit to full service of all Government entities. 			
83	C.6.4(1)	No	<p>The relevant provisions of Subpart C, Functional Performance Criteria, paragraph 1194.31, shall apply to the services identified in paragraphs C.6.4. above. For these services, the offeror shall provide one of the following two capabilities:</p> <ol style="list-style-type: none"> 1. Support for assistive technologies used by disabled individuals. 2. At least one mode of operation and information retrieval that: For blind users, does not require vision.

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			<p>For vision impaired users, does not require visual acuity greater than 20/70.</p> <p>For deaf users, does not require hearing.</p> <p>For hearing impaired users, does not require enhanced auditory capability.</p> <p>For users with no speech capability or with impaired speech, does not require user speech.</p> <p>For users without fine motor control or simultaneous action capability, does not require fine motor control or simultaneous action and is operable without limited reach and strength.</p>
<p>Response</p> <p>Exception: Level 3 has proposed VOIPTS, MTSS, SMES and INRS. Level 3 will support the Subpart C, Functional Performance Criteria, paragraph 1194.21 for these services. Level 3 will provide supportive assistive technologies used by disabled individuals for these services. Level 3's VOIPTS is an interoperability solution that enables the customer's existing PBX or key system equipment to interoperate with Level 3's IP VPNS product. Government users will continue to use the interfaces provided by existing Government equipment and, as such, a 508 compliant interface from Level 3 is not necessary.</p>			

9.2 TECHNICAL NARRATIVE REQUIREMENTS FOR OPTIONAL IP-BASED SERVICES

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

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
16	C.2.4.3.1.4	No	<p>The IDC shall support the following capabilities: Security (Building and Facilities) The contractor shall describe the offered security methods and procedures.</p>
<p>Response</p> <div style="background-color: black; height: 100px; width: 100%;"></div>			

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			<p>[REDACTED]</p>
17	C.2.4.3.1.4	No	<p>The IDC shall support the following capabilities: Network Connectivity and Bandwidth</p> <p>The contractor shall describe its Internet infrastructure (e.g., Tier-1 backbone connectivity) – or business relationships with other Network Service Providers – that ensure minimal latency, fewest possible Autonomous System <i>hops</i>, et cetera.</p>
<p>Response</p> <p>Level 3 is one of the few Tier 1 Internet backbone providers in the world and boasts a significant customer base that includes over [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>			

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
[Redacted]			
18	C.2.5.2.2.1 (1) SONETS	Yes	<p>The following SONETS features in Section C.2.5.2.2.1 are mandatory unless marked optional:</p> <p>1. Bandwidth On Demand (BoD)Optional</p> <p>The contractor shall provide agencies with the ability to increase or decrease bandwidth in increments of at least 1 Mbps without interrupting service. The contractor shall indicate available increments.</p>
<p>Response</p> <p>Not proposed. The Level 3 solution does not support this optional feature.</p>			
19	C.2.5.3.1.4 (1)(a) Dark Fiber	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>1. Geographical Coverage. The contractor shall specify the coverage of its DFS, in the following regions:</p> <p>a. Non-domestic. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall provide and maintain a list of all the Countries/Jurisdictions where the contractor's dark fiber is available.</p>
<p>Response</p> <p>[Redacted]</p>			

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
20	C.2.5.3.1.4 (1)(b)(i)(1)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <ol style="list-style-type: none"> 1. Geographical Coverage. The contractor shall specify the coverage of its DFS, in the following regions: <ol style="list-style-type: none"> b. CONUS <ol style="list-style-type: none"> i. Inter-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the Government the information outlined as follows, and shall update such information as the network is modified: <ol style="list-style-type: none"> 1. Number of Inter-city route miles available in North America and listing of interconnected cities shall be included.
This area is redacted with black bars			



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21	C.2.5.3.1.4 (1)(b)(i)(1)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <ol style="list-style-type: none"> 1. Geographical Coverage. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify the coverage of its DFS, in the following regions: <ol style="list-style-type: none"> c. OCONUS <ol style="list-style-type: none"> i. Inter-city connectivity. The contractor shall specify for the Government the information outlined as follows, and shall update such information as the network is modified: <ol style="list-style-type: none"> 1. Number of Intercity route miles available in OCONUS shall be included.
<p>Response</p> <p style="background-color: yellow;">Hence the listing of information such as route miles, hut spacing, metro networks and hut locations is a null set.</p>			



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22	C.2.5.3.1.4 (1)(b)(i)(2)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>1. Geographical Coverage. The contractor shall specify the coverage of its DFS, in the following regions:</p> <p>b. CONUS</p> <p>i. Inter-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the Government the information outlined as follows, and shall update such information as the network is modified:</p> <p>2. Availability of regeneration locations and hut spacing shall be listed.</p>		Y	
<p>Response</p> <p>[REDACTED]</p>						
23	C.2.5.3.1.4 (1)(b)(i)(2)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>1. Geographical Coverage. The contractor shall specify the coverage of its DFS,</p>			



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			<p>in the following regions:</p> <p>c. OCONUS</p> <p>i. Inter-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the Government the information outlined as follows, and shall update such information as the network is modified:</p> <p>2. Availability of regeneration locations and hut spacing shall be listed.</p>
<p>Response</p> <div style="background-color: black; height: 50px; width: 100%;"></div>			
24	C.2.5.3.1.4 (1)(b)(i)(3)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>1. Geographical Coverage. The contractor shall specify the coverage of its DFS, in the following regions:</p> <p>b. CONUS</p> <p>i. Inter-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the Government the information outlined as follows, and shall update such information as the network is modified:</p> <p>3. Should amplification locations be available, type of fiber deployed and spacing between locations shall be included.</p>
<p>Response</p> <div style="background-color: black; height: 50px; width: 100%;"></div>			



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25	C.2.5.3.1.4 (1)(b)(i)(3)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <ol style="list-style-type: none"> 1. Geographical Coverage. The contractor shall specify the coverage of its DFS, in the following regions: <ol style="list-style-type: none"> c. OCONUS <ol style="list-style-type: none"> i. Inter-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the Government the information outlined as follows, and shall update such information as the network is modified: 3. Should amplification locations be available, type of fiber deployed and spacing between locations shall be included.
<p>Response</p> <p>Level 3 complies with this requirement. However, Level 3 has no fiber assets in any of the OCONUS territories. Hence the listing of information such as fiber miles, hut spacing, metro networks and hut locations is a null set. Level 3 will update this information as fiber assets change.</p>			
26	C.2.5.3.1.4 (1)(b)(ii)(1)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <ol style="list-style-type: none"> 1. Geographical Coverage. The contractor shall specify the coverage of its DFS,


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			in the following regions: b. CONUS ii. Intra-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the Government the information outlined as follows, and shall update such information as the network is modified: 1. The contractor shall list the available metro networks.
Response <div style="background-color: black; height: 15px; width: 100%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 20%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 20%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 20%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 20%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 15%;"></div> <div style="background-color: black; height: 15px; width: 20%;"></div>			



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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
27	C.2.5.3.1.4 (1)(b)(ii)(1)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <ol style="list-style-type: none"> 1. Geographical Coverage. The contractor shall specify the coverage of its DFS, in the following regions: <ol style="list-style-type: none"> c. OCONUS ii. Intra-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the Government the information outlined as follows, and shall update such information as the network is modified: <ol style="list-style-type: none"> 1. The contractor shall list all available metro networks.
<p>Response</p> <p>[REDACTED]</p>			
28	C.2.5.3.1.4 (1)(b)(ii)(2)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <ol style="list-style-type: none"> 1. Geographical Coverage. The contractor shall specify the coverage of its DFS,

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			<p>in the following regions:</p> <p>b. CONUS</p> <p>ii. Intra-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the Government the information outlined as follows, and shall update such information as the network is modified:</p> <p>2. The contractor shall include the available connection options.</p>
<p>Response</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>			
29	C.2.5.3.1.4 (1)(b)(ii)(2)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>1. Geographical Coverage. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify the coverage of its DFS, in the following regions:</p> <p>c. OCONUS</p> <p>ii. Intra-city connectivity. The contractor shall specify for the Government the information outlined as follows, and shall update such information as the network is modified:</p> <p>2. The contractor shall specified its ability to upgrade to multi-conduit system</p>

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<p>Response</p> 			
30	C.2.5.3.1.4 (1)(b)(ii)(3)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <ol style="list-style-type: none"> 1. Geographical Coverage. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify the coverage of its DFS, in the following regions: <ol style="list-style-type: none"> b. CONUS <ol style="list-style-type: none"> ii. Intra-city connectivity. The contractor shall specify for the Government the information outlined as follows, and shall update such information as the network is modified: 3. The contractor shall state its ability to upgrade to multi-conduit system.
<p>Response</p> 			
31	C.2.5.3.1.4 (1)(b)(ii)(4)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <ol style="list-style-type: none"> 1. Geographical Coverage. The contractor shall specify the coverage of its DFS, in the following regions: <ol style="list-style-type: none"> b. CONUS <ol style="list-style-type: none"> ii. Intra-city connectivity. The contractor, once the proper non-disclosure agreements (NDAs) are agreed upon with the agency, shall specify for the



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			Government the information outlined as follows, and shall update such information as the network is modified: 4. List of Collocation facilities provided shall be provided as part of “on-net” facilities. If collocation facilities are not provided as part of “on-net” facilities, collocation facilities contracted with third parties shall be specified.
Response 			

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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
32	C.2.5.3.1.4 (5)(f)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>5. Gateways. The contractor shall provide the ability to add and drop traffic via gateway locations. The following requirements shall be fulfilled by the contractors and updates on improvements or expansions shall be provided throughout the life of the contract.</p> <p>f. The contractor shall indicate if gateway expansion is possible.</p>
<p>Response</p> <p>Gateway expansion is possible for most Level 3 gateways.</p>			
33	C.2.5.3.1.4 (5)(g)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>5. Gateways. The contractor shall provide the ability to add and drop traffic via gateway locations. The following requirements shall be fulfilled by the contractors and updates on improvements or expansions shall be provided</p>

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
			<p>throughout the life of the contract.</p> <p>g. The contractor shall indicate if gateway locations are monitored remotely.</p>
<p>Response</p> <p>All Level 3 Gateways are monitored remotely by the Level 3 [REDACTED].</p>			
34	C.2.5.3.1.4 (7)(a)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>7. Fiber Deployed. The contractor shall indicate which type of fiber is deployed, if a mixed of fiber types has been deployed, and where fiber has been deployed.</p> <p>a. The contractor shall make available single mode and multimode fiber.</p>
<p>Response</p> <p>Level 3 has only deployed single mode fiber in our network, but because of our multi-conduit network, multi-mode fiber could be deployed at the customer's request.</p>			
35	C.2.5.3.1.4 (7)(b)(i)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>7. Fiber Deployed. The contractor shall indicate which type of fiber is deployed, if a mixed of fiber types has been deployed, and where fiber has been deployed.</p> <p>b. The contractor shall indicate which of the fiber types have been deployed and where:</p> <p>i. Non-zero dispersion shifted (NZDS) fiber to allow DWDM transmission</p>
<p>Response</p> <p>[REDACTED]</p>			



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36	C.2.5.3.1.4 (7)(b)(ii)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>7. Fiber Deployed. The contractor shall indicate which type of fiber is deployed, if a mixed of fiber types has been deployed, and where fiber has been deployed.</p> <p>b. The contractor shall indicate which of the fiber types have been deployed and where:</p> <p>ii. Corning ELEAF</p>
<p>Response</p> <div style="background-color: black; height: 40px; width: 100%;"></div>			
37	C.2.5.3.1.4 (7)(b)(iii)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>7. Fiber Deployed. The contractor shall indicate which type of fiber is deployed, if a mixed of fiber types has been deployed, and where fiber has been deployed.</p> <p>b. The contractor shall indicate which of the fiber types have been deployed and where:</p> <p>iii. Lucent True-Wave</p>
<p>Response</p> <div style="background-color: black; height: 40px; width: 100%;"></div>			
38	C.2.5.3.1.4 (7)(b)(iv)	No	<p>The following Dark Fiber Services capabilities are mandatory unless marked optional:</p> <p>7. Fiber Deployed. The contractor shall indicate which type of fiber is deployed, if a mixed of fiber types has been deployed, and where fiber has been deployed.</p> <p>b. The contractor shall indicate which of the fiber types have been deployed and</p>

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			where: iv. Lucent True-Wave RS
Response			
			
39	C.2.5.3.1.4 (7)(b)(v)	No	The following Dark Fiber Services capabilities are mandatory unless marked optional: 7. Fiber Deployed. The contractor shall indicate which type of fiber is deployed, if a mixed of fiber types has been deployed, and where fiber has been deployed. b. The contractor shall indicate which of the fiber types have been deployed and where: v. Lucent All-Wave
Response			
			
40	C.2.5.3.1.4 (9)(a)(v)	No	The following Dark Fiber Services capabilities are mandatory unless marked optional: 9. Network Services Verification Criteria. The contractor shall comply with the following verification requirements: a. Verification Testing shall be performed as follows: v. A written report shall be issued and delivered to the Government, for each cable and OTDR traces and other measurements shall be included for each fiber.



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Response [REDACTED]			
41	C.2.5.3.1.4 (10)(b)(i)	No	The following Dark Fiber Services capabilities are mandatory unless marked optional: 10. Service Components. DFS service components shall include the following: b. Laterals. They shall be funded by the agency and their length may vary from a few meters to several kilometers. i. The contractor shall indicate the minimum and maximum size of the lateral in fiber strands
Response [REDACTED]			
42	C.2.5.3.3	No	Interface. The contractor shall identify the fiber connectors that are supported.
Response [REDACTED]			
43	C.2.5.4.1.1.4 (12)(a) Waves	No	The following Optical Wavelength Services (OWS) capabilities are mandatory unless marked optional: 12. Access Methods – The contractor shall provide access methods to the ordered wavelength service for an end-to-end offering. a. If the contractor is not able to provide access on his network, it shall indicate what alternatives exist to enable the service end-to-end.



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<p>Response</p> <p>[Redacted]</p>			
44	C.2.5.4.1.1.4 (12)(c)	No	<p>The following Optical Wavelength Services (OWS) capabilities are mandatory unless marked optional:</p> <p>12. Access Methods – The contractor shall provide access methods to the ordered wavelength service for an end-to-end offering.</p> <p>c. When agency access is provided via the backbone of the Long Haul (LH) DWDM systems and is not collocated, the contractor shall specify the appropriate reach of the optical interface to be used.</p>
<p>Response</p> <p>[Redacted]</p>			
45	C.2.5.4.1.1.4 (12)(c)	No	<p>The following Optical Wavelength Services (OWS) capabilities are mandatory unless marked optional:</p> <p>c. If the distance is too long for interfaces such as FICON, Fibre Channel, etc., the mediation devices or gateways needed shall be specified in order to compensate for distance limitations.</p>




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<p>Response</p> <p>[REDACTED]</p>			
46	C.2.5.4.1.1.4 (13)(c)	No	<p>The following Optical Wavelength Services (OWS) capabilities are mandatory unless marked optional:</p> <p>13. Customer Premises Equipment (CPE) Support – The contractor shall provide multi-vendor interoperability support to the CPE owned or leased by the agency by completing connectivity using the appropriate UNIs in the following cases:</p> <p>c. The contractor shall indicate if the Customer Premises Equipment (CPE) can be connected to their networks via native protocols (e.g., Asynchronous Transport Mode (ATM), Internet Protocol (IP), Ethernet) or if Packet-Over-SONETS (POS) or ATM over SONETS interfaces are required.</p>
<p>Response</p> <p>This requirement is non-applicable per Amendment #2.</p>			
47	C.2.5.4.1.1.4 (7)	Yes	<p>The following Optical Wavelength Services (OWS) capabilities are mandatory unless marked optional:</p> <p>7. [Optional] Protocol Transparency – CONUS and Non-Domestic. The contractor shall support CONUS and Non-Domestic Wavelengths that are rate and protocol independent.</p>
<p>Response</p> <p>Not proposed. Level 3 will consult with the Government to address non-standard protocols associated with this optional requirement.</p>			



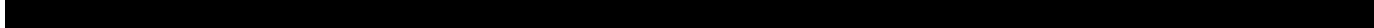


ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
48	C.2.5.4.1.1.4 (8)(b)	No	<p>The following Optical Wavelength Services (OWS) capabilities are mandatory unless marked optional:</p> <p>8. Byte Transparency. The support to framed wavelengths shall include byte transparency where the overhead bytes are passed through without being overwritten (i.e. non-intrusive Synchronous Optical Network/Synchronous Digital Hierarchy (SONETS/SDH) processing of the signals).</p> <p>b. If the framed wavelengths supported are not fully transparent, the contractor shall indicate the level of transparency offered for wavelengths at 2.5 Gbps and 10 Gbps.</p>
<p>Response</p> <div style="background-color: black; height: 150px; width: 100%;"></div>			
54	C.2.7.1.1.4 (11)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>11. The contractor shall describe the Ingress/Egress bandwidth profiles per EVC. For example, for a 10 Mbps service, the bandwidth profiles available may be 5 and 10 Mbps.</p>

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
<p>Response</p> <div style="background-color: black; width: 100%; height: 100%; min-height: 150px;"></div>			
56	C.2.7.1.1.4 (14)(a)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported.</p> <p>a. Signal failure</p>
<p>Response</p> <div style="background-color: black; width: 100%; height: 100%; min-height: 150px;"></div>			

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
58	C.2.7.1.1.4 (14)(b)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported.</p> <p>b. Signal degradation</p>
<p>Response</p> <p>Exception: The requirement as stated in C.7.1.1.4 (14) indicates that “It is desirable that at least one of the items in the following list be supported” and since Level 3 is supporting other items in (14), we will not support item (b).</p>			
60	C.2.7.1.1.4 (14)(c)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported.</p> <p>c. Connectivity or Loss of connectivity</p>
<p>Response</p> <div style="background-color: black; height: 100px; width: 100%;"></div>			
61	C.2.7.1.1.4	No	The following Ethernet Services (EthS) capabilities are mandatory unless

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
	(14)(c)		marked optional: 14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported. c. Connectivity or Loss of connectivity
Response Duplicate of Line 60. See response above.			
62	C.2.7.1.1.4 (14)(d)	No	The following Ethernet Services (EthS) capabilities are mandatory unless marked optional: 14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported. d. Frame loss
Response 			
64	C.2.7.1.1.4 (14)(e)	No	The following Ethernet Services (EthS) capabilities are mandatory unless marked optional: 14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported. e. Errored frames



ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
Response 			
66	C.2.7.1.1.4 (14)(f)	No	The following Ethernet Services (EthS) capabilities are mandatory unless marked optional: 14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported. f. Looping
Response 			
68	C.2.7.1.1.4 (14)(g)	No	The following Ethernet Services (EthS) capabilities are mandatory unless marked optional: 14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported. g. Denial of service (DoS)
Response 			



ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
			[Redacted]
			[Redacted]
70	C.2.7.1.1.4 (14)(h)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported.</p> <p>h. Misinserted frames</p>
Response			
[Redacted]			
72	C.2.7.1.1.4 (14)(i)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>14. The contractor shall indicate what proactive Performance Monitoring (PM) capabilities are supported.</p>

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
			i. Maintenance parameters
<p>Level 3 performs preventive maintenance on the E-LINE and E-LAN services as required by the equipment vendors. These measures generally include [REDACTED]</p>			
74	C.2.7.1.1.4 (21)(a)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>21. The contractor shall indicate the Virtual Connection Sizes supported by its network. As a minimum, the following shall be supported:</p> <p>a. For point-to-point Ethernet connections – up to 1 Gbps, and 10 Gbps as optional</p>
<p>[REDACTED]</p>			
76	C.2.7.1.1.4 (21)(b)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>21. The contractor shall indicate the Virtual Connection Sizes supported by its network. As a minimum, the following shall be supported:</p> <p>b. For multi-point-to-multi-point connections – up to 1 Gbps, and 10 Gbps as optional</p>
<p>Response</p> <p>[REDACTED]</p>			


ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
78	C.2.7.1.1.4 (23)(a)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>23. The contractor shall indicate whether the Ethernet services enabled by its networks use any of the following transport methods and Protocol Interworking:</p> <p>a. Ethernet over CWDM/DWDM – The contractor shall indicate limitations, if any, when transporting native Ethernet over WDM gear.</p>
<p>Response</p> <p>[Redacted]</p>			
80	C.2.7.1.1.4 (23)(b)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>23. The contractor shall indicate whether the Ethernet services enabled by its networks use any of the following transport methods and Protocol Interworking:</p> <p>b. Ethernet over SONETS/SDH, ASTN/OTN – The contractor shall indicate limitations, if any, when using Generic Framing Procedure (GFP), LCAS and Virtual Concatenation Technologies.</p>
<p>Response</p> <p>[Redacted] There are no limitations for the protocols that are used, other than the bandwidth ordering increments described above. The customer may employ these technologies in their Ethernet feed to the Level 3 equipment.</p>			
82	C.2.7.1.1.4	No	The following Ethernet Services (EthS) capabilities are mandatory unless


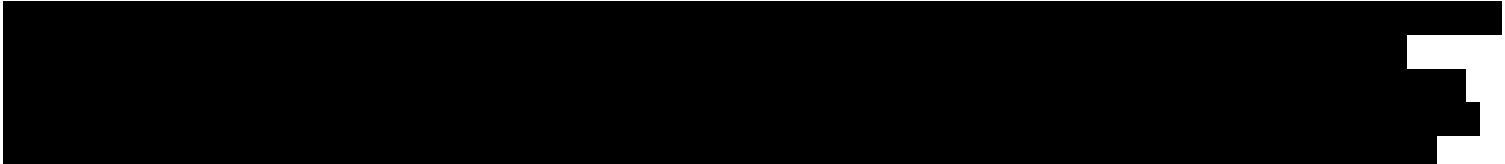
ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
	(23)(c)		marked optional: 23. The contractor shall indicate whether the Ethernet services enabled by its networks use any of the following transport methods and Protocol Interworking: c. Ethernet over ATM
Response 			
84	C.2.7.1.1.4 (23)(d)	No	The following Ethernet Services (EthS) capabilities are mandatory unless marked optional: 23. The contractor shall indicate whether the Ethernet services enabled by its networks use any of the following transport methods and Protocol Interworking: d. Ethernet over FR
Response 			
86	C.2.7.1.1.4 (23)(e)	No	The following Ethernet Services (EthS) capabilities are mandatory unless marked optional: 23. The contractor shall indicate whether the Ethernet services enabled by its networks use any of the following transport methods and Protocol Interworking: e. Ethernet over MPLS – The contractor shall indicate whether “c” and “d” are supported over the MPLS infrastructure and the approach for implementation.
Response			

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
88	C.2.7.1.1.4 (8)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>8. The contractor shall describe the Ingress/Egress bandwidth profiles supported per Unities applies to electrical as well as optical ports.</p>
<p>Response</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>			
89	C.2.7.1.1.4 (8)	No	<p>The following Ethernet Services (EthS) capabilities are mandatory unless marked optional:</p> <p>8. The contractor shall describe the Ingress/Egress bandwidth profiles</p>

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
			supported per UNI. This applies to electrical as well as optical ports.
<p>Response Duplicate of Line 89. See response above.</p>			
90	C.2.7.1.2.1 (1)	No	<p>The following Ethernet Services (EthS) features in Section C.2.7.1.2.1 are mandatory unless marked optional:</p> <p>1. Bandwidth-on-Demand (BoD)</p> <p>The contractor shall support bandwidth increments and decrements on demand, as agreed between the contractor and the agency.</p> <p>The contractor shall indicate what increments are available to modify the contracted bandwidth in near real time.</p> <p>Options for incremental/reduction steps shall include at least 1 Mbps, 5 Mbps, and 10 Mbps.</p> <p>Provisioning time for this feature shall not exceed 30 min per instance unless otherwise agreed by the agency and contractor on a case by case basis.</p>
<p>Response Exception:</p> <div style="background-color: black; height: 100px; width: 100%;"></div>			

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
			[Redacted]
92	C.2.7.2.3.1 (1)	No	Interface for Intranet and Extranet Premises-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]			

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
93	C.2.7.2.3.1 (1)	No	Interface for Intranet and Extranet Premises-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 Duplicate of Line 92. See response above.			
94	C.2.7.2.3.2 (1)	No	Interface for Remote Access Premises-based IP VPNs UNI Type 1 Interface/Access Type: Voice Service Network-Side Interface: Analog dialup at 56 Kbps Protocol Type (See Note 1): Point-to-Point Protocol, IPv4/v6
Response 			

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
95	C.2.7.2.3.2 (2)	No	Interface for Remote Access Premises-based IP VPNs UNI Type 2 Interface/Access Type: DSL Service Network-Side Interface: xDSL access at 1.5 to 6 Mbps Protocol Type (See Note 1): Point-to-Point Protocol, IPv4/v6
Response 			
96	C.2.7.2.3.2 (3)	No	Interface for Remote Access Premises-based IP VPNs UNI Type 3 Interface/Access Type: Cable high speed access Network-Side Interface: 320 kbps up to 10 Mbps Protocol Type (See Note 1): Point-to-Point Protocol, IPv4/v6
Response 			

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
[REDACTED]			
[REDACTED]			
97	C.2.7.2.3.2 (4)	Yes	Interface for Remote Access Premises-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 Protocol Type (See Note 1)
Response Not proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.			
98	C.2.7.2.3.2 (5)	Yes	Interface for Remote Access Premises-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 Protocol Type (See Note 1)
Response Not proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.			
99	C.2.7.2.3.2 (6)	Yes	Interface for Remote Access Premises-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 Protocol Type (See Note 1)

ID	RFP Section	Optional Capability	Technical Narrative Requirements for Optional IP-Based Services
<p>Response</p> <p>Not proposed. Level 3 will not be able to offer this optional service as part of our Networx proposal.</p>			
100	C.2.7.2.3.2 (7)	No	<p>Interface for Remote Access Premises-based IP VPNs UNI Type 7 Interface/Access Type: Circuit Switched Data Service Network-Side Interface</p> <ol style="list-style-type: none"> 1. ISDN at 64 Kbps 2. ISDN at 128 Kbps 3. ISDN dial backup at 64 Kbps 4. ISDN dial backup at 128 Kbps <p>Protocol Type (See Note 1): Point-to-Point Protocol, IPv4/v6</p>
<p>Response</p> <div style="background-color: black; height: 50px; width: 100%;"></div> <div style="background-color: black; height: 150px; width: 100%;"></div>			