Volume 6 - Price Proposal

Solicitation No.: QTA0015THA3003

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Submitted to: General Services Administration FAS/ITS

Submitted by: Core Technologies, Inc.

Table of Contents

CTI is leveraging its Network Architecture combined with its wholesale aggregation services to provide a comprehensive service and price offering for the mandatory and optional services for this response. CTI will be leveraging the “Most Favorable” price points with all its servicing vendors and pricing within the newly established pricing Hubs (PHUBS) that GSA has incorporated in the proposal. This will allow for ease of providing additional prices for services.

1.0 PRICING VOLUME (L.34) [RIN: MPC0011-DI, MPC0018-DI]

1.1 PRICE RESPONSE (L.27.2 TABLE (2), L.28, L.34.1)

1.1.1 Pricing Hubs (PHUBS) (L.34.1 (1)) [RIN: MPC0007-DI]

CTI shall populate and maintain the relationship between Building NSCs and their respective PHubs in Table B.4.1.7. The PHubs in Table B.4.1.7 shall be used in conjunction with the access pricing tables in Section B.2.9 to set access prices. The government will reference Table B.4.1.6 to verify that the relationships within Table B.4.1.7 result in fair and reasonable prices as identified in the tables in Section B.2.9. Changes to these tables do not require contract modifications.

[redacted]

Guidance for PHub to NSC strategy can be found within “NS2020 Enterprise Infrastructure Solutions Access Pricing Concepts”. The three main options provided

include: 1) PHub may be the eight-character Common Language Location Identifier (CLLI) code of an SWC, 2) a PCL serving the service delivery point, or 3) an ID created by the offeror. [redacted]

1.1.2 Physical Concentration Locations (PCLS) & Points Of Presence (POPS) (L.34.1 (2))

1.1.2.1 Associating NSCs to PCLs (L.34.1 (2a)) [RIN: MPC0029-DI]

Pursuant to the requirements in Section L.34.1, paragraph 2, CTI shall describe the process for associating NSCs to PCLs as follows:

Table B.4.1.6 provides the relationship between Building NSCs and PCL NSCs.

Building NSC*	PCL NSC*	Last Modified Date

Table 1: Network Site Code PCL Relationship Table (B.4.1.6)

*NSCs are defined in Table B.4.1.8

Building NSCs may need to be created for new building locations. CTI shall use iConectiv (CLONES) to obtain an NSC/CLLI to represent any government building that orders service from an EIS contractor. CTI shall interface with and use the iConectiv CLONES system to obtain and maintain NSC/CLLI) data. As new NSCs are created, CTI shall use the GSA Systems to update Tables B.4.1.6 and B.4.1.7 as needed to facilitate the validation of orders and invoices without a contract modification. Any order or invoice containing a building NSC that is not found in Tables B.4.1.6 and B.4.1.7 will be placed in dispute.

[redacted]

[redacted]

The following reference tables will be updated and maintained by the government, and made available to CTI, to validate all NSCs and NSC-to-PCL mappings maintained by CTI. Tables B.4.1.8 and B.4.1.9 provide a list of domestic and non-domestic NSCs (these may be PCLs, SWCs, or government-identified buildings) and the associated location data.

NSC	Country/ Jurisdiction ID	Normalized Geographical Name	Latitude	Longitude	NSC V&H Coordinates		Created Date	Last Modified Date
					V	H		

Table 2: Network Site Codes Table (B.4.1.8)

NSC	Sequence Number	Address						Address Intersection						Postal Code	County Name	Geo-political Code	Offset		Second Offset		Created Date	Last Modified Date
		Number	Pre-fix	Street Name	Street Type	Suf-fix	Unformatted Address	Option	Number	Pre-fix	Street Name	Street Type	Suf-fix				Distance	Direction	Distance	Direction		

Table 3: Network Site Code/Address Correspondence Table (B.4.1.9)

1.1.2.2 Associating PCLs to POPs (L.34.1 (2b)) [RIN: MPC0030-DI]

Table B.4.1.5 shall be populated, updated and maintained by CTI to identify the PCL to POP relationship by bandwidth capability. The PCL serves as an engineering construct for purposes of identifying physical attributes of a networking solution, such as access routes needed to assure path diversity. At least one POP NSC shall be associated with each PCL NSC identified in Table B.4.1.5.

PCL NSC*	Bandwidth Group**	POP NSC***

B.4.1.5 – Domestic Physical Concentration location to Point of Presence Relationship Table

The following reference tables will be updated and maintained by the government, and made available to CTI, to validate all NSCs and NSC-to-PCL mappings maintained by CTI. Tables B.4.1.8 and B.4.1.9 provide a list of domestic and non-domestic NSCs (these may be PCLs, SWCs, or government-identified buildings) and the associated location data.

PCL NSC	Bandwidth Group ID	POP NSC
1	{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15}	A
2	{8,12}	B
3	{9}	C

B.4.1.5.1.1 – Example Bandwidth Group IDs for PCL to POP Relationship Table

Table B.4.1.6 provides the relationship between Building NSCs and PCL NSCs.

CTI may add sites after award at its option. As orders are submitted, new Building NSCs may need to be created for the locations involved. CTI shall use iconectiv to obtain NSCs to represent any government building that orders service from an EIS contractor.

NSC	Country/ Jurisdiction ID	Normalized Geographical Name	Latitude	Longitude	NSC V&H Coordinates		Created Date	Last Modified Date
					V	H		

B.4.1.8 – Network Site Codes Table

NSC	Sequence Number	Address						Address Intersection						Postal Code	County Name	Geo-political Code	Offset		Second Offset		Created Date	Last Modified Date
		Number	Pre-fix	Street Name	Street Type	Suf-fix	Unformatted Address	Op-tion	Number	Pre-fix	Street Name	Street Type	Suf-fix				Distance	Direc-tion	Distance	Direc-tion		

B.4.1.9 – Network Site Code/Address Correspondence Table

The steps to associate POPs to PCLs are as follows:

To associate a (new) POP to a PCL, the two locations may or may not be in near geographic proximity of each other. To find the closest PCL to a POP (or vice-versa) the following directions will apply:

1) First step, using the CLLIs for each location, is to determine where each is located. Observe the 5th and 6th character in the NSC/CLLI; this is the state where they are located, the first four (4) characters tell you the city abbreviation. The NSCs then tell you exactly where each is located. Example (DLLS**TX**RI03T and DLLS**TX**CTW43 both of these CLLIs are in Dallas, Texas).

[redacted]

6) We can now determine what the closest PCL is for each of the POPs based on mileage calculations.

7) In addition, if the POP does not contain V&H coordinates, but contains Lat & Long coordinates, the formula is not quite as simple as V&H, so an online app can be used to determine mileages as needed.

If neither V&H or LAT & Long are available for the POP and PCL, the street addresses of both locations can be entered into an online mapping application such as Google Maps, to find the appropriate homing based on mileage.

1.1.2.3 Defining Services Associated with a POP (L.34.1 (2c)) [RIN: MPC0031-DI, MPC0009-DI]

Table B.4.1.1 Domestic Points of Presence Table, B.4.1.2 Non-Domestic Points of Presence Table, B.4.1.3 Non-Domestic Site to Point of Presence Relationship Table, B.4.1.4 Services Offered by Point of Presence Table all provide the formats to list and identify domestic and non-domestic POPs and their service relationships. Each POP shall be separately described by its physical location, as required by the individual table. CTI shall keep these tables up to date as POPs and service relationships are added, deleted, and changed. POP NSCs shall be defined by CTI in Tables B.4.1.1 and B.4.1.2, and are defined by the government in Table B.4.1.8. CTI shall use the Service ID column to identify the services offered at each POP, to be selected from the following services: VPNS, ETS, OWS, PLS, SONETS, DFS, IPS, CSVS, IPVS, CSDS, TFS, and MTIPS. CTI will populate table B.4.14 with the POP NSC, Service ID, Bandwidth Groups from Table B.4.1.5.1 and the Start Date of the service availability and the Stop Date of the service availability.

POP NSC*	POP V&H Coordinates		Start Date	Stop Date
	V	H		

B.4.1.1 – Domestic Points of Presence Table

Country/ Jurisdiction ID in which POP is Located*	Non-Domestic POP NSC**	Name of Carrier or Entity Operating Non-Domestic POP, if not the Contractor	Start Date	Stop Date

B.4.1.2 – Non-Domestic Points of Presence Table

Non-Domestic NSC	Non-Domestic POP NSC	Bandwidth Group*	Start Date	Stop Date

B.4.1.3 – Non-Domestic Site to Point of Presence Relationship Table

Bandwidth Group	Bandwidth Group Name	Minimum Bandwidth (Mbps)	Maximum Bandwidth (Mbps)
1	Wireline <=T1	0	1.54
2	Wireline >T1 and <=T3	1.55	44.74

B.4.1.5.1 – Bandwidth Groups Table

1.1.2.4 Process for Maintaining and Updating the Tables in Section B.4 (L.34.1 (2d)) [RIN: MPC0032-DI]

Pursuant to the requirements in Section L.34.1, paragraph 2, CTI shall describe the process for maintaining and updating the tables in Section B.4. Tables B.4.1.1 through B.4.1.11 provide the formats to list and identify domestic and non-domestic POPs, PCLs, PHubs, NSCs and their service relationships. Each POP shall be separately described by its physical location, as required by the individual table. CTI shall keep these tables up to date as POPs, PCLs, PHubs, NSCs, and service relationships are added, deleted, and changed

B.4.1 Tables that must be maintained	Responsible for maintaining the table

B.4.1.1 - Domestic Points of Presence Table	**CTI**
B.4.1.2 - Non-Domestic Points of Presence Table	**CTI**
B.4.1.3 - Non-Domestic Site to Point of Presence Relationship Table	**CTI**
B.4.1.4 - Services Offered by Point of Presence Table	**CTI**
B.4.1.5 - Domestic Physical Concentration Location to Point of Presence Relationship Table	**CTI**
B.4.1.5.1 - Bandwidth Groups Table	**CTI**
B.4.1.5.1.1 - *Example Bandwidth Group IDs for PCL to POP Relationship Table*	**CTI**
B.4.1.6 - Network Site Code PCL Relationship Table	**CTI**
B.4.1.7 - Network Site Code to Pricing Hub Relationship Table	**CTI**
B.4.1.8 - Network Site Codes Table	**Government**
B.4.1.9 - Network Site Code/Address Correspondence Table	**Government**
B.4.1.10 - Domestic Private Line Service Gateways Table	**CTI**
B.4.1.11 - Domestic Private Line Service Gateway to OCONUS/Non-Domestic Country/Jurisdiction Relationship Table	**CTI**

Table 4: B.4.1 Tables that must be maintained

1.1.3 Individual Case Basis (ICB) CLINs (L.34.1 (3)) [RIN: MPC0043-DI]

ICB pricing is defined as Individual Case Basis pricing. CTI has the option of using ICB where appropriate. An example of an ICB CLIN would be where there is a bandwidth that is not listed on the contract, but logically should be added and defined on the contract, then an ICB CLIN should be used. For example, if CLINs for OC12 and OC192 access are defined, but the agency requires an OC48 access CLIN, then it shall be added to the contract prior to the TO as an ICB CLIN. These mandatory ICB CLINs are not part of the contract as orderable CLINs until priced and added to the TO. Until then,

these ICB CLINs represent place-holders for specific priced CLINs so that the service being proposed may be defined and associated with a unique identifier. ICB elements require additional information to fully specify the prices involved. This information shall be provided by CTI in the format provided in GSA Systems. In this system, CTI shall provide the anticipated CLIN, ICB Case Number, Case Description, Charging Unit, and, where applicable, the Network Site Code and Country Jurisdiction ID, in Table B.1.2.14.1.

CTI will define new ICB cases for which they submit pricing (see Section J.4). CTI shall use Table B.1.2.14.1 to define ICB cases for TOs that use an ICB CLIN. CTI shall ensure that NSCs and Country/Jurisdiction IDs in Table B.1.2.14.1 are the same as the values in the corresponding columns of the price table(s) used to price the CLIN and case number. CTI shall populate the Terminating NSC and Terminating Country/Jurisdiction ID columns of Table B.1.2.14.1 with null values for cases where those location elements are not relevant.

CLIN	Case Number	Case Description*	Task Order Number	Unit ID	Originating NSC**	Terminating NSC***	Originating Country/ Jurisdiction ID**	Terminating Country/ Jurisdiction ID****	Start Date	Stop Date

B.1.2.14.1 – General ICB Information Table

In CLIN Table B.1.2.13.1, the Unit ID for an ICB CLIN shall function as a placeholder or recommended charging unit until a specific ICB case is defined using General ICB Information Table B.1.2.14.1. If no recommended charging unit is readily apparent for the ICB CLIN, CTI shall populate the Unit ID column of CLIN Table B.1.2.13.1 with “73” to designate the charging unit as ICB. When a specific case is defined using General ICB Information Table B.1.2.14.1, the Unit ID in Table B.1.2.14.1 shall determine the charging unit used to calculate the price for that case.

1.1.4 Task Order Unique CLINs (TUCs) (L.34.1 (4)) [RIN: MPC0027-DI, MPC0040-DI, MPC0041-DI, MPC0006-DI]

In compliance with Section L.34.1, paragraph 4, CTI understands and will comply with the following requirements regarding the use and bundling of TUCs:

TUCs (Task Order Unique CLINs) are basic ways of defining and/or creating a new custom service solutions that are not otherwise currently available to the customer (either defined or priced). TUCs can be an aggregate of multiple CLINs that are necessary to create a new service or to define and implement a complete service. TUCs can also be an aggregate of other TUCs that can be logically combined to create a service structure that is currently not defined and/or unavailable. Primarily and most importantly, TUCS allow a customer to price and order custom solutions without requiring any contract modifications.

An example would be a customer that wanted to purchase a 40MBPS E-LAN with an additional burstable overage increment of 100MBPs. This clearly is a combination of two separate CLINs logically combined together to form a TUC that would satisfy the customer's request.

Strategy for creating a TUC:

1. Careful and technical analysis of the customer's request to determine exactly what is being ordered.
2. Make the determination if a single CLIN can satisfy the request or if a TUC (multiple CLINS) needs to be created to satisfy the order.
3. Assuming that a TUC is appropriate, create the TUC as per the TUC rules listed below, ensuring that no conflicts exist.

CTI configures the TUC utilizing table B.1.2.12.1 and other (tables) as appropriate.

There are some basic rules that must be followed when creating TUCS:

1. A TUC cannot contain multiple component transport CLINS (e.g., 50M VPNs with another 100MVPNS to form a 150M VPNS.
2. A TUC cannot contain multiple component CLINs for Access Arrangements
3. All Component CLINS that make up a bundled TUC must utilize the same billing frequency.
4. A combined TUC defined in Table B.1.2.12.1 shall be priced using the TUC price table of the transport service that is bundled into that combined TUC.
5. A combined TUC defined in Table B.1.2.12.1 shall not be priced using General TUC Prices Table B.4.1.14.1.
6. TUCs that are predefined for each service shall only be used by agencies for ordering.
7. All TUCs are priced as ICB CLINs.
8. There are three types of TUCs are typically defined per service: MRC, NRC, and usage-based.
9. TUC Combined CLIN Component Table B.1.2.12.1 does not contain aggregate prices, but contains necessary information required to price services.
10. Multiple TUCs may be specified on a TO.
11. TUCs are also used for CLIN bundling as also described in Section B.1.2.12.
12. Remote VPNS access (e.g., DSL, Cable) shall be ordered via a TUC.

CLIN*	Case Number	Task Order Number	Component CLIN**	Component CLIN Case Number***	Component Access PHub ID****	Component SRE Pricing Element***	Component CLIN Quantity	Start Date	Stop Date

Table 5: TUC Combined CLIN Component Table (B.1.2.12.1)

There are numerous tables in Section B that define and describe how TUCs should be utilized and which tables must be used for pricing. For brevity, CTI will not list all of the many TUC tables, but recognizes that they exist and will comply with their use.

CTI is committed to maintaining the information for TUCs, as a result of combining component CLINs, in the appropriate “Contractor-Maintained” tables. In Section

B.4.1.11.1 Contractor-Maintained Tables the appropriate tables are outlined. There are two types of Tables that CTI will maintain:

1. Price Tables contain prices by CLIN, TO number, date, and, where applicable, other pricing elements such as case number, location and price bands. Each price table specifies the pricing elements required for the particular service.

2. Supporting Tables do not contain prices but they contain other information that is required to price services. Examples include General ICB Information Table B.1.2.14.1, TUC Combined CLIN Component Table B.1.2.12.1, Auto-Sold CLINs Table B.1.2.11.1, and Services Offered by Point of Presence Table B.4.1.4.

CTI personnel will maintain the following table:

CLIN*	Case Number	Task Order Number	Component CLIN**	Component CLIN Case Number***	Component Access PHub ID****	Component SRE Pricing Element***	Component CLIN Quantity	Start Date	Stop Date

B.1.2.12.1 – TUC Combined CLIN Component Table

1. * From the appropriate TUCs of the basic transport service for the combined CLIN set (e.g., VPNS)
   ** Component CLINs associated with the combined TUC. A separate row shall be used for each component CLIN
   *** Where applicable, otherwise “-1”

2. **** Where applicable, otherwise null

1.1.5 CONUS & OCONUS CBSAS (L.34.1 (5)) [RIN: MPC0024-DI]

[redacted]

[redacted]

1.1.6 Voice Services (L.34.1 (6))

Of the voice services, CTI chose IPVS for its mandatory selection because of 3 main capabilities.

- [redacted]
- [redacted]
- [redacted]

1.1.7 Auto-sold CLINs (L.34.1 (7)) [RIN: MPC0025-DI, MPC0026-DI]

In certain instances, some services will include other CLINs that CTI automatically includes with those services. For example, conferencing customers may request any of the features associated with CTI's specific conferencing services. So, basically, if a service is offered and there are supporting or additional necessary CLINs that need to be included to make the service fully functional, then these CLINs will be automatically included as part of the sale to the customer.

A complete list of auto-sold CLINs (which may include catalog items) will be incorporated into Table B.1.2.11.1.. As new capabilities and features are added to the contract for the services that have auto-sold CLINs (such as Audio, Web and Video Conferencing), CTI shall update Table B.1.2.11.1 as appropriate. CTI shall populate Table B.1.2.11.1 with, at a minimum, the CLIN-to-Auto-sold CLIN relationships listed in reference table B.1.2.11.2 the following:

- **VPNS and ETS**
- **IPS, if the optional service IPS is offered**

CLIN*	CLIN Case Number**	Auto-Sold CLIN***	Auto-Sold CLIN Case Number**	Task Order Number****	Start Date	Stop Date

B.1.2.11.1 – Auto-Sold CLINs Table

Service ID	CLIN	Auto-Sold CLIN
VPNS	VN30001	VN30009
VPNS	VN30002	VN30009

B.1.2.11.2 – Auto-Sold Mandatory Relationships Reference Table

1.1.8 Managed Network Services (L.34.1 (8)) [RIN: MPC0033-DI]

CTI will size devices based on the number of people served at the specific government location. This method will accurately measure the required bandwidth needed to provide an adequate network response time for peak hours of utilization. The devices are scaled according to the following criterion:

NRC CLIN	MRC CLIN	Charging Unit	Size	Minimum Users	Maximum Users
MN11001	MN10001	Device	Extra-small	1	10
MN11002	MN10002	Device	Small	10	100
MN11003	MN10003	Device	Medium	100	1,000
MN11004	MN10004	Device	Large	1,000	100,000
MN11005	MN10005	Device	Extra-Large	100,000	1,000,000

Table 6: Device Size Assignment Table (B.2.8.1.3.2)

1.1.9 Catalogs (L.34.1 (9))

1.1.9.1 The Catalog (L.34.1 (9a)) [RIN: MPC0034-DI, MPC0008-DI]

Access to pricing information in a timely and accurate environment is critical to efficient management of the Government's EIS services. [redacted]

Agencies with detailed requirements can secure their specified catalog items, within a given

Section, with confidence knowing that discounts have been defined and offered accordingly and with the knowledge that the pricing provided is the best price and does not vary by geographic location. Where possible, CTI can offer further discounts on TOs.

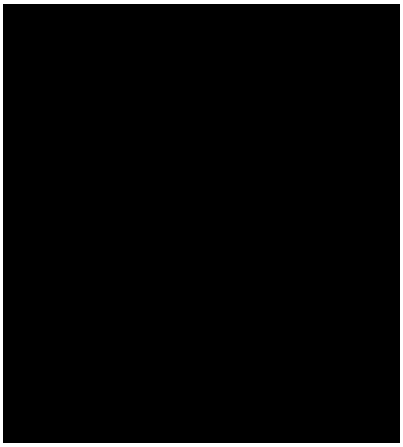
[redacted]

1.1.9.2 Setting Up User Access (L.34.1 (9b)) [RIN: MPC0035-DI]

The user will have to login and request access to the electronic catalog site via online registration. Once they have been verified, a user's credential and login information will sent to them for final login access.

1.1.9.3 User Interface (L.34.1 (9c)) [RIN: MPC0036-DI, MPC0009-DI]

[redacted]



Portal access is available to the government through most major web browsers including Google Chrome, Firefox, and Internet Explorer without any special or unique requirements regarding browser plugins or add-ons. The user interface is accessible via secure HTTP (commonly referred to as HTTPS). As required, 2FA (two-factor authentication) can be enabled. Navigation menus found within the user interface are simple and straightforward. There is a Help Section accessible for on demand answers typically found within the footer of most areas of the portal. Contact information is provided for questions or error reporting. The [redacted] portal operates 24/7 and is available accordingly.

1.1.9.4 Grouping Discount Classes (L.34.1 (9d)) [RIN: MPC0037-DI, MPC0010-DI]

Currently CTI has submitted only the OPL and will be adding appropriate standard discounts for all government users [redacted]. Discounts will be applied to the OLP based on the Service Class. For example, within the Cloud Service Class, this process is determined by referencing Section B.2.5.2.2 with regard to Service Class ID (range of 1000-1999), Service Class Description, Task Order Number, Percentage Discount from OLP, Start Date and Stop Date. Within classes, discounts defined by a Service Class ID are generally determined based on a full understanding of the manufacturer item, the items current pricing structure within the general marketplace, and other pricing factors deemed acceptable including, but not limited to, MSRP (manufacturer suggested retail price) and MAP (minimum advertised price). As always by requirement, the discount and catalog price will not vary by geographic location. Each item found within a catalog will only belong to a single discount class.

The following example illustration provides a 10% discount off OLP within Table B.2.10.2.2 for Device Class ID 6001. This example is provided within the Service Related Equipment (SRE) section.

Device Class ID	Decice Class Description	Task Order Number	Percentage Discount from OLP	Start Date	Stop Date
6000	Non-discounted	-1	0	11/1/2016	10/31/2021
6001		-1	0.1	11/1/2016	10/31/2021

1.1.9.5 Discount Structure (L.34.1 (9e)) [RIN: MPC0038-DI, MPC0011-DI]

Although discounts are grouped according to classes, there are general guidelines regarding discount structures to be applied by CTI. The broad baseline for these structures is within a 10-30% discount range in most cases across the applicable

classes including: Cloud Service, Wireless Service, Commercial Mobile Satellite Service, Managed Security Service, and Service Related Equipment (SRE). Additionally, the user will have the ability to match listed items against currently priced items found within GSA Advantage.

1.1.9.6 Validating OLPs and the Method for Independent Government Verification (L.34.1 (9f)) [RIN: MPC0039-DI, MPC0012-DI, MPR0001-DI]

For each item found within the [redacted] portal, the description will be identifiable when compared against all currently available information provided by the manufacturer including, but not limited to: 1) marketplace catalogs found online for the manufacturer, 2) print catalogs as available to be provided upon request and 3) links provided on the CoreDirect® portal to appropriate manufacturer sites where OPL information is provided and updated.

Where possible, trade names will be utilized in item listings related to the manufacturer. Additionally, where possible, items found within the catalog will have item image(s) for specific reference enabling the government to verify the accuracy of the item description in terms of capabilities, limitations as well as other distinguishing characteristics including color and cosmetic features.

The government can request and expect to be provided soft copies of any catalog item list found within the [redacted] portal for offline validation of any OLP related to any item across all service classes found within any CTI provided catalog.

1.2 TERMINATION/CANCELLATION LIABILITY (L.34.1.1)

2.0 PRICING DATA (L.12, L.27.2 TABLE (2), L.34.2) [RIN: MPC0001-DI, MPC0003-DI, MPC0004-DI, MPC0005-DI, MPR0002-DI, MPR0003-DI,

MPR0005-DI, MPR0008-DI, MPR0010-DI]

THESE DI'S ARE ADDRESSED IN THE RELEVANT B-TABLES ACCORDING TO EACH REVIEW ITEM NUMBER.

2.1 TABLES

2.2 TOTAL EVALUATED CBSA PRICE [L.34.3]

3.0 SUBMISSION MATRIX [L.25(1), L.27.2 TABLE (6)]

[L.27.2 Table(6)]

Volume Number	Volume Name	Maximum Pages
6	Price Volume	
	1) Price Response	40
	2) Price Tables	Unlimited
	3) Submission Matrix	Unlimited