

**THE CITY OF NEW YORK
DEPARTMENT OF INFORMATION TECHNOLOGY
AND TELECOMMUNICATIONS**

**85812RFI4TEL
REQUEST FOR INFORMATION REGARDING
PROVISION OF TELECOMMUNICATION SERVICES
TO THE CITY OF NEW YORK**

RESPONSES TO BE SUBMITTED TO THE FOLLOWING CONTACT PERSON:

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1 INTRODUCTION

The New York City Department of Information Technology and Telecommunication (“DoITT”), an agency of the City of New York (“the City”) tasked with, among other things the provision of voice and data communication services needed by City agencies for the discharge of their responsibilities, is seeking information from vendors in regard to voice and data telecommunication services, which are currently available and soon to be available (i.e., within 36 months of the issuance of this Request for Information (“RFI”)). DoITT’s goal in issuing this RFI is to perform market research regarding current and soon to be available service offerings available in the NY City metro area, which can help assure that the City obtains voice and data telecommunication services for the discharge of its government responsibilities and activities as efficiently and effectively as possible (including the receipt of services at the lowest cost consistent with effective, reliable and flexible service). Additionally, DoITT seeks information on “managed” services provided by vendors in the wired and wireless network space. Vendors replying to this RFI will help ensure that a comprehensive and effective Request for Proposal (“RFP”) for the aforementioned services can be drafted in the future.

The reference to Telecommunication Services in the title of this RFI, and references to telecommunication services (whether capitalized or lower case) shall be construed throughout this RFI as including both “telecommunication services” and “information services” as those terms are defined in the federal Communications Act of 1934 as amended, or shall be construed to refer to one or the other of such federal law categories if the specific context refers to forms of service which fall into one of these categories but not the other.

The City of New York, through its vast network of 120 agencies, boards and offices, serves more than eight million residents, 230,000 businesses every day—and approximately 50 million visitors each year. As the City’s technology leader, DoITT is responsible for maintaining the foundational IT infrastructure and systems that touch every aspect of City life—from public safety to human services, from education to economic development—crossing the full spectrum of governmental operations.

The City of New York with its related entities, such as the New York City Health and Hospitals Corporation (“HHC”), City University of New York (“CUNY”) and the New York City Housing Authority (“NYCHA”) employs over 400,000 people and operates from over two thousand different buildings and facilities, the vast majority being within the five boroughs of New York City. The City and its aforementioned related entities currently spend over \$150 million per year for carrier cellular and

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wireline telecommunication services, as specified in sections 3.1, 3.2, 3.3 and 3.4 of this RFI. Additionally, since 2006 DoITT has permitted public authorities, public benefit corporations and cultural institutions within the New York City metro area to participate in the City's master telecommunication services contracts.

The City is highly dependent on both wireline and wireless services for the delivery of public safety and mission critical services. The City realizes that voice services and data services that were once provided separately are increasingly provided using the same networks. The City also recognizes that the nature of telecommunications service offerings and the packaging of telecommunication services and their respective elements are in flux now more than ever in the telecommunication services marketplace. For the purposes of this RFI the City has broken its request for information into four common service categories: voice services, data services, mobile wireless services and managed telecommunication services.

2 DESCRIPTION OF CURRENT CITY TELECOMMUNICATION SERVICES

The City currently purchases the majority of its telecommunication services through the telecommunications master service agreements ("MSA") awarded in 2005. The telecommunication services purchased under the MSAs help support City government operations, and to connect its employees, buildings, and facilities to each other and to the public. The City purchases telecommunication services for a wide range of facilities. At one extreme, the largest single facility among City agencies is the City's Municipal Building. The Municipal Building is a multi-agency office building at One Centre Street in Manhattan, with nearly 1 million square feet of space, and is occupied by over 6,000 employees, many with heavy telecommunications needs. At the other end of the spectrum, the City maintains hundreds of smaller, geographically dispersed community service facilities (serving police, fire, education, health, public recreation, and other community service needs) where telecommunication services are critical for the effective delivery of key public services and or public safety.

The City of New York's private metropolitan area network, supplies the fundamental transport mechanism, or backbone, for data communications among approximately more than 120 City agencies, bureaus, commissions, offices, and departments, with employees spread out over 322 square miles throughout the five boroughs.

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The City of New York's private metropolitan area network is a collection of physical locations interconnected by fiber-optic cables to create transmission paths. The infrastructure enables the high-speed transmission of voice, data, and video. The City's network is redundant, secure, and scalable. Many agency sites are connected to the City's network via leased lines furnished by carriers. The leased lines (circuits) are typically T1 and T3 connections, but over the last several years the City has had a steady movement toward Ethernet connections operating at speeds up to 1 Gigabit per second (Gbps). The City's network is operated and managed by DoITT.

The New York City wireless network is a mission critical government-dedicated broadband wireless infrastructure created to support public safety and other essential City operations. It is a highly-secure and redundant wireless network that provides agencies real-time access to high-speed data, voice and video communications throughout the five boroughs. The New York City wireless network is a key element of the City's shared IT infrastructure. Many of the City's wireless nodes are connected to the City of New York's private metropolitan area network via leased lines furnished by diverse carriers for resiliency purposes. The leased lines (circuits) range in speeds up to 1 GB per second (Gbps).

The City owns, operates and procures a very large and diverse set of telecommunication products and services.

2.1 Voice Services

A large percentage of the voice services purchased by the City are local (intra-city and Intra-LATA) telephone services, likely a far greater percentage than most private / corporate enterprise purchasers of telephone service, because City operations are focused on providing government services within the City's five boroughs. However, the City also uses interLATA (i.e., long distance), international and toll free calling services.

The City is currently a large user of Centrex services and procures a wide variety of local wireline voice and data services. The size and complexity of the telecommunication services purchased by the City vary widely from area to area and facility to facility. The City has a large concentration of offices in Lower Manhattan in the vicinity of City Hall, and a growing presence in Downtown Brooklyn.

Currently, the City procures approximately 100,000 Centrex lines throughout the 5 boroughs of New York City from two major carriers. Centrex service is primarily provided by several Nortel DMS-100 and Lucent 5ESS central office switches located in Manhattan and Brooklyn. The City uses the majority of the

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base Centrex features, as well as many of the extended features and options, including ISDN lines, Automatic Call Distribution (“ACD”) and integrated voice messaging. There are numerous Simplified Message Desk Interface (“SMDI”) data links in use with these lines and various City-owned end-user voice processing systems. City agencies use Centrex service with a mix of multi-line sets (either Nortel or Lucent P-sets or other manufacturer digital sets) and single line analog sets. Systems vary widely in size from a few lines to ten thousand lines. The City has a mix of both analog and digital Centrex. Buildings may have multiple discrete Centrex systems, serving individual City agencies.

The City also uses private branch exchange (“PBX”) systems at many facilities. In almost all cases the City owns the PBX and any associated ancillary systems, such as voicemail; the systems are maintained by providers specializing in each manufacturer’s systems. Trunking from these systems to a central office is generally provided by two major carriers. Most of the PBX’s use T-1 and PRI trunks for connectivity to the carrier’s central office. Further, there are many smaller, dispersed locations around the City that receive voice services through traditional POTS (plain old telephone service) lines provided on a single line and set basis. The City is also a large user of key equipment, including electronic key systems (EKS) from various manufacturers or older technology 1A2 key systems, which may be used with either Centrex lines or POTS.

Over the last five years the City has begun to migrate many Centrex and PBX users to VoIP/ IP telephony. Over 15,000 City users currently use VoIP/IP telephony, with a majority of the implementations using Cisco and Nortel equipment and gateways. The gateways allow a majority of intra-agency and many inter-agency calls to traverse the City of New York’s private metropolitan area network, generating savings on local calling usage charges.

2.2 Data Services

The City of New York procures a large array of data services throughout the City in order to provide government services and maintain critical public safety networks in all five boroughs. The City uses ATM, Frame Relay, D9.6, D19.2, DS-0, ISDN BRI, ISDN PRI, DS-1, DS-3, OC-3, OC-12, OC-48, OC-192, Ethernet Private Lines(EPL), MPLS, DWDM, Internet Access services, analog dial data, 2-wire and 4-wire LADC, Ethernet and Internet Access services, which total more than 15,000 circuits in all. The New York City Police Department, Fire Department and Department of Education have sites throughout all geographic areas of the five boroughs of New York City, but by far the greatest concentration of data lines support City offices in Manhattan and Downtown Brooklyn. The City currently purchases the majority of its data

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services from two primary carriers. Many of the data services purchased by the City support the wireline leased line needs of the City's private metropolitan area network and to support the City's wireless network component.

2.3 Cellular Mobile Wireless Services

The City of New York currently purchases wireless voice and data services from three major wireless carriers. DoITT's wireless product offerings include both service and equipment for cellular telephones, smart phones (e.g., RIM Blackberry, iPhone), tablets/iPads, broadband data cards for laptops, satellite phones, and pagers. These product offerings allow users to communicate wirelessly within the City's comprehensive coverage area.

The City currently participates in the New York State Comprehensive Telecommunications Services ("CTS") contract, which enables the City to participate in certain established discounted rates and promotions from major carriers which are available to New York State government customers, but may not be offered to general business or individual account holders. The City pools its voice and data usage across all of its wireless services to ensure the optimum utilization of each carrier's rate plans.

3 INFORMATION SOUGHT

For all telecommunication services specified in the following sections, providers can propose alternative technologies/services capable of replacing an associated service type. When proposing alternative services please respond to all questions in the applicable section. Additionally, the City seeks direction and recommendations on emerging or potential future telecommunications voice and data service offerings that could further the City's goals in the delivery and management of telecommunication services.

3.1 Voice Services

The City seeks information on the following voice services:

- Local Calling Services
- Long Distance Calling Services
- Toll Free Calling Services

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- Other Usage Based Service Offerings/Potential Future Usage Based Service Offerings
- Centrex (Including ACDs)
- Alternative Voice Services (e.g., VoIP, hybrid VoIP/PBX, etc.)
- ISDN PRI (or alternative services)
- ISDN BRI (or alternative services)
- Flexpath DID/DOD Services (or alternative services)
- Analog Trunk Services (or alternative services)
- Off Premise Extensions (OPX) (or alternative services)
- POTS (1MB) (or alternative services)Local Calling Services
- SIP Trunking (or alternative service)
- Other Voice Service Offerings/Potential Future Voice Service Offerings

Please see sections below for questions regarding each specific service type, where applicable.

3.1.1 Local Calling Services

Usage Types:

- a. Local IntraCity – Outbound calls placed from and to the five Boroughs of New York City.
- b. Regional/IntraLATA #132 – Outbound calls placed from the five Boroughs of New York City to Nassau County – 516 Area Code; Suffolk County – 631 Area Code – except Fishers Island; Westchester County – 914 Area Code; Rockland, Putnam Counties and the southern portion of Orange County (Greenwood Lake, Highland Falls and Tuxedo) – 845 Area Code; and the Greenwich/Byram section of Connecticut – Area Code 203.

Please provide the following information for each service type listed above:

1. Description of your service. Include billing increments/minimum call length (e.g., 6/6), calling options and features.
2. Availability
3. Dialing Plan

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4. Line/circuit access types/speeds supported (please include if dedicated or switched access is supported for each type)
5. Call blocking capabilities (e.g., 500, 700, 900 numbers, interactive service providers, etc.)
6. Overflow capability
7. Standards compliance
8. Management reporting capabilities (e.g., call detail reporting)
9. Call redirection capabilities (e.g., CRS)
10. E911 compatibility
11. Advanced E911 capabilities (if available), ESInet/Next Generation 9-1-1 network, 9-1-1 Network
 - a. Database Management
 - b. Mapping/GIS
 - c. Authorization, Authentication, and Credentialing
 - d. Points of Interconnection
 - e. Intra-and inter-ESInet Issues
 - f. Confidentiality and Security System(s)
12. Local Number Portability
13. Disaster recovery/business continuity plan for service
14. All distinct billing and rate elements, including features, options, taxes, surcharges, usage billing divisions(based on time of day, weekend, etc.), dedicated access, switched access, one time and recurring element billing, and any ancillary billing elements (e.g., equipment, record changes, PIC changes). Additionally, please include billing and rate packages and or bundling which may provide greater cost savings to the City (e.g., flat rate plans).

3.1.2 Long Distance Calling Services

Service definitions:

- a. Outbound Intrastate – Outbound calls placed from the five Boroughs of New York City to locations within New York State, other than locations within the New York City Metro Area LATA #132.

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b. Outbound Interstate – Outbound calls placed from the five Boroughs of New York City to domestic United States locations, other than those located within New York State or the New York City Metro Area LATA #132.

c. Outbound International- Outbound calls placed from the five Boroughs of New York City to International locations.

Please provide the following information for each service type listed above:

1. Description of your service. Include billing increments/minimum call length (e.g., 6/6), calling options and features
2. Availability
3. Dialing requirements
4. Line/circuit access types/speeds supported (please include if dedicated or switched access is supported for each type)
5. Call blocking capabilities (e.g., 500, 700, 900 numbers, interactive service providers, etc.)
6. Long distance authorization/account code capabilities and management
7. Standards compliance
8. Management reporting capabilities
9. Call redirection capabilities (e.g., CRS)
10. Disaster recovery/business continuity plan for service
11. All distinct billing and rate elements, including features, options, taxes, surcharges, usage billing divisions(based on time of day, weekend, etc.), dedicated access, switched access, mobile termination, countries, one time and recurring billing elements, and any ancillary billing elements (e.g., equipment, record changes, PIC changes). Additionally, please include billing and rate packages and or bundling which may provide greater cost savings to the City (e.g., flat rate plans).

3.1.3 Toll Free Calling Services

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Service Description: Inbound Toll-Free Regional/IntraLATA #132 – Inbound Toll-Free calls to a City of New York office located within the five Boroughs of New York City from Nassau County – 516 Area Code; Suffolk County – 631 Area Code – except Fishers Island; Westchester County – 914 Area Code; Rockland, Putnam Counties and the southern portion of Orange County (Greenwood Lake, Highland Falls and Tuxedo) – 845 Area Code; or the Greenwich/Byram section of Connecticut – Area Code 203.

Please provide the following information:

1. Description of your service. Include billing increments/minimum call length (e.g., 6/6), calling options and features
2. Line/circuit access types/speeds supported (please include if dedicated or switched access is supported for each type)
3. Availability
4. Incoming call restriction by NPA/NXX
5. Toll free number portability
6. ANI capabilities
7. DNIS capabilities
8. Call transfer capabilities
9. Capability for identification and redirection of incoming local exchange calls to local exchange (bypassing toll free charges)
10. Advanced routing capabilities (e.g., time of day, alternate location, call percentage, load balancing)
11. Management reporting capabilities
12. Network management services and capabilities
13. Disaster recovery/business continuity plan for service

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14. All distinct billing and rate elements, including features, options, taxes, surcharges, usage billing divisions(based on time of day, weekend, locale, etc.), dedicated access, switched access, mobile termination, one time and recurring billing elements, and any ancillary billing elements (e.g., equipment, record change, PIC changes). Additionally, please include billing and rate packages and or bundling which may provide greater cost savings to the City (e.g., flat rate plans).

3.1.4 Other Usage Based Service Offerings/Potential Future Usage Based Service Offerings

Respondents to this RFI are encouraged to identify other usage based service offerings that the City should consider, as well as potential future usage based service offerings that the City should consider.

Respondents should include:

1. Description of your service. Include billing increments/minimum call length (e.g., 6/6), calling options and features
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Availability and hours of operation
5. Dialing requirements
6. Line/circuit access types/speeds supported (please include if dedicated or switched access is supported for each type)
7. Call blocking capabilities (e.g., 500, 700, 900 numbers, interactive service providers, etc.)
8. Management capabilities
9. Management and billing reports
10. Support Capabilities
11. Standards compliance

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12. Disaster recovery/business continuity plan for service

13. All distinct billing and rate elements, including features, options, taxes, surcharges, usage billing divisions(based on time of day, weekend, etc.), dedicated access, switched access, mobile termination, one time and recurring billing elements, per seat/participant billing elements, and any ancillary billing elements (e.g., equipment, record changes, reporting). Additionally, please include billing and rate packages and or bundling which may provide greater cost savings to the City (e.g., flat rate plans).

3.1.5 Centrex/ Intellipath (including ACDs)

Service Description: Local dial tone provided by a carrier out of their central office switching equipment on an individual line basis. Lines will have advanced features such as: intercom, calls forwarding, call transfer, toll restrict, speed call, least cost routing, call hold, etc. Centrex services typically afford users the same benefits and features that would be provided by a PBX, but without the upfront equipment costs. This service can be part of a multi-location environment.

Examples of the features typically provided with Centrex service and that are typically included in the Centrex monthly line rate at no additional charge are listed below:

- Automatic Dial
- Authorization Codes
- Automatic call back
- Automatic Message Link
- Automatic Route Selection (basic and deluxe)
- Billable Call Detail
- Call forwarding (all calls, busy, don't answer, variable)
- Call Hold
- Call Pick-up
- Call Transfer
- Call waiting (dial, incoming, intragroup, originating)
- Caller ID (Internal and External)
- Code Restrictions
- Conference Bridges

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- Consultation Hold
- Dial Transfer Arrangement on Incoming Trunk Groups
- Directed Call Pick-Up (With Barge- In, Without Barge-In)
- Direct Inward Dialing
- Direct Outward Dialing
- Distinctive Call Waiting Tones
- Distinctive Ringing, Electronic Telephone Service (ETS)
- Enhanced Call Forwarding/Don't Answer
- Enhanced Three-Way Calling Hunting
- Intercept
- Intercom Dialing (Group and Personal)
- Last Number Redial
- Least Cost Routing
- Line Treatments
- Local Number Portability
- Make Set Busy
- Message Waiting Indication (Visible and Audible)
- Multiple Line Appearances
- Privacy/Privacy Release
- Ring Again
- SMDI support
- Speed Dialing with 10- number Speed Call List
- Station-to-Station Calling
- Three-Way Calling
- Toll Restrict
- *69 (or similar code which dials the telephone number of the last incoming call)
- Uniform Call Distribution (UCD)
- Voice Mail

For each service proposed, please describe the following.

1. Description of your service and its benefits

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2. Voice features and capabilities
3. Geographic availability within the City's five boroughs
4. Standards Compliance
5. Network security (measures that they take to ensure the confidentiality of the authorized user's traffic), as well as all applicable network management capabilities
6. Access types
7. Phones supported
8. All equipment and software required as well as installation and maintenance requirements.
9. Automated attendant capabilities
10. ACD capabilities and features
11. UCD capabilities and features (including queue sizes and reports)
12. Conference bridges
13. Voice Mail
14. Administrator controls
15. Subscriber controls
16. System management capabilities
17. Training and support services
18. Reporting capabilities
19. Billing capabilities
20. E911 support
21. Installation requirements
22. Maintenance and support capabilities
23. Service level agreements and service performance metrics available
24. Disaster recovery/business continuity plan for service

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25. All billing and rate elements, including one time (e.g., installation), recurring, features, taxes, surcharges, licensing, equipment and software. If solution provides or includes usage, provide all rate categories, including time of day, dedicated and switched access, mobile termination, one time and recurring elemental billing categories. Define billing increments/minimum call length (e.g., 6 seconds/ 6 seconds). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.6 Alternative Voice Services (e.g., IP Telephony, VoIP, hybrid IP/PBX, etc.)

The City of New York currently purchases in excess of 100,000 Centrex lines to support City services. The City wishes to evaluate options for the potential replacement and or upgrade of these services. The City requests that respondents to this RFI who may provide such services, provide information on “Centrex like” voice services that they can provide within the five boroughs of New York City. “Central office exchange” Centrex service includes but is not limited to local Touch-Tone dial tone provided by a carrier on an individual line basis. The service typically affords users the same benefits and features that would be provided by a PBX. Respondents should not limit themselves to the existing architectural model for delivering Centrex services. Respondents should anticipate the eventual convergence of voice and data networks and respond appropriately. Respondents shall also take into consideration the option of leveraging the existing infrastructure for transport (see description of City current telecommunication services).

Examples of the features typically provided with Centrex service and that are typically included in the Centrex monthly line rate at no additional charge are listed below:

- Automatic Dial
- Authorization Codes
- Automatic call back
- Automatic Message Link
- Automatic Route Selection (basic and deluxe)
- Billable Call Detail
- Call forwarding (all calls, busy, don’t answer, variable)
- Call Hold

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- Call Pick-up
- Call Transfer
- Call waiting (dial, incoming, intragroup, originating)
- Caller ID (Internal and External)
- Code Restrictions
- Conference Bridges
- Consultation Hold
- Dial Transfer Arrangement on Incoming Trunk Groups
- Directed Call Pick-Up (With Barge- In, Without Barge-In)
- Direct Inward Dialing
- Direct Outward Dialing
- Distinctive Call Waiting Tones
- Distinctive Ringing, Electronic Telephone Service (ETS)
- Enhanced Call Forwarding/Don't Answer
- Enhanced Three-Way Calling Hunting
- Intercept
- Intercom Dialing (Group and Personal)
- Last Number Redial
- Least Cost Routing
- Line Treatments
- Local Number Portability
- Make Set Busy
- Message Waiting Indication (Visible and Audible)
- Multiple Line Appearances
- Privacy/Privacy Release
- Ring Again
- SMDI support
- Speed Dialing with 10- number Speed Call List
- Station-to-Station Calling
- Three-Way Calling
- Toll Restrict
- *69 (or similar code which dials the telephone number of the last incoming call)

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- Uniform Call Distribution (UCD)
- Voice Mail

For each service proposed, please describe the following.

1. Description of your service and its benefits
2. Voice features and capabilities
3. Geographic availability within the City's five boroughs
4. Standards Compliance
5. Provide a draft transition plan (from Centrex to the proposed technology)
6. Network security (measures that they take to ensure the confidentiality of the authorized user's traffic), as well as all applicable network management capabilities
7. Access types
8. SIP connectivity
9. Unified messaging compatibility
10. Phones supported
11. All equipment and software required as well as installation and maintenance requirements.
12. Automated attendant capabilities
13. ACD capabilities and features
14. UCD capabilities and features (including queue sizes and reports)
15. Conference bridges
16. Voice Mail
17. Administrator controls
18. Subscriber controls
19. System management capabilities
20. Training and support services

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21. Reporting capabilities
22. Billing capabilities
23. E911 support
24. Installation requirements
25. Maintenance and support capabilities
26. Service level agreements and service performance metrics available
27. Disaster recovery/business continuity plan for service
28. All billing and rate elements, including one time (e.g., installation), recurring, features, taxes, surcharges, licensing, equipment and software. If solution provides or includes usage, provide all rate categories, including time of day, dedicated and switched access, mobile termination, one time and recurring elemental billing categories. Define billing increments/minimum call length (e.g., 6 seconds/ 6 seconds). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.7 ISDN PRI (or alternative services)

Service definition: ISDN's high-speed service is PRI (Primary Rate Interface). It provides 23 B channels and one 64 Kbps D channel (23B+D), which is equivalent to the 24 channels of a T-1 line. When several channels are bonded together, higher data rates can be achieved.

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Standards compliance

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5. Network security
6. Management and billing reports
7. Monitoring
8. Service level agreements and service performance metrics available
9. Disaster recovery/business continuity plan for service
10. All distinct billing and rate elements, including features, options, mileage, taxes, surcharges, access types, one time(e.g., installation, etc.), recurring, and any ancillary billing elements (e.g., equipment, record change, reporting). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.8 ISDN BRI (or alternative services)

Service definition: ISDN's basic service is BRI (Basic Rate Interface), which is made up of two 64 Kbps B channels and one 16 Kbps D channel (2B+D). If both channels are combined into one, called "bonding," the data rate is 128 Kbps. ISDN is an integrated digital network in which the same time-division switches and digital transmission paths are used to establish connections for different services.

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Standards compliance
5. Network security
6. Management and billing reports

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7. Monitoring
8. Service level agreements and service performance metrics available
9. Disaster recovery/business continuity plan for service
10. All distinct billing and rate elements, including features, options, mileage, access types, taxes, surcharges, one time(e.g., installation, etc.), recurring, and any ancillary billing elements (e.g., equipment, record change, reporting). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.9 Flexpath DID/DOD Services (or alternative services)

Service definition: FlexPath service uses a T-1 1.544 Mbps circuit to provide a direct digital connection between a digital Private Branch Exchange (PBX) and a Local Serving Central Office. By combining the functionality for Direct Inward Dialing (DID), Direct Outward Dialing (DOD) and toll free trunks into one service, FlexPath service streamlines operations for PBX systems. Its use of digital links also guarantees higher-quality voice communications than are possible with analog links.

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Standards compliance
5. Service level agreements and service performance metrics available
6. Disaster recovery/business continuity plan for service

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7. All distinct billing and rate elements, including features, options, mileage, access types, taxes, surcharges, one time (e.g., installation, etc.), recurring, and any ancillary billing elements (e.g., equipment, record change, reporting). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.10 Analog Trunk Services (or alternative services)

Service definition: Direct Inward Dial (DID), Direct Outward Dial (DOD) and Two-way or Combination Lines provide voice communications connection between a PBX or Key Telephone System and the Incumbent Local Exchange Carrier's (ILEC) or Interexchange Carrier's (IXCs) networks.

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Standards compliance
5. Service level agreements and service performance metrics available
6. Disaster recovery/business continuity plan for service
7. All distinct billing and rate elements, including features, options, mileage, access types, taxes, surcharges, one time(e.g., installation, etc.), recurring, and any ancillary billing elements (e.g., equipment, record change, reporting). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.11 Off Premise Extensions (OPX) (or alternative services)

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Service definition: An Off-Premises Extension is an extension telephone, PBX station, or key system station located on property that is not contiguous with that on which the main telephone, PBX, or key system is located.

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Standards compliance
5. Service level agreements and service performance metrics available
6. Disaster recovery/business continuity plan for service
7. All distinct billing and rate elements, including features, options, mileage, access types, taxes, surcharges, one time(e.g., installation, etc.), recurring, and any ancillary billing elements (e.g., equipment, record change, reporting). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.12 POTS (1MB) (or alternative services)

Service definition: Plain Old Telephone Service (POTS) is the provision of a business telephone line enabling voice transmission for ordinary phone communication. This service includes Auxiliary Lines.

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.

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3. Geographic availability within the City's five boroughs.
4. Standards compliance
5. Service level agreements and service performance metrics available
6. Disaster recovery/business continuity plan for service
7. All distinct billing and rate elements, including features, options, mileage, access types, taxes, surcharges, one time(e.g., installation, etc.), recurring, and any ancillary billing elements (e.g., equipment, record change, reporting). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.13 SIP Trunking (or alternative service)

Service definition: SIP trunks permit users that have a PBX installed and an MPLS or other broadband data connection to use Voice-over-IP (VoIP) to connect outside the enterprise network.

Please provide the following information:

1. Description of your service, network connectivity options, architecture(include diagrams)
2. Description of billing increments/minimum call length (e.g., 6/6), calling options and features.
3. Geographic availability of service and location of SIP service nodes within the City's five boroughs
4. All termination equipment required as well as installation and maintenance requirements.
5. Transport options and speeds and port sizes supported
6. Description of connectivity and provisioning of PSTN call paths
7. Call path designation options (e.g., inbound only, outbound only, inbound/outbound)
8. Telephone number provisioning
9. Number portability

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10. Managed and non-managed administration and maintenance options
11. Relationship between maximum number of concurrent calls and underlying transport bandwidth
12. Describe calling types and plans supported, including:
 - a. On-Net
 - b. Off-Net
 - c. Local and Long distance
 - d. Flat fee
 - e. Bundled
13. Directory Assistance
14. Management reporting capabilities (e.g., call detail reporting)
15. E911 and 911 support
16. Interoperability of PBX and key systems
17. Security
18. Service level agreements and service performance metrics available
19. Service Monitoring
20. Business Continuity and Disaster Recovery
21. Min and Max Committed Information Rate (CIR)
22. Congestion management
23. Network uptime
24. Network interoperability
25. Standards compliance

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26. Billing Reports

27. Disaster recovery/business continuity plan for service

28. All distinct billing and rate elements, including one time (e.g., installation), recurring, port, mileage, bandwidth, termination, port, access type, features, options, taxes, surcharges, licensing, equipment and software. If solution provides or includes usage, provide all rate categories, including time of day, dedicated and switched access, mobile termination, one time and recurring elemental billing categories. Define billing increments/minimum call length (e.g., 6 seconds/ 6 seconds). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.1.14 Other Voice Service Offerings/Potential Future Voice Service Offerings

Respondents to this RFI are encouraged to identify any other current and potential future voice service offerings that the respondent believes the City should consider, the description of which should include:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Standards compliance
5. Network security
6. Network management
7. Management and billing reports
8. Monitoring
9. Service level agreements and service performance metrics available
10. Disaster recovery/business continuity plan for service

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11. All distinct billing and rate elements, including features, options, mileage, access types, taxes, surcharges, one time (e.g., installation, etc.), recurring, and any ancillary billing elements (e.g., equipment, record change, reporting). Additionally, please include billing or rate packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or minutes billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.2 Data Services

The City seeks information on the following data services:

- DS-0 Digital Service Zero (or alternative services)
- Frame Relay Services (or alternative services)
- ATM Services (or alternative services)
- T-1 Services (or alternative service)
- T-3 Services (or alternative service)
- SONET Services OC-3, OC-12, OC-48, OC-192(or alternative service)
- DWDM Services (or alternative service)
- xDSL Services (or alternative service)
- Dial Data Circuit Services (or alternative service)
- Ethernet Services - Point to Point (e.g., Ethernet Private Line(EPL), Ethernet Virtual Private Line(EVPL)) (or alternative service)
- Ethernet Services - Multipoint Ethernet Services (e.g., Ethernet Private LAN (EPLAN) and Ethernet Virtual Private LAN (EVPLAN)) (or alternative service)
- 2 Wire or 4 Wire LADC Circuits (or alternative services)
- Cable Based Broadband Services (or alternative service)
- Internet Access Services (or alternative service)
- MPLS(Multi Protocol Label Switching) (or alternative service)
- Dark Fiber
- Other Data Service Offerings/Potential Future Data Service Offerings

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For SIP Trunking please see section 3.1.13.

Please see sections below for questions regarding each specific service type.

3.2.1 DS-0 Digital Service Zero (or alternative services)

Service definition: DS0, D9.6, and D19.2 Services - Digital signal X is a term for the series of standard digital transmission rates or levels based on DS-0, a transmission rate of 64 Kbps, the bandwidth normally used for one telephone data channel. Both the North American T-carrier system and the European E-carrier systems of transmission operate using the DS series as a base multiple. The digital signal is what is carried inside the carrier system

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Standards compliance
5. Network security
6. Network management services and capabilities
7. Management and billing reports
8. Monitoring
9. Service level agreements and service performance metrics available
10. Disaster recovery/business continuity plan for service
11. All distinct billing and rate elements, including features, options, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

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3.2.2 Frame Relay Services (or alternative services)

Service definition: Frame Relay is a high-speed, packet switching WAN (wide area network) protocol, designed to provide efficient, high-speed frame or packet transmission with minimum delay. Frame Relay uses minimal error detection and relies on higher-level protocols for error control.

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs
4. Service access types
5. Service access speeds
6. Committed and extended burst rates
7. Congestion management
8. Network security
9. Network uptime
10. Network management services and capabilities
11. Network monitoring
12. Management and billing reports
13. Service level agreements and service performance metrics available
14. Standards compliance
15. Disaster recovery/business continuity plan for service

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16. All distinct billing and rate elements, including features, options, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.3 ATM Services (or alternative services)

Service definition: ATM is a set of standard telecommunication interfaces defined by T-1, the ATM Forum and ITU. It is a switched, connection-oriented, fixed-length cell-based transmission method specifically designed to run at high data rates and to carry a complete range of user traffic, including voice, data, and video signals over long and short distances. ATM uses dedicated media connections running in parallel, allowing simultaneous multiple connections through a single switch device at very high speeds. The ATM backbone supports multiple CORE sites on a full fiber optic mesh. ATM can provide services up to and including OC12 (655 Mb/s) on interfaces for three media environments, namely, data, voice, and video.

Please provide the following information:

1. Description of your service, features and options.
2. All customer termination equipment required, as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs
4. Port and access speeds provided
5. Virtual circuits supported
6. Categories of service supported
7. Network security
8. Network uptime
9. Network management services and capabilities

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10. Management and billing reports
11. Service level agreements and service performance metrics available
12. Standards compliance
13. Disaster recovery/business continuity plan for service
14. All distinct billing and rate elements, including features, options, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.4 T-1 Services (or alternative service)

Service definition: A T-1 (DS-1) circuit is a two-point digital channel that provides for simultaneous transmission of a serial, bipolar, return-to-zero, isochronous digital signals at a transmission rate of 1.544 Mbps (Million bits per second). A T-1 line uses two wire pairs (one for transmit, one for receive) and time division multiplexing (TDM) to interleave 24 64 Kbps voice or data channels. The standard T-1 frame is 193 bits long, which holds 24 8-bit voice or data samples and one synchronization bit with 8,000 frames transmitted per second. T-1 is not restricted to digital voice or to 64 Kbps data streams. Channels may be combined and the total 1.544 Mbps capacity can be segmented as required.

Please provide the following information:

1. Description of your service, features and options (e.g., fractional, multiplexing, etc.).
2. Transport types supported
3. All termination equipment required as well as installation and maintenance requirements.
4. Geographic availability within the City's five boroughs.
5. Network security
6. Network uptime
7. Network management services and capabilities

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8. Service level agreements and service performance metrics available
9. Standards compliance
10. Management and billing reports
11. Disaster recovery/business continuity plan for service
12. All distinct billing and rate elements, including features, options, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.5 T-3 Services (or alternative service)

Service definition: A T-3 (DS-3) line transmits data at a rate of 44.736 Mbps. A T-3 line represents a bandwidth equal to about 672 regular voice grade telephone lines or 28 T-1 lines, which is enough to transmit full motion, real-time video and very large databases over a busy network. A T-3 line is typically installed as a major networking artery for entities with high volume network traffic. For example, the backbones of the major Internet service providers are composed of T-3 lines. The primary use of T-3 circuits in data services is to aggregate multiple T-1 lines to maximize cost-efficiencies.

Please provide the following information:

1. Description of your service, features and options (e.g., fractional, multiplexing, etc.).
2. Transport types supported
3. All termination equipment required as well as installation and maintenance requirements.
4. Geographic availability within the City's five boroughs.
5. Network security
6. Network management services and capabilities
7. Network uptime

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8. Service level agreements and service performance metrics available
9. Standards compliance
10. Management and billing reports
11. Disaster recovery/business continuity plan for service
12. All distinct billing and rate elements, including features, options, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.6 SONET Services OC-3, OC-12, OC-48, OC-192(or alternative service)

Service definition: SONET (Synchronous Optical Network) is a fiber-optic transmission system for high-speed digital traffic. SONET is an intelligent system that provides advanced network management and a standard optical interface. OC-3 is a network line with a transmission data rate of up to 155.52 Mb/s, OC-12 is a network line with transmission speeds of up to 622.08 Mb/s, OC-48 is a network line with transmission speeds of up to 2488.32 Mb/s, and OC-192 is a network line with transmission speeds of up to 9953.28 Mb/s.

Please provide the following information:

1. Description of your service, features and options.
2. Bandwidth availability
3. All termination equipment required as well as installation and maintenance requirements.
4. Geographic availability within the City's five boroughs.
5. Network security
6. Network management services and capabilities
7. Network uptime

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8. Service level agreements and service performance metrics available
9. Standards compliance
10. Management and billing reports
11. Disaster recovery/business continuity plan for service
12. All distinct billing and rate elements, including features, options, node, port, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.7 DWDM Services

Service definition: Dense wavelength division multiplexing fiber.

Please provide the following information:

1. Description of your service, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Network security
5. Network management services and capabilities
6. Standards compliance
7. Management and billing reports
8. Service level agreements and service performance metrics available
9. Disaster recovery/business continuity plan for service
10. All distinct billing and rate elements, including features, options, bandwidth, ports, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary

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billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.8 xDSL Services (or alternative service)

Service definition: A technology that dramatically increases the digital capacity of ordinary telephone lines (the local loops) into the home or office. DSL speeds are tied to the distance between the customer and the telephone company central office. DSL is geared to two types of usage. Asymmetric Digital Subscriber Line (ADSL) is for Internet access, where fast downstream is required, but slow upstream is acceptable. Symmetric DSL (SHDSL, HDSL, SDSL and VDSL) is designed for short haul connections that require high speed in both directions

Please provide the following information:

1. Description of your service, features and options.
2. Type of DSL and speeds offered (upload and download)
3. All termination equipment required as well as installation and maintenance requirements.
4. Geographic availability within the City's five boroughs.
5. Network security
6. Network management services and capabilities
7. Network uptime
8. Network interoperability with other WAN services (Frame, ATM, etc.)
9. Service level agreements and service performance metrics available
10. Standards compliance
11. Management and billing reports
12. Disaster recovery/business continuity plan for service

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13. All distinct billing and rate elements, including features, options, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.9 Dial Data Circuit Services (or alternative service)

Service definition: Switched 56 Kbps Dial Data Service, or ILEC's Switchway Service

Please provide the following information:

1. Description of your service, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Network security
5. Network management services and capabilities
6. Standards compliance
7. Management and billing reports
8. Service level agreements and service performance metrics available
9. Disaster recovery/business continuity plan for service
10. All distinct billing and rate elements, including features, options, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.10 Ethernet Services - Point to Point (or alternative service)

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Service definition: Point to Point Ethernet services that provide for scalability and bandwidth management. ELine services support CoS and VLAN tagging.

Two ELine connectivity services are:

- Ethernet Private Line (EPL)
- Ethernet Virtual Private Line (EVPL)

Please provide the following information:

1. Description of your Ethernet service types, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Access Speeds
5. Network security
6. Network management services and capabilities
7. Network uptime
8. Network interoperability with other WAN services (Frame, ATM, etc.)
9. Service level agreements and service performance metrics available
10. Standards compliance
11. Management and billing reports
12. Disaster recovery/business continuity plan for service
13. All distinct billing and rate elements, including features, options, ports, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

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3.2.11 Ethernet Services - Multipoint Ethernet Services (or alternative service)

Service Description: Multipoint-to-multipoint service allows hosts to be connected and disconnected dynamically. Each ELAN host is given its own bandwidth profile, which specifies its CoS.

Two ELAN connectivity services are:

- Ethernet Private LAN (EPLAN)
- Ethernet Virtual Private LAN (EVPLAN)

Virtual private networks (VPNs) use public telecommunication networks for private data communications. VPNs usually follow a client/server approach to authenticate users, encrypt data, and manage transmissions.

Please provide the following information:

1. Description of your Ethernet service types, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Access Speeds
5. Network security
6. Network management services and capabilities
7. Network uptime
8. Network interoperability with other WAN services (Frame, ATM, etc.)
9. Service level agreements and service performance metrics available
10. Standards compliance
11. Management and billing reports
12. Disaster recovery/business continuity plan for service

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13. All distinct billing and rate elements, including features, options, ports, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.12 2 Wire or 4 Wire LADC Circuits (or alternative services)

Service definition: Local Area Data Circuits. Typically ringdown circuits or alarm circuits.

Please provide the following information:

1. Description of your service, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Standards compliance
5. Management and billing reports
6. Service level agreements and service performance metrics available
7. Disaster recovery/business continuity plan for service
8. All distinct billing and rate elements, including features, bandwidth, options, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.13 Cable Based Broadband Services

Service definition: A high-speed, high-capacity transmission medium that carries network communications, in which the bandwidth is divided and shared by multiple simultaneous signals (as for voice or data or video) signals. Typically transmitted on a single coaxial or fiber-optic cable. Broadband technology can support a wide range of frequencies.

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Please provide the following information:

1. Description of your service, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Access Speeds
5. Network security
6. Network management services and capabilities
7. Network uptime
8. Network interoperability with other WAN services (Frame, ATM, etc.)
9. Service level agreements and service performance metrics available
10. Standards compliance
11. Management and billing reports
12. Disaster recovery/business continuity plan for service
13. All distinct billing and rate elements, including features, bandwidth, options, ports, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.14 Internet Access Services

Service definition: High bandwidth Internet access services. IP connectivity to Internet backbone via Tier 1 or Tier 2 Internet providers

Please provide the following information:

1. Description of your service, features and options.

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2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Describe your global Internet network design, peering arrangements and if you own the network or have agreements with local ISPs.
5. Discuss whether the network is a Tier-1 ISP network and, if not, then which portions are not Tier-1 networks.
6. In the case of agreements with local ISPs, describe these agreements in detail and how they are managed.
7. Peering: Please provide the number and type of public and private peering arrangements, listing partners, quantities, locations and overall percentage of private vs. public peering.
8. Access Types
9. Network security
10. Network management services and capabilities
11. Network uptime
12. Network interoperability with other WAN services (Frame, ATM, etc.)
13. Service level agreements and service performance metrics available
14. Standards compliance
15. Management and billing reports
16. Disaster recovery/business continuity plan for service
17. All distinct billing and rate elements, including features, options, bandwidth, port, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

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3.2.15 MPLS (Multi Protocol Label Switching)

Service definition: MPLS is a highly scalable, protocol agnostic, data-carrying service. In an MPLS network, data packets are assigned labels. Packet-forwarding decisions are made solely on the contents of this label, without the need to examine the packet itself. This allows one to create end-to-end circuits across any type of transport medium, using any protocol. The primary benefit is to eliminate dependence on a particular data link layer technology, such as Asynchronous Transfer Mode (ATM), Frame Relay, Synchronous Optical Networking (SONET) or Ethernet, and eliminate the need for multiple layer-2 networks to satisfy different types of traffic.

Please provide the following information:

1. Description of your service, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Access Speeds
5. Access Types
6. Network security
7. Network management services and capabilities
8. Network uptime
9. Network interoperability with other WAN services (Frame, ATM, etc.)
10. Service level agreements and service performance metrics available
11. Standards compliance
12. Management and billing reports
13. Disaster recovery/business continuity plan for service

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14. All distinct billing and rate elements, including features, options, bandwidth, port, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.2.16 Point to Point Fixed Wireless Services

Service definition: For the purpose of this section point to point fixed wireless services includes; satellite, microwave, radio, laser, or other wireless means of communication transmission. Includes technologies for point-to-point transmission of any of the following; voice, data, video or internet through the air between stationary devices.

Please provide the following information:

1. Description of your service, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Bandwidth/throughput
5. Licensing(e.g, licensed and unlicensed) and frequency information
6. Effective range
7. Protocols Supported
8. Network security
9. Network management services, monitoring and capabilities
10. Network uptime
11. Network interoperability with other WAN services (Frame, ATM, etc.)
12. Service level agreements and service performance metrics available

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13. Standards compliance
14. Management and billing reports
15. Disaster recovery/business continuity plan for service
16. All distinct billing and rate elements, including one time (e.g., installation), recurring, port, mileage, bandwidth, termination, port, access type, features, options, taxes, surcharges, licensing, equipment and software. Please provide all usage, or data tiers associated with the proposed solution. Additionally, please include billing or data packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or usage billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.2.17 Point to Multi-Point Wireless Services

Service definition: For the purpose of this section point to multipoint wireless services is communication by satellite(e.g., VSAT), microwave, radio, laser, or other wireless means of communication transmission between a fixed/stationary point and multiple endpoints (fixed or mobile) through the air.

Please provide the following information:

1. Description of your service, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Bandwidth/throughput
5. Licensing(e.g., licensed and unlicensed) and frequency information
6. Effective range
7. Protocols Supported
8. Network security
9. Network management services, monitoring and capabilities

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10. Network uptime
11. Network interoperability with other WAN services (Frame, ATM, etc.)
12. Service level agreements and service performance metrics available
13. Standards compliance
14. Management and billing reports
15. Disaster recovery/business continuity plan for service
16. All distinct billing and rate elements, including one time (e.g., installation), recurring, port, mileage, bandwidth, termination, port, access type, features, options, taxes, surcharges, licensing, equipment and software. Please provide all usage, or data tiers associated with the proposed solution. Additionally, please include billing or data packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or usage billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.2.18 Dark Fiber

Service definition: Dark Fiber is an optical fiber through which no light is transmitted. A fiber cable typically contains many optical fibers, which are either “lit” to carry a signal or “unlit” to be used at a future date. Dark Fiber Service is acquired as a facility which allows the customer the unconditional right to use of the fiber route, this means capacity such as a fiber pair in a fiber-optic cable, or the entire fiber-optic cable.

Please provide the following information:

1. Describe design and construction capabilities and resources
2. Describe the dark fiber network architecture design configurations available (including fiber characterization)and modes supported
3. Describe current routes in NYC Metro area, please provide network maps if available
4. Describe current regional (NY, NJ, PA and CT) routes, please provide network maps if available

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5. Specify current data centers, carrier hotels and collocation sites in NYC Metro Area
6. Specify lit buildings in NYC
7. Describe design and build process for unlit locations
8. Describe any unique routes in the NYC Metro area which makes your service stand out
9. Describe the responsibilities of both the customer and your organization in designing and implementing a new dark fiber run
10. Can the customer provide their own opto-electronics? Will you provide the opto- electronics if requested?
11. Standards Compliance
12. Specify your performance levels and acceptable quality levels. Specify how performance and quality are measured.
13. Service level agreements and service performance metrics available
14. Disaster recovery/business continuity plan for service
15. All distinct billing and rate elements, including one time (e.g., installation) and recurring (e.g., maintenance) for all configuration types, modes and bandwidths. Include all distinct rate elements for strands, cables, drops, as well as on-network and lateral builds. Include all elements, including mileage, construction of building entry conduits, inside fiber extensions, features, options, hotelling, collocation, environmentals, meet-me room cross connects, taxes, surcharges, licensing, equipment and software. Additionally, please include an example of the billing elements of a typical configuration for the service.

3.2.19 Other Data Service Offerings/Potential Future Data Service Offerings

Respondents to this RFI are encouraged to identify any other current and potential future data service offerings that the respondent believes the City should consider, the description of which should include:

1. Description of your service, features and options.

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2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs.
4. Network security
5. Network management services and capabilities
6. Network uptime
7. Network interoperability with other WAN services (Frame, ATM, etc.)
8. Service level agreements and service performance metrics available
9. Standards compliance
10. Management and billing reports
11. Disaster recovery/business continuity plan for service
12. All distinct billing and rate elements, including features, options, bandwidth, port, mileage, termination, access types, taxes, surcharges, one time (e.g., installation), recurring, and ancillary billing elements (e.g., equipment, record changes, etc.). Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City. Please provide an example of the billing elements of a typical configuration for the service.

3.3 Mobile Wireless Services

The City seeks information on the following mobile wireless services:

- Cellular Phone Services/Plans
- Mobile Broadband Plans
- Pagers and Paging Services/Plans
- Mobile Satellite Services
- Other Wireless Service Offerings/Potential Future Wireless Service Offerings

Please see sections below for questions regarding each specific service type.

3.3.1 Cellular Phone Services / Plans

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For each of the plan types listed below please provide – a description of each plan offered, associated recurring and non-recurring billing elements, including all option, feature, taxes, surcharges, equipment, and device specific billing elements. Include all packages with minute tiers, type of minutes, minute pooling, data allowance tiers, and voice and data overage billing elements. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City:

- 1) Voice Plans
- 2) Push to Talk Plans
- 3) Voice and Push to Talk Plans
- 4) Voice and Data Plans
- 5) Voice, Data and Push to Talk Plans
- 6) Data Plans

Additionally please provide the following information:

1. Description of device specific plans and services if applicable (e.g., Blackberry, iPhone, etc.).
2. Do you offer pooling of minutes? If so, please describe the pooling process and any associated costs for pooling.
3. How is service provided (own network or resale of network), etc.?
4. Service Availability (i.e., geographic areas where service is provided). Provide coverage maps.
5. Features (e.g., Call Conferencing (3-Way Calling), Call Forwarding, Call Waiting with Tone, Call Waiting with Caller ID, Directory Assistance, Incoming Caller Identification (Caller ID), Text Messaging, Voice Mail).
6. Mobile Wireless Devices – Describe the models/types of mobile wireless devices available to work in conjunction with the proposed mobile wireless service offering including the manufacturer and model number of the proposed devices and available accessories.

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7. Are you able to sell the mobile wireless devices to the City? Are you able to lease mobile wireless devices to the City as part of a package with service.
8. Describe all data communications services available with the proposed Mobile Wireless network.
9. Describe trade-in allowances for mobile wireless devices.
10. Describe standards compliance for mobile wireless plans.
11. Describe network monitoring and quality/performance assurance.
12. Service level agreements and service performance metrics available
13. Management Reports- all management reports available to the Authorized User with the proposed mobile wireless plans
14. Network Management - all network management services available with the proposed mobile wireless service. How is real-time monitoring of the mobile wireless network is conducted (i.e., alarm notification, performance statistics, etc.)
15. Disaster recovery/business continuity plan for service
16. Network Security - How is the security of the Mobile Wireless network monitored and insured. What polices and standards have been implemented to insure the security of the network?

3.3.2 Mobile Broadband Plans

Service Description: Wireless data plans to connect laptops, netbooks, and tablets (including iPads), to the Internet via air cards, cellular modems, etc.

For each plan please provide – a description of each plan offered, associated recurring and non-recurring billing elements, including all option, feature, taxes, surcharges, equipment and device specific billing elements. Include all packages with minute allowance tiers, type of minutes, minute pooling, data allowance tiers, and voice and data overage billing elements. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City:

Additionally please provide the following information:

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1. Description of device specific plans and services if applicable (e.g., iPads, etc.)
2. Do you pool data? If so, please describe the pooling process and any associated costs for pooling.
3. How is service provided (own network or resale of network), etc.?
4. Service Availability (i.e., geographic areas where service is provided). Provide coverage maps.
5. Features and options
6. Mobile Broadband Data Devices – Describe the models/types of mobile broadband wireless devices (i.e., modems, air cards, tablets), available to work in conjunction with the proposed mobile wireless service offering including the manufacturer and model number of the proposed devices and available accessories.
7. Are you able to sell the mobile wireless devices to the City? Are you able to lease mobile wireless devices to the City as part of a package with service.
8. Describe all data communications services available with the proposed Mobile Wireless network.
9. Describe trade-in allowances for mobile wireless data devices.
10. Describe standards compliance for mobile wireless plans.
11. Describe network monitoring and quality/performance assurance.
12. Management Reports- all management reports available to the authorized user with the proposed mobile wireless plans.
13. Network Management - all network management services available with the proposed mobile wireless service. How is real-time monitoring of the mobile wireless network is conducted (i.e., alarm notification, performance statistics, etc.)
14. Network Security - How is the security of the mobile wireless network monitored and insured. What polices and standards have been implemented to insure the security of the network?
15. Disaster recovery/business continuity plan for service

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16. Service level agreements and service performance metrics available

3.3.3 Pagers and Paging Services/Plans

Service Description: Provision of pagers and paging services

Please provide the following information:

1. Description of your service and its benefits
2. How is service provided (own network or resale of network), etc.?
3. Service Availability (i.e., geographic areas where service is provided). Provide coverage maps.
4. Features and options
5. Pagers - Describe the models/types of pagers available to work in conjunction with the proposed service. Please provide the manufacturer and model number of the proposed devices and available accessories.
6. Are you able to sell paging devices to the City? Are you able to lease paging devices to the City as part of a package with service.
7. Service level agreements and service performance metrics available
8. Disaster recovery/business continuity plan for service
9. All distinct billing and rate elements, including one time, recurring, feature, option, taxes, surcharges, licensing, equipment and software. Include all packages with unit and message based discounts. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the. Please provide an example of the billing elements of a typical configuration for the service.

3.3.4 Mobile Satellite Services

Service definition: For the purpose of this section mobile satellite services is defined as voice, data, video, or internet service delivered to portable or mobile devices via satellite transmission.

Please provide the following information:

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1. Description of your service, features and options
2. Describe the plans that you offer
3. Do you offer plans to pool usage? If so, please describe the pooling process and any associated costs for pooling.
4. How is service provided (own network or resale of network), etc.?
5. Bandwidth/throughput
6. Describe the maintenance requirements
7. Service Availability (i.e., geographic areas where service is provided)
8. Devices – Describe the models/types of mobile satellite devices available to work in conjunction with the proposed satellite service offering, including the manufacturer and model number of the proposed devices and available accessories.
9. Are you able to sell satellite devices to the City? Are you able to lease satellite devices to the City as part of a package with service?
10. Describe standards compliance
11. Describe network monitoring and quality/performance assurance.
12. Management Reports- all management reports available to the authorized user with the proposed mobile wireless plans.
13. Network Management - all network management services available with the proposed service. How is real-time monitoring of the network conducted (i.e., alarm notification, performance statistics, etc.)
14. Network Security - How is the security of the network monitored and insured. What policies and standards have been implemented to insure the security of the network?
15. All termination equipment required as well as installation and maintenance requirements.

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16. Geographic availability within the City's five boroughs.
17. Service level agreements and service performance metrics available
18. Disaster recovery/business continuity plan for service
19. All distinct billing and rate elements, including one time (e.g., installation), recurring, bandwidth, access type, feature, option, taxes, surcharges, licensing, equipment and software. Include all packages with minute allowance tiers, type of minutes, pooling, voice and data allowance tiers, and voice and data overage billing elements. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the. Please provide an example of the billing elements of a typical configuration for the service.

3.3.5 Other Wireless Service Offerings/ Potential Future Wireless Service Offerings

Respondents to this RFI are encouraged to identify any other current and potential future wireless service offerings that the respondent believes the City should consider, the description of which should include:

1. Description of your service, features and options.
2. All termination equipment required as well as installation and maintenance requirements.
3. Geographic availability within the City's five boroughs. Provide coverage maps.
4. Access Speeds
5. Network security
6. Network management services and capabilities
7. Network uptime
8. Network interoperability with other WAN services (Frame, ATM, etc.)
9. Service level agreements and service performance metrics available
10. Standards compliance

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11. Management and billing reports
12. Disaster recovery/business continuity plan for service
13. All distinct billing and rate elements, including one time (e.g., installation), recurring, port, mileage, bandwidth, termination, port, access type, features, options, taxes, surcharges, licensing, equipment and software. Please provide all usage, or data tiers associated with the proposed solution. Additionally, please include billing or data packages and or bundling which may result in a greater cost savings to the City, such as discount tiers for units or usage billed, or flat rate pricing plans. Please provide an example of the billing elements of a typical configuration for the service.

3.4 Managed Telecommunication Services

The City seeks information on the following managed telecommunication services:

- Audio Conferencing
- Video Conferencing
- Web Conferencing
- Unified Communication Services (UC)
- Managed Network Services
- Managed Wireless Network Services
- Internet Security Services
- Co-Location Services
- IP Application Hosting Services
- Other Managed Telecommunication Service Offerings/Potential Future Managed Telecommunication Service Offerings

Please see sections below for questions regarding each specific service type.

3.4.1 Audio Conferencing

Service Description – Managed non-premise based audio conferencing services

Service types:

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1. Dial-In Conference - participants dial a ten digit number over their long distance carrier.
2. Dial-In 800 Conference - 800 call is part of the conference charge.
3. Dial Out Conference – Contractor’s conference coordinator dials out to each participant.
4. Large Event Conferencing Services

Please provide the following information:

1. Description of your service (Include billing increments/minimum call length (e.g., 6/6), calling options and features).
2. All customer termination equipment required, as well as installation and maintenance requirements.
3. Availability and hours of operation
4. Standards compliance
5. Management and billing reports
6. Support
7. Disaster recovery/business continuity plan for service
8. All distinct billing and rate elements, including features, options, taxes, surcharges, usage billing divisions(based on time of day, weekend, etc.), dedicated access, switched access, mobile termination, one time and recurring billing elements, per seat/participant billing elements, and any ancillary billing elements (e.g., equipment, record changes, reporting). Additionally, please include billing and rate packages and or bundling which may provide greater cost savings to the City (e.g., flat rate plans).

3.4.2 Video Conferencing

Service Description – Managed non-premised based video conferencing services

Please provide the following information:

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1. Description of your service, including options and features
2. All customer termination equipment required as well as installation and maintenance requirements
3. Availability and hours of operation
4. Transmission Speeds
5. Standards compliance
6. Management and billing reports
7. Support Services
8. Disaster recovery/business continuity plan for service
9. All distinct billing and rate elements, including features, options, taxes, surcharges, usage billing divisions(based on time of day, weekend, etc.), dedicated access, switched access, one time and recurring billing elements, per seat/participant billing elements, and any ancillary billing elements (e.g., equipment, record changes, reporting). Additionally, please include billing and rate packages and or bundling which may provide greater cost savings to the City (e.g., flat rate plans).

3.4.3 Web Conferencing

Service Description –Managed non-premised based web conferencing. Web conferencing allows conferencing events and or computer presentations to be shared with remote locations. The service allows information to be shared simultaneously, across geographically dispersed locations in nearly real-time. A participant can be either an individual person or a group. In general, system requirements depend on the vendor. The service is made possible by Internet technologies, particularly on IP/TCP connections.

Please provide the following information:

1. Description of your service and its benefits

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2. All customer termination equipment required as well as installation and maintenance requirements.
3. Availability and hours of operation
4. System Requirements
5. Transmission Speeds
6. Standards compliance
7. Management and billing reports
8. Support Services
9. Disaster recovery/business continuity plan for service
10. All distinct billing and rate elements, including features, options, taxes, surcharges, usage billing divisions(based on time of day, weekend, etc.), rate types, one time and recurring billing elements, per seat/participant billing elements, and any ancillary billing elements (e.g., equipment, record changes, reporting). Additionally, please include billing and rate packages and or bundling which may provide greater cost savings to the City (e.g., flat rate plans).

3.4.4 Unified Communication Services (UC)

Service definition: Communications system/solution that encompasses a broad range of technologies and applications that acts as a single communications platform. Unified communications systems generally enable the integration of data, video, and voice into one supported product. Unified communications systems typically include the means to integrate real-time or near-real time unified messaging, collaboration and interactive systems.

Please provide the following information:

1. Description of your service, features and options.
2. Benefits of your service
3. Equipment and software.

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4. Interoperability with legacy equipment, software and systems.
5. Transition planning and execution
6. Network security
7. Network management services and capabilities
8. Network uptime
9. Service Levels
10. Standards compliance
11. Management and billing reports
12. Disaster recovery/business continuity plan for service
13. All distinct billing and rate elements. Including features, options, access, taxes, surcharges, one time (e.g., setup/installation), recurring, and any ancillary billing elements (e.g., equipment, software) including those for licensing and per seat use. Please provide service related job descriptions for all services that bill at hourly rates. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City.

3.4.5 Managed Network Services

Service definition: Any and or all of the following:

- Managed WAN
- Managed LAN
- Managed IP VPN
- Managed Internet Services

This includes design, planning, implementation, and network management services which may include any of the following network services:

- Monitoring
- Physical Management

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- Full Management

Please provide the following information:

1. Description of your service, features and options.
2. Benefits of your service
3. Network security
4. Network uptime
5. Service Levels
6. Management and billing reports
7. Disaster recovery/business continuity plan for service
8. All distinct billing and rate elements. Including features, options, access, taxes, surcharges, one time (e.g., setup/installation), recurring, and any ancillary billing elements (e.g., equipment, software) including those for licensing and per seat use. Please provide service related job descriptions for all services that bill at hourly rates. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City.

3.4.6 Managed Wireless Network Services

Service definition: Design, planning, implementation, and network management services related to 802.11 wireless networks, which may include any of the following network services:

- Engineering
- Implementation
- Monitoring
- Maintenance

Please provide the following information:

1. Description of your service, features and options.

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2. Benefits of your service
3. Network security
4. Network uptime
5. Service Levels
6. Management and billing reports
7. Disaster recovery/business continuity plan for service
8. All distinct billing and rate elements. Including features, options, access, taxes, surcharges, one time (e.g., setup/installation), recurring, and any ancillary billing elements (e.g., equipment, software) including those for licensing and per seat use. Please provide service related job descriptions for all services that bill at hourly rates. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City.

3.4.7 Internet Security Services

Service Description: Internet Security Services including:

- Security Assessment
- Denial of Service Mitigation and Detection
- Intrusion Prevention and Detection
- Penetration Testing

Please provide the following information:

1. Description of your service, features and options.
2. Benefits of your service
3. Monitoring
4. Reporting
5. Disaster recovery/business continuity plan for service

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6. All distinct billing and rate elements. Including service, feature, option, access, taxes, surcharges, one time (e.g., setup/installation), recurring, and any ancillary billing elements (e.g., equipment, software) including those for licensing and per seat use. Please provide service related job descriptions for all services that bill at hourly rates. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City.

3.4.8 Co-Location Services

Service Description: Co-location services are physical space and connectivity in a highly controlled, carrier-neutral environment. A Co-location facility provides a secure physical space with high availability environmental power, cooling and fire suppression systems.

Please provide the following information:

1. Description of your service, features and options.
2. Benefits of your service
3. Monitoring
4. Reporting
5. Disaster recovery/business continuity plan for service
6. All distinct billing and rate elements. Including service, feature, option, access, taxes, surcharges, one time (e.g., setup/installation), recurring, and any ancillary billing elements (e.g., equipment, software) including those for licensing and per seat use. Please provide service related job descriptions for all services that bill at hourly rates. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City.

3.4.9 IP Application Hosting Services

Service Description: Application hosting service which houses web-enabled business sites in a secure environment with 24x7 support with fast, reliable, and scalable bandwidth resources. Provides for the management and daily tasks associated with maintaining 24x7 application availability.

Please provide the following information:

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1. Description of your service, features and options.
2. Benefits of your service
3. Network security
4. System uptime
5. Service Levels
6. Monitoring
7. Reporting
8. Disaster recovery/business continuity plan for service
9. All distinct billing and rate elements. Including service, feature, option, access, taxes, surcharges, one time (e.g., setup/installation), recurring, and any ancillary billing elements (e.g., equipment, software) including those for licensing and per seat use. Please provide service related job descriptions for all services that bill at hourly rates. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City.

3.4.10 Other Managed Telecommunication Service Offerings/ Potential Future Managed Telecommunication Service Offerings

Respondents to this RFI are encouraged to identify any other current and potential future managed telecommunication service offerings that the respondent believes the City should consider, the description of which should include:

1. Description of your service, features and options.
2. Benefits of your service
3. Network security
4. System uptime
5. Service Levels

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6. Monitoring
7. Reporting
8. Disaster recovery/business continuity plan for service
9. All distinct billing and rate elements. Including service, feature, option, access, taxes, surcharges, one time (e.g., setup/installation), recurring, and any ancillary billing elements (e.g., equipment, software) including those for licensing and per seat use. Please provide service related job descriptions for all services that bill at hourly rates. Additionally, please include pricing packages and or bundling which may provide greater cost savings to the City.

4 RESPONSE FORMAT

DUE DATE: March 30, 2012 by 5:00 PM EDT

Responses to this RFI should preferably be submitted in softcopy via Email no later than **March 30, 2012 by 5:00 PM EDT** to the agency contact person referred to on the cover page. There is no page limitation on responses, but responses should be as concise as possible, and contain no more than 50% boiler plate marketing materials. The City will not provide any additional technical information or answer questions in regard to the information requested in the RFI.

The City seeks information on the services specified in this RFI, and service alternatives for the specified services. Please use the format outlined below.

4.1 Cover Letter

Please include a cover letter with your response. The cover letter should identify:

- RFI Title and Number
- The Entity/Participant Company
- Corporate Address
- Tax ID number
- Point of Contact Name, Telephone Number and Email Address
- Signature and Date of Authorized Representative of the Participant

4.2 Entity Statement

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The Entity Statement is a clear and concise description of the proposing entity that includes the following:

- Statement as to whether or not the entity is a single or multi firm venture
- Description of the nature of the entity
- To the extent that a respondent to this RFI is contemplating using facilities-based infrastructure in the public rights-of-way to provide, at least in part, the services it is contemplating offering the City (that is, the infrastructure the respondent would be using includes at least in part fiber and/or other facilities owned by the respondent and/or affiliates of respondent which fiber and/or other facilities are located in City streets), the respondent should describe the status of the franchise or franchises the respondent and/or its affiliates are relying on as authorizing the presence of such infrastructure in City public rights-of-way.

4.3 Service Response Specification (list of services vendor is responding to)

All vendors should complete Attachment-A Service Response Specification, specifying all services for which the vendor is responding/providing information.

4.4 Response

For each service type responded to, please specify the following:

- Service type heading (e.g., Centrex, Frame Relay, Other Data Service Offering, etc.) responded to
- Alternative service type(if applicable)
- Please respond to the questions posed in the order that they are listed

5 GENERAL

Vendors should note that no contract will be awarded pursuant to this RFI and that responding to, or not responding to, this RFI will neither increase nor decrease any vendor's chance of being awarded a contract from any subsequent solicitation issued by the City, if any, for relevant services.

This RFI is intended solely to solicit information, and not to solicit formal proposals or commence a competitive or other procurement process. Submission of a response to this RFI will not be a prerequisite to the City's consideration of any entity's proposal in response to any subsequent RFPs or other solicitations issued in connection with the matters discussed in this RFI, and no entity will, based on a failure to submit a response to this RFI, be disqualified from, or penalized

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during, consideration of proposals or bids in any such subsequent RFPs or other solicitations. However, because the City may consider information received in response to this RFI in developing and drafting any subsequent RFPs or other solicitations, entities who may be interested in participating in any such RFPs or other solicitations are encouraged to submit such information as they believe would be useful to the City in such development and drafting of any such subsequent RFPs or other solicitations.

The City may choose to follow up on responses to this RFI in any fashion that the City may deem to be useful to the purposes of the RFI.

The City makes no representation or warranty as to the accuracy of information provided in this RFI, and nothing contained in this RFI is, or should be relied upon as a promise or representation. The City shall not be liable or responsible for the costs incurred by any person or entity in preparing any response to this RFI or for any other costs, expenses or liabilities incurred by any person or entity in connection with or in reliance on this RFI or any information or material contained herein.

Trade Secrets, Proprietary Information and Confidentiality: Vendors should give specific attention to the identification of those portions of their responses that they deem to be confidential, proprietary information or trade secrets and provide any justification of why such materials, upon request, should not be disclosed by the City. Such information must be easily separable from the non-confidential sections of the response. All information not so identified may be used or disclosed by the City with no remuneration to the Vendor.

Attachment A – Service Response Specification

(List of Services the vendor is responding to)

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Please check all services for which you have provided a response:

VOICE SERVICES	
<input type="checkbox"/>	Local Calling Services
<input type="checkbox"/>	Long Distance Calling Services
<input type="checkbox"/>	Toll Free Calling Services
<input type="checkbox"/>	Other Usage Based Service Offerings/Potential Future Usage Based Service Offerings
<input type="checkbox"/>	Centrex Voice Services
<input type="checkbox"/>	Alternative Voice Services (e.g., VoIP, hybrid VoIP/PBX, etc.)
<input type="checkbox"/>	ISDN PRI (or alternative services)
<input type="checkbox"/>	ISDN BRI (or alternative services)
<input type="checkbox"/>	Flexpath DID/DOD Services (or alternative services)
<input type="checkbox"/>	Analog Trunk Services (or alternative services)
<input type="checkbox"/>	Off Premise Extensions (OPX) (or alternative services)
<input type="checkbox"/>	POTS (1MB) (or alternative services)
<input type="checkbox"/>	SIP Trunking (or alternative service)
<input type="checkbox"/>	Other Voice Service Offerings/Potential Future Voice Service Offerings
DATA SERVICES	
<input type="checkbox"/>	DS-0 Digital Service Zero (or alternative services)
<input type="checkbox"/>	Frame Relay Services (or alternative services)
<input type="checkbox"/>	ATM Services (or alternative services)
<input type="checkbox"/>	T-1 Services (or alternative service)
<input type="checkbox"/>	T-3 Services (or alternative service)
<input type="checkbox"/>	SONET Services OC-3, OC-12, OC-48, OC-192(or alternative service)
<input type="checkbox"/>	DWDM Services

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<input type="checkbox"/>	xDSL Services (or alternative service)
<input type="checkbox"/>	Dial Data Circuit Services (or alternative service)
<input type="checkbox"/>	Ethernet Services - Point to Point (e.g., Ethernet Private Line(EPL), Ethernet Virtual Private Line(EVPL)) (or alternative service)
<input type="checkbox"/>	Ethernet Services - Multipoint Ethernet Services (e.g., Ethernet Private LAN (EPLAN) and Ethernet Virtual Private LAN (EVPLAN)) (or alternative service)
<input type="checkbox"/>	2 Wire or 4 Wire LADC Circuits (or alternative services)
<input type="checkbox"/>	Cable Based Broadband Services
<input type="checkbox"/>	Internet Access Services
<input type="checkbox"/>	MPLS(Multi Protocol Label Switching)
<input type="checkbox"/>	Point to Point Wireless Services
<input type="checkbox"/>	Point to Multi-Point Wireless Services
<input type="checkbox"/>	Dark Fiber
<input type="checkbox"/>	Other Data Service Offerings/Potential Future Data Service Offerings
MOBILE WIRELESS SERVICES	
<input type="checkbox"/>	Cellular Phone Services/Plans
<input type="checkbox"/>	Mobile Broadband Plans
<input type="checkbox"/>	Pagers and Paging Services/Plans
<input type="checkbox"/>	Mobile Satellite Services
<input type="checkbox"/>	Other Wireless Service Offerings/Potential Future Wireless Service Offerings
MANAGED TELECOMMUNICATION SERVICES	
<input type="checkbox"/>	Audio Conferencing
<input type="checkbox"/>	Video Conferencing
<input type="checkbox"/>	Web Conferencing
<input type="checkbox"/>	Unified Communication Services (UC)

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<input type="checkbox"/>	Managed Network Services
<input type="checkbox"/>	Managed Wireless Network Services
<input type="checkbox"/>	Internet Security Services
<input type="checkbox"/>	Co-Location Services
<input type="checkbox"/>	IP Application Hosting Services
<input type="checkbox"/>	Other Managed Telecommunication Service Offerings/Potential Future Managed Telecommunication Service Offerings