Invitation for Sealed Bid 01-408 Addendum #1

Network Infrastructure Equipment Replacement

Department: Telecommunications

City of Tulsa

**** PURCHASE NET**

Mail Sealed Bid TO:	Sealed bid due by:	Bid Opening:
City of Tulsa 200 Civic Center, Room 109 Tulsa, Oklahoma 74103	5:00 PM Wednesday January 9, 2002	8:30 AM the next day City Council Room Dual opening: _X_ Yes; _ No

Envelope/Box Labeling:	
Bid Number and opening date must appear on the lower left corner of all envelopes and box tops.	Bid Bond Required: _X_ Yes ___ No Performance Bond: _X_ Yes ___ No PreBid Conference: _X_ Yes ___

Response to this request must be submitted on this form with requested and supporting documents attached to the back of packet.	10 Copies Required

Published:	Tulsa Daily Commerce and Legal News (announcement only) 11-27,28,29,30 and 12-3
	Purchase Net Fax-on-Demand: 918-596-1171 (for index)
	Purchase Net Website: www.cityoftulsapurchasing.org

City Contacts:	Project Buyer:
	Bill Youngblood, CPM byoungblood@ci.tulsa.ok.us Fax: 918-699-3153; Phone: 918-596-7551

Acknowledgement of intent to bid:	E-mail the Project Buyer of your intent. If you don't receive a return e-mail within 48 hours, contact the Project Buyer
Bidder Questions:	Email all questions to Project Buyer
Addendum:	All addenda will be communicated to all known respondents in writing. Any verbal communications by any City personnel or their agent will not be a part of these bid specifications.
NIGP Codes:	204-00, 918-30, 920-37

RETURN THIS ENTIRE RFB PACKET WITH ANY SUPPORTING DOCUMENTS ATTACHED TO THE BACK

I have read and understand these Bid Specifications and agree to adhere to all terms and conditions contained herein. I have included all costs in my bid to implement the solution requested in these bid specifications. Exceptions must be described in detail and attached to this bid packet. *Note: Taking an exception to a "must item" may cause your bid to be rejected. (DO NOT PRINT SIGNATURE)*

Firm name: _____ **Date:**_____

Street:_____**County:**_____**City/State:**_____**Zip:**_____

E-Mail_____**Fax:**_____**Phone:**_____

Print Name:_____**Signature:**_____
(Authorized agent for the firm shown)

****** Entire packet must be notarized by Notarizing this page*****

Subscribed and sworn to before me this _____day of _____, 19_____.

Signature of Notary Public_____**MY COMMISSION EXPIRES:**_____

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Addendum

Number	Date	Change detail
1	11-21-2001	Page 16: added mandatory prebid dates

INTEREST AFFIDAVIT

State and County (Same as shown by the authorized agent on the front of this packet)

I, the authorized agent shown on the front of this packet, of lawful age, being first duly sworn, states that s (he) is the agent authorized by the bidder to submit the attached bid. Affiant further states that no officer or employee of the City of Tulsa either directly or indirectly, owns a twenty-five percent (25%) interest in the bidder's business or such a percentage, which constitutes a controlling interest. Affiant further states that the following officers and/or employees of the City of Tulsa have some direct or indirect interest in the bidder's business:

_____

_____

_____

BIDDER AFFIDAVIT - TITLE 74 O.S. (1974 SUPP.) 85.22-85.25

State and County (Same as shown by the authorized agent on the front of this packet)

I, the authorized agent shown on the front of this packet, **of lawful age, being first duly sworn on oath says**

1. (s)he is the duly authorized agent of the firm presenting this response, the bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and municipal officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached.

2. (s)he is fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and

3. neither the bidder nor anyone subject to the bidder's direction or control has been a party;

   to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,

   to any collusion with any municipal official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract, nor

   c. in any discussions between bidders and any municipal official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

Contractor/Bidder Information Sheet

To be completed by all respondents to Invitations for Sealed Bids or Proposals
(Print or type)

Project No:	
Description:	
Taxpayer Identification No:	
Legal Identity: Corporation, Partnership, Individual, etc.	
Full Name of Bidder:	
Street:	
City/State/Zip:	

Project Manager	Legal Contact
Name:	Name:
Street:	Street:
City/State/Zip:	City/State/Zip:
E-Mail:	**E-Mail:**
Phone:	**Phone:**
Fax:	**Fax:**
Alternate Contact:	**Alternate Contact:**
Name:	**Name:**
E-Mail:	**E-Mail:**
Phone:	**Phone:**
Fax:	**Fax:**

Website Address:

Would you like to receive information to register as a potential supplier to the City of Tulsa for other projects?	**Yes** ☐ **No** ☐ **If yes, Fax copy to: Phyllis Brown 918-699-3225**

GENERAL TERMS AND CONDITIONS

Definitions:

"Bidder" Is a supplier that submits a bid for consideration by the City in accordance with this RFB.

"Change Order" Request for additional work within the general scope of these specifications not requested within bid request. See additional information in body of bid specifications.

"City" means City of Tulsa.

"Contractor" A Bidder that has been selected by the City to provide specific design, supply and/or installation services. Same as successful bidder.

"Cost" The price or cost to the city will be the lower of the price quoted in the bid, current published price, or published sale price. The word cost and price are equal in meaning.

"Department" means the department shown on the cover sheet.

"Desirable" The terms "can", "may", "should", "preferably", or "prefers" identifies a desirable or discretionary item or factor.

"Fax-on-Demand" 918-596-1171 (to obtain index of documents)

"Mandatory" Such terms as "must", "shall", "will", "is required", or "are required", identify a mandatory item or factor. Failure to meet a mandatory item or factor may result in the rejection of the bidder's bid.

"Price" See Cost definition above.

"Purchasing Office" City of Tulsa; 200 Civic Center Room 802; Tulsa, Oklahoma 74103

"Seller" Same as successful bidder

"Successful Bidder" The bidder who receives the award and enters into a contract or accepts a purchase order for the goods and services specified herein.

"T&C " Terms and Conditions

"Website" www.cityoftulsapurchasing.org

Specification Color and Special Effects:
For those viewing this specification on the internet or printing on a color printer, there may be color or special effects used to highlight an item as needed.

Purchasing Authority:
The authority used to issue this Invitation for Sealed Bid comes from:

a.) City Charter Article XII Section 14
b.) City ordinance Title 6, Chapter 4 (Purchasing)

Fairness:
It is the intent of the City to present these bid specifications such that they will result in an open and competitive process. If in your opinion, we have not met that objective, discuss at the pre-bid meeting or contact the project buyer in writing.

Bidder Conflict of Interest:
City employees will not be permitted to bid on this contract or work for the awarded Contractor(s) on this contract. By submission of a bid, Bidder certifies that no employees of theirs, any affiliate or subcontractor has bribed or lobbied, or attempted to bribe or lobby an officer or employee of the City.

Specification Availability:
These specifications can be obtained in the following ways:

- Website: www.cityoftulsapurchasing.org
- Fax-on-Demand: 918-596-1171 for an index
- Purchasing Office: 200 Civic Center Room 802; Tulsa, Oklahoma 74103

Acknowledgement of Intent to Bid:
The only way to acknowledge your intent to bid will be as directed on page 1. Sending any addenda or notice of addenda to you will be based on you notifying us in the prescribed manner of your intent to bid.

Bid Form:
BIDS MUST BE SUBMITTED ON THIS FORM ONLY INCLUDING A SIGNATURE OF AN AUTHORIZED AGENT. If submitting multiple bids, submit each in a separate envelope or box. Be sure the envelope or box is completely and properly identified and sealed, showing the bid number and opening date in the lower left hand corner.

Proposed Contract:
If the method of award will be by contract, you must include a copy of your proposed contract language making sure that the language does not contradict with any portion of these specifications.

RFB Ambiguity, Omission, Inconsistency, or Error:
Any Bidder believing that there is any ambiguity, omission, inconsistency or error in the RFB should promptly notify the City in writing of such apparent discrepancy. Failure to notify will constitute a waiver of claim of ambiguity, consistency or error.

If a bidder discovers any ambiguity, conflict, discrepancy, omission, or other error in this Invitation for Sealed Bid, they shall immediately notify the City contact of such error in writing and request modification or clarification of the document. If needed, an addendum will be issued to all known bidders without divulging the source for the request of the same.

If a bidder fails to notify the City prior to the date and time fixed for submission of bids of an error or ambiguity in the RFB known to them, or an error or ambiguity that reasonably should have been known to them, they shall not be entitled to compensation or time by reason of the error/ambiguity of its late resolution.

The apparent silence of this specification as to any detail or apparent omission of a detailed description concerning any point shall be regarded as meaning that the best commercial practice is to be used. All interpretations of the specification shall be made from this statement. Proof of compliance will be the responsibility of the contractor.

Bidder Questions:
Except for the pre-bid conference, all questions will be handled as stated on the first page. Any discussions with anyone other than the Project Buyer or other procurement personnel may disqualify your bid and be grounds for retracting an award recommendation or be cause for the termination of any future contract or purchase order.

If there has been a breach of this General T&C and products have been delivered, they will be returned at the successful bidders cost. The City will not be liable for any supplier costs. A list of all procurement personnel is available on the City of Tulsa's website and Fax-on-Demand.

The City cannot guarantee that any questions received within ten (10) working days of the due date will be answered.

Any oral explanations or instructions given before the award of the contract will not be binding.

Any information given one bidder concerning this Invitation will be provided promptly to all other known bidders as an addendum, if that information is necessary in submitting a bid or if the lack of it would be prejudicial to other bidders. The City may at its option periodically send an e-mail containing any questions and answers not previously distributed by an addendum prior to it being included in an addendum.

Addendum to Invitation for Sealed Bid:
a.) All addendum information will be communicated to all known respondents in writing. Any verbal communications by any

City personnel or their agent will not be a part of these bid specifications.

b.) If this specification is amended, then all unchanged provisions, which are not modified, remain unchanged.

Preparation Cost:
The City of Tulsa will not be responsible for any bidder costs in preparing the bid response, pre-bid conference, demo, or any other cost incurred by the bidder.

Multiple Responses:
Bidders may submit more than one bid in response to this RFB. However, each bid must be a separate, complete package, which can be considered independently of any other bids from the same Bidder.

Bid due:
Deliver or hand carry offers to the office of the City Clerk City of Tulsa; 200 Civic Center, Room 109; Tulsa, Oklahoma 74103 **NO LATER THAN 5:00 PM** on the due date shown on the cover sheet. Offers will be date/time stamped in accordance with this provision.

The City shall not be responsible for the failure of offers not reaching the City Clerks office prior to the due date and time.

Faxing Bids:
Bids cannot be faxed to the City Clerk, Purchasing, or any other City office or employee.

Bid Opening:
All bid openings are public. The opening will take place the day after due:

Francis Campbell Council Meeting Room
City Hall, 200 Civic Center, plaza level
Tulsa, Oklahoma 74103
8:30 A.M.

Exceptions Taken to Specifications:
Any exceptions or deviations from these written specifications shall be shown in writing on the "List of all Exceptions taken to these specifications" page. Note that an exception may eliminate you from consideration.

Altering Bids:
Bids cannot be altered or amended after the submission deadline. The signer of the bid thus guaranteeing authenticity must initial any interlineations, alteration, or erasure made to the bid before the opening bid date. Bids must be submitted in ink or type written. Bids using pencil will not be accepted.

Bid Conformity:
By submitting a properly signed and notarized response to this Invitation, the bidder attests that the supplies and/or services conform to these
specifications unless an exception is listed.

Mathematical Errors:
The bidder shall show on the detail cost summary both the unit prices and total amount, where required, of each item listed. In the event of error or discrepancy in the mathematics, the unit prices shall prevail.

Evaluation Committee:
The evaluation committee will consist of personnel selected from the operating and technical areas as needed. The Purchasing Division will assist as needed.

Award of Bid:
The bid will be awarded to the firm(s) whose bid is responsive and most advantageous to the City, considering the factors identified in the bid and the Purchasing Ordinance set forth below:

Award of Contract, City of Tulsa Ordinance, Title 6, TRO Chapter 4, Section 406E:

1. Authority of the Mayor. The Mayor shall have the authority to award contracts within the purview of this chapter.
2. Lowest Secure Bidder. Contracts shall be awarded to the lowest secure Bidder meeting specifications. Bid specifications may include a point system for evaluating the lowest secure bid. In determining the "lowest secure bidder" in addition to price the following factors shall be considered:

    a. the ability, capacity and skill of the bidder (proposer) to perform the contract or provide the service required;
    b. whether the bidder (proposer) can perform the contract or provide the service promptly or within the time specified, without delay or interference;
    c. the character, integrity, reputation, judgment, experience and efficiency of the bidder (proposer);
    d. the quality of performance of previous contracts or services;
    e. the previous and existing compliance by the bidder (proposer) with laws and ordinances relating to the contract or service;
    f. the sufficiency of the financial resources and ability of the bidder (proposer) to perform the contract or provide the service;
    g. the quality, availability and adaptability of the supplies or contractual services to the particular use required;
    h. the ability of the bidder (proposer) to provide future maintenance and service for the use of the subject of the contract;
    i. where an earlier delivery date would be of great benefit to the requisitioning agency, the date and terms of delivery may be considered in the bid award;
    j. the number and scope of conditions attached to the bid; and
    k. if a point system has been utilized in the bid specifications, the number of points earned by the bidder (proposer).

The bid will be awarded based on a scoring percentage and/or cost per point ratio and percentages in the following areas:

1. Cost of Hardware/Software (lowest cost per point)
2. Ability to meet City needs as defined by Tier 1 to 4 rated questions
3. Demonstrations
4. References
5. General Questionnaire

See Special Terms and Conditions for any additional details.

Award of Items to Bidder(s):
The City may award each item to different bidders or all items to a single bidder at its sole discretion unless otherwise defined on the detail cost summary page or described in the Special Terms and Conditions section.

Technicalities: The City may waive any minor technicalities in the bidding process at its sole discretion.

Right to Reject:
The City of Tulsa reserves the right to reject any and all bids, or may accept or reject any line item at the price quoted. In addition, the bidder should recognize the right of the City to reject a bid if the bidder fails to submit the data required in the bid document, of if the bid is in any way incomplete, or irregular, or is not in total compliance with the specifications. Any departure from the specifications shall be stated in the bid with an explanation of the reason for the change.

Bid Results Notice:
Available in the following ways:

- City of Tulsa Purchasing Website
- City of Tulsa Fax-on-Demand
- City Clerks office at City Hall

Notice of Award:
The project buyer will notify the successful bidder.

Equal Employment Opportunity:
Each bidder agrees to comply with the terms of Title 5, Chapter 1, of Tulsa, Oklahoma Charter and revised ordinances relating to equal employment opportunity.

Employment Discrimination Prohibited by Contractor:
During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race religion, color, sex or national origin, except where religion, sex or national origin is a bona fide occupational qualification, reasonably necessary to the normal operation of the contractor. Or agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

2. The contractor, in all solicitations or advertisements for employment placed by or on behalf of the contractor, will state that such contractor is an Equal Employment Opportunity Employer.

3. Notices, advertisements and solicitations placed in accordance with Federal Law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

   The contractor will include the provision of the foregoing paragraphs of this section in every subcontract or purchase order of over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

Americans with Disabilities Act:
The Contractor shall take the necessary actions to ensure its facilities and employment practices are in compliance with the requirements of the Americans with Disabilities Act. Any costs of such compliance with the requirements will be the responsibility of the contractor.

Delivery Time Frame:
Bid must show number of days required for delivery under normal conditions on the first page. Failure to state delivery time obligates bidder to complete delivery in fourteen (14) calendar days. Unrealistically short or long delivery promises may cause bid to be disregarded. Contractor must keep Purchasing Department advised at all times of status of order. Default in promised delivery or failure to meet specifications authorizes the Purchasing Agent to purchase supplies elsewhere and charge full increase of cost and handling to defaulting contractor. Consistent failure to meet delivery promises without valid reason may cause removal from bid list.

In the case of projects with multiple deliveries, detail the delivery events in the section provided in the Supplier Response Section.

Description of offering and warranty:
The bidder shall attach the manufacturer's name of the equipment or material to be furnished, type, model numbers, manufacturer's descriptive bulletins and specifications. All guarantees and warranties should be clearly stated. This data shall be in sufficient detail to describe accurately the equipment or material to be furnished. Manufacturer's specifications, in respect to the successful bidder, shall be considered as part of the contract with the City of Tulsa.

Mandatory Requirements:
The bidder must comply with all mandatory requirements. Exceptions:
The City will consider an alternate response to a mandatory requirement. The City at its option may consider and approve an alternate if it fulfills the needs of the City.

Travel Expenses:
The response shall include a "Not to Exceed" amount for all expenses necessary to fulfill these specifications. No reimbursement will be made for expenses not actually incurred. The City reserves the right to audit all travel expenses.

Industry Standards:
Any applicable industry standard and codes will be adhered to whether specifically listed or not.

Product Substitutions:
The parties recognize that technology may change during the term specified in this bid request or the term of any subsequent purchase order or contract. Therefore, the City may at its option accept changes to the specifications for products of equal or better capabilities at no additional cost to the City. The Contractor(s) shall give the City thirty (30) working days advance notice in writing of any changes to the original Bid specifications. The City reserves the right to accept or decline the specification changes and will indicate the decision in writing to the Contractor(s).

Right to Audit:
Contractor fully understands that it is a condition of this bid to allow the City to audit for goods, services, materials, and/or supplies provided to the City of Tulsa. Contractor agrees to provide timely access to its books and records on Contractor's premises upon reasonable request by City staff. Contractor further agrees that it shall provide City personnel reasonable access and such clerical assistance as City staff may require for examination and audit of those portions of Contractor's books and records relating to the goods, services, materials and/or supplies furnished to the City during the term of any contract between Contractor and City. The contractor further agrees that any discrepancies found will be corrected and will return funds to the City for undelivered goods or services or overcharges. The supplier will have fourteen (14) days to refund any monies due. Depending on the magnitude of the problem, the contract may be terminated.

Authorized Reseller:
If you are not the manufacturer of the products being solicited for bid, you must have been an authorized reseller of the products and/or services bid for at least 180 days prior to bid due date. If not specifically requested as a part of these specifications, the bidder will have seven (7) working days to respond to a written request to produce sufficient proof from the manufacturer certifying the reseller status and beginning date.

Oral Agreements:
None apply

Recipient of Contract:
The City will only contract with the "Firm name" shown on the first page and, only, if signed by an authorized agent of that firm.

Contract Assignment:
Successful Bidders(s) shall not sell, sublet, or assign the agreement or any portion thereof to any person or persons, except with the written approval of the City of Tulsa.

Litigation of Conflicts:
Any dispute requiring litigation will only take place in the courts of Oklahoma in the County of Tulsa.

Law Applicable:
Bidder warrants that the goods and/ or services bid will be produced and sold in compliance with the provisions of any and all

Federal, State, and Municipal laws and ordinances.

Order of Document Precedence:
This document will be made a part, either implied or specifically, of any future contract or purchase order. Nothing submitted in the bidder's documents or future contracts or other correspondence will replace any specifications, terms and conditions herein.

Bidder's response, including all promises, warranties, commitments and representations made in the successful bid, shall be binding and incorporated by reference in the City's contract or purchase order with the successful bidder. Therefore, all responses including all statements, claims, declarations, and specifications in the bids shall be considered firm and irrevocable, and all prices considered maximum, for purposes of bid evaluation, future purchase order, or future contract stipulations unless specifically waived in writing by the City.

Treatment of Information by both parties:

Bidder:
All information received or obtained by bidders in connection with this RFB must be treated as confidential and not used for announcement of your receiving this bid or possible award of bid. Any use or this and related information is not permitted without the written permission of the City contact person named herein.

City:
All bid information received from bidders by the City of Tulsa, in connection with this RFB, will be retained by the City and remain as a matter of public record. Any proprietary or confidential information should be identified as such, and the desired treatment of the information specified with the understanding that the City is governed by Oklahoma Open Records Act. .

Bids will be disqualified if information relevant to the evaluation process cannot be retained for possible disclosure based on established State of Oklahoma Open Records Law.

Liens:
The contractor agrees to indemnify and hold the City harmless from all claims, demands, causes of action or suits of whatever nature arising out of the services, labor, and materials furnished by the contractor or his/her subcontractors under the scope of this bid and from all laborer's, materialmen's and mechanic's liens upon the real property of the City of Tulsa.

Hold Harmless:
Bidder agrees to defend and save City of Tulsa from and against all demands, claims, suits, costs, expenses, damages and judgments based upon infringement of any patent relating to goods specified in this order or the ordinary use or operation of such goods by the City or use or operation of such goods in accordance with bidders direction.

Liability:
The bidder shall assume all liability for damages and shall hold the City free and harmless from all claims of damages to persons and/or property that may arise out of, or by reason of, this contract.

Assignment:
Contractor shall not sell, sublet, or assign the agreement or any portion thereof to any persons, except with the written approval of the City of Tulsa.

Bankruptcy:
In the event of any proceedings, voluntary or involuntary, in bankruptcy or insolvency, by, or against the Seller (successful bidder) or for the appointment of a receiver or trustee or an assignee for the benefit of creditors, the City shall be entitled to cancel the purchase order or contract at any stage of completion without any liability whatsoever.

If any of the proceedings described above are taking place at time of bid or occur during the evaluation period or prior to the execution of a purchase order or contract, the City at it's sole discretion may withdraw any further consideration of bidder without any liability whatsoever.

	The bidder must inform the City in writing at the time of bid of current or possible proceedings as described in paragraph one in this section.
	Waiver: A waiver of any breach of any provision of this Contract shall not constitute or operate as a waiver of any other provision, nor shall any failure to enforce any provision hereof operate as a waiver of the enforcement of such provision or any other provision.
	Contract Administration: The department shown on page one will perform the primary administration of the contract. Purchasing and other City departments may become involved primarily from an audit standpoint.
	City Not Liable for Delays: It is agreed that in no event shall the City be liable for or responsible to the Contractor(s), any subcontractor or to any other person for or on account of any stoppages or delay in the work herein provided for by injunction or other legal or equitable proceedings or on account of any delay for any cause over which the City has no control.
	Packing and Shipping: No additional charges will be added for packaging and shipping. All goods shall be packaged, marked with: Bid number or purchase order number (if applicable) Packaging will be in accordance with good commercial practice. An itemized packing list shall accompany each shipment.
	F.O.B. Title and Risk of Loss: **T**he F.O.B. point will be the delivery point listed on the purchase order or contract. The seller will be responsible for all shipping costs Including all applicable transportation and insurance costs. Seller shall bear all risk of loss or damage to the goods, and the title shall not shift to the Buyer, until delivery of the goods to the Buyer's location. The seller will be responsible for all activities associated with the replacement of any damaged goods including damage discovered at time of unpacking or testing.
	Cash Discounts: In the event cash discounts are offered by the bidder, the discount date shall begin with the date of invoice, the date of receipt of all material (unless the City provides for progress payments in this packet) covered by the purchase order, or the date of receipt by the City of Tulsa of the original copy of the purchase order with properly executed Affidavit of Claimant, whichever is the later date.
	Sales Tax: All Federal, State, and local sales tax are not applicable.

Special Terms and Conditions

Definitions:
No additions in this section

Special Labeling and Packaging of Bid Response:
The total number of copies to be included in your response is shown on page 1.

One copy must be clearly labeled **"Original"**
One copy must be clearly labeled **"Purchasing"**. Include electronic media with this copy.

Bid Offer Duration (enter number of days):
No bidder may not withdraw his bid for a period of 90 **calendar days after the date and hour set for the opening of bids.**

Electronic copy of bid required (check one):

Yes: X **No:** ☐

Attach the electronic version to the copy labeled Purchasing.

PRICE ADJUSTMENT OPTION:
The price paid for any commodity or service bid shall not increase during the term of the contract if you are the successful bidder. However, if the bidder anticipates that it will not be able to maintain firm prices for any renewal period, a change in price may be allowed in the renewal of this contract if the following criteria are met:

a.) The bidder includes a formula in the initial bid, to be used to calculate a change in price at the time of renewal. Such formula shall be reasonable, objective, and capable of measurement. The City reserves the right to audit such increases. Any pertinent records not made available may be cause for the cancellation of contract or other such remedy as deemed appropriate.

b.) The contractor notifies the City, in writing, no later than 30 days prior to expiration of the initial contract period, or any renewal period, of it's intent to exercise the right to escalate or de-escalate prices under the contract. The notice cannot include increases greater than the potential increases bid.

The predicted increases will be used in the evaluation of the bid. The increase percentages will be used to calculate the total solution cost.

If the consumer price index is used for the renewal increase, the previous years CI will be used to calculate the total solution cost.

YOUR RESPONSE MUST BE PRESENTED IN THE APPLICABLE APPENDIX.
If a purchase order is used, the above price adjustment option will apply for the term specified in the bid specifications

Award Method (check one):

Lowest Cost:	Lowest Cost Per Point:	Other:
☐	X	☐

Explanation of Award Method:

Evaluation Criteria

The City will evaluate bidders offerings using a point system with a percentage of the points assigned as outlined below.

Evaluation of Bidders

The evaluation committee in recommending the bid award will use the following general criteria:
Each question has been given a weighting from 1 to 4 and defined as Tier 1 – Qualifying information, Tier 2 – Desirable, Tier 3 – Important, Tier 4 – Fundamental (Barrier-Must respond in an affirmative manner).

Bidders will be short-listed based on their solution's ability to meet the Tier 4 – Fundamental Questions. The top bidders, based upon the Evaluation Criteria items below may be asked to participate in a required interview or perform a required demonstration.

Evaluation Criteria

Total Points = 3,192

Criteria Percentages:

	Description	%	Maximum Pts
1.	Ability to meet City's Needs as defined by Tier 1 to Tier 4 rated questions	50%	3192
2.	Cost of Hardware/Software/Professional Services	20%	1276
3.	Interviews/Demonstrations	15%	958
4.	References	15%	958
	Total:		6384

Evaluation scale:

The Bidder shall receive a rating for each question based upon how well it meets the needs of the City. This point system is as follows:

4 –Exceeds all requirements
3 – Exceeds some requirements
2 – Meets all requirements
1 – Meets some requirements
0 – Fails to meet requirements or is unresponsive.

Calculation of points

The points awarded for each item will equal the product of the tier number and the rating.

Example: A Tier 3 item with a rating of 4 receives 12 points for that item.

Purchase Method (check one):

Contract:	X	Purchase Order:	

Initial Contract term: **1 Year**

Contract renewals (1 Year each): **4**

Total contract term including renewals: **5**

If the bid requires a written contract to be entered into by the successful bidder, the successful bidder must attach a copy or copies of the proposed contract in a form that does not conflict with any terms of these specifications. If the bidder submits a sample contract in conflict with these specifications, the bidder must indicate those exceptions on the "Exceptions to Specifications Sheet" with the knowledge and understanding that an exception to these specifications may eliminate you from further consideration.

Pre-bid Conference available (check):

NO: [ ] **YES:** [X]

NO: [ ] **YES:** [X]

If Yes (If mandatory, you must attend one pre-bid conference):

Date:	**December 5th, 2001**	**December 6th, 2001**
Time:	**3:30 – 5:00 PM**	**1:30-3:00 PM**
Location:	**Room 1101** **City Hall** **200 Civic Center(11th floor)**	**Room 1101** **City Hall** **200 Civic Center(11th floor)**

Explanation:

a. You are encouraged to submit your questions in advance of the Pre-Bid meeting to the Project Buyer whether you plan on attending or not. This will assist the City in the event research is needed to answer your questions. Advance submission of questions is not mandatory.
b. The pre-bid meeting may be monitored, audio-recorded, video recorded, etc.
c. The City will make its best effort to make sure that any questions and answers that add to the clarity and quality of these specifications are made a part of these specifications by addendum to all known bidders.

Bid Bond (check one):

NO: [ ] **YES:** [X]

If Yes:

Bid Bond Amount: **5 % of Bid amount**

Explanation:

If a bid bond is required, it must be enclosed with the bid in the form of a bidder's bond, cash, certified or cashier's check in the amount of shown above. This amount shall be retained by the City of Tulsa as liquidated damages in the event the successful bidder (or bidders) fails to execute a contract, if required. The bidder agrees that said amount is presumed to be the damages sustained by the City due to the impracticability and extreme difficulty in fixing the actual damages. The office of the City Clerk will return the bid deposits to the unsuccessful bidders, after a contract has been awarded or all bids have been rejected.

The City Clerk's Office will return Bid Bond's within 10 days of receiving an executed contract from the successful bidder.

Performance Bond (check one):

NO: [ ] **YES:** [X]

If Yes:

Performance Bond Amount: **Bid Total**

Change Orders:

No change orders will be issued for work defined in bid specifications.

No change orders will be issued prior to contract signing or purchase order issuance whichever is applicable.
Exceptions: The purchase of options specified will be allowed within City purchasing guidelines.

No claims for extra work will be allowed unless the City in a written change order had previously ordered it. That change order will include at a minimum:

1. What is to be done in complete detail.
2. Complete description of the work to be done by the contractor including services and goods.
3. Signature of vendor representative.
4. Signature of the MAYOR of the City in the case of a contract. Or, the signature of the Purchasing Agent in case of a purchase order. The Mayor's approval may be required prior to the issuance of the purchase order in some cases in accordance with purchasing guidelines.
5. Include complete documentation in mutually agreed costs approved by the successful bidder's designated representative and approved by the Mayor of the City.

Delivery Constraints:
No physical constraints known. It will be the responsibility of the successful bidder to work with the City to assure there are no unforeseen problems to the successful delivery, installation, and system acceptance of the products and services described herein.

Contractors' Liability and Insurance Requirements:

General Liability:
The City of Tulsa shall not be liable for any loss or damage sustained by the contractor. The contractor shall save the City of Tulsa whole and harmless from any and all claims of whatsoever nature growing out of or resulting from or in any way connected with the exercise of the privilege herein granted. Contractor will exercise every necessary precaution for the safety of the property and the protection of any and all persons and/or property located adjacent to or making passage through said property.

Liens:
The contractor agrees to indemnify and hold the City harmless from all claims, demands, causes of action or suits of whatever nature arising out of the services, labor, and material furnished by the contractor or his subcontractors under the scope of this Invitation for Sealed Bid and from all laborer's materialmen's and mechanic's liens upon the real property upon which the work is located or any property of the City of Tulsa.

Insurance:
The contractor, and any subcontractors, shall carry and keep in force during the term of the contract including any subsequent renewals policies of public liability insurance including any contractual liability assumed under the contract in the minimum amounts set forth below and workmen's compensation insurance in the amounts required by law.

The bidder (defined to include all subcontractors and agents) shall secure and maintain throughout the duration of this contract policies of insurance and furnish to the City certificates of insurance of such types and not less than the amounts as hereinafter listed:

- Personal injury, each person $ 175,000
- Personal injury, each occurrence $ 1,000.000
- Property damage, each person $ 25,000
- Property damage, each occurrence $ 100,000
- Workers' Compensation (as required by law)

The policy shall include a clause stating that it cannot be cancelled by the insurer without the insurer first giving ten (10) days written notice of cancellation or the City must be included on the policy as a named insurer. The named insurer must provide the following on the certificate:

The City of Tulsa, a municipal corporation, is an additional insured for worked performed under Bid **xx-xxx** (specify bid no. shown at the top of page) and must be notified thirty (30) days in advance of insurance cancellation or termination.

An insurance certificate must include: name and address of insurance company (must be licensed to transact business in the State of Oklahoma), Policy number; and liability coverage and amounts.

The successful bidder must furnish the City a certificate of insurance showing such coverage within ten (10) days following the acceptance of the bid by the City and before starting work. Acceptance at the point the successful bidder is notified in writing their bid has been accepted and an award recommendation is made.

The certificate of insurance must be identified with bid number xx-xxx and must be sent to:

City of Tulsa
Legal Department-Insurance
200 Civic Center Room 316
Tulsa, Oklahoma 74103

Premiums:
Premiums on all insurance policies shall be paid by the contractor and shall be included in the bid. The City will have no responsibility or liability for such insurance coverage.

Delivery Time Frame:
Timeliness in complying with this bid specification is required. Failure to deliver goods and/or services specified in the bid response in the timeframe outline in this bid or within your bid response, whichever is sooner shall entitle the City, in addition to any other rights or remedies, to cancel the purchase order or contract and purchase the goods elsewhere, holding the Seller accountable. Payment or acceptance of any goods or services after the delivery date shall not constitute a waiver of the City's right to cancel the order with respect to future deliveries.

If these bid specifications include a specific set of milestones, the above definition of timeliness will apply to each milestone. If milestones are not specified in the bid specifications, the milestones specified for our consideration by you will define timeliness.

Year 2000 Compliance:
Century Compliance: The vendor must certify that all hardware and/or software provided through this bid is "Century Compliant." The criteria for compliance are shown below. Failure to satisfy these criteria will make your bid non-responsive. In the event a contract is put into effect based on that assurance and its determined not to be compliant, the entire contract may be revoked and the vendor will reimburse the City for any expenses incurred in this acquisition including any installation and implementation costs of hardware and/or software.

Hardware:

The date maintained within the hardware must accurately represent the year and century, and accommodate special events such as Century Rollover and Leap Year.

Software:

Century compliance requires that software satisfy four date-related criteria. Software meeting all four can be considered "century compliant". Each criterion serves as a high-level requirement for software.

References:

See Technical Specifications section

Project Timeline:

The Project Timeline will be a part of the Statement of Work

System Acceptance:

The SYSTEM ACCEPTANCE PROCESS will be a part of the STATEMENT OF WORK.

Statement of Work:

Include a preliminary Statement of Work (see appendix) including all major events necessary from contract signing through system acceptance to fulfill these specifications completely.

After signing of contract, the successful bidder will be required to expand the preliminary Statement into a complete Statement including project timeline and system acceptance. The statement of work must be approved by the City in writing prior to beginning of any work. By reference, this complete Statement of Work will become a part of this contract.

The contractor will have ten(10) working days to present the complete Statement of Work. The City will have five(5) working days to review and present comments. Both parties will have five(5) working days to work our differences and obtain signatures of the the contractor and City Project Managers.

If agreement is not reached, the contract will become void with no expenses incurred by the City.

The first payment will be made upon acceptance of the Statement of Work by both parties.

Furnished by the City:

The City will furnish no material, labor, or facilities unless explained in the next paragraph or as described in the Technical Specification section.

Payment Schedule:

Such amount shall be paid to the contractor in accordance with the following payment schedules. The following will be milestones which must be a part of your project timeline made a part of your bid. In addition, these must be a part of revised project timeline developed and approved by both parties prior to the start of any work:

1. Net 30 after receipt of all hardware and software
2. Net 30 days after Final System Acceptance

Technical Specifications

Network Infrastructure Equipment Replacement
Telecommunications/IS Network Operations Section

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Introduction

The City of Tulsa has built a fiber optic infrastructure that extends to nearly all buildings it owns or operates. The network operates under ATM technology and delivers Fast Ethernet to end user devices. This metro area network connects 173 sites over 350 square miles. It serves approximately 3000 end-user devices and 150 servers. The infrastructure consists of approximately 300 switches and hubs.

The majority of end user devices are Compaq and Dell personal computers and servers, and Hewlett-Packard LaserJet printers. Major platforms include Sun, Hitachi, Sequent, and Compaq Alphaservers. Most applications use Oracle or MS SQL Server databases. The City is migrating to a network operating system of Windows 2000 with both Active Directory and Novell Directory Service (NDS). There are several versions of Unix, and Unix will continue to be a major application and database platform. Management of end user devices, servers, and user accounts, is distributed among the departments.

Connections include water and wastewater treatment plants, quality assurance laboratories, maintenance buildings, offices, police and fire stations, pump stations, warehouses, garages, training centers, parks, recreation centers, golf courses, and the zoo.

This network also hosts connections between branches of the Tulsa City/County Library System, the Catoosa, Broken Arrow, and Jenks police departments, the City/County Health Department, EMSA, the City/County Jail, and the Tulsa County Courthouse. It serves the Tulsa Airport Authority, the Tulsa Performing Arts Center, the Maxwell Convention Center, and Gilcrease Museum. The City expects that many of these organizations will upgrade their infrastructure to match the City's, and that any organization that connects to the City metro area network will be able to purchase on the same terms as this project.

In the years since its inception the network infrastructure has become critical to the City of Tulsa, and its ability to provide services to citizens. Billing systems, permit and licensing systems, work order, training, personnel, finance, public safety, and traffic systems, street maintenance, asset management, interactive video, Internet, HVAC and SCADA systems, purchasing, engineering, telecommunications systems, both cabled and wireless, are served through this network.

3Com Corporation manufactured all network equipment in this infrastructure. When 3Com discontinued its ATM product line, the City chose a new infrastructure with greater capacity, flexibility, and simpler maintenance. The City has selected Gigabit Ethernet for this new infrastructure, with Ethernet and Fast Ethernet to end user devices. The City is also considering solutions that include Wavelength Division Multiplexing (WDM), and 10 Gigabit Ethernet.

This project proposes to replace the entire network infrastructure with multi-layer services over Gigabit Ethernet. This includes routing in the core and intelligent layer-2 services, including Quality of Service, at the edge. TCP/IP will be the only network protocol supported on this network. It includes all hardware and software, including a full-featured network management system.

The appendices include maps and designs of this network, details of connections between devices, enclosure specifications, and an inventory of existing equipment. The City seeks a long-term partner and a single manufacturer.

The evaluation of Bidders will be by two teams: representatives from several departments will have the primary responsibility for reviewing the business and management aspects of the responses. The Network Operations staff will evaluate hardware and software usability and compliance with those requirements. Together they will recommend the best solution for the City of Tulsa.

Section 1 General Terms and Conditions

Bid Format

The Bidder shall submit the bid in MS Word 2000 format with questions and answers in the same order as requested. Each question is uniquely identified and the Bidder will respond by adding an answer line immediately below the given question. The bid shall be submitted in two binders. The first binder is the Technical Bid. The second binder includes the completed Cost Bid. A total of ten (10) copies of each submittal and one (1) magnetic media copy on CD ROM or diskette will be required. Supporting literature may be included in a separate 3-ring binder or submitted in a separate section at the back of the Technical Bid. Sales literature may also be included but must be submitted in a separate 3-ring binder.

Technical Bid Format

Bidders shall provide the information required by this section as a separate Technical Bid.

1. Submit one (1) original, nine (9) copies and one (1) CD ROM or diskette copy of the **Technical Bid**, in **separate** binders, or folders distinctly marked, as "Technical Bid" shall be submitted in a single, 3-ring binder. No standard sales literature should be included in this section. If the Bidder chooses to include sales literature, it should be included in a separate 3-ring binder.

2. Each section of the Technical Bid shall be organized to facilitate the review and evaluation process with each section of the bid in the same order as the information is requested.

3. If the Bidder takes exception to any requirements provided herein, indicate the exception with a separate comment.

4. Bidders may also, at their discretion, choose to provide additional information that they feel may be of use to the City of Tulsa by inserting a comment.

5. The bidder shall provide a complete and thorough description of how effectively the proposed solution can meet the requirements of the section, including, but not limited to, specific features of the proposed system to achieve the requirements.

6. The City of Tulsa will evaluate competing bids based upon the City of Tulsa's assessment and substantiation of specific claims. The City of Tulsa's evaluation will include consultation with references, review of Bidder's claims, and review of any and all other information available to the City of Tulsa.

7. If the City of Tulsa is unable to verify claims for any reference installations, or if submitted documentation does not contain sufficient information for the City of Tulsa, the Bidder's reference will be void.

Cost Bid Format

Total Cost: Submit one (1) original, nine (9) copies and one (1) CD ROM or diskette copy of Appendix A - **Detailed Cost Summary**, in **separate** binders, or folders distinctly marked as "Cost Bid – Detailed Cost Summary". Bidders must use the form provided in the Detailed Cost Summary.

All Costs: All costs to be incurred and billed to the City of Tulsa **must** be described by the Bidder for each item, to allow for a clear evaluation and comparison, relative to other offers received. The Bidder should understand that the City of Tulsa will not pay any amount not included; that liability for such items, remains with the Bidder, and that the proposed price quoted must include any such costs (including all applicable taxes) the Bidder wishes to have included in the transaction.

Vendor Demonstrations

The City of Tulsa may request a vendor demonstration prior to bid acceptance. We reserve the right to call the vendor back for an additional demonstration before making a final decision.

Statement of Quality Assurance and Quality Control

The bidder organization must recognize and practice formal methods of quality assurance and quality control in producing, providing and servicing the hardware/software system.
The bidder must provide documented evidence of quality assurance and quality control procedures, including factory testing and individual component quality checks.

Section 2 Scope & Constraints

Scope of work

This RFB will furnish to the City of Tulsa bids for a complete replacement of the City's data network infrastructure. The desired result will be a **turn-key Gigabit Ethernet network** using Layer-2 (edge) and Layer-3 (core) services.

In addition, the City of Tulsa will consider the following turn-key solutions:

- Gigabit Ethernet over WDM
- 10 Gigabit Ethernet.

Implementation of this project will include:

- Purchase & delivery of necessary hardware & software
- Staging & testing of the accepted network design
- Installation & configuration of equipment & software
- Removal & disposal of existing equipment & software
- Training of select City of Tulsa employees in the use, maintenance, & management of the new infrastructure.
- Documentation of the new infrastructure, including drawings, configuration parameters and settings, technical documents and operator manuals.
- Maintenance & support of the new infrastructure.

Bidders are required to provide all equipment, components, accessories, software, tools, cables, and miscellaneous materials necessary to complete the project.

Bidders will furnish professional expertise to perform all tasks necessary to complete the project.

Bidders Project Manager:

1. The City will retain the right to approve the Project Manager assigned to this project.
2. The City will retain the right to request the replacement of the Project Manager if the situation dictates.
3. The bidder agrees not to replace the Project Manager without the written approval of the City between contract signing and Final Systems Acceptance.

This project does not include major modifications to the existing cable plant, though such changes may occur simultaneously.

Basic preferences

The City of Tulsa has the following design requirements.

- Layer-3, modular switches with routing using OSPF in the core
- Layer-2 fixed configuration switches at the edge
- Robust Quality of Service at the edge

Bidders may suggest different solutions throughout, or at specific locations, subject to acceptance by the City.

Barrier requirements of this RFB

Throughout this document specifications appear with which compliance is required. Bidders may submit equivalent alternatives for consideration, subject to acceptance by the City. Non-compliance with any barrier requirement may disqualify a bid.
Barrier requirements are identified by bold, blue type. Other specifications are identified by normal, black type.
Non-responsive answers – Any unanswered items, or any answers that do not include enough relevant information to evaluate, may be declared non-responsive. At the discretion of the City, a single non-responsive answer is sufficient to disqualify a bid.
Bidders may request clarification, or may challenge a specific specification, in writing or at the pre-bid meetings. The decision of the City will be final.

Concurrent projects

Other, concurrent projects may affect this project, including

- Telecommunications Department cable plant upgrade to comply with ANSI/TIA/EIA 568-B. (This is extensive work that involves every wiring closet.)
- Modifications to the network infrastructure, including:
  - Adding or removing end-user devices
  - Adding or removing building interconnections and devices
  - Adding new fiber optic routes to new or existing buildings
  - Removing unnecessary or unused fiber optic routes.
- The City is engaged in a project to redesign its IP addressing system in anticipation of initiating routing.
- A Windows 2000 testing project that may result in changes to its resource-level network management, DNS, & IP management.
- The Public Works Department has several projects to remodel or repair City buildings and facilities. These may require relocation of network equipment and cabling.
- Implementation of information technology projects by all departments, including hardware, software, and network connectivity, is nearly continuous. The schedules of these projects may affect the schedule of this project.
- The City of Tulsa will make every effort to coordinate these projects to minimize or eliminate any delays.
- The implementation of this project must minimize the risk of interruption to the City's operations. All network interruptions must be included in and agreed to in the project timeline..

  The City will work closely with the contractor during the preparation of the final project timeline to identify those projects that will need to be considered in the preparation of the timeline.

Other entities affected by this project

The City of Tulsa's network infrastructure hosts connectivity for several other organizations, including:

- Tulsa County
- The Tulsa City/County Library System
- The City of Catoosa
- The City of Jenks
- The City of Broken Arrow
- EMSA
- The City's connection to the Internet, which the City uses to conduct business with private businesses and other organizations, using this network infrastructure.

  The City will coordinate with these organizations to provide a smooth transition from the existing to the new infrastructure. These organizations must be able to purchase equipment under the same terms as the City to ensure interoperability and prevent interruption of service through the City-wide network.

The implementation of this project must minimize the risk of interruption to the operations of these entities. All network interruptions must be included in and agreed to in the project timeline..

Other constraints

The Telecommunications' Department's project to rehabilitate wiring closets includes adding secure enclosures. The enclosures chosen are:

- Hubbell Wall Mount Cabinets, models MCC24WMCSD19, MCC48WMCSD19, & MCC48WMCSD19D
- Hubbell Remote Equipment Cabinet (ReBox), models RE2, RE4, & RE4X..

All switches must fit inside the appropriate enclosure. See Appendix E for details.

Standards

This document references the following standards. Other terms, phrases, and jargon also may appear. The City assumes meanings common to the vernacular of the industry. A glossary among the appendices defines other, specific terms used in this document.

- 10 Gigabit Ethernet – IEEE 802.3ae
- Gigabit Ethernet (10000BaseLX/SX) – IEEE 802.3z
- Fast Ethernet (100BaseTX) – IEEE 802.3u

- Ethernet (10BaseT) – IEEE 802.3
- Virtual LAN (VLAN) - IEEE 802.1Q
- Quality of Service (QoS) – IEEE 802.1p
- Spanning Tree – IEEE 802.1D
- Rapid Spanning Tree – IEEE 802.1w
- Link Aggregation – IEEE 802.1ad
- Flow Control – IEEE 802.3x
- Simple Network Management Protocol (SNMP) – RFC 1157
- Remote Network Monitoring Management (RMON) – RFC 1757
- Telnet – RFC 854
- Internet Group Management Protocol (IGMP) – RFC 1112, RFC 2236
- Distance Vector Multicast Routing Protocol (DVMRP v3) – RFC 1075
- Protocol Independent Multicast, Dense mode & Sparse mode (PIM-DM/SM) – RFC 2362
- Open Shortest Path First (OSPF v2) – RFC 2328
- Routing Information Protocol v1 (RIP1) – RFC 1058
- Routing Information Protocol v2 (RIP2) – RFC 1723
- IPv4 Router Requirements – RFC 1812
- Internetwork Protocol (IP) – RFC 791
- BOOTP/DHCP relay – RFC 2131
- Remote Authentication Dial In User Service (RADIUS) – RFC 2138
- Virtual Router Redundancy Protocol (VRRP) – RFC 2338

Response to the following specifications

The Bidder must respond to every item in the following questionnaire. There is space provided after each item for the response. The desired response will describe how the Bidder meets – or exceeds – the specification. In most cases, a simple Yes or No answer is not adequate. Marketing or sales information is not appropriate for these responses.

Section 3 General Requirements

The following requirements are barrier. Bidders must comply with or fully qualify each item to be considered further. The City will allow no exceptions in this section. Bidders may submit alternatives for consideration, but if the alternative is rejected and the Bidder is left in noncompliance with the specification the City will reject the bid. Other barrier requirements appear elsewhere in this document. Bidders may distinguish barrier requirements by their bold, blue type and Tier 4 designation.

Barrier

Item	Specification	Tier	Rating	Score
	Gigabit Ethernet – The Bidder's solution will provide Gigabit Ethernet between core devices.	**4**		
	Fast Ethernet to the desktop – The Bidder's solution will provide Ethernet & Fast Ethernet to end-user devices such as personal computers and printers.	**4**		
	Switched media – The Bidder's proposal will eliminate all shared media and replace it with a switched environment.	**4**		
	Routing – The Bidder's solution must support routing on all core switches.	**4**		
	Single manufacturer – All switches must be from the same manufacturer.	**4**		
	New Equipment – All equipment must be new, unused, and with complete manufacturer warranty.	**4**		
	Migration from ATM – The Bidder must propose a method to migrate from the current ATM environment to Gigabit Ethernet. When complete, all ATM equipment, components, and modules must be removed.	**4**		
	Within the proposed solution, Bidders must list any additional software, modules, daughter-boards, or components necessary to implement a required feature and include on the Detailed Cost Summary.	**4**		
	The Bidder must offer trade-in value for the existing inventory of 3Com network equipment. A complete list of that inventory is included as Appendix F. The Bidder will be responsible for the removal & disposal of the trade-in equipment at their expense..	**4**		
	Bidders must propose an alternate solution featuring WDM technology . Bidder must submit a migration plan from Gigabit Ethernet to WDM. All Manufacturers must currently support WDM technology.	**4**		
	Bidders must propose an alternate solution featuring 10 Gigabit Ethernet. Bidder must submit a migration plan from Gigabit Ethernet to 10 Gigabit Ethernet. All Manufacturers must support the IEEE 802.ae draft standard.	**4**		
	All manufacturers must demonstrate leadership in the Gigabit Ethernet industry. Describe participation in IEEE, ITU, 10 Gigabit Ethernet Alliance (10GEA), the Resilient Packet Ring Alliance, or other relevant organizations.	**4**		

	The Bidder and Manufacturer (if different) must submit 10 references. The evaluation team will interview all references. The City reserves the right to reject any bid based upon interviews with references. References should include organizations such as:			
	Other municipal governments	**4**		
	Organizations of similar size & complexity	**4**		
	Organizations that use all features of the proposed equipment	**4**		
	Organizations with whom there is a long-term relationship	**4**		
	Interviews with references will include questions on the following:			
	Suitability of equipment	**4**		
	Reliability of equipment	**4**		
	Ease of use, configuration, & management, of equipment & software	**4**		
	Customer satisfaction	**4**		
	Technical expertise	**4**		
	Total points	**84**		

Section 4 Services Specifications

General

Item	Specification	Tier	Rating	Score
	The Bidder shall demonstrate financial stability by submitting the following documentation:			
a.	**Annual financial statements for the last 3 years (*These must be submitted within 72 hours of written request*).**	**4**		
b.	**SEC filings if applicable (*These must be submitted within 72 hours of written request*).**	**4**		
c.	A list of all persons and organizations holding 5% or more of the Bidder's stock.	1		
d.	Industry and market analyst reviews	1		
e.	Mergers, acquisitions and divestitures over the last 3 years. If any affects the business relevant to this project, describe the transaction, its purpose, and the affect on the Bidder's products or services.	3		
f.	Growth or reduction in workforce, including contractors, over the last 3 years.	1		
	The primary business of the Bidder is providing professional services relevant to this project.	2		
	The Bidder has been in business, offering services relevant to this project, for at least five years.	2		
	The Bidder has both a sales and support presence within Oklahoma, preferably in Tulsa. State the location of local offices.	3		
	The Bidder has an established relationship with the Manufacturer, demonstrated by previous, comparable projects.	3		
	Describe the relationship and previous projects with the manufacturer bid.	1		
	State the size of the business, in number of employees, annual revenue, number and location of offices, and number of clients.	1		
	State the proportions of annual revenue attributable to new & to existing customers	1		
	Total points	**27**		

Project management

Item	Specification	Tier	Rating	Score
	State the name & contact information of the Bidder's project manager.	1		
	The project manager shall be experienced in standard (Project Management Institute or equivalent) project management methodology. Project Management Professional certification is preferred.	**4**		

	The project manager shall have previous experience on projects of similar scope and complexity.	3		
	The project manager shall be solely assigned to this project from the preparation of the Statement of Work through System Acceptance.	3		
	The project manager is a full-time employee of the Bidder, or is a professional project manager under contract to the Bidder.	2		
	The project manager will create a project plan with the City's project manager and will manage that plan according to accepted industry (PMI or equivalent) standards. These plans shall include, at a minimum:	**4**		
	Scope management			
	Communication management			
	Cost management			
	Change management			
	Quality management			
	State the name & contact information of the Bidder's SE.	1		
	The Bidder will have a qualified Systems Engineer (SE) onsite for any discussions of design, and available throughout the project as needed by the City.	3		
	The Bidder's SE will be fully certified in the Manufacturer's products, hardware & software. State the SE's certifications.	3		
	The Bidder's SE will also have additional education, experience, & training in network design and engineering. Describe.	2		
	The Bidder's SE is a full-time employee of the Bidder, or is a professional SE under contract to the Bidder. Describe the SE's relationship with the Bidder, including previous projects.	3		
	Total points	**29**		

Network Design services

The City has a draft network design and specifications. The City may allow changes and modifications to that design proposed by the Bidder. Circumstances within the network may present new design challenges. The Bidder should prepare to offer network design services. Both the City and the contractor must sign off on the project plan including the network design to be implemented prior to the start of work.

Item	Specification	Tier	Rating	Score
	The Bidder has staff experienced in network design and is able to provide design assistance as needed. State training, certifications, and experience.	3		
	The Bidder's network design staff has previous, successful experience designing networks with Gigabit Ethernet, WDM, ATM, and fiber optic cabling. Describe previous experience.	**4**		
	The Bidder shall propose a method & schedule to migrate the network infrastructure from ATM to Gigabit Ethernet. This should be a part of the project plan. Describe how the Bidder would accomplish this. In addition, give an example of how the Bidder has done it in a previous project.	**4**		
	The Bidder shall use the information available from the Network Operations Manager to analyze the current network design, and suggest improvements, enhancements, or corrections for the new infrastructure design.	3		

	The Bidder's design staff shall submit design drawings, plans, and documentation in accordance with standard industry practices.	3		
	The Bidder shall submit all working plans & drawings in MS Visio or AutoCAD format.	2		
	The Bidder shall submit all working text documents in Adobe PDF format.	3		
	Total points	**22**		

Implementation services

Item	Specification	Tier	Rating	Score
	Before work begins, the Bidder shall submit a detailed implementation schedule for approval by the City as part of the project plan.	**4**		
	As part of the project, the City desires that the Network Operations staff be trained in the installation, configuration, and operation of the equipment. Therefore, the Network Operations staff will assist in the implementation of the project to the greatest extent possible, under the direction of the Bidder's SE.	**4**		
	The Bidder shall provide additional staff as necessary to complete the project. State the proposed staffing for this project.	3		
	The Bidder shall coordinate implementation to reduce interruption of the City's operations.	3		
	The Bidder shall receive all products, set up, configure, & test all products and configurations in a staging area offsite and of their own arrangement.	**4**		
	Total points	**18**		

Training services

Item	Specification	Tier	Rating	Score
	The City desires that the operation of the network be widely understood at all levels of the organization. Therefore, the Bidder shall provide the following training (Describe each):			
	Management – The Bidder shall provide presentations to management on the operation and services of the new network infrastructure.	2		
	IT Professional – The Bidder shall provide technical training to selected City IT professionals on the functions and features of the network.	2		
	Network Operations – The Bidder shall provide training to the staff of the Network Operations Section. The Manufacturer shall offer training locally during implementation with ongoing training offered through the Manufacturer's normal channels. Training shall include all the following (Include hours of training provided and curriculum):			
	Installation, configuration, maintenance, & troubleshooting of equipment.	**4**		
	Installation, configuration, maintenance, & troubleshooting of software	**4**		

	Detailed use of all features implemented in this project.	**4**		
	Total points	**16**		

Documentation services

Item	Specification	Tier	Rating	Score
	The Bidder shall provide complete documentation of the new infrastructure, including			
a.	**Maps and drawings of locations**	**4**		
b.	**Upstream and downstream connections to all equipment**	**4**		
c.	**Configuration files, parameters, scripts, settings**	**4**		
d.	**Complete installation procedures**	**4**		
e.	**Operator manuals for all equipment**	**4**		
	The Bidder shall provide 2 printed copies of all documentation. Acceptance of documentation will be based upon the printed documentation.	2		
	The Bidder shall provide 6 copies of all documentation, in electronic format, on CD. Printed and electronic documentation must match exactly	2		
	The format for all electronic documentation shall be:			
a.	**Adobe PDF for all manuals and procedures, configuration, parameter, & script files**	**4**		
b.	**Microsoft Visio or AutoCAD for all maps and drawings**	**4**		
	Total points	**32**		

Support services

Item	Specification	Tier	Rating	Score
	The Bidder shall provide complete support services with a variety of support plans and options, including			
	7 x 24 x 365, 4 hour response	**4**		
	7 x 24 x 365, same day response	**4**		
	7 x 24 x 365, next business day response	**4**		
	5 x 8 x 365, next business day response	**4**		
	The Bidder shall provide support services via the following methods, at a minimum:			
a.	**Onsite – The Bidder shall have available staff to respond to requests for assistance onsite, according to the support plan chosen by the City.**	**4**		
b.	**Telephone – The Bidder shall provide telephone support 24 x 7 x 365. Telephone support must provide access to senior engineers, programmers, or support technicians, if necessary to resolve the request.**	**4**		
c.	Email – The Bidder shall provide support via email for non-critical issues. Email support must include access to senior engineers, programmers, or support technicians, if necessary to resolve the request.	3		

d.	Internet – The Bidder shall provide support via the Internet for non-critical issues. Internet support must include access to a database of solutions, technical information, patches, fixes, and documentation.	2		
	The Bidder has a complete support organization, with response and escalation procedures, service metrics, and customer satisfaction ratings. Describe.	3		
	State the average daily request volume for each contact method (Telephone, Email, Web).	1		
	State the average response time for each contact method.	2		
	List the primary metrics by which support staff is evaluated.	1		
	Describe your priority levels for assistance requests, and describe how each priority affects call handling.	1		
	Describe the conditions that trigger an escalation of an assistance request.	1		
	Describe how escalation notifications are made within your organization and to whom they are made.	2		
	Describe your method of handling calls that fall outside your normal routine.	2		
	Describe how the Bidder ensures compliance with documented support processes.	2		
	Include a flowchart showing the escalation process within your company, with special attention to managing unresolved issues.	2		
	State the number of front line support staff serving the proposed products and services. State this as both an absolute number and as a ratio of support staff to customers.	3		
	State the number of 2nd level support staff serving the proposed products and services. State this as both an absolute number and as a ratio of support staff to customers.	3		
	State the number of local (Tulsa area) support staff (post-sales) serving the proposed products and services. State this as both an absolute number and as a ratio of support staff to local customers.	2		
	State the total number of support staff employed by or contracted to your company.	1		
	State the average time in service for support staff.	1		
	The Bidder's support staff shall include persons fully certified in the Manufacturer's products. State the number of support staff at each level of certification, both company-wide and locally.	3		
	The City prefers that the Bidder have support staff certified by the Help Desk Institute. Describe the training received by support staff in customer support processes.	3		
	The Bidder shall include in this response to the City documentation of the Bidder's support processes as it pertains to this project.	1		
	The Bidder shall share knowledge relevant to the City's needs, including:			
a.	Internet knowledgebase	1		

b.	**Issues & solutions updates**	**4**		
c.	User groups and user group conferences	1		
d.	**Ongoing training and certification**	**4**		
	Customer satisfaction			
a.	The Bidder shall have a formal process to measure customer satisfaction frequently.	3		
b.	The Bidder shares these customer satisfaction metrics with its customers.	1		
c.	The Bidder has a formal program to implement improvements to products, processes, and services based upon customer satisfaction metrics & customer suggestions..	2		
	Total points	**79**		

Section 5 Manufacturer Requirements

Corporate information

Item	Specification	Tier	Rating	Score
	The Manufacturer shall demonstrate financial stability by submitting the following documentation:			
a.	**Annual financial statements for the last 3 years**	**4**		
b.	**SEC filings**	**4**		
c.	A list of all persons and organizations holding 5% or more of the Manufacturer's stock.	1		
d.	Industry and market analyst reviews	1		
e.	Acquisitions and divestitures over the last 3 years. If either involves a Gigabit Ethernet product, describe the transaction, its purpose, and the affect on the Manufacturer's product line.	3		
f.	Growth or reduction in workforce, including contractors, over the last 3 years.	2		
	The Manufacturer has been in business for at least 5 years. State the date the business started.	3		
	The Manufacturer has offered Gigabit Ethernet switches for at least 3 years. State the date Gigabit Ethernet switches were first offered.	**4**		
	The Manufacturer has a significant share of the Gigabit Ethernet switch market. State the Manufacturer's market share of Gigabit Ethernet switches over the last 3 years. Include the source of this information.	2		
	The Manufacturer's target market for Gigabit Ethernet switches includes organizations of similar size and function as the City of Tulsa. Describe how the City of Tulsa fits into the Manufacturer's target market.	2		
	The Manufacturer has implemented the proposed solution, or a similar solution, in organizations of similar size, complexity, and function as the City of Tulsa. The Manufacturer shall provide a list of such organizations.	2		
	Describe the Manufacturer's sales and support – including post-sales support – presence in the Tulsa area.	3		
	State the proportion of the Manufacturer's revenue representing Gigabit Ethernet switches.	2		
	State which of the products proposed in this solution was designed by the Manufacturer, or were designed by another organization and acquired by the Manufacturer within the last 2 years.	3		
	State the month & year each product proposed in this solution was introduced. The City prefers products introduced less than 3 years ago but more than 1 year ago.	2		
	State the anticipated lifetime of the proposed products, and their	**4**		

	anticipated date of retirement. The City prefers products in the second quarter of their lifetime. The minimum shall be 2 years.			
	State the length of time the Manufacturer will continue support of the proposed products after production stops. Include how the Manufacturer has supported products after their retirement.	3		
	State the history of hardware, firmware, & software revisions and upgrades for each product proposed in this solution.	2		
	Using figures from existing customers, state the customers' average 4-year cost of ownership per port.	3		
	Support for Resilient Packet Ring initiatives and other similar solutions. Describe.	3		
	Total points	**53**		

Section 6

Product Specifications

Network Management Software

Item	Specification	Tier	Rating	Score
	The Manufacturer's NMS is supported on multiple platforms, including:			
	Solaris v8	**4**		
	Windows NT 4.0	3		
	Windows 2000	**4**		
	Unix (HP-UX or Compaq True64 Unix)	2		
	Linux	2		
	HTTP (Web browser interface)	**4**		
	All the manufacturer's equipment is managed by a single application or fully integrated suite of applications.	3		
	The NMS manages compatible products of other manufacturers. The Manufacturer shall submit a list of others' products manageable by this NMS.	2		
	The NMS uses a graphical interface. The NMS uses the same basic graphical interface for all functions.	2		
	The NMS uses the same command line interface for all devices. The structure, syntax, and parameters are the same for all managed devices.	3		
	The NMS has a Web browser interface. The interface has identical functionality as the other interfaces.	3		
	The NMS operates both as a standalone executable and as a plug-in to HP OpenView running on Solaris 8 or Windows 2000.	**4**		
	The NMS includes a reporting module with pre-designed reports for many network metrics. Describe included reports.	3		
	The NMS reporting module allows creation of custom reports.	3		
	The NMS reporting module uses a database compatible with, or exports to a database compatible with Crystal Reports 8.	3		
	The NMS can report in real time on network capacity, utilization, errors, dropped packets, and other network parameters.	3		
	The NMS can enable port mirroring of any port or combination of ports to any other designated port for analysis and troubleshooting.	3		
	The NMS can report on environmental conditions of the equipment, such as operating temperature & humidity.	3		
	The NMS should allow the network administrator to enable, disable, and configure any feature of any switch, including layer-2 and layer-3 protocols,	2		

	security features, VLANs, QoS, multicast services and protocols.			
	Alarms & notifications – The NMS can send notifications of triggered events via MAPI compliant e-mail, pager, Internet email, or to cell phones capable of receiving text messages. Any additional devices or software necessary to implement this feature must be included on the detail cost summary.	3		
	Total points	**59**		

All switches

Item	Specification	Tier	Rating	Score
	The equipment supports multiple image files and allows scheduled reboot to different images.	**4**		
	The equipment supports multiple ASCII configuration files that may be applied on command without rebooting.	**4**		
	Changes to the configuration may be made through the command line interface, the graphical interface, or by applying a different configuration file, without rebooting the device.	**4**		
	Image and configuration files may be uploaded via tftp or xmodem to one or many devices at once.	**4**		
	Changes to the configuration may be made by attaching a terminal to a serial port on the chassis.	**4**		
	All devices run the same operating system, with the same command set. Edge devices may have a subset of the core command set, but the commands common to both are identical.	**4**		
	The switches have a multitasking, multi-threaded operating system.	**4**		
	The switches use Application Specific Integrated Circuits (ASICs) for forwarding packets at wire speed.	**4**		
	All devices must fit without modification into a standard 19" rack.	**4**		
	All devices must operate in temperatures from 32° F to 104° F without fault.	**4**		
	The switch supports port mirroring to copy all traffic associated with one or more ports to a monitor port on the switch. A network analyzer or RMON probe can connect to the monitor port for packet analysis. The monitor port must copy bi-directional traffic based on port, VLAN, virtual port (specific VLAN traffic on a port). Port mirroring should not affect performance on any port.	**4**		
	Support for layer-2 convergence protocols:			
	Spanning Tree – 802.1d. State maximum convergence time.	**4**		
	Rapid Spanning Tree – 802.1w. State maximum convergence time.	**4**		
	Products must support, at a minimum, with the following standards:			
	Concise MIB Definitions, RFC 1212	**4**		
	MIB-2, RFC 1213	**4**		
	Trap Definition, RFC 1215	**4**		

	SNMP Agents, RFC 1303	4		
	802.1d Bridges, RFC 1493	4		
	SMON, RFC 2613	4		
	BGP, RFC 1657	4		
	OSPF, RFC 1850	4		
	RMON 1 & 2, RFC 1757, RFC 2021. State groups supported.	4		
	MIB-2, RFC 1213	4		
	SNMP v1 & v2 and ASN.1.	4		
	The power supply operates efficiently to reduce its power consumption. State the maximum & average power requirements of the proposed switches	4		
	All packet processing, including routing and QoS, is performed in ASICs (hardware). Describe in detail.	4		
	Non-blocking architecture – The total capacity of the device is greater than or equal to the sum of the capacities of the ports installed.	4		
	Wire Speed – Each device operates at wire speed regardless of load or services enabled.	4		
	The switch fabric shall have capacity to enable non-blocking operations in any configuration.	4		
	Support for link aggregation & load sharing – IEEE 802.3ad	4		
	The proposed switches use GBIC connectors	4		
	Support for link aggregation & load sharing – IEEE 802.3ad	4		
	Total points	**128**		

Routing (Core switches)

Item	Specification	Tier	Rating	Score
	Support for routing protocols:			
	OSPF v2	4		
	RIP 1 & RIP 2	4		
	BGP4	4		
	VRRP	4		
	VRRP	4		
	Total points	**20**		

Chassis switches (modular)

Item	Specification	Tier	Rating	Score
	Hardware management modules			
a.	Chassis devices can accept multiple management modules.	3		

b.	Each management module is capable of managing all functions of the device.	3		
c.	**If a management module fails, the remaining management module will take over all functions without interruption.**	**4**		
	The switch chassis is available in models that vary in their size and capacity.	2		
	Power supply			
a.	**Every power supply modules must be capable of completely powering the device (N + 1 scheme).**	**4**		
b.	**Each power supply must be removable & installable without powering off the device or rebooting it (Hot swappable).**	**4**		
c.	The chassis devices should accept both AC & DC power supplies.	2		
d.	The power supplies can balance power consumption between them, or to switch from a failed power supply to a backup power supply.	3		
e.	The time required to switch from a failed power supply to the backup power supply shall be brief enough to avoid interruption of data or broken connections	3		
	Capacity			
a.	The device shall have sufficient memory to enable all services, functions, features, and options with no degradation of performance in any regard.	3		
b.	The chassis devices should support up to 16 Gigabit Ethernet ports using GBIC or mini-GBIC connectors.	3		
c.	The chassis devices should support at least 24 10/100Base TX auto-sensing ports per module.	3		
d.	**Power supplies, I/O modules, and fans must be hot swappable without rebooting.**	**4**		
	VLANs			
a.	The chassis switch should support at least 1024 VLANs.	3		
b.	**The chassis switch must support VLAN membership based upon port, protocol, or IP subnet.**	**4**		
c.	The City prefers a chassis switch that also supports VLAN membership based upon MAC address.	3		
d.	The switch must support aggregation of VLANs across multiple switches.	3		
	Connections			
a.	The switch supports both GBIC and mini-GBIC connectors	3		
b.	**The switch supports an ATM to Gigabit Ethernet interface (This is a barrier unless the Bidder proposes a method of migrating from ATM to GBE that does not require an ATM-GBE connection).**	**4**		
	Fiber optic interfaces State the fiber optic interfaces and the distances supported:			
a.	**Multimode**	**4**		
b.	**SX**	**4**		

c.	LX	4		
d.	Long haul	4		
c.	ATM OC3 (Unless the implementation does not require an ATM to GBE interface)	4		
	Total points	81		

Fixed configuration switches

Item	Specification	Tier	Rating	Score
	The switch must support at least two 1000BaseX (GBIC) ports.	4		
	The switch must support either 24 or 48 10/100Base TX auto-sensing ports.	4		
	Fixed configuration switches should be no more than 4 rack units high (4U), no more than 22" deep, and fit in a 19" rack.	3		
	Total points	11		

Multicasting

Item	Specification	Tier	Rating	Score
	All switches must support multicast groups, multicast routing, and multicast switching, including:			
	IGMP & IGMP Snooping. In hardware, per port.	4		
	PIM-SM & PIM-DM. In hardware, per port.	4		
	DVMRP. In hardware, per port.	4		
	Total points	12		

Security (All switches)

Item	Specification	Tier	Rating	Score
	Describe support for multiple levels of passwords to access the different functions of the switch.	4		
	Describe support for proxy RADIUS authentication. The proxy prevents any traffic to the network until the user is authenticated at the RADIUS server.	3		
	Describe support for TACACS/TACACS+ as a server or proxy.	2		
	Describe support for DHCP as a proxy or relay agent, or as a DHCP server.	3		
	Describe support for dynamic DNS (DDNS) as a DDNS server or proxy.	2		
	Describe support for hardware-based access control lists (ACLs)	4		
	Describe how the switch may function as a client to an LDAP server for authentication.	3		
	Describe support for Network Address Translation (NAT)	3		
	Describe support for integrated virus detection. The virus protection is upgradeable via tftp, xmodem, CD, PC Card, or diskette.	2		
	Describe support for integrated intrusion detection, either as ROM or as an installable module. The intrusion detection feature is upgradeable via tftp, xmodem, CD, PC Card, or diskette.	3		

	Describe support for integrated firewall technology	2		
	Total points	**31**		

Quality of Service (All switches)

Item	Specification	Tier	Rating	Score
	Describe support for Quality of Service (QoS) features. State whether or not they are implemented in hardware or software, and the effect on performance.:			
	DiffServ	**4**		
	VLANs (802.1Q)	**4**		
	Traffic prioritization (802.1p)	**4**		
	Traffic shaping	**4**		
	Random Early Detection/Weighted Random Early Detection	**4**		
	Resource Reservation Protocol – RSVP	**4**		
	State the number of hardware priority queues supported on each port. The City requires 8 hardware queues per port on core devices, and at least 2 hardware queues per port on edge devices.	**4**		
	The hardware queues must support both Strict Priority (SP) and Weighted Fair Queuing (WFQ). Describe all supported queue management methods.	**4**		
	Total points	**32**		

Wavelength Division Multiplexing

The bidder is to offer a separate WDM bid. The City prefers a CWDM solution implemented as a blade in a chassis switch, or as a small (2U or less), rack-mounted device.

	State whether the proposed WDM solution is an integral part of the Manufacturer's product line or uses products from another manufacturer. In either case interoperability with the proposed switch solution must be certified independently.	**4**		
	State the number of channels supported in the proposed WDM solution.	3		
	State the ITU wavelength band in this solution, and state the specific wavelengths.	3		
	State the specific grade or type of fiber optic media required by this solution.	3		
	State the range of operating temperatures, humidity, and other environmental parameters that may affect performance.	3		
	Describe how the WDM solution recovers from a failure of a single wavelength.	3		
	State the dimensions of the WDM equipment, in inches, and rack units.	3		
	State the types of sources acceptable to the WDM devices (ATM, Ethernet, DS1, etc.).	2		

	State the maximum and recommended distances between devices for singlemode & multimode fiber.	3		
	Describe how the Manufacturer integrates WDM into its current product line	3		
	Describe how the Manufacturer would integrate WDM into the proposed Gigabit Ethernet solution	**4**		
	Describe how the Manufacturer would migrate the proposed Gigabit Ethernet solution to WDM at a later time	**4**		
	The proposed WDM solution is certified to operate with the proposed GBE solution.	**4**		
	Total points	**42**		

10 Gigabit Ethernet

	The Manufacturer must comply with one of the following	**4**		
a.	**The Manufacturer currently offers 10 Gigabit Ethernet products**			
b.	**The Manufacturer plans to offer 10 Gigabit Ethernet products before ratification of the IEEE 802.3ae standard.**			
c.	**The Manufacturer plans to offer 10 Gigabit Ethernet products immediately after ratification of the IEEE 802.3ae standard.**			
	Describe the Manufacturer's method of integrating 10 Gigabit Ethernet into the current product line.	3		
	Describe how the Manufacturer would migrate Gigabit Ethernet at the City of Tulsa to 10 Gigabit Ethernet.	**4**		
	State the changes or upgrades necessary in the Manufacturer's proposed equipment to migrate the City of Tulsa from Gigabit Ethernet to 10 Gigabit Ethernet at a later time.	**4**		
	The Manufacturer is a member of the 10 Gigabit Ethernet Alliance.	1		
	State the number of 10 Gigabit Ethernet ports per module currently offered or planned.	2		
	The Manufacturer's 10 Gigabit Ethernet products (current or planned) are – or will be – compatible with the proposed WDM solution.	**4**		
	Total points	**22**		

	Total ratings	**798**		
	Maximum possible points (Ratings x 4)		**3,192**	
	Minimum acceptable point to award (Ratings x 3)			**2,394**

Appendix A-A – Detailed Cost Summary- Gigabit Ethernet Solution (Bid Option A-A)

Item	Description			QTY	Unit of Measure	Unit Cost	Extended Cost
I. General Services							
1.	Project Management:	A	Project plan		Man-hours		
		B	Manage project		Man-hours		
2.	Network Design				Man-hours		
3.	Implementation-Hardware	A	Configuration		Man-hours		
		B	Installation		Man-hours		
		C	Trouble shooting		Man-hours		
4.	Implementation-Software	A	Switch operating system		Man-hours		
		B	Network management system		Man-hours		
5.	Documentation	A	Complete as-built drawings of network	6	Each		
		B	Configuration, scripts, field notes	6	Each		
		C	Administration & operating manuals	6	Each		
II. Training							
6.	Certification training for Network Operations staff	A	Installation		Man-hours		
		B	Configuration		Man-hours		
		C	Troubleshooting		Man-hours		
		D	Network design		Man-hours		
		E	Feature implementation		Man-hours		
7.	Overview training for IT management & staff				Man-hours		
III. Support Services							
SS Option A. (four(4) options		**7 X 24 X 365(6), 4 hour response**					
8A.	Year 1	Hardware technical support & maintenance		1	Per Year		
9A.	Year 1	Product operating system & firmware upgrade assurance		1	Per Year		

10A.	Year 2	Hardware technical support & maintenance	1	Per Year		
11A.	Year 2	Product operating system & firmware upgrade assurance	1	Per Year		
12A.	Year 3	Hardware technical support & maintenance	1	Per Year		
13A.	Year 3	Product operating system & firmware upgrade assurance	1	Per Year		
14A.	Year 4	Hardware technical support & maintenance	1	Per Year		
15A.	Year 4	Product operating system & firmware upgrade assurance	1	Per Year		
16A.	Year 5	Hardware technical support & maintenance	1	Per Year		
17A.	Year 5	Product operating system & firmware upgrade assurance	1	Per Year		
SS Option B.		**7 X 24 X 365(6), same day response**				
8B.	Year 1	Hardware technical support & maintenance	1	Per Year		
9B.	Year 1	Product operating system & firmware upgrade assurance	1	Per Year		
10B.	Year 2	Hardware technical support & maintenance	1	Per Year		
11B.	Year 2	Product operating system & firmware upgrade assurance	1	Per Year		
12B.	Year 3	Hardware technical support & maintenance	1	Per Year		
13B.	Year 3	Product operating system & firmware upgrade assurance	1	Per Year		
14B.	Year 4	Hardware technical support & maintenance	1	Per Year		
15B.	Year 4	Product operating system & firmware upgrade assurance	1	Per Year		
16B.	Year 5	Hardware technical support & maintenance	1	Per Year		
17B.	Year 5	Product operating system & firmware upgrade assurance	1	Per Year		
SS Option C.		**7 X 24 X 365(6), next business day response**				
8C.	Year 1	Hardware technical support & maintenance	1	Per Year		
9C.	Year 1	Product operating system & firmware upgrade assurance	1	Per Year		

10C.	Year 2	Hardware technical support & maintenance		1	Per Year		
11C.	Year 2	Product operating system & firmware upgrade assurance		1	Per Year		
12C.	Year 3	Hardware technical support & maintenance		1	Per Year		
13C.	Year 3	Product operating system & firmware upgrade assurance		1	Per Year		
14C.	Year 4	Hardware technical support & maintenance		1	Per Year		
15C.	Year 4	Product operating system & firmware upgrade assurance		1	Per Year		
16C.	Year 5	Hardware technical support & maintenance		1	Per Year		
SS Option D.		**5 X 8 X 365(6), next business response**					
8D.	Year 1	Hardware technical support & maintenance		1	Per Year		
9D.	Year 1	Product operating system & firmware upgrade assurance		1	Per Year		
10D.	Year 2	Hardware technical support & maintenance		1	Per Year		
11D.	Year 2	Product operating system & firmware upgrade assurance		1	Per Year		
12D.	Year 3	Hardware technical support & maintenance		1	Per Year		
13D.	Year 3	Product operating system & firmware upgrade assurance		1	Per Year		
14D.	Year 4	Hardware technical support & maintenance		1	Per Year		
15D.	Year 4	Product operating system & firmware upgrade assurance		1	Per Year		
16D.	Year 5	Hardware technical support & maintenance		1	Per Year		
IV. Products							
18.	Network management system						
19.	Core switches	A	10/100Base TX modules		Each		
		B	1000 Base SX modules		Each		
		C	1000 Base LX modules		Each		
		D	1000 Base long haul modules		Each		
		E	Management Modules		Each		

		F	Power Supplies		Each		
		G	Layer-3 services (routing):		Each		
		H	Other services (specify):		Each		
20.	Edge switches	A	10/100Base TX modules		Each		
		B	1000Base SX modules		Each		
		C	1000Base LX modules		Each		
		D	1000Base long haul mod		Each		
		E	Redundant power supplies		Each		
		F	Services (specify):		Each		
21.	Other hardware and services costs required to implement the solution requested	A	Alarm hardware and software				

Basis for determining hardware/software/ training/support costs

22.

Description	Percentage off list price
Services:	
Training:	
Products:	
Support:	

1. Show the percentage **(%) off published list** used to prepare this bid.
This % **must** apply to the City during the entire contract term
including all renewals.

2. Product groupings that are outside the scope of these specifications may be purchased at the discretion of the City Purchasing Division.

3. The current list prices must be available on the internet for viewing by
any customer including the City. Include URL:

Url:

Appendix A-A – Detailed Cost Summary- Gigabit Ethernet Solution (Bid Option A-A)

	Including Support option A	Including Support option B	Including Support option C	Including Support option D
Sub-Total: Solution Cost				
Less trade-in (FOD our dock)				
Total: Solution Cost				

Total Cost to supply all products and services necessary to completely respond to the specifications and Terms and Conditions in this packet.
All prices must be F.O.B. Tulsa,Ok (Freight Prepaid)
(All costs must be included or you will be disqualified)

Comments:

Payment Terms:	
Delivery:	
Notes:	1. Must include all travel (lodging, airline, etc.) expenses.

Appendix A-B – Detailed Cost Summary- Gigabit Ethernet over WDM Solution (Bid Option A-B)

Item	Description			QTY	Unit of Measure	Unit Cost	Extended Cost
I. General Services							
1.	Project Management:	A	Project plan		Man-hours		
		B	Manage project		Man-hours		
2.	Network Design				Man-hours		
3.	Implementation-Hardware	A	Configuration		Man-hours		
		B	Installation		Man-hours		
		C	Trouble shooting		Man-hours		
4.	Implementation-Software	A	Switch operating system		Man-hours		
		B	Network management system		Man-hours		
5.	Documentation	A	Complete as-built drawings of network	6	Each		
		B	Configuration, scripts, field notes	6	Each		
		C	Administration & operating manuals	6	Each		
II. Training							
6.	Certification training for Network Operations staff	A	Installation		Man-hours		
		B	Configuration		Man-hours		
		C	Troubleshooting		Man-hours		
		D	Network design		Man-hours		
		E	Feature implementation		Man-hours		
7.	Overview training for IT management & staff				Man-hours		
III. Support Services							
SS Option A. (four(4) options		**7 X 24 X 365(6), 4 hour response**					
8A.	Year 1	Hardware technical support & maintenance		1	Per Year		
9A.	Year 1	Product operating system & firmware upgrade assurance		1	Per Year		

10A.	Year 2	Hardware technical support & maintenance	1	Per Year		
11A.	Year 2	Product operating system & firmware upgrade assurance	1	Per Year		
12A.	Year 3	Hardware technical support & maintenance	1	Per Year		
13A.	Year 3	Product operating system & firmware upgrade assurance	1	Per Year		
14A.	Year 4	Hardware technical support & maintenance	1	Per Year		
15A.	Year 4	Product operating system & firmware upgrade assurance	1	Per Year		
16A.	Year 5	Hardware technical support & maintenance	1	Per Year		
17A.	Year 5	Product operating system & firmware upgrade assurance	1	Per Year		
SS Option B.		**7 X 24 X 365(6), same day response**				
8B.	Year 1	Hardware technical support & maintenance	1	Per Year		
9B.	Year 1	Product operating system & firmware upgrade assurance	1	Per Year		
10B.	Year 2	Hardware technical support & maintenance	1	Per Year		
11B.	Year 2	Product operating system & firmware upgrade assurance	1	Per Year		
12B.	Year 3	Hardware technical support & maintenance	1	Per Year		
13B.	Year 3	Product operating system & firmware upgrade assurance	1	Per Year		
14B.	Year 4	Hardware technical support & maintenance	1	Per Year		
15B.	Year 4	Product operating system & firmware upgrade assurance	1	Per Year		
16B.	Year 5	Hardware technical support & maintenance	1	Per Year		
17B.	Year 5	Product operating system & firmware upgrade assurance	1	Per Year		
SS Option C.		**7 X 24 X 365(6), next business day response**				
8C.	Year 1	Hardware technical support & maintenance	1	Per Year		
9C.	Year 1	Product operating system & firmware upgrade assurance	1	Per Year		

10C.	Year 2	Hardware technical support & maintenance		1	Per Year		
11C.	Year 2	Product operating system & firmware upgrade assurance		1	Per Year		
12C.	Year 3	Hardware technical support & maintenance		1	Per Year		
13C.	Year 3	Product operating system & firmware upgrade assurance		1	Per Year		
14C.	Year 4	Hardware technical support & maintenance		1	Per Year		
15C.	Year 4	Product operating system & firmware upgrade assurance		1	Per Year		
16C.	Year 5	Hardware technical support & maintenance		1	Per Year		
SS Option D.		**5 X 8 X 365(6), next business response**					
8D.	Year 1	Hardware technical support & maintenance		1	Per Year		
9D.	Year 1	Product operating system & firmware upgrade assurance		1	Per Year		
10D.	Year 2	Hardware technical support & maintenance		1	Per Year		
11D.	Year 2	Product operating system & firmware upgrade assurance		1	Per Year		
12D.	Year 3	Hardware technical support & maintenance		1	Per Year		
13D.	Year 3	Product operating system & firmware upgrade assurance		1	Per Year		
14D.	Year 4	Hardware technical support & maintenance		1	Per Year		
15D.	Year 4	Product operating system & firmware upgrade assurance		1	Per Year		
16D.	Year 5	Hardware technical support & maintenance		1	Per Year		
IV. Products							
18.	Network management system						
19.	Core switches	A	10/100Base TX modules		Each		
		B	1000 Base SX modules		Each		
		C	1000 Base LX modules		Each		
		D	1000 Base long haul modules		Each		
		E	Management Modules		Each		

		F	Power Supplies		Each		
		G	Layer-3 services (routing):		Each		
		H	Other services (specify):		Each		
20.	Edge switches	A	10/100Base TX modules		Each		
		B	1000Base SX modules		Each		
		C	1000Base LX modules		Each		
		D	1000Base long haul mod		Each		
		E	Redundant power supplies		Each		
		F	Services (specify):		Each		
21.	Other hardware and services costs required to implement the solution requested	A	Alarm hardware and software				

Basis for determining hardware/software/ training/support costs

	Description	Percentage off list price
22.	Services:	
	Training:	
	Products:	
	Support:	

1. Show the percentage **(%) off published list** used to prepare this bid.
This % **must** apply to the City during the entire contract term
including all renewals.

2. Product groupings that are outside the scope of these specifications may be purchased at the discretion of the City Purchasing Division.

3. The current list prices must be available on the internet for viewing by
any customer including the City. Include URL:

Url:

Appendix A-B – Detailed Cost Summary- Gigabit Ethernet over WDM Solution (Bid Option A-B)

	Including Support option A	Including Support option B	Including Support option C	Including Support option D
Sub-Total: Solution Cost				
Less trade-in (FOD our dock)				
Total: Solution Cost				

Total Cost to supply all products and services necessary to completely respond to the specifications and Terms and Conditions in this packet.
All prices must be F.O.B. Tulsa,Ok (Freight Prepaid)

(All costs must be included or you will be disqualified)

Comments:

Payment Terms:	
Delivery:	
Notes:	1. Must include all travel (lodging, airline, etc.) expenses.

Appendix A-C – Detailed Cost Summary- Gigabit Ethernet over WDM Solution (Bid Option A-C)

Item	Description			QTY	Unit of Measure	Unit Cost	Extended Cost
I. General Services							
1.	Project Management:	A	Project plan		Man-hours		
		B	Manage project		Man-hours		
2.	Network Design				Man-hours		
3.	Implementation-Hardware	A	Configuration		Man-hours		
		B	Installation		Man-hours		
		C	Trouble shooting		Man-hours		
4.	Implementation-Software	A	Switch operating system		Man-hours		
		B	Network management system		Man-hours		
5.	Documentation	A	Complete as-built drawings of network	6	Each		
		B	Configuration, scripts, field notes	6	Each		
		C	Administration & operating manuals	6	Each		
II. Training							
6.	Certification training for Network Operations staff	A	Installation		Man-hours		
		B	Configuration		Man-hours		
		C	Troubleshooting		Man-hours		
		D	Network design		Man-hours		
		E	Feature implementation		Man-hours		
7.	Overview training for IT management & staff				Man-hours		
III. Support Services							

SS Option A. **(four(4) options**		**7 X 24 X 365(6), 4 hour response**				
8A.	Year 1	Hardware technical support & maintenance	1	Per Year		
9A.	Year 1	Product operating system & firmware upgrade assurance	1	Per Year		
10A.	Year 2	Hardware technical support & maintenance	1	Per Year		
11A.	Year 2	Product operating system & firmware upgrade assurance	1	Per Year		
12A.	Year 3	Hardware technical support & maintenance	1	Per Year		
13A.	Year 3	Product operating system & firmware upgrade assurance	1	Per Year		
14A.	Year 4	Hardware technical support & maintenance	1	Per Year		
15A.	Year 4	Product operating system & firmware upgrade assurance	1	Per Year		
16A.	Year 5	Hardware technical support & maintenance	1	Per Year		
17A.	Year 5	Product operating system & firmware upgrade assurance	1	Per Year		
SS Option B.		**7 X 24 X 365(6), same day response**				
8B.	Year 1	Hardware technical support & maintenance	1	Per Year		
9B.	Year 1	Product operating system & firmware upgrade assurance	1	Per Year		
10B.	Year 2	Hardware technical support & maintenance	1	Per Year		
11B.	Year 2	Product operating system & firmware upgrade assurance	1	Per Year		
12B.	Year 3	Hardware technical support & maintenance	1	Per Year		
13B.	Year 3	Product operating system & firmware upgrade assurance	1	Per Year		
14B.	Year 4	Hardware technical support & maintenance	1	Per Year		
15B.	Year 4	Product operating system & firmware upgrade assurance	1	Per Year		
16B.	Year 5	Hardware technical support & maintenance	1	Per Year		
17B.	Year 5	Product operating system & firmware upgrade assurance	1	Per Year		

SS Option C.		**7 X 24 X 365(6), next business day response**				
8C.	Year 1	Hardware technical support & maintenance	1	Per Year		
9C.	Year 1	Product operating system & firmware upgrade assurance	1	Per Year		
10C.	Year 2	Hardware technical support & maintenance	1	Per Year		
11C.	Year 2	Product operating system & firmware upgrade assurance	1	Per Year		
12C.	Year 3	Hardware technical support & maintenance	1	Per Year		
13C.	Year 3	Product operating system & firmware upgrade assurance	1	Per Year		
14C.	Year 4	Hardware technical support & maintenance	1	Per Year		
15C.	Year 4	Product operating system & firmware upgrade assurance	1	Per Year		
16C.	Year 5	Hardware technical support & maintenance	1	Per Year		
SS Option D.		**5 X 8 X 365(6), next business response**				
8D.	Year 1	Hardware technical support & maintenance	1	Per Year		
9D.	Year 1	Product operating system & firmware upgrade assurance	1	Per Year		
10D.	Year 2	Hardware technical support & maintenance	1	Per Year		
11D.	Year 2	Product operating system & firmware upgrade assurance	1	Per Year		
12D.	Year 3	Hardware technical support & maintenance	1	Per Year		
13D.	Year 3	Product operating system & firmware upgrade assurance	1	Per Year		
14D.	Year 4	Hardware technical support & maintenance	1	Per Year		
15D.	Year 4	Product operating system & firmware upgrade assurance	1	Per Year		
16D.	Year 5	Hardware technical support & maintenance	1	Per Year		
IV. Products						
18.	Network management system					

19.	Core switches	A	10/100Base TX modules		Each		
		B	1000 Base SX modules		Each		
		C	1000 Base LX modules		Each		
		D	1000 Base long haul modules		Each		
		E	Management Modules		Each		
		F	Power Supplies		Each		
		G	Layer-3 services (routing):		Each		
		H	Other services (specify):		Each		
20.	Edge switches	A	10/100Base TX modules		Each		
		B	1000Base SX modules		Each		
		C	1000Base LX modules		Each		
		D	1000Base long haul mod		Each		
		E	Redundant power supplies		Each		
		F	Services (specify):		Each		
21.	Other hardware and services costs required to implement the solution requested	A	Alarm hardware and software				

	Basis for determining hardware/software/ training/support costs		1. Show the percentage **(%) off published list** used to prepare this bid. This % **must** apply to the City during the entire contract term including all renewals. 2. Product groupings that are outside the scope of these
22.	**Description**	**Percentage off list price**	
	Services:		
	Training:		

	Products:		specifications may be purchased at the discretion of the City Purchasing Division. 3. The current list prices must be available on the internet for viewing by any customer including the City. Include URL:
	Support:		Url:

Appendix A-C – Detailed Cost Summary- Gigabit Ethernet over WDM Solution (Bid Option A-C)

		Including Support option A	Including Support option B	Including Support option C	Including Support option D
	Sub-Total: Solution Cost				
	Less trade-in (FOD our dock)				
	Total: Solution Cost				

	Total Cost to supply all products and services necessary to completely respond to the specifications and Terms and Conditions in this packet. **All prices must be F.O.B. Tulsa,Ok (Freight Prepaid)** **(All costs must be included or you will be disqualified)**	
	Comments:	
	Payment Terms:	
	Delivery:	
	Notes:	1. Must include all travel (lodging, airline, etc.) expenses.

Appendix B – City-wide Fiber Optic Network Map

The document is in a separate file. It will be available to Bidders at the pre-bid conference.

This information is confidential and may not be distributed, copied, or reproduced in any manner without the written consent of the City of Tulsa, OK.

This map shows the physical layout of all fiber optic cable in the City-wide network. It is in Adobe PDF 1.3 (Acrobat 4) format.

Appendix C – City Wide Network Topological Map

The document is in a separate file. It will be available to Bidders at the pre-bid conference.

This information is confidential and may not be distributed, copied, or reproduced in any manner without the written consent of the City of Tulsa, OK.

The topological map shows the logical connections of all devices and locations on the network. It is in Microsoft Visio 2000 format.

Appendix D – Network Connections

The document is in a separate file. It will be available to Bidders at the pre-bid conference.

This information is confidential and may not be distributed, copied, or reproduced in any manner without the written consent of the City of Tulsa, OK.

The Network Connections is a set of tables showing at each major hub on the network:

1. All connections to that hub
2. The number of fibers in each connection
3. The distances to each connection, in feet
4. Whether the fiber is singlemode or multimode.

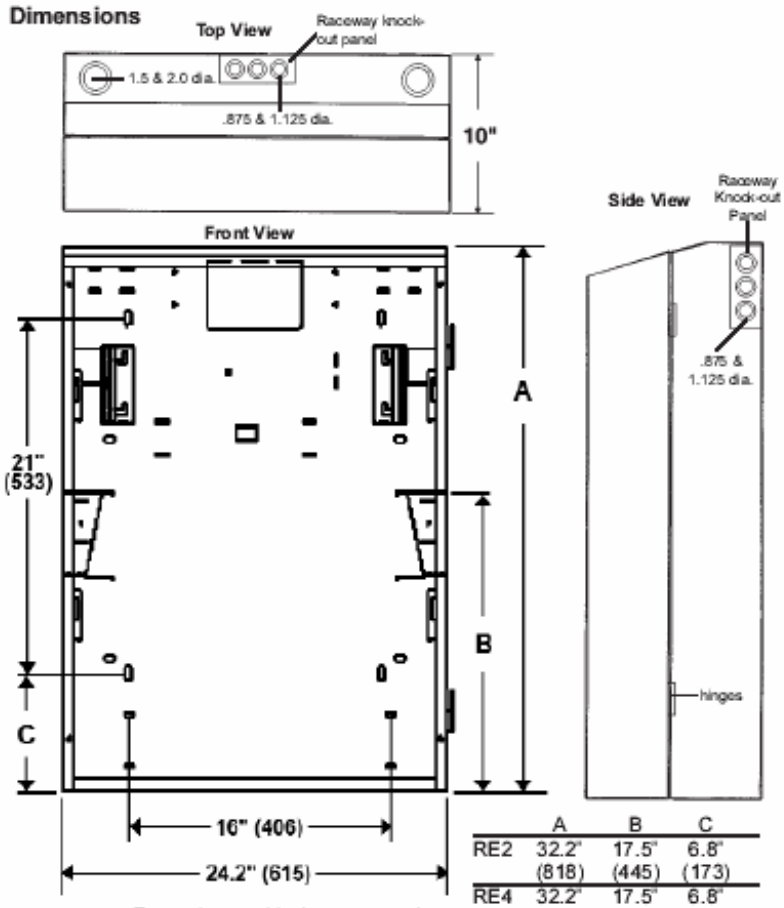
The distances are minimum, and do not include storage loops.

Appendix E – Standard switch enclosures

The City of Tulsa Telecommunications/Information Services Department has adopted these enclosures, or equivalents, as standard fixtures for telecommunications data equipment in unsecured locations. All proposed equipment must fit into one of these models.

The Bidder is not responsible for providing or installing these enclosures.

Figure 1. Hubbell ReBox enclosure



	A	B	C
RE2	32.2" (818)	17.5" (445)	6.8" (173)
RE4	32.2" (818)	17.5" (445)	6.8" (173)
RE4X	42.2" (1072)	25.5" (648)	14.8" (376)

Figure 2. Hubbell Wall mounted cabinet

Overall Dimensions H x W x D (mm)	Usable Height (mm)	Rack Units
23.6" x 21" x 20" (600 x 533.4 x 508)	21" (533.4)	12
23.6" x 21" x 26" (600 x 533.4 x 660)	21" (533.4)	12
48.1" x 21" x 20" (1237 x 533.4 x 508)	45.5" (1156)	26
48.1" x 21" x 26" (1237 x 533.4 x 660)	45.5" (1156)	26
23.6" x 21" x 20" (600 x 533.4 x 508)	21" (533.4)	12
48.1" x 21" x 20" (1237 x 533.4 x 508)	45.5" (1156)	26
48.1" x 21" x 26" (1237 x 533.4 x 660)	45.5" (1156)	26

Appendix F – Inventory of Existing Equipment possible trade-in (see Detailed Cost Summary):

This information is confidential and may not be distributed, copied, or reproduced in any manner without the written consent of the City of Tulsa, OK.

All equipment is 3Com. A detailed list of all equipment, with locations and serial numbers, will be available at the pre-bid conference.

Appendix G – Network locations

The document is in a separate file. It will be available to Bidders at the pre-bid conference.

This information is confidential and may not be distributed, copied, or reproduced in any manner without the written consent of the City of Tulsa, OK.

The Network Locations is a list of each site on the network, its location, description, and identification number on the fiber optic layout map.

Appendix H – Statement of Work

The document is in a separate file. It will be available to Bidders at the pre-bid conference.

This information is confidential and may not be distributed, copied, or reproduced in any manner without the written consent of the City of Tulsa, OK.

It contains specific information at every site in this project, including existing equipment and location. It has the number of ports & interfaces required, and the recommended replacement configuration (core or edge switch).

The Bidder must complete & return the Statement of Work as part of the response to this RFB. It is in two parts.

1. The Bidder must provide a conceptual overview of their solution. This includes a narrative description of the solution describing design goals, constraints, and services. This must include a logical diagram of the network with the proposed equipment in place. See Appendix C for a logical map of the existing network. There should be a separate drawing for a WDM solution.

2. The Bidder is to use the Statement of Work as a worksheet to recommend specific configurations at each location. There is space provided on each page for a list of equipment and parts needed. The Bidder may offer an alternative configuration at any site, subject to acceptance by the City.

Appendix I – Proposed IP Address Scheme

The document is in a separate file. It will be available to Bidders at the pre-bid conference. It is in Microsoft Visio 2000 format.

This information is confidential and may not be distributed, copied, or reproduced in any manner without the written consent of the City of Tulsa, OK.

As part of this project the City of Tulsa will re-address all IP devices on the network according to this scheme. Bidders may propose an alternate scheme, subject to acceptance by the City.

Appendix J – ODTR measurements

The document is in a separate file. It is available to Bidders upon request.

This information is confidential and may not be distributed, copied, or reproduced in any manner without the written consent of the City of Tulsa, OK.

This information was gathered in 1997 by contract. Fiber installed afterwards is not included.

Appendix K – Exceptions to Specifications

Exceptions taken to Specifications

If the bidder wishes to take exception to any part of these specifications (technical specifications and all terms and conditions), he does so with the full knowledge and understanding that his bid may be rejected. If exceptions are not listed in this section, the bidder may forfeit their bid bond.

You must list all Exceptions taken to the Specifications

You MUST answer the following question:

I (circle one) have or have not taken any exceptions to these specifications.
If you have explain in detail below.

Appendix L – Price Adjustment Options

Price Adjustment Option

This is a firm price Invitation for Sealed Bid. Price adjustments are only allowed for renewals. The increase maximums will be added to the total solution cost and used to determine the "potential total solution cost".