



**GOVERNMENT OF SAINT LUCIA**

The Ministry of Health, Wellness, Human Services and Gender  
Relation

**BID REQUEST FOR PROPOSALS  
FOR  
TELECOMMUNICATIONS NETWORK  
INFRASTRUCTURE  
FOR  
THE NEW NATIONAL HOSPITAL COMPLEX**

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# ***PART 1: INSTRUCTIONS TO BIDDERS***

## **GENERAL** -----

### **PRELIMINARY INSTRUCTIONS**

In submitting his/her bid, the Bidder accepts in full and without restrictions the special and general conditions, including any addendum, governing this contract as the sole basis of this bidding procedure, whatever may be his/her own conditions of sale, which he/she hereby waives.

Bidders are expected to examine carefully and comply with all instructions, forms, terms and specifications contained in this bid dossier. Failure to furnish on time all the required information and documentation, or the submission of bids not substantially responsive in every respect to the bid dossier may result in the rejection of the Bid.

#### **NOTE:**

The Bid Dossier is the document drafted by the Procuring Authority and which contains all the necessary documents for the preparation and presentation of an offer.

All references to "Procuring Authority" in this Bid Dossier shall mean "Employer" as defined by FIDIC Conditions of Contract.

### **1.0 OVERALL INSTRUCTIONS**

- 1.1 Bidders shall submit their offers for the whole Works as required per the Bid dossier. No Bids will be accepted for partial lots
- 1.2 The Bidder shall bear all costs associated with the preparation and submission of his Bid and the Procuring Authority will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

### **2.0 SOURCE OF FUNDS**

- 2.1 The Project is to be fully financed by the Government of Saint Lucia (GOSL)
- 2.2 The Ministry of Health, Wellness, Human Services and Gender Relations is the Procuring Authority in this Bid.

### **3.0 ELIGIBILITY REQUIREMENTS**

- 3.1 Bid participation is open on equal terms to all qualified Vendors.
- 3.2 The terms refer to all legal entities, companies, partnerships, constituted under and governed by the laws of Saint Lucia.
- 3.3 Bidders shall certify that they meet conditions and prove their eligibility by a document, drawn up in accordance with the laws of Saint Lucia. The Procuring Authority may accept other satisfactory evidence that these conditions are met.
- 3.4 Bidders shall not be considered eligible if:
  - 3.4.1 They are bankrupt or being wound up, are having their affairs administered by the courts, have entered into arrangements with creditors or have suspended business activities;
  - 3.4.2 They are the subject of proceedings for a declaration of bankruptcy, for winding up, for administration by the courts, for arrangements with creditors or for similar procedure provided for under the laws of Saint Lucia;
  - 3.4.3 They have been convicted of an offence concerning professional conduct;
  - 3.4.4 They are guilty of grave professional misconduct proven by any means which the Procuring Authority can justify;
  - 3.4.5 They have not fulfilled obligations relating to payment of social security contributions in accordance with the laws of Saint Lucia;
  - 3.4.6 They are guilty of serious misrepresentation in supplying the information required by the Procuring Authority as a condition of participation in an invitation to bid or contract;
  - 3.4.7 They have been declared to be in serious breach of contract for failure to comply with obligations in connection with another contract with the same Procuring Authority or another contract financed with Community funds;
  - 3.4.8 They are in one of the situations allowing exclusion referred to under sections 35 and 36 of the Public Procurement and Contract Administration Act 2012 and in the Ethics Clauses in connection with the bid or contract.
- 3.5 The eligibility requirements detailed in Sub-Clause 3.1 to 3.4 inclusive apply additionally to all partners in a joint venture/Consortium, all subcontractors and all suppliers to Bidders.

## 4.0 INFORMATION / DOCUMENTS TO BE SUPPLIED BY BIDDER

- 4.1 In order for Bidders to be considered eligible for award of Contract it will be necessary for them to provide evidence that they meet or exceed certain minimum qualifying criteria. This evidence shall be provided by Bidders in the form of the information and documents described below, through the provision of all parts of each Bidder's Bid, and in whatever additional form Bidders may wish to utilize.

All Bidders must supply the following information and documents with their Bid:

- 4.1.1 Copies of documents showing the organization chart of their organization. These documents shall be provided in the form of the following forms contained in Appendix A of the Bid Document:

4.1.1.1 General Information about the Bidder. (Form 4.a1)

4.1.1.2 Organizational Chart (Form 4.a2)

4.1.1.3 Power of Attorney (Form 4.a3)

- 4.1.2 Information about the Bidder's technical qualifications. This information shall be provided in the form of the Technical Qualification forms as contained in Appendix A of the Bid Document, and shall include:

4.1.2.1 A presentation of the Bidder's organization. (Form 4.b1)

4.1.2.2 A list of staff proposed to be employed for the execution of the Contract, including CV's of key employees. In this particular case, the following members of staff will be taken into consideration; Project Manager, Quality Control Manager, Main Engineer, others. (Forms 4.b2 and 4.b3)

4.1.2.3 A Work Programme (Form 4.b4) with brief descriptions of major activities showing the order of procedure and timelines in which the Bidder proposes to carry out the Works. In particular, the proposal shall detail the temporary and permanent works to be constructed. The Bidder shall submit a comprehensive Method statement with drawings where applicable, showing the methods proposed by the Bidder for carrying out the Works. In particular, the Bidder shall indicate the numbers, job titles of the workforce he proposes to use on the major activities of the work.

4.1.2.4 Data concerning sub-contractors and the percentage of works to be sub-contracted or sublet (Form 4.b4).

4.1.2.5 Evidence of relevant experience in execution of Works of a similar nature, including the extent and value of the relevant contracts, as well as Works in hand and contractually committed to (Form 4.b5). The Evidence shall include successful experience as the prime Contractor in implementation of at least two (2) projects of the same nature and complexity comparable to the bid works during the last 10 years.

4.1.2.6 An outline of the Quality Assurance System(s) to be used (Form 4.b6).

4.1.2.7 If appropriate, information about Joint Venture/Consortium Bidders (Form 4.b7).

4.1.2.8 Any other information (Form 4.b8).

## **5.0 QUALIFICATION OF BIDDERS**

5.1 The minimum qualifying criteria for each Bidder include:

5.1.1 In the case of a joint-venture, all members together shall have completed at least 4 projects of a similar nature with a cumulated value of at least US\$500,000.00

5.1.2 If the Bidder is a sole Bidder (i.e. he may have subcontractors, but he is not a partner in a Joint venture/Consortium for the purposes of the Bid) he shall carry out at least 70% of the Contract Works by his own means, defined as meaning that he must have the equipment, materials, human and financial resources necessary to enable him to carry out his percentage of the contract.

5.1.3 If the Bidder is a sole Bidder he also must have access to credit and other financial facilities adequate to assure the required cash flow for the duration of the contract. In any case the credit amount should exceed US\$150,000.00.

5.1.4 If the Bidder is the Leading Partner in a Joint Venture/Consortium he shall have the ability to carry out at least 50% of the Contract Works by his own means, as defined in clause 2 above.

5.1.5 The Bidder shall have completed at least two projects of the same nature/amount/complexity comparable to the bidded works. The Procuring Authority reserves the right to ask for copies of the respective certificates of final completion signed by the project managers / Procuring Authority of the concerned projects.

5.1.6 All his key personnel shall have a minimum of 5 years of adequate experience and proven qualifications relevant to works of a similar nature to this project.

5.2 Bids submitted by companies being partners of two or more firms forming a Joint Venture / Consortium shall additionally fulfill the following requirements:

5.2.1 The bid shall comprise all information required above for each partner of the Joint venture/Consortium as well as the summary data for execution of Works by the Bidder.

5.2.2 The Bid shall be signed in a way that legally binds all partners.

5.2.3 One partner shall be appointed as the Leading Partner responsible for the Contract and such appointment shall be confirmed by submission of Powers of Attorney signed by legally authorized signatories representing all individual partners.



- 5.2.4 The Bid shall include a preliminary agreement or letter of intent stating that all partners shall be legally responsible, jointly and severally, for the execution of the Contract, that the Leading Partner shall be authorized to obligate and receive instructions for and on behalf of each and all the partners, and that the execution of the contract, including payments, shall be the responsibility of the Leading Partner.
- 5.2.5 All partners in the Joint Venture/Consortium shall be bound to remain in the Joint Venture/Consortium for the whole period of the execution of the Contract.

## **6.0 ONLY ONE BID PER BIDDER**

- 6.1 A Bidder may participate in only one Bid, either individually or as a partner in a Joint Venture/Consortium for the same Contract. Submission or participation by the Bidder in more than one Bid for a Contract will result in the disqualification of all Bids for that Contract in which the party is involved. The same company may only participate as a sub-contractor in different Bids, if it is justified by market specificities.

## **7.0 BID EXPENSES**

- 7.1 All costs associated with the preparation and submission of the Bid shall be exclusively for the account of the Bidder.
- 7.2 The Procuring Authority shall not be responsible for, or pay for, any expenses or losses of which kind may be incurred by the Bidder in connection with visits to, and examination of the site of the Works, or of any other aspect of this Bid.

## **8.0 SITE INSPECTION**

- 8.1 The Procuring Authority will facilitate site visits by all Bidders requesting to do so in order to familiarize them with the scope of works.
- 8.2 It is the responsibility of each Bidder to make detailed visit and site inspection of the Works and its surroundings for the purpose of assessing, at his own responsibility, expense and risk, the scope of works and all data which may be necessary to prepare his Bid and sign the Contract for the Works.

## **9.0 HEALTH AND SAFETY**

- 9.1 The Bidder must demonstrate his willingness, in writing, to take due precautions, at his own cost, to ensure the safety of the general public and, his staff and labour and, in collaboration with and to the requirements of local health authorities, to ensure that first aid and medical services are easily accessible at all times throughout the period of the Contract.

- 9.2 The Bidder must demonstrate his willingness, in writing, to take all reasonable steps to make sure the work done is carried out in a safe manner. This includes having a health and safety plan for the site and making sure employees:
  - 9.2.1 Have the right training to do the work.
  - 9.2.2 Follow all relevant safety procedures.
  - 9.2.3 Use tools and equipment in a safe manner.
  - 9.2.4 Safely store and secure all materials, equipment and tools.
- 9.3 The Bidder must demonstrate his willingness, in writing, to be responsible for following all safety procedures, rules guidelines and regulations in force or that may be required at the time of execution of such works.

**10.0 INSURANCE**

- 10.1 The Bidder must demonstrate his willingness, in writing, to provide third party liability and workers liability for the duration of the job.

**11.0 LIQUIDATED DAMAGES**

- 11.1 The Bidder must demonstrate his willingness, in writing, to provide Liquidated Damages, where Liquidated Damages is defined as "a sum which a party to a contract agrees to pay or a deposit which he agrees to forfeit if he breaks some promise and which, having been arrived at by a good faith effort to estimate in advance the actual damage which would probably ensue the breach, are legally recoverable or retainable as agreed damages if the breach occurs."

*BID DOCUMENTS*-----

**12.0 CONTENT OF BID DOCUMENTS**

- 12.1 The set of Bid Documents comprises the following documents and should be read in conjunction with any Clauses that reference a Performance Bond, Performance Security or Performance Guarantee:

- PART 1 INSTRUCTIONS TO BIDDERS**
- PART 2 TECHNICAL SPECIFICATIONS**
- PART 3 PRICE SCHEDULE**
- PART 4 CONTRACT**

## **PART 5            DRAWINGS**

- 12.2      Bidders shall be solely responsible for examining with appropriate care the Bid Documents, including those Design Documents available for inspection, any Addendum to the Bid Documents issued during the bidding period, and for obtaining reliable information with respect to any and all conditions and obligations which may in any way affect the amount or nature of the Bid or the execution of the works. In the event that the Bidder is successful, no claim for alteration of the Bid Amount will be entertained on the grounds of errors or omissions in the obligations of the Bid described above.
- 12.3      The Bidder shall provide all documents required by the provisions of the Bid Dossier. All such documents, without exception, shall be strictly in accordance with the conditions and provisions contained within the Bid Documents and with no alterations made by the Bidder. Bids which are not compliant with the requirements of the Bid Documents shall be rejected.

### **13.0    EXPLANATIONS CONCERNING BID DOCUMENTS**

- 13.1      Bidders may submit questions in writing on or before Friday 14<sup>th</sup> *August 2015*. The Procuring Authority must reply to all Bidders' questions no later than Saturday 22<sup>nd</sup> *August 2015*.
- 13.2      Copies of written responses will be sent to all Bidders (including the query but without identifying the source of the enquiry). Bidders should confirm receipt of these answers in writing within 3 days. A copy of all written responses (including the query as stated above) shall be posted to the Government's website – [www.govt.lc](http://www.govt.lc).

### **14.0    AMENDMENTS TO BID DOCUMENTS**

- 14.1      The Procuring Authority may amend the Bid Documents through the issuance of addenda at any time before the bid submission deadline date.
- 14.2      Each Addendum published must constitute a part of the Bid Documents and shall be sent, in writing, to all known Bidders.
- 14.3      Receipt of each addenda must be acknowledged by the bidder, via an email to the Chief Procurement Officer.
- 14.4      The Procuring Authority may, as necessary extend the deadline for submission of Bids to give Bidders sufficient time to take into account such Addendum when preparing Bids.

### **15.0    LAW**

- 15.1      By submitting their Bids, Bidders are considered to have become familiar with all relevant Laws, Acts and Regulations of Saint Lucia that in any manner affect, or apply to the operations and activities under the Bid and subsequent Contract.

15.2 The laws of Saint Lucia shall govern this Bid.

*PREPARATION OF BIDS*-----

**16.0 LANGUAGE OF BIDS**

16.1 The Bid and all correspondence and documents related to the Bid exchanged by the Bidder and the Procuring Authority shall be written in the language of the procedure, the English language.

**17.0 CONTENT AND PRESENTATION OF BID**

17.1 Bids shall comply with the following conditions:

17.1.1 The bidder is required to submit one original, marked "original", and 4 copies signed in the way as the original and certified to be true copies.

17.1.2 Technical and Financial bids to be contained in separate sealed plain envelopes or packages and marked: "**CONFIDENTIAL**".

**Technical Envelope should be clearly marked:**

Attn: Secretary  
Central Tender's Board  
Technical Bid for the Telecommunications Network Infrastructure for The  
New National Hospital Complex (NNHC).

**Financial Envelope should be clearly marked:**

Attn: Secretary  
Central Tender's Board  
Financial Bid for the Telecommunications Network Infrastructure for The  
New National Hospital Complex (NNHC).

Both the financial and the technical envelopes should be placed in one sealed envelope marked "**CONFIDENTIAL**" and submitted to the Procurement Unit addressed as follows:

Attention:  
Secretary  
Central Tender's Board  
Ministry of Finance  
Bridge Street, Castries  
Saint Lucia.

**Bid For: Telecommunications Network Infrastructure for The New National Hospital Complex**

The closing date for submission is **Tuesday, 8<sup>th</sup> September 2015**. Bids should be submitted **prior to 4:00pm** "Closing Time" on **Tuesday, 8<sup>th</sup> September 2015** "Closing Date".

**18.0 BID PRICES**

- 18.1 The Bid Price shall cover the whole of the Works as described in the Bid Documents.
- 18.2 The Bidder shall provide a breakdown of the Bidded Lump Sum in US Dollars.
- 18.3 If material is procured overseas the Bidder shall quote all components of the Bidded Lump Sum exclusive of taxes and customs and import duties.
- 18.4 Separately, Bidders shall quote the relevant taxes, customs and import duties in US Dollars.
- 18.5 If discount is offered by the Bidder, it must be clearly specified in the breakdown of the Bidded Lump Sum

**19.0 CURRENCY OF BID AND PAYMENT**

- 19.1 The currency of Bid is United States Dollars (US\$). All sums in the breakdown of Bidded Lump Sum, Questionnaire, and other documents shall be expressed in United States dollars (US\$).
- 19.2 Payments shall be made only at the request of the Contractor, approved by the Procuring Authority.

**20.0 PERIOD OF VALIDITY OF BID**

- 20.1 Bids shall remain valid for a period of 90 days after the deadline for submission of Bids indicated in the Notice of Invitation to Bid. Any Bid valid for a shorter period shall be rejected.
- 20.2 In exceptional circumstances the Procuring Authority may request Bidders to extend the validity of Bids for a specified number of days, which may not exceed 40 days. Such requests and answers concerning the extension shall be made in writing.
- 20.3 The successful Bidder must maintain its Bid for a further 60 days from the date of notification of award.

*SUBMISSION OF BIDS*-----

## **21.0 SEALING AND MARKING OF BIDS**

- 21.1 The Bids shall be delivered by hand, registered mail, or courier with acknowledgement of receipt, or by hand against receipt signed by the Secretary of the National Tender Board or her duly authorized representative.
- 21.2 Bidders shall seal the original and all the copies of the Technical Bid in a single envelope or package marked as instructed in section 17.1.2 for the technical envelope. Bidders shall also seal the original and all the copies of the Financial Bid in a single envelope or package marked as instructed in section 17.1.2 for the financial envelope. Both these envelopes or packages should then be sealed together in a single envelope and marked as instructed under section 17.1.2.
- 21.3 If all the envelopes are not sealed and marked as required, the Procurement Unit and the Procuring Authority will assume no responsibility for the misplacement or premature opening of the Bid and the Bid will be considered invalid.

## **22.0 EXTENSION OF TIME FOR SUBMISSION OF BIDS**

- 22.1 The Procuring Authority may, at its sole discretion, extend the deadline for submission of Bids by issuing a Notice of said extension. In such case, all rights and obligations of the Procuring Authority and the Bidder regarding the original date specified in the Notice of Invitation to Bid shall be subject to the new date.

## **23.0 CLOSING DATE**

- 23.1 Proposals are to reach the Central Tender's Board at the Ministry Finance no later than **4:00pm** on **Tuesday, 8<sup>th</sup> September 2015** .

## **24.0 LATE BIDS**

- 24.1 All Bids received after the deadline for submission as stated in the Notice of Invitation to Bid, will be returned unopened to the Bidder.

## **25.0 BID ALTERATIONS AND WITHDRAWALS**

- 25.1 Bidders may modify or withdraw their Bids by written notification prior to the deadline as stated above. No Bid may be modified or withdrawn after the deadline for submissions of Bids.
- 25.2 Any such notification of modification or withdrawal shall be prepared, sealed, marked and submitted as stipulated in item 17.1 above and the envelope shall, in addition, be clearly marked as "Modification" or "Withdrawal".

## *OPENING AND EVALUATION OF BIDS*-----

### **26.0 OPENING OF BIDS**

- 26.1 Bids shall be opened in a public session on Wednesday, 9<sup>th</sup> September, 2015 at 11am at the Ministry of Finance Conference Room, ECFH Building, Bridge Street, Castries, Saint Lucia in accordance with the requirements as prescribed by law. Minutes of the meeting shall be available to those Bidders requesting them in writing.**
- 26.2 All persons present shall be required to sign an attendance register prior to the commencement of the opening process.
- 26.3 The Secretary or her designate shall open the Bids.
- 26.4 Bids will be opened using the two-envelope process and as such there will be two openings. At the first Bid Opening, the Technical Envelopes will be opened and only the Bidders' names and addresses shall be announced. After the evaluation of the technical bids has been completed there will be a second opening whereby the Financial Envelopes will be opened. The name and address of each qualifying bidder will be announced along with the amount(s) of his or her bid.
- 26.5 At each opening, envelopes marked "Withdrawal" shall be opened and read aloud and recorded first. Any bid subject to a withdrawal notice shall be returned unopened to the respective representative. 'Modification' envelopes will be opened next.
- 26.6 After the public opening of the Bids, no information about the examination, clarification, evaluation, or comparison of Bids or decisions about the contract award can be disclosed before the signature of the contract by the Procuring Authority and the successful Bidder.**

### **27.0 CONFIDENTIALITY OF PROCEDURE**

- 27.1 Information concerning checking, explanation, opinions and comparison of Bids, and also recommendations concerning the award of Contract, shall not be disclosed to Bidders or to any other person who is not officially involved in the process until the name of the successful Bidder is announced.
- 27.2 Any attempt by a Bidder to directly approach any member of the Procurement Unit, Procurement Board, Evaluation Committee or Procuring Authority during the evaluation period shall be considered as a legitimate reason to disqualify that Bidder's Bid.

### **28.0 CLARIFICATION OF BIDS**

- 28.1 Bids which are incomplete, conditional, illegible and obscure, or that contain any other irregularities may be rejected.
- 28.2 The Evaluation Committee may, at its discretion via the Procurement Unit - without benefit to bidder and without prejudice to the interest of other bidders - ask any Bidder to clarify any aspect of his Bid, when this is required to check and compare Bids.

## **29.0 CHECKING OF BIDS AND THEIR COMPLIANCE WITH THE REQUIREMENTS OF THE BID DOCUMENTS**

- 29.1 Before a detailed analysis of Bids is undertaken the Evaluation Committee shall determine if each Bid:
  - 29.1.1 has been properly signed, and
  - 29.1.2 in its substance complies with the requirements stated in the Instructions to Bidders.
- 29.2 A complying Bid is one which conforms to the requirements and specifications described in the Bid Documents without essential deviations or restrictions. Essential deviations and reservations include those which:
  - 29.2.1 in any way influence the scope, quality or execution of the Works, or
  - 29.2.2 limit the rights of the Procuring Authority or the obligations of the Bidder under the Contract in a way inconsistent with the Bid Documents, or
  - 29.2.3 whose rectification would unfairly affect the competitive position of other Bidders representing the Bids.
- 29.3 If any Bid does not comply with the requirements of the Bid Documents, it shall be rejected by the Evaluation Committee during the conformity check:

## **30.0 EVALUATION AND COMPARISON OF BIDS**

- 30.1 The Evaluation Committee shall evaluate and compare only those Bids determined as substantially compliant in accordance with paragraph 29 above.
- 30.2 The aim of the Bid Evaluation process is to identify the Bidder who is most likely to enable the Procuring Authority to achieve its objectives of having a completed facility on time, meeting the required quality criteria and within the budget for the Works. The evaluation of the Bids may take into account not only Design, Construction and Installation costs, but also operation cost and resources required (ease of operation and maintenance) in line with the evaluation criteria and requirements of the technical specifications as specified within the Bid Documents.
- 30.3 The above will feature in the assessment of which Bid (if any) appears to be in the Procuring Authority's best interests. The Evaluation Committee will scrutinize in detail all of the information



supplied by the Bidders and will formulate its judgement on the basis of the evaluation criteria as stated herein.

- 30.4 The Government of Saint Lucia reserves the right to seek such clarification on any part of, and verification of information submitted, on any part of the Bidder's offer as the Evaluation Committee may consider necessary for the evaluation of the offer.

**31.0 EVALUATION CRITERIA**

31.1 Bids must be delivered in a single package. Each package should contain two envelopes; one envelope containing five (5) sets of technical proposals, and the other envelope containing five (5) sets of financial proposals. One copy in each set of documents should be marked "**Original**" and will rule in case of discrepancies. The Bid should contain a letter of transmittal agreeing to the terms of competition.

31.2 Evaluation of proposals will use the two-envelope process: (1) evaluation of the technical portion of the Proposal and (b) evaluation of the financial portion of the Proposal. The evaluation of the technical proposals will be completed before the financial proposals are opened.

31.3 Criteria for evaluating the Technical Proposal is as shown in Table below:

Table 1: Criteria for evaluating Bid

	<b>Area</b>	<b>Subsection Weighting</b>	<b>Section Weighting</b>
<b>A</b>	Overall Program Concept	Indication that the vendor has a well-defined concept and program structure for all components of service desired by NNHC (Including equipment, availability, training and start-up time)	<b>10%</b>
<b>B</b>	Project Management Methodology	Indication of Project Management Capabilities for Large Scale data networks; focus on solution and timeline and achieve desired results	<b>10%</b>
<b>C</b>	Understanding	Indication that the vendor understands the nature of NNHC services and constraints in providing those services and that the vendor has thoroughly analyzed NNHC needs and requirements	<b>10%</b>
<b>D</b>	Financial Condition	Indication that the vendor, or vendors is financially stable and able to provide related services in its entirety	<b>10%</b>
<b>E</b>	History and Description of Firm	Provide a brief history and description of your firm. The description should include the	<b>5%</b>

		size(number of employees) and areas of specialization	
<b>F</b>	Credentials of Staff	Indication of the Qualifications and experience of the personnel proposed	<b>10%</b>
<b>G</b>	References	Provide the names, telephone numbers, emails and addresses of at least three business references; Particular attention will be given to the quality of the response from references. Issues that will be addressed include contract performance, quality of personnel, responsiveness, etc.	<b>5%</b>
<b>H</b>	Soundness of Design	Design of the network is one that meets the requirements of the NNHC current and future needs.	<b>15%</b>
<b>I</b>	Warranty Services	Provide details of warranty service being offered for the solution	<b>15%</b>
<b>J</b>	Management tools for solution	Provide details on tool(s) used to manage the switches being used for the solution	<b>10%</b>
<b>Total</b>			<b>100%</b>

31.4 Price will be taken into account in the following manner:

Fixed Price Contracts:

After the technical evaluation:

- (aa) the marks of all proposals scoring over 60 will be multiplied by 0.6;
- (ab) the financial envelopes of all proposals to be evaluated for price will be opened, and a maximum score of 40 awarded to the lowest bid. The price of each of the other bids will then be divided into the lowest price and the resultant fraction multiplied by 40 to give the relevant price-related score; and
- (ac) the relevant scores of (aa) and (bb) above will be added together to give the final order of preference of the evaluator.

31.5 The financial envelopes will contain, in addition to the total price, a breakdown into professional services and of reimbursable expenses, both further broken down into the various categories. Please note that prior to contract signing, the elected firm may be asked to negotiate on the scope of work.

**AWARD OF CONTRACT**-----

## **32.0 RECOMMENDATION FOR AWARD**

- 32.1 The Evaluation Committee shall recommend to the Procurement Board the Bidder whose Bid has been determined to be the responsive bidder with the highest combined score.

## **33.0 RIGHT OF PROCURING AUTHORITY TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS**

- 33.1 The Procuring Authority, on behalf of the Government of Saint Lucia, reserves the right to accept or reject any Bidder and/or cancel the whole process of Bidding and/or reject all Bids at any time before awarding the Contract without liability to himself or Government of Saint Lucia. The Procuring Authority reserves the right to initiate a new Bid process.
- 33.2 Should the Bid sum of the successful Bid exceed the available budget, the Procuring Authority reserves the right to negotiate with the relevant Bidder with the aim of reducing the scope of the Work and or revising other provisions of the Contract, which shall produce reductions in contract value satisfactory to the Procuring Authority.
- 33.3 The Procuring Authority reserves the right to conclude the Contract agreement with the successful Bidder for the sum of available funds only.

## **34.0 NOTIFICATION OF AWARD, CONTRACT CLARIFICATIONS**

- 34.1 The Procuring Board will notify the selected Bidder, in writing, that his bid has been considered the most favourable.
- 34.2 This notification may be in the form of an Invitation to contract clarifications, listing a number of issues to be the subject of the discussion. The output of the Contract clarifications will be reflected in a memorandum of Contract clarifications, to be signed by both parties, which shall then be included in the Contract Documents forming a part of the Contract.
- 34.3 Only the signed Contract Agreement shall constitute an official commitment on the part of the Procuring Authority and no activities can commence before the Contract Agreement has been signed by the Procuring Authority and the successful Bidder.
- 34.4 After the provision of the Performance Guarantee by the successful Bidder, the Contract Agreement will then be signed by the Procuring Authority and the successful Bidder all in accordance with Section 35 following. The Procuring Authority shall then notify, without delay, other Bidders that their Bids have not been successful.

## **35.0 CONTRACT SIGNING AND PERFORMANCE GUARANTEE**

- 35.1 The successful Bidder will be required to enter into a Contract Agreement in the form in Appendix B, Form 1, of the Bid Document.
- 35.2 The successful Bidder must provide a Performance Guarantee in the form provided in Appendix B, Form 2 of the Bid Document and in an amount equal to the mobilization amount.
- 35.3 Prior to the signing of the Contract the Bidder could further be required to provide an up-to-date financial statement. This statement shall indicate the Bidder's access to credit facilities sufficient to ensure his liquidity during his Contract performance. In case of failure by the Bidder in providing this statement, the Bidder will no longer be considered and the Bidder whose Bid has been evaluated as second most advantageous may be invited for contracting and so forth.
- 35.4 Upon signing of the contract by the successful Bidder:
  - 35.4.1 The successful Bidder shall become the Contractor; and
  - 35.4.2 The Contract shall become effective.
- 35.5 If the successful Bidder fails to sign the Contract and/or any financial guarantee required within 10 days after receipt of notification, the Procuring Authority may consider the acceptance of the Bid to be cancelled without prejudice to any claims, rights or remedies the Procuring Authority may have in respect of such failure and the successful Bidder shall have no claim whatsoever on the Procuring Authority.

## **36.0 COMMENCEMENT OF WORKS**

- 36.1 Following the signature of the contract by both parties, the Procuring Authority's Representative will issue a written "Notice to Commence the Works" in accordance with the Contract.
- 36.2 The Contractor shall inform the Procuring Authority's Representative by return of the date of receipt of the notice.

## **37.0 ETHICS CLAUSES**

- 37.1 Any attempt by the candidate or Bidder to obtain confidential information, enter into unlawful agreements with competitors or influence the Procuring Authority or any Government personnel involved in the procurement process during the process of examining, clarifying, evaluating and comparing bids will lead to the rejection of his candidacy or Bid.

- 37.2 When putting forward a candidacy or bid, the Candidate or Bidder must declare that he is affected by no potential conflict of interest, and that he has no particular link with other Bidders or parties involved in the project.

## **38.0 DISCLAIMERS**

- 38.1 The information in this Bid is provided for information only. No representation, warranty or undertaking, express or implied, is or will be made and the Government of Saint Lucia shall have no responsibility or liability as to, or in relation to, the accuracy or completeness of this Bid or any other written or oral information made available to any party responding to this Bid ("Bidders") or their advisers. No information contained in this Bid will form the basis of any warranty or representation made by or on behalf of the Government of Saint Lucia to any Bidder.
- 38.2 No response made by or on behalf of the Government of Saint Lucia to any proposal received in response to this Bid shall constitute an agreement or contract between the Procuring Authority and any Bidder.
- 38.3 All Bidders responding to this Bid do so at their own cost and expense and no reimbursement shall be made by the Government of Saint Lucia whether or not an award of contract is made.
- 38.4 The Government of Saint Lucia is not bound to accept the lowest or any Bid and the Procuring Authority shall be free to abandon the procurement pursuant to which this Bid is issued at any time.
- 38.5 The Government of Saint Lucia reserves the right to procure any part, or none, of the services proposed as it considers necessary.

## **39.0 CONFIDENTIALITY AND FREEDOM OF INFORMATION**

- 39.1 This Bid and the information it contains are confidential and may be used only for the purposes of preparing and submitting a response to this document. Any unauthorized use by any Bidder of the information contained in this Bid may lead to disqualification of that Bidder. This Bid and its accompanying documents are and shall remain the property of the Government of Saint Lucia and any party receiving a copy of the same will return them upon demand by the Government of Saint Lucia. Return postage will be refunded.
- 39.2 Any issues regarding disclosure of information with regards the Bid will be handled through the Government's Public Procurement mechanisms.

## **40.0 CANVASSING AND COLLUSIVE BIDDING**

- 40.1 Any Bidder who directly or indirectly canvasses any official of the Procuring Authority or any other official involved in the procurement process concerning the award of the contract for the provision of the Services or who directly or indirectly obtains or attempts to obtain information from any official concerning any other Proposal for the Services will be disqualified.
- 40.2 Any Bidder who:
- 40.2.1 fixes or adjusts the indicative pricing contained within its proposal by or in accordance with any agreement or arrangements with any other person; or
  - 40.2.2 communicates to any person, other than through the submission of the sealed bid, the amount or approximate amount of its proposal (except where such disclosure is made in confidence in order to obtain quotations necessary for the preparation of the proposal for insurance); or
  - 40.2.3 enters into any agreement or arrangement with any other person that he shall refrain from submitting a proposal or as to the indicative pricing contained within any proposal to be submitted; or
  - 40.2.4 offers or agrees to pay or give or does pay or give any sum of money, inducement or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other Proposal for the Services any act or omission;

shall without prejudice to any other civil remedies available to the Procuring Authority (and without prejudice to any criminal liability which such conduct by a Bidder may attract) be disqualified.

## **APPENDIX A**

### **QUESTIONNAIRE**

#### **APPENDIX A – QUESTIONNAIRE**

## **ADDITIONAL NOTICE TO BIDDERS**

1. All questions contained in all the Forms shall be answered by the Bidder.
2. Additional sheets may be attached as necessary.
3. If a question does not apply to a Bidder "Not Applicable" shall be written against it, with a brief explanation of why it does not apply.
4. Each and every individual form shall be numbered consecutively in the lower right corner.
5. Each partner of a joint venture/Consortium shall fill in and submit every form.
6. The signatory of this questionnaire guarantees the truth and accuracy of all the statements made.
7. Accuracy in filling in of the questionnaire, its completeness and attached documentation will be taken into account in the Bid evaluation. The attention of the Bidder is also drawn to the fact that absence of some data may cause non-compliance in the related evaluation.
8. Bidders MUST submit Five copies of completed document One original and Four copies.



**FORM 4.a.1 - GENERAL INFORMATION ABOUT THE BIDDER**

Name of Company:

.....  
.....

Registered Address:

.....  
.....  
.....  
.....

Telephone: (W)..... Telephone: (M).....

.....

Email: .....

Name and Nationality of Principals/Directors & Associates

.....  
.....  
.....  
.....  
.....

Type of Company:

(Individual, Partnership, Corporation, etc)

.....

Description of Company

.....

Number of Years as Contractor:

In own country .....

Internationally .....

Business Licence Particulars:

.....

.....

(Please attach copy of Business Licence)

Name(s) and Address(es) of associated Company(ies)/Individuals to be involved in the project and whether parent/subsidiary/subcontractor/other:

.....  
.....  
.....  
.....

Signature:

.....

(a person or persons authorized to sign on behalf of the Bidder)

Date: .....

### **FORM 4.a.2 - ORGANIZATION CHART**

Please give details here below of the Organization Chart of your Organization of your Company showing the position of directors, key personnel and functions.

Signature:

.....  
(a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**FORM 4.a.3 – POWER OF ATTORNEY**

Please attach here the Power of Attorney authorizing the signatory to the Bid and all related documentation.

Signature:

.....  
(a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**FORM 4.b.1- BIDDER'S OVERALL PERSONNEL**

	<b>OVERALL</b>	<b>No:</b>
	Directors and Management	
	Technical Staff	
	Project Managers	
	Engineers	
	Programmers	
	Technicians	
	Trainers	
	Other skilled staff	
	Labour and unskilled staff	
	<b>Total</b>	

Signature:

.....  
 (a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**FORM 4.b.2 - PERSONNEL TO BE EMPLOYED ON THE CONTRACT**

Function/ Name	Nationality	Age	Education	Years of experience (with the company/in electrical/ construction work)	Major Works for which Responsible (Project/Value)
Project Manager				/ /	
Quality Control Manager				/ /	
Engineer				/ /	
Others Responsible for ..... .....				/ /	
				/ /	
				/ /	
				/ /	
				/ /	

				/ /	
--	--	--	--	-----	--

Signature:

.....  
(a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**FORM 4.b3**

**FORM 4.b.3 - PROFESSIONAL EXPERIENCE RECORD OF KEY PERSONNEL**

**CURRICULUM VITAE**

Proposed position in the Contract:

1. Last name:
2. First name:
3. Date of Birth:
4. Place of Birth:
5. Nationality:
6. Address:

7. Education:

Institution:	
Dates Attended: From (month/year) To (month/year)	
Qualification Obtained:	

Institution:	
Dates Attended From (month/year) To (month/year)	
Qualification Obtained:	

8. Membership of Professional Bodies:

9. Other Skills:

10. Present Position:

11. Years of Professional experience:

12. Key Qualifications:

13. Specific experience in Saint Lucia and Overseas:

Country:	Dates: from (month/year) to (month/year)	Name and Description of the Project

14. Professional Experience

Date: from (month/year) to (month/year)	
Location:	
Company/Organization:	
Position:	
Job Description:	

15. Others:

16. Publications and Seminars;

17. References (at least two):

#2

Name:	
Address:	
Company/Organization:	
Position:	
Job Description:	

#3

Name:	
Address:	
Company/Organization:	
Position:	
Job Description:	

Signature:

.....  
(a person or persons authorized to sign on behalf of the Bidder)

Date: .....



**FORM 4.b.4 - WORK PLAN PROGRAMME**

1. Give a brief outline of your programme for the completion of the Works in accordance with the required method of implementation and stated time of completion.
2. Attach a critical milestone bar chart (schedule and Execution) representing the Implementation Programme and detailing the relevant activities, dates, allocation of labour and other resources, etc.
3. If the Bidder intends to sub-contract part of the Works under the Contract he is required to provide the following details:

Work intended to be sub-contracted	Name and details of sub-contractor	%Value of Subcontract as a percentage of total cost of the Project	Experience on similar work (details to be specified)

Signature:

.....  
 (a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**FORM 4.b.5 - EXPERIENCE AS A SUPPLIER**

**List of Contracts of similar nature and extent performed during the past 10 years.**

Name of project/kind of works	Total value of the Works the Contractor was responsible for	Period of the Contract	Commencement date	% of Works completed	Procuring Authority and Place	Prime contract(P) or Sub-contract (S)	Final acceptance issued? (Yes/No)
<b>A) In The Caribbean</b>							
<b>B) Overseas</b>							

Please attach here available references and certificates from the relevant Contracting Authorities

Signature:

.....

(a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**FORM 4.b.6 – QUALITY ASSURANCE SYSTEM(S)**

Please provide hereunder details of the quality assurance System(s) it is proposed to use to ensure the successful completion of the Works.

Signature:

.....

(a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**FORM 4.b.7 - DATA ABOUT JOINT VENTURES**

Name:

.....

Managing Board Address:

.....

.....

...

Tel: .....

Email:

.....

Agency in country of the Procuring Authority, if any (in the case of a Joint Venture/Consortium with a foreign partner)

Office Address:

.....

.....

...

Tel: .....

Email:

.....

Name of partners

i)

.....

ii)

.....

etc.....

....

Name of leading Partner:

.....

.....

.....

Agreement governing the formation of the Joint Venture/Consortium

1) Date of

signature:

.....

ii) Place:

.....

Enclosure - Joint Venture/Consortium agreement

Proposed proportion of responsibilities between partners (in %) with indication of the type of Works to be performed by each

.....  
.....  
.....  
.....  
.....  
.....  
.....

Signature: .....  
(a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**FORM 4.b.8 - FURTHER INFORMATION**

Bidders may add here any further information that they deem useful for the evaluation of their Bids.

Signature: .....  
(a person or persons authorized to sign on behalf of the Bidder)

Date: .....

**APPENDIX B**

**Form 1**

**FORM OF CONTRACT**

## Agreement

**This Agreement** made the \_\_\_\_\_ day of \_\_\_\_\_ 2015 Between **Ministry of Health, Wellness, Human Services and Gender Relations of the Government of Saint Lucia** (hereinafter called “the Employer”) on the one part and \_\_\_\_\_ of \_\_\_\_\_ (hereinafter called “the Contractor”) of the other part

Whereas the Employer is desirous that certain Works should be executed by the Contractor, viz **the Telecommunications Network Infrastructure for the New National Hospital Complex** and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects given therein

**Now this Agreement witnesseth** as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:-
  - a) The Letter of Acceptance
  - b) The Bid Amendment letters and revisions
  - c) The said Bid
  - d) The Specification
  - e) The Drawings
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.



4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written in accordance with their respective laws.

WITNESS to the signature of the Employer:

**FOR THE EMPLOYER**

Witness Signature:.....  
.....

Date:.....

Witness Occupation:.....  
.....

Name:

Place of Residence:.....  
.....

Signature:.....

Seal:

WITNESS to the signature of the Contractor:

**FOR THE CONTRACTOR**

Witness Signature:.....  
.....

Date:

Witness Occupation:.....  
.....

Name:

Place of Residence:.....  
.....

Signature:

Seal:

**APPENDIX B**

**Form 2**

**PERFORMANCE GUARANTEE**



**PERFORMANCE GUARANTEE**

Invitation to bid no .....

The undersigned, (name, company name, address)

.....  
.....

...  
....., hereby declare that we will guarantee, not merely jointly and severally, but as principal debtor, to **the Ministry of Health, Wellnes, Human Services and Gender Relation of the Government of Saint Lucia, Stanislaus James Building, Waterfront, Castries, Saint Lucia, West Indies** on behalf of (Contractors name and address), ..... the payment of (amount of the performance guarantee) ....., representing the performance guarantee mentioned in Bid Document, on receipt of a first written request from the recipient.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract Documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

The guarantee will enter into force and take effect from the (date of entry into force of the contract) and shall be valid until the date of issue of the final statement of account.

Any dispute concerning the guarantee shall be governed by the law of Saint Lucia and fall within the competence of **Saint Lucia**.

Done at ....., ...../ ...../ .....

(Last Name and first name:) ..... On behalf of:  
.....

Signature: .....

Company Stamp:

## ***PART 2: TECHNICAL SPECIFICATIONS***

## 1.8 OVERVIEW OF CURRENT ENVIRONMENT & REQUIREMENTS:

---

The following is a listing of the current telephony and network environment that will be impacted, modified or replaced by the new IP Telephony system.

### Victoria Hospital Systems to be replaced or transferred to the New National Hospital

- Avaya Aura Communication Manager release 6 with a total of 150 CM Foundation Suite user licenses
- Server Type S8300CG450 Media Gateways with 30 Communications Manager Messaging users
- Less than one year old
- LAN/WAN infrastructure:
  - o LAN infrastructure exists but will not impact the work done at NNH therefore this is not an area of concern.
  - o Smartstream WAN link connects to Government Financial Management network
- 30 channel PRI (1 T1/E1 media module) with 12 analog PSTN circuits as backup trunks.
- UPS power provided for telephony systems

**\*\*It is not planned that this present phone system be removed or transferred.**

### NMWC (Mental Wellness Center)

- Unsupported PBX exists with limited connectivity, no voicemail system exists.
- Direct Exchange lines only
- LAN/WAN infrastructure non-existent
- Direct PSTN lines offering device redundancy but not path.

### Turning Point

- No Current PBX and voice mail systems exists, models and locations
- Age and support status of existing equipment unknown
- LAN/WAN infrastructure by location non-existent
- PSTN circuits and redundant connectivity
- No Power and UPS hardware for telephony systems

#### 1.8.1 REQUIREMENTS

*The responding vendor* understands that *NNHC* requires the following:

*NNHC* seeks a Unified Communications System a solution that integrates its communications system with a state of the art voice and data system. All existing telephones should be replaced with either equivalent new analog, digital or IP phones that support basic telephony features. An employee should be able to log in and use from anywhere on or off the organizations network (home phone or cell phone) and automatically receive calls without administrative intervention. Connectivity should be via a VPN-less SIP SBC or other similar modality. Also, any system proposed should have a failover option to POTS lines should the PRI Service experience an interruption. And PSTN/ISDN failover capabilities should the WAN experience an interruption. DID functionality is a must.

*NNHC* requires that any system have the capability to service remote locations with the same features and functionality as the main office should the need arise. Each location should be able to access all the features and functionality available at the main site even in the event of a service interruption. System directories, class of service for telephony capabilities, trunk group access, should apply to all locations.

*NNHC* requires that the Vendor provide a minimum One Gigabit of data connectivity between buildings on the campus. The vendor must verify that any premise equipment required to support that connectivity is already in place or must quote the additional equipment required.

*NNHC* requires that the Vendor upgrade the ICT network at *NMWC* and **Turning Point**, to a standard comparable to and compatible with that which exists at the New National Hospital. The vendor is solely responsible for ascertaining the degree of gap which exists and for implementing their recommendations after consultation with the *NNHC* or its representative.

*NNHC* proffers that the Vendor may consider the option of providing all voice connectivity to the Public Switched Telephone Network (PSTN), including new number range, DID and PRI connectivity to the PSTN. This option if activated may permit the Vendor to become the single point of contact for all voice connectivity issues, maintenance and billing to the *NNHC*.

## 2.0 Technical Specifications of Telephone System

The following is a detail description of what type of IP telephony system will best meet or exceed each NNHC's baseline requirements.

### 1. *New Equipment:*

The vendor's proposed system must be solely based on the most current manufacturer hardware and software releases, and may not include any used or refurbished equipment. Confirm the proposed system solution complies with this requirement.

### 2. *Commercial Availability*

The vendor's proposed system solution must be commercially available, i.e., general production and shipment, at time of vendor proposal. Primary system design elements that must satisfy this requirement include: common control hardware and software; common equipment (cabinets, carriers, port circuit interface boards, media gateways and interface boards, Telephones and accessories).

### 3. *Call Accounting*

The Telephone System must provide a robust centrally managed call accounting platform with the ability for remote administrator access from any authorized device.

## 2.1 Capacity and Scalability

This section states the port and station capacity requirements for the main site and remote locations, as well as expectations for future growth and changes.

### A. IP Telephony System Architecture:

4. NNHC requires an IP telephony communications system based on an architecture that is secure, reliable, scalable, and supports proven, feature rich communications applications. Briefly identify and describe the IP telephony communications system model(s) being proposed in response to this RFP, including the basic system design configuration (centralized or distributed, hybrid circuit/packet switched or "pure" packet switched client/server), port capacities for all station and trunk types, hardware/software release, announcement and first commercial shipment dates, and estimated number of systems shipped and installed. Provide a simple illustrated diagram of the systems solution, including and identifying the following applicable major elements: common control, port carriers, and media gateways.
5. The system shall be a modular IP based connectionless switching system utilizing Voice over Internet Protocol (VoIP) communications. It shall have stored program control, self-diagnostic routines, and modular design.
6. Dedicated redundant call processors shall be provided such that failure of any single server does not disrupt any call in progress, or result in the degradation of any feature or service. The processor shall



connect via a newly configured IP network that provides redundant voice and control paths between servers, router connectors to PRI and local Ethernet with QoS circuits, and IP devices.

7. Operating System and protocols: NNHC requires that the operating system used for the primary common controller is optimal for the call processing and operational demands of a real time communications system. The operating system must be transparent to the system administrator, and based on a secure and flexible design for future system development and expansion. NNHC also prefers the operating system be based on an industry standard platform.

Briefly identify the operating system being proposed for the primary common controller and if it satisfies the basic requirements. Include in the response any specific reasons the operating system was originally selected.

8. Although the Data Networking solution is part of this RFP, NNHC requires that the proposed telephony solution be agnostic to the Data Networking vendor.
9. A new voice mail system shall be provided in accordance with Section 2.4.2.
10. The system shall have a high level of security to prevent against unauthorized entry into the system through voicemail, remote maintenance port, or any other back door.
11. The Contractor shall provide an auto attendant console capable of handling a minimum of 25 callers at a time.
12. The system shall allow users to log onto any IP phone on the system and make calls through their own DID and receive their own voicemail.

### **B. Multiple Location Single System Image**

The proposed system solution should provide a Single System Image to station users and system administrators across all NNHC locations addressed in this RFP if either a single distributed system solution or a network of systems is proposed. A single distributed system solution must be able to support distributed locations using the NNHC Data network for transmission of call control signals and voice communications signals. A multiple system networked solution must be able to use the NNHC Data network for Voice over Internet Protocol (VoIP) trunk services between system nodes.

Single System Image requirements include:

- Flexible multi-digit dialing between all stations;
- High level of transparent operation for commonly used station, attendant, and system features

- Centralized systems management and maintenance operations using a single unified customer database for all location equipment and station users;
- Shared messaging system resources;
- Automatic alternative routing across the network for IP and circuit switched trunk calls
- Distributed survivability

**These system functions and operations are extremely important requirements and must be satisfied by any proposed system solution.**

### **C. Transparent Features**

Station features required to operate transparently across the system locations must at minimum include:

- Call Transfer
- Call Forwarding – All Calls
- Call Forwarding – Don't Answer
- Call Forwarding – Busy
- Automatic Callback
- Trunk ID on Telephone Display
- Call Diversion Information on Telephone Display
- Calling Number & Name on Telephone Display
- Station User Roaming (Logical Station Assignment)
- Add-on Conference
- Call Waiting
- Barge-in (Busy Override)
- Paging System Access
- Emergency Access to Attendant
- Message Waiting Activation

System features required to operate transparently across the system locations must at minimum include:

- Automatic Camp-on
- Automatic Recall
- Automatic Alternate Routing
- Meet-Me-Conferencing
- Trunk Callback Queuing
- Hunting
- Uniform Call Distribution
- Call Detail Recording
- Uniform Dial Plan

It is required that attendant features and services operate transparently across all system locations.

Transparent attendant feature operation across all locations must include at minimum:

- Trunk Group Busy Warning Indicators
- Message Waiting

- Trunk Group Access and Control
- Serial Call
- Call Distribution to Attendants
- Night Service
  - Override of Diversion Features
- Paging System Access
- Through Dialing
- Intrusion

Confirm your proposed communications system solution supports all of the listed station, system, and attendant features in transparent mode across all locations, and provide a brief description of the feature operation. Identify any of the listed features that are not supported by the proposed system solution and/or do not operate transparently across the locations.

**D. System and Traffic Capacities:**

1. The system shall provide a busy hour call completion (BHCC) capacity of 10000, and a busy hour call attempts (BHCA) capacity of 30000.

**E. Manufacturer:**

Must have a proven track record of the provision of such systems, e.g. Avaya, Cisco, or Mitel.

## 2.2 Connectivity

This section describes the required trunking configurations, capacity, and overall PSTN connectivity and traffic requirements for the enterprise locations.

**A. Port Interfaces**

IP Station Connections:

- i. NNHC requires that all IP station-to-IP station calls must be handled exclusively over the LAN/WAN infrastructure without any circuit switched connections.
- ii. Confirm that the proposed communications system solution supports intra-system and inter-system IP peer-to-peer calling when LAN/WAN facilities are available.
  1. The chosen supplier must briefly identify and describe the common equipment hardware proposed to support port circuit interface connections (analog, digital, and IP), including station and trunk ports. In the response must be included the form factor of the common equipment housing (self-standing, stackable), the number of available card or media module slots per proposed cabinet/carrier, the maximum port interfaces supported, the type of endpoints supported (analog/digital/IP, station/trunk), the maximum number of configurable cabinets/carriers, and power requirements. The integrated power supply design in the response should ideally be redundant.
  2. The system shall support the ITU-T defined Integrated Services

Digital Network (ISDN) Primary Rate Interface (PRI) and the European Telecommunications Standards Institute (ETSI) ISDNPRI.

3. The system should support Hair panning and Shuffling for IP Telephony calls, so the Voice Bearer and IPT signaling can use different Data routes and optimize Data bandwidth usage?

### 2.3 TELEPHONY CONFIGURATION DETAILS:

#### A. Definitions:

1. Equipped: the equipped quantities are the at-cutover requirements. The port circuit packs, stations, and trunks shall be configured to support the equipped numbers.
2. Wired-for: the wired-for quantities are the quantities that the system can support without the addition of software and/or the re-engineering of existing hardware. Cabinets, carriers, memory, processor capability, power (including back-up power), and other equipment shall be included so that the wired-for configuration and traffic capacity can be achieved by the addition of only port circuit packs. These quantities represent expected growth.
3. Licensed for: the licensed-for quantities are the quantities that the system can support without the addition of licenses and/or the re-engineering of existing hardware. Cabinets, carriers, memory, processor capability, power (including back-up power), and other equipment shall be included so that the licensed-for configuration and traffic capacity can be achieved by the addition of only users. These quantities represent expected growth.

#### A. Port requirements NNHC (Main Site):

Provide a system configured to support the wired-for capacity of analog and IP stations, and trunks (including the ISDN-PRI interface) as indicated in the following table:

<u>Port Type</u>	<u>Equipped-For/Wired-For</u>	
IP Station Ports	300	
Analog Ports	16	
	<u>Equipped-For</u>	<u>Licensed-For</u>
<u>Trunk Ports</u>		
ISDN-PRI	3	4
Voicemail Box	300	300
Analog Backup	8	16

#### B. Port requirements NNHC (Mental Wellness Center):

<u>Port Type</u>	<u>Equipped-For/Wired-For</u>	
IP Station Ports	100	
Analog Ports	8	
<u>Trunk Ports</u>	<u>Equipped-For</u>	<u>Licensed-For</u>
ISDN-PRI	1	2
Voicemail Ports	N/A*	N/A
Analog Backup	8	8

C. Port requirements NNHC (**Turning Point**):

<u>Port Type</u>	<u>Equipped-For/Wired-For</u>	
IP Station Ports	24	
Analog Ports	8	
<u>Trunk Ports</u>	<u>Equipped-For</u>	<u>Licensed-For</u>
ISDN-PRI	N/A*	N/A
Voicemail Ports	N/A*	N/A
Analog Backup	8	8

### 2.3.1 High Availability

This section describes overall enterprise high availability and redundancy requirements for business telephony and related communications services.

1. The system shall provide 99.999% availability.
2. The system shall remain fully available as software upgrades or patches are installed in the call processor.
3. The system shall be a highly available IP telephony call-processing solution.

### **SYSTEM POWER:**

- A. The systems shall be nonvolatile, for the main memory and central processor in the event of power loss. This capability shall facilitate rapid resumption of operation following a power failure,

eliminating the need to reload memory from the storage medium. During this period, the voice mail system shall maintain messages, data, and software.

- B.** Provide standby power/battery back-up capable of supporting full system operation for 15 minutes or more upon failure of normal AC power to the system.
- C.** The standby power system shall include housing, batteries, and rectifiers. Batteries shall be packaged in flame-retardant containers, shall be installed in the equipment room and shall be maintenance-free, non-hydrogen producing and require no special venting.

### 2.3.2 Security

This section describes enterprise security standards and specifications for telephony services, system access controls, and confidentiality requirements.

#### **Security Features:**

##### **1. Call Routing Security.**

- a. As a standard feature, the system shall require authorization codes. These codes, when dialed, shall provide a user with additional call routing capabilities than would not otherwise be available. Authorization codes shall be validated by the switch and included in the CDR generated for the call.
- b. Indicate what encryption techniques are used for both IP-based voice and control signaling transmission streams at the station user desktop, deskphone and/or media gateway interfaces. Also identify instances and circumstances when encryption is not supported.

##### **2. Remote Access Security:**

- a. The remote access feature shall be password protected to prevent unauthorized use.
- b. The system shall be able to also require the remote access user to enter a valid authorization code in order to use the feature.
- c. Denial-of-Service (DoS) Attacks: IP telephony communications systems are susceptible to DoS attacks, i.e., flooding the network with useless traffic in an attempt to bring disable normal operations. Briefly describe available hardware and software tools to prevent DoS attacks on the proposed communications system.

##### **3. System Management Security:**

- a. Access to the system for management purposes shall be login-password protected.
- b. The system shall have the capability to automatically age passwords, thereby forcing users to change their passwords. The cycle length must be changeable by the Owner, and the user shall be given advance notice of the upcoming expiration.
- c. The system shall support the setting of an attempt threshold (number of attempts within a specific time period) for access to system management ports. If this threshold is exceeded, the system shall automatically disable the login for a predefined period of times.

#### **4. Reports:**

- a. The system shall provide reports addressing the security violations specified herein.
- b. In addition, the system shall support a recent change history report so that any changes made by an unauthorized user can be traced.
- c. In order to assist the system administrator in verifying the security of the system, the system shall provide a report that lists all stations with call forwarding activated and the forwarded-to number. The system log must be capable of being sent off the PBX to a separate server.
- d. The system shall provide reports addressing the security violations specified herein. In order to assist the system administrator in verifying the security of the system, the system shall provide a report that lists all stations with call forwarding activated and the forwarded-to number. The system log must be capable of being sent off the PBX to a separate server.
- e. The system shall be capable of emailing reports to the System Administrators on a weekly basis.

#### **5. Call Center and Helpdesk**

NNHC will require Call center features such as log-in and log-out capabilities for several users, Uniform Call Distribution, and basic call center features.

The Contractor must provide answers to the following:

- a. Does your voice solution provide integrated call center functionality? Describe your call center applications and capability. Is this solution part of the system or an add-on piece of hardware? What is the maximum amount of agents supported by the included solution (no extra cost)?
- b. Does your solution include a reporting tool to monitor and evaluate customer service / call center performance? If so, please include some details on the scope of such reporting tools.

## 2.4 Communications Features

This section provides detail description on how the proposed IP Telephony system is supposed to meet requirements for the following communications features and functionalities.

### 2.4.1 Call Control Features

This section describes the core PBX system functionality required as well as any additional user customization features.

#### **IP TELEPHONY SYSTEM FEATURES:**

##### **D. Speed Dialing Features:**

1. Personal: minimum 12 numbers.
2. Group: minimum 90 numbers.
3. System: minimum 500 numbers.

##### **E. Station Restriction Features:**

1. Inward: able to receive calls only.
2. Origination: able to originate calls only.
3. Trunk-to-trunk transfer.

##### **F. Call Coverage:**

1. The system shall include a call coverage feature to allow calls to an extension to be redirected (forwarded) to a coverage path consisting of up to six separate answering positions (different extensions) accessed in sequence if coverage criteria is met.
2. Redirection criteria shall include the following:
  - a. *Active/busy.*
  - b. *No answer (after a preset number of rings).*
  - c. *All calls. The set forwarding the calls will not ring. Calls will be forwarded immediately.*
  - d. *Time of day.*
  - e. *Day of week.*
3. Redirection criteria shall be programmable by the system administrator.
4. Redirection criteria shall be defined separately for internal and external calls.
5. The system shall support overriding criteria, which shall be checked before the redirection criteria, and the call redirected accordingly. The following capabilities shall be provided:



- a. *An internal caller shall be able to send the call directly to coverage without ringing the called party's phone.*
  - b. *The called party shall be able to temporarily direct incoming calls to coverage regardless of the assigned redirection criteria.*
  - c. *The called party shall be able to forward his or her calls to another extension and have calls completed to this extension before redirecting to coverage.*
6. The system shall provide the following capabilities to the covering user:
- a. *For display-equipped sets, the incoming call shall be identified to the covering user as a call coverage call, and the principal shall be identified on the display.*
  - b. *The covering user shall be able to call the covered principal for a consultation, then conference or transfer the calling party.*
  - c. *The covering user shall be able to leave a message for the principal to call an internal caller back simply by pressing a designated button.*
7. The switch shall maintain control of the call until it is answered or receives a busy signal. If the call is not answered with a predefined number of rings or if a busy signal is received, the call shall be returned to the switch for further routing.
8. The user shall be able to change primary and secondary coverage paths locally and remotely.

**Integrated Directory:**

1. Four digit dialing shall be supported across the network for any extension. The system shall include an integrated directory feature to allow internal system users with display-equipped sets to access the system database, use the touch-tone pad to key in a name, and retrieve an extension number for all users.
2. Once a name and number is displayed, the user shall be able to place a call to that person by pressing one button.
3. The System Administrator shall be able to hide certain names in the directory for personnel privacy.

**2.4.2 Messaging Features**

This section describes the core voice mail and unified messaging needs for the NNHC, mailbox and retention requirements, and automated attendant functionality.

**VOICE MAIL SYSTEM REQUIREMENTS:**

1. The voicemail system shall be an integral component of the base IP telephony system.
2. The Voicemail system shall provide voice and fax messaging for all users with mailbox

3. The voicemail system shall be provisioned as a modular voicemail system with the capability to service multiple sites from one central system. The Contractor shall provide the capability to integrate additional Hospital/Health sites within St. Lucia.

**B. Call Answer Features:**

1. Calls shall be automatically answered by the called party's greeting without re-entering the mail box number.
2. A caller shall be automatically routed out of the voice mail system to an attended telephone by pressing a single digit. Each mail box shall be capable of being assigned a unique destination versus a system-wide destination.
3. Callers shall be able to escape/transfer out of voice mail without returning to the main menu.
4. Callers shall be able to transfer out by specifying a subscriber's name or extension.
5. Callers shall be able to first leave a message and then transfer out to another extension or the attendant.
6. Callers shall be able to review and re-record their message.
7. Callers shall be able to skip the greeting and immediately record their message.
8. Callers shall be able to mark their message as private or priority. A message marked as private or priority shall be capable of being changed back to a regular message any time before sending.
9. Callers, who are also subscribers, shall be able to transfer into their own mail box after leaving a message or in place of leaving a message.
10. The system administrator shall be able to vary the maximum voice mail message length on a per subscriber basis.
11. The voice mail system shall provide subscribers with the ability to greet their callers with a personal message.
12. If the called party's mail box is full, the system shall advise callers of the other available options.
13. Subscribers shall be able to choose to use a generic system greeting rather than a personalized greeting.

**Message Addressing/Scheduling Features:**

1. The system shall provide the following capabilities to subscribers during addressing or scheduling messages for delivery.
  - a. Address by extension.
  - b. Address by name.
  - c. Address to a predetermined mailing/distribution list.
2. Subscribers shall be able to create and maintain mailing lists.
3. Subscribers shall be able to use mailing lists created by another subscriber.
4. Subscribers shall be able to remove a recipient prior to sending the message, even if the recipient was part of a pre-defined mailing list.
5. Subscribers shall be able to broadcast a message to everyone without using a mailing list.

6. Subscribers shall be able to broadcast to users when they log in to the system.
7. The system administrator shall be able to maintain system distribution list, which can be accessed by any subscriber.

**Message Delivery Options:**

1. After addressing, the system shall provide the following options:
  - a. Mark messages as private (such that it cannot be forwarded).
  - b. Mark message as priority.

**Message Retrieval Features:**

1. The system shall provide the number of new messages at login time.
2. A voice mail subscriber shall be able to skip to next message.
3. A voice mail subscriber shall be able to replay messages.
4. A voice mail subscriber shall be able to delete messages at any time.
5. The system shall present priority messages before all other new messages.
6. The following information shall be available for each message:
  - a. Sender's name (if subscriber).
  - b. Sender's extension (except for an outside call).
  - c. Date and time message was delivered.
  - d. Private status (only if this is a private message).
  - e. Priority status (only if this is a priority message).
7. A voice mail subscriber shall be able to add a comment to the message that is being forwarded.
8. The system shall allow a message to be sent from one subscriber to multiple extensions, names, or distribution lists and still retain all added comments.

**Message notification:**

The system shall light message waiting lamps until all new messages are retrieved.

**AUTOMATED ATTENDANT REQUIREMENTS:**

- A. The automated attendants shall have at least 10 menu choices, and shall have multiple menu choices (nesting).
- B. Callers to the automated attendant shall be able to enter extensions in addition to menu choices, and shall be able to enter names as well as extensions.
- C. The automated attendant shall have a default (timeout) if callers do not select a choice within a given time frame.
- D. The system administrator shall be able to record the attendant menu from any touch-tone station.
- E. The system shall provide for callers to have the menu repeated either by pressing a button or timing out.
- F. A caller shall be able to specify an invalid choice or extension, then be notified and given another opportunity to make a choice.
- G. The automated attendant shall support a minimum of 75 callers simultaneously.

- H. Separate automated attendants shall be available for different times during the day, days of the week and holidays.
- I. The system shall allow for a different automated attendant menu to be played to external callers than that played to internal callers.
- J. At a system minimum, separate automated attendants shall be provided and configured for the main number and at least six different departments. The Contractor shall coordinate with the NNHC on the configuration requirements for each department's auto attendant.
- K. The system shall allow a message to be left in the automated attendant mail box.

### **UNIFIED MESSAGING for 100 Users:**

#### **A. General:**

1. The Unified Messaging System shall be a component of the base IP telephony system.
2. The system shall provide access to the voice messaging server and review voicemails and fax mails in one single application in user's personal computer thru a graphical user interface (GUI) and voicemail thru a telephone user interface (TUI).
3. UM shall integrate with NNHC's remotely hosted Exchange server. Verify with NNHC for latest version at configuration and provision as needed.

#### **B. Features:**

1. The system shall as a minimum provide incoming message notification with attached WAV files via a Microsoft Exchange server over a LAN.
2. The message shall identify the date and time received the sending party, and the subject in the header information.
3. The system shall have the capability to reply, forward, save or delete any type of message (voice, e-mail or facsimile) from either interface type (GUI or TUI) regardless of how the message was created.
4. The system shall allow text messages to be forwarded with a voice preface.
5. The system shall support facsimile messages to be forwarded to any facsimile machine with DTMF capabilities.
6. The system shall support text to speech conversion for facsimile headers and e-mail retrieval via TUI connections.
7. The system shall allow for messages to be listed in a user definable hierarchy.
8. The system shall allow for messages to be viewed in any order.
9. The system shall allow a voice message to be created and addressed to multiple parties.
10. The system shall allow that when a voice mail message is selected from the GUI, the message shall play via user's handset and shall allow control via PC console.
11. The system shall allow any type of message to be saved to a user selected hard drive for archival purposes.

#### **C. Security:**

1. The system shall require a password and user id to access the unified message system.
2. The password shall be alphanumeric and be encrypted before it is stored on any server.

## **USER INTERFACE AND VOICE-MAIL MANAGEMENT:**

### **A. Security:**

1. Subscribers shall be able to create or change their personal password at any time, from any touch-tone telephone.
2. The system shall prevent the system administrator from obtaining personal passwords.
3. The administrator shall be able to assign a subscriber a new password without obtaining the old password.
4. New subscribers shall be required to change the default password upon initial log in to the system.
5. The system shall require a password to log into the system.
6. The system shall allow remote logins into the system.
7. The system shall have the capability to prevent unauthorized system access or transfers from the system.

### **B. Voice-Mail System Management:**

1. The system shall provide for the addition, deletion, or changing of mail boxes without service interruption.
2. The administrative interface shall be screen-based.
3. The system shall provide for the subscriber's extension to be changed without deleting their messages or changing anything else in their mail box.
4. The following parameters shall be definable on a class-of-service (COS) and per-subscriber basis:
  - a. The mail box size (number of messages).
  - b. The length of message a caller can record (call answer).
  - c. The length of message a subscriber can record (voice mail).

### **C. Traffic and Report Statistics:**

1. The following traffic statistics shall be available for reports:
  - a. Total number of calls handled by each active port and total seconds busy for each port.
  - b. Total messages created.
  - c. Disk utilization.
  - d. Average call answer sessions (in minutes and/or seconds).
  - e. Average voice mail session (in minutes and/or seconds).
  - f. Subscriber directory by extension and name.
  - g. Average ports in use by hour.
2. The following subscriber statistics shall be provided:
  - a. Messages received (call answer).
  - b. Messages received (voice mail).
  - c. Number of call answer and voice mail sessions.
  - d. Maximum space used per mail box.

### **D. Integration:**

1. Ports shall not be required for activities such as lighting message waiting lamps.
2. If a port is in trouble, the system shall take it out of service and automatically notify the switch to stop sending calls to that port (without manual intervention).

**E. Networking:**

1. The voice messaging system shall support Audio Message Interchanges Specification (AMIS) open networking.

**F. Technical Requirements:**

1. The system shall allow for mail box numbers to be changed without losing
2. Messages, mailing lists, or subscribers' names.
3. The system shall alert subscribers when their mail box space gets low.
4. The system shall provide help prompts to the subscribers, which list a menu of all available options from any point in the system.

**DNS & DOMAIN CONTROLLER SERVERS:**

- A. Provide dual dedicated DNS and Domain Controller servers for use by the VoIP system.**
- B. DNS and Domain Controller servers shall be Dell Power Edge R720 series or equivalent with Windows Server 2008 R2 software (or most current release) included.**
- C. Provide up to 450 IP licenses for telephony purposes.**

**E-911:**

**A. Provide "port" level location data for 911 calls.**

1. Include floor, room, and cubicle information.

**B. Provide an administrative alert for any 911 calls made from within the system.**

**2.4.3 Conferencing and Collaboration Capabilities**

NNHC has requirements for standard and advanced voice, video and web conferencing capabilities.

**A. Standard Add-on Multi-Party Conferencing Capabilities**

NNHC requires that the proposed communications systems solution supports standard limited party voice conference calls as part of the standard generic software capabilities. Basic conferencing capabilities require that station users can implement an Add-on or Meet-Me conference call (6-party, minimum) from a standard or executive level telephone instrument.

**B. Standard Meet-Me Conferencing Capabilities**

NNHC requires that the proposed communications systems solution supports Meet-Me Conferencing capabilities, i.e., station user-scheduled conference calls that may or may not require call parties to input an assigned access code to join the conference. The Meet-Me conference extension must be able to support up to a combination of six (6): internal station users, remote access station users, and external calling parties. Add-on and Meet-Me requirements must be implemented without a requirement for optional application server equipment.

**C. Advanced Multi-Party Audio and Web Conferencing Capabilities**

NNHC requires that the proposed communications systems solution optionally support advanced multi-party limited party voice conference calls, including web-collaboration. Advanced multiparty conferencing capabilities should include support of up to 30 parties per call with 5 simultaneous calls or virtual conference rooms, provide real-time display information for conference call participants, offer web-collaboration and allow the conference host to mute some or all on-line call participants. All types of station user endpoints must be supported, including analog, digital, and IP. A Meet-me conference may or may not require the caller to input an assigned access code to join the conference. The Meet-Me conference extension must be able to support internal system, remote access station users, and external calling parties. Also participants could log-into a web conferencing link in order to share material (presentations, documents, wallboard, etc) thru a web-page. It is also desired to be capable to broadcast a video of the presenter(s) or host(s) to all participants.

#### D. Advanced Video Conferencing Capabilities

NNHC requires that the proposed communications systems solution optionally support advanced video conferencing. Video conferencing capabilities should include support of up to 8 participants. All types of devices / user endpoints must be supported, including mobile applications for iOS (iPad & iPhones) & Android, Desktop (like PC and Mac) or video Endpoints (**even High Definition**). One Room-based system HD camera and associated facilities should be included in the design.

#### 2.4.4 Unified Communications

This section describes the desktop presence and communications client capabilities required by the enterprise to support collaboration objectives.

##### **Softphone Feature:**

1. The system shall be configured with softphone capabilities. The IP softphone feature shall be a Window's based application for a PC or laptop with a user interface similar to the IP desk set. The softphone shall be fully integrated with the VoIP system including the system's interactive directory.
2. Optional: The IP softphone should also be available for MacOS users
3. Optional: Softphone should be capable of doing Video point-to-point calls. Please confirm if the solution does.
4. The Contractor shall configure each softphone with the same preferences as their IP desk set phone. Coordinate with each user on the final configuration.
5. The base system shall be provisioned with a minimum of 120 softphone licenses.
6. Contractor must detail ability to support remote, work at home with IP softphones. Softphone should be capable to work on Any-Phone (Telecommuter), Deskphone Control or VoIP (Roadwarrior) with personal PC modes.

##### **Desktop Software Client:**

1. The system shall be licensed and configured for every user to have a desktop software client application. The Contractor shall configure each user's desktop software client application with the same preferences as their IP desk set phone.

**Hoteling Feature:**

1. The Contractor shall configure the VoIP system for to allow for any user to log onto the server from any IP phone and make and receive calls with their own DID and access their voice mail. The base system shall include 100 licenses for Muster Room hoteling. Of the 100 user licenses, 20 of these users will require Extension-to-Cellular licenses.

**Licenses:**

7. The Contractor shall provide as part of the base system all necessary licenses to provide for a system that meets the requirements listed in this RFP. As an option to the base system, the Contractor shall provide pricing for an enhanced licensing package. The enhanced licensing package shall provide each user with ETC and softphone license and shall be a special bundled licensing package. Refer to Section VI for additional information.
8. User license should be “universal” or capable of being used for any type of device (IP, SIP or TDM) and any model of phone (advanced or basic)

**2.4.5 End User Devices**

This section describes the station feature requirements for desk phone and conference room devices as well as specific capabilities preferred for different user levels.

**STATION EQUIPMENT REQUIREMENTS:**

**A. Desk Set Stations:**

1. Enhance Set:
  - a. Color Touch screen display
  - b. G.722 Standards-based wideband Codec to delivering exceptional audio performance (headset, handset, speakerphone)
  - c. Full-duplex Speakerphone
  - d. LAN connectivity 10/100/1000 Mbps and 2<sup>nd</sup> Ethernet interface 10/100/1000 Mbps
  - e. USB interface and Integrated Bluetooth
  - f. PoE Class 2
  - g. Optional 2 x 12 button module
  - h. Example: Avaya 9641G or equivalent





2. IP Standard Set:
  - a. Access to 8 lines & LED buttons on either side of display
  - b. LAN connectivity 10/100/1000 Mbps and 2nd Ethernet interface 10/100/1000 Mbps
  - c. Headset Interface and Speakerphone
  - d. 3.5" color display with a white backlight
  - e. USB Interface
  - f. Optional 2 x 12 button module
  - g. PoE Class 1
  - h. G.722 Standards-based wideband Codec to delivering exceptional audio performance (headset, handset, speakerphone)
  - i. Example: Avaya 9611G or equivalent



3. IP Basic Set:
  - a. 8 Lines / Feature Keys
  - b. Full-duplex Speakerphone
  - c. Extra 10/100 port for PC
  - d. Headset jack
  - e. PoE (Power over Ethernet)
  - f. Example: Avaya 9608 or equivalent



4. IP Conference Set
  - a. Built-in bridging function
  - b. Expandable with microphones
  - c. PoE (Power over Ethernet)
  - d. Example: Avaya B189 or equivalent



5. Attendant Console:
  - a. Example: Avaya 9611G with expansion buttons module

**B. The video phone desk sets** 1. IP Video Set:

- a. Large HD monitor
- b. Multi-touch color screen
- c. Video support
- d. Headset Interface and Speakerphone
- e. LAN connectivity 10/100/1000 Mbps and 2nd Ethernet interface 10/100/1000 Mbps
- f. Spotlight user interface
- g. High quality audio and video conferencing
- h. Fully integrated UC experience & Innovative user experience
- i. Enterprise portability & WiFi and 3G/4G modem ready
- j. Docking station with I/O ports and cable management
- k. Two USB 2.0 ports

- l. Integrated Sub-Woofer
- m. Example: Avaya Desktop Video Device with Flare Experience

*Standard and Enhanced sets should be capable of doing VPN (i.e., embedded within the phone)*

**C. Expansion Modules:**

1. Expansion module shall be the same manufacturer as the desk set and shall 2. Be recommended by the manufacturer for use with the handset model number.
3. The expansion module shall have an LCD display and illuminated buttons indicating line status.
4. Refer to Schedule of New Desk Set for locations that require an expansion module. Coordinate final quantities with the Owner.

**D. Wireless Headsets:**

1. The headset shall be wireless headset with one touch mute capability.
2. The headset shall be rated for use in loud office and open environments.
3. The headset shall be able to convert to over-the-ear, over-the-head, and behind the-ear head styles.
4. The headset operating frequency shall be the newest most current technology available.
5. The headset shall utilize an electronic off-hook switch. A handset lifter shall not be used.
6. Headset manufacturer shall be Plantronics or equal.
7. Include a *bundle of 10* wireless headsets in the total base system cost.

**E. Wired Headsets:**

1. The headset shall be a corded headset for the handset station.
2. The headset shall be rated for use in loud office and open environments.
3. The headset shall be able to convert to over-the-ear, over-the-head, and behind the-ear head styles.
4. The headset shall be equipped with a noise cancelling microphone.
5. The cord shall be a coil cord with a minimum length of 10 feet.
6. The headset shall include the cord to connect to the phone.
7. Headset manufacturer shall be Plantronics or equivalent.
8. Include a *bundle of 10* wired headsets in the Base System cost.

**F. Spare Sets:**

1. Spare desk set stations shall be included in the base system cost.
2. Provide spare desk set stations for each phone type/quantity listed below:
  - a. Enhanced: 5
  - b. Standard: 10
  - c. Basic: 5
  - d. Expansion Module: 5

e. Conference: 2

#### **DISPATCH STATION ATTENDANT REQUIREMENTS:**

- A. The system shall provide an attendant console for dispatch stations for servicing incoming calls to the system. The console shall feature a simple, uncluttered layout of call appearance keys, numeric keypad, attendant function keys, an easy to-read display, system time indication, and major and minor alarm indication.
- B. The console shall include the ability to determine the status of an extension number (busy/not busy) and to call an extension without having to key in the number.
- C. The console shall allow the attendant to assign a call to a busy extension such that when the extension becomes available the call is automatically connected (camp-on). The call shall be redirected if not connected within a predefined period of time.
- D. The console display shall provide information on the calling party (name, extension, and class of service/class of restriction); called party (name and extension); and call purpose (direct call, forwarded call, and returned call).
- E. Calls shall be distributed to active attendant consoles on a most-idle-attendant basis. When all consoles are busy, calls shall be queued to an attendant queue and served on a first-in-first-out basis.
- F. The attendant shall have the ability to restrict calls to or from individual extensions or groups of extensions. In addition, it shall be possible to activate or deactivate call forwarding all calls for individual extensions from the attendant console.
- G. The attendant shall be able to establish a five-party conference, and hold the conference on the console. The system shall support a conference of both internal and external parties.
- H. The attendant shall be able to use an integrated directory of switch extension numbers from the console.
- I. The headset jack shall be NEMA complaint.
- J. The desk set type shall be an Enhanced Set with expansion modules or equivalent.
- K. The dispatch attendant console shall have a main number with rollover capability.
- L. The Supervisor stations shall have the capability for listen and whisper mode.
- M. Coordinate with NNHC for dispatch attendant configuration requirements.
- N. Refer to Schedule of New Desk Sets in Section xxx for dispatch quantities.

#### **2.4.6 Mobility**

This section describes the workplace mobility features and capabilities required by NNHC, such as the ability to simultaneously ring multiple user devices (office handset, mobile phone). Presence and follow me feature (Advanced Call forwarding).

- A. NNHC is interested in Single Number Access—important calls get through; physicians control who can reach them, then several mobility options should be considered in the proposal 1.
  - WiFi 802.11 based phones
  - 2. Call bridge to cell phones, agnostic to cell phone model. Please confirm a seamless transfer from cell phone to deskphone, and vice-versa is possible, without having the need to put the call on hold.
  - 3. Application for Smart phones that extend Enterprise Telephony features to the physicians mobile device. Please describe options and scope of such a feature.

- B. For remote workers or when physicians are outside NNHC premises, indicate the option for remote-users that need a temporary or fixed phone connected (logged) into the system, like VPN-ready IP Hard-phones or VPN-less SIP phones connected thru a secure SBC. Also describe how to implement this solution and the cost implications of it.

### *2.5 IP Telephony Systems Management*

The contractor/vendor is required to list and describe the central software and user interface that will help IT staff manage the IP Telephony environment. The vendor/contractor must explicitly state which software and administrative capabilities are included in the proposed solution and which are offered at additional cost. It is important to note that ease of use, integration of features, and functionality will be critical factors in IP Telephony system selection. Listed below are the minimum feature requirements.

#### **A. System Management Features:**

1. Administration from an Ethernet 10/100/1000 Base-T local area network (LAN).
2. Error and alarm log access.
3. Scheduled execution of previously input system management commands.
4. The system shall notify designated personnel of system alarms via SMTP.
5. Alarms should include, but not be limited to, servers, UPS and network hardware.

#### **E. Windows-Based System Administration:**

- a. The telecommunications system shall include two copies of the system administration software that shall operate on a personal computer (PC) with a Windows XP or higher, to provide a Graphical User Interface (GUI) for administration and management of the telephone system.
- b. The system administration software shall be provided with licensing for installation on an Owner provided PC.
- c. The system administration software shall also provide a GUI interface for administration and management of the voice messaging system.
- d. All required licensing (Right to Use –RTU) for use of the system administration software to manage the telephone system shall be included.
- e. The contractor shall install on one PC all necessary software and licensing,
- f. Configured as required to operate the Windows-based system administration.
- g. A single PC may be configured for the Windows-based system administration and the Windows-based call accounting system.
- h. This system shall include all required hardware (including, but not limited

- i. To, modems, data modules, cables, and LAN interface modules) for the connection from the telephone switch to the on-site PC and for remote connection from an off-site PC.
- j. This system shall include all initial programming and installation of the system administration software on the PC provided by the Owner.
- k. The Windows-based system administration capabilities to be provided include:
  1. Telephone station administration including features, privileges, and restrictions.
  2. Telephone station moves, adds, changes, deletions.
  3. Switch equipment inventory, configuration, and status.
  4. Trunk administration and status (out of service).
  5. Traffic analysis for trunks including busy hour reports, peg count.

**F. System Diagnostics:**

1. The system shall provide for the detection, diagnosis, and reporting of potential and actual troubles and component failures. The system shall be capable of routinely self-administering the diagnostic programs. System problems shall be automatically logged and reported.
2. Alarms shall be reported to the attendant console, the switch, any active management terminals, and to the Contractor's remote maintenance facility.

**G. Call Detail Recording/Accounting:**

1. The system shall be able to generate and output Call Detail Records (CDRs). CDRs shall be generated for both incoming and outgoing calls on trunk facilities, and for station-to-station calls to and from specific stations.
2. Provide for a call accounting system to collect the CDRs from the system and provide call costing. The system shall be PC-based and compatible with Windows XP.
3. The system shall support the generation of reports on demand and on a customer-defined schedule.
4. The call accounting system shall be located at the IT Room.

**2.6 INSTALLATION, INTEGRATION and PROFESSIONAL SERVICES**

All installation, integration and professional services are the sole responsibility of the vendor.

## *2.7 Support and Maintenance*

State a baseline required for support. For example: 5 years 24X7 onsite software and hardware support. Require that a detailed description of standard and extended support and maintenance be provided.

### *2.7.1 Service Provider*

The vendor/contractor shall be required to state the name of the company which will be delivering service and on-site support for this solution. If service has been outsourced to another firm, how long has this relationship been in effect?

### *2.7.2 Product History*

The vendor must provide a technical roadmap for the proposed solutions. This should explain how the proposed solution fits into the vendor's current product lifecycle?

The vendor must provide a list of policies on firmware updates for the proposed solution. How often are changes released? How is the customer notified about changes? How are they applied?

## *2.8 Engagement Methodology*

This section should identify any special requirements for how and where the vendor is to carry out work, key responsibilities of the vendor, and any special terms and conditions that are to be included in the contract but are not previously covered in, Additional Terms and Conditions.

## LOCAL AREA NETWORK & WI-FI SYSTEM

### *3.0 DESCRIPTION*

A. This section covers the installation and configuration of the Local Area Network (LAN) and Wi-Fi system.

### *3.01 SCOPE OF WORK*

A. A new network design for the new NNH, including the installation and configuration of new core switches. Provide redundant connections of distribution switches to the new core switches located in the new MDF. Refer to the Core network diagram in Section 5.0 for additional information.

### *3.1 PRODUCTS*

#### *3.11 GENERAL*

A. All active Local Area Network components and software shall be the product of a well noted manufacturer in the field and as far as possible should be from the same manufacturer for ease of network management.

1. No substitutions shall be allowed except for the Owner approved options listed herein.

B. 10 Gigabit Ethernet (SFP) interfaces between switches shall be provided in a configuration appropriate for the fiber type and distance between switches.

C. The Contractor shall provide effective network management software.

#### *3.12 CORE SWITCH*

A. Manufacturer



1. Avaya 5600, VSP 4850 or equivalent.



#### B. Physical and Electrical Reliability

9. Mounting – 19-Inch EIA Rack.
10. Operating Power – 100-250VAC 50/60 Hz.
11. Mean Time Between Failures (MTBF): 100,000 hours.
12. Lifetime warranty on hardware

#### C. Port Capacity

1. Configured to support connections indicated on the LAN diagram at minimum. Final design will be configured by the Contractor in collaboration with the NNHC.

#### D. Downlink Configuration (To Distribution and Edge Switches)

1. Media Type – Single-mode fiber from remote facilities, multimode to edge distribution.
2. Architecture – Multiple.
3. Fail-Over – Automatic to remaining link.
4. Load Balancing – Active-Active links using Split Multilink trunking.
5. Backbone 10 Gbps links.

#### E. Switch Internal Configuration

1. Bandwidth per slot 380 Gbps.
2. Packet Forwarding Rate - 170 Mpps.

#### F. VLAN Support

1. VLANs per switch – 1024.
2. VLAN trunking – IEEE 802.1Q.
3. Quality of Service (QOS) – IEEE 802.1P.

#### G. Switch Administration




1. Command Line Interface.
2. SNMP Applications Device Manager
3. Web Browser Based Administration.

#### H. Network Protocols Supported

1. Ethernet: IEEE 802.3, 10BaseT, and 10BaseFL.
2. Fast Ethernet: IEEE 802.3u, 100BaseTX, 100BaseFX.
3. Gigabit Ethernet: IEEE 802.3z.
4. 10 Gigabit Ethernet: 802.3ae
5. Optional 40 and 100 Gigabit Ethernet: 802.3ba

I. Management Protocols Support

1. RFC 2665 Ethernet MIB
2. RFC 2674 Q-BRIDGE-MIB
3. RFC 2737 Entity MIBv2
4. RFC 2819 RMON MIB
5. RFC 2863 Interfaces Group MIB
6. RFC 2865 RADIUS
7. RFC 2866 RADIUS Accounting
8. RFC 3046 DHCP Relay Agent Information Option
9. RFC 3164 BSD Syslog Protocol
10. RFC 3315 DHCP for IPv6
11. RFC 3410 SNMPv3
12. RFC 3411 SNMP Frameworks
13. RFC 3412 SNMP Message Processing
14. RFC 3413 SNMPv3 Applications
15. RFC 3414 SNMPv3 USM
16. RFC 3415 SNMPv3 VACM
17. RFC 3576 RADIUS
18. RFC 3917 IP Flow Information Export
19. RFC 3993 DHCP Subscriber-ID sub-option
20. RFC 3954 NetFlow Services Export v9
21. RFC 4022 TCP MIB
22. RFC 4113 UDP MIB
23. RFC 4293 IPv6

Location	Quantity	Model	Form Factor
CORE NNHC	3	VSP 4850GTSPWR+ Or equivalent	
NMWC	1	VSP 4850GTSPWR+ Or equivalent	
Turning Point	1	VSP 4850GTSPWR+ Or equivalent	

### 3.13 EDGE SWITCH

#### A. Manufacturer

1. Avaya, Cisco or equivalent manufacturer.

#### B. Switch Requirements

1. 10/100/1000 BaseT PoE ports to support connections as listed on the Network Diagram.
2. Coordinate with the NNHC on port quantities.

#### C. Model number

I.e.g., Avaya ERS 4000 or equivalent.



#### D. Physical, Electrical and Reliability

1. Mounting – 19-Inch EIA Rack.
2. Operating Power – 120VAC 60 Hz.
3. Mean Time Between Failures (MTBF): 214,000 hours minimum.
4. Lifetime Warranty on hardware.

#### E. Port Configuration

1. Port Connector Type – RJ45.
2. Number of Ports – 24, 48 as required.
3. Protocol Support – IEEE 802.3 10BaseT, 100BaseTX, 1000BaseT.
4. Auto-Sensing – 10/100/1000 Mbps.
5. Auto-Negotiation – Full/Half Duplex or fixed.

#### F. Stacking Configuration

1. Stacking Configuration – 8 Switches Maximum.
2. Stacking Link – 320 Gbps links and loop-back cable.
3. Optional arrangement of chassis based edge switches will be acceptable. Include proposed arrangement in proposal.

#### G. Uplink Configuration

1. Media Type – multimode OM3 fiber.
2. Uplink Configuration – Dual port to separate blades on core switches.
3. Fail-Over – Automatic to remaining link.
4. Load Balancing – Active-Active Distributed Multilink Trunking or similar.
5. Backbone uplink 10 Gbps.

H. Switch Internal Configuration

- 1. Switching Fabric – at least 48 Gbps.
- 2. Packet Forwarding Rate – 72 Mpps.
- 3. DRAM – 128 Mb.

I. VLAN Support

- 1. VLANs per switch – 250
- 2. VLAN trunking – IEEE 802.1Q
- 3. Quality of Service (QOS) – IEEE 802.1P

J. Switch Administration



- 1. Command Line Interface
- 2. SNMP Applications
- 3. Device manager
- 4. Web Browser Based Administration.



K. Protocols Support

- 1. Simple Network Management Protocol (SNMP)
- 2. Telnet
- 3. Remote Monitoring (RMON) for History, Statistics, Alarm and Events by Port, Port Group or switch.
- 4. Domain Name Service (DNS)
- 5. Trivial File Transfer Protocol (TFTP)
- 6. Network Time Protocol (NTP)
- 7. Address Resolution Protocol (ARP)

L. Switch Security

- 1. MAC Based Port Level Security
- 2. Password Protected Management (In-Band and Out-of-Band)
- 3. Multi-Level Passwords

Quantity	Model	Form Factor
7	ERS 3549GTS-PWR+	
3	ERS 3524 GTS-PWR+	

6	3500-SSC Stack Cable (1.5ft)	
3	3500-SSC Stack Cable (5 Ft)	

### 3.2 WI-FI SYSTEM

A. Manufacturer: Avaya, Cisco or equivalent.

B. General Requirements:

1. The Contractor shall provide, configure, and deploy a new 802.11n MIMO Wi-Fi network as an extension to the Local Area Network provided in the scope of this RFP.
2. The Wi-Fi system shall be a highly secured, scalable network architecture.
3. The Contractor shall provide a high level of security to prevent unauthorized access to the network or wireless intrusion.
4. The Wi-Fi network shall be interoperable with the local area network equipment. The integration of the wireless equipment shall be seamless.
5. There are no prewired WAP outlets in the building. Therefore the contractor is expected by careful study of the available floor plans, physical inspection and wireless deployment survey to determine the numbers of WAPs needed for full coverage and notify NNHC of the additional infrastructure needed.
6. The Contractor shall utilize a site survey tool for designing the Wi-Fi system and heat maps for optimizing the access point locations. The Contractor shall work with the NNHC to deliver a Wi-Fi network with the capacity, reliability, coverage, and performance levels required by the NNHC.

### C. System Requirements:

1. The system shall have redundant wireless controllers such that if one controller is down, the system will, automatically failover to the other controller.
2. Access points shall be manageable from a central application or device.
3. Network access and authenticating shall be fully functional while the centralized controller or manager is off-line.
4. The Contractor shall provide user/device management software for access control and bandwidth use and tracking.
5. The Wi-Fi system shall have a centralized management software to allow for configuration, monitoring, and security of the system. The Contractor shall provide a software solution that seamlessly integrates the Wi-Fi management with the network management software for visualizing and troubleshooting and maintaining the Wi-Fi system.
6. A firewall shall be provided and configured for the Wi-Fi wireless system. Coordinate with the NNHC on security requirements.
7. The Wi-Fi system shall include WPA2 encryption security for the wireless network.
8. The system shall support GRE or IPSEC DMZ tunnels for guest or other Wi-Fi access. The Contractor shall provide a separate wireless guest network meeting the requirements as defined in the LAN workshops.

### D. Standards Support:

1. 802.11 a/b/g/n
2. 802.11i
3. QoS, VLAN, VoWLAN, WMM (802.11e), 802.1p
4. VPN, LDAP, AD, and RADIUS authentication support
5. 802.3af and 802.3at PoE support

### E. Spare Parts:

1. Wireless Access Points (WAPS): 2

## **3.141 BYOD**

**Bring your own device (BYOD)** is the policy of permitting employees to bring personally owned mobile devices (laptops, tablets, and smart phones) to their workplace, and use those devices to access privileged company information and applications. The term is also used to describe the same practice applied to students using personally owned devices in education settings.

BYOD presents a number of security challenges for network managers. It has resulted in data breaches. For example, if an employee uses a smartphone to access the company network and then loses that phone, untrusted parties could retrieve any unsecured data on the phone.

Another type of security breach occurs when an employee leaves the company, they do not have to give back the device, so company applications and other data may still be present on their device.

To guard against security breaches when using BYOD network managers use a combination of technology and practical boundary imposition policies to assist. An identity engine as specified

below is often implemented.

## Identity Engine System Requirements

**Software Ignition Server** System Requirements  
 VMware ESXi versions 4.0 or 4.1 or 5.0  
 Installation on a VMware ESXi server is done using an OVF file which already incorporates the OS Red Hat Enterprise Linux.

**Access Portal**  
 VMware ESXi versions 4.0 or 4.1 or 5.0  
 Installation on a VMware ESXi server is done using an OVF file which already incorporates the OS FreeBSD.

**Dashboard**  
 • Windows XP sp3 (32 bit)  
 • Windows 7 (32 bit or 64 bit)  
 • Windows Server 2003 (32 bit or 64 bit)  
 • Windows Server 2008 (32 bit and 64 bit)

**Guest Manager**  
 • Windows XP sp3 (32 bit)  
 • Windows Server 2003 (32 bit and 64 bit)  
 • Windows Server 2008 (32 bit and 64 bit)  
 • Microsoft IE version 6.0 or later  
 • Firefox version 1.5 or later

**CASE Administration**  
 • Windows XP sp3 (32 bit)  
 • Windows Server 2003 (32 bit)  
 • Windows Server 2008 (32 bit)  
 • Microsoft IE version 6.0 or later  
 • Firefox version 1.5 or later

### Comments

- The VM requires a x86\_64 capable environment
- Minimum 2 CPUs
- Minimum 2 GB of memory
- Minimum 30 GB available disk storage
- Minimum 1 physical NIC (preferably 3 NICs)
- 3 Logical NIC cards
- VMware lists on its site supported hardware platforms for ESXi: <http://www.vmware.com>

- The VM requires a x86\_64 capable environment
- Minimum 2 CPUs
- Minimum 2 GB of memory
- Minimum 10 GB available disk storage • Minimum 2 physical NIC (preferably 3 NICs). • VMware lists on its site supported hardware platforms for ESXi: <http://www.vmware.com>

- Minimum 2GB RAM memory

- Minimum 2GB RAM memory

- Minimum 2GB RAM memory

### 3.3 SECURITY EQUIPMENT

- A. Manufacturer: Avaya, Cisco, Juniper, Checkpoint or equivalent.
- B. Adaptive Security Appliances (ASA): The Contractor shall provide and configure ASA series sized for the NNH's LAN, VoIP, and Wi-Fi system. The ASA appliance shall be a redundant configuration as shown on the Network Diagram in Section 5.
- C. Intrusion Prevention System (IPS): The Contractor shall provide and configure the IPS to the security and risk level requirements defined in the LAN workshops.
- D. Firewalls: The Contractor shall provide and configure a Firewall to provide security and protect the network, phone system, and Wi-Fi. The Contractor shall configure the firewall with the security requirements defined below.

The Firewall shall have the following minimum specifications:

<b>NNHC FIREWALL</b>	<b>Specification</b>
<b>Maximum Performance and Capacity</b>	
Firewall performance	400 Mbps
3DES+SHA-1 performance	175 Mbps
Concurrent sessions (Baseline / Advanced)	64,000 / 128,000
New sessions/second	11,500
Policies	4,000
Interfaces	8 10/100 Base-T
<b>Mode of Operation</b>	
Layer 2 mode (transparent mode)	Yes
Layer 3 mode (route and/or NAT mode)	Yes
NAT (Network Address Translation)	Yes
PAT (Port Address Translation)	Yes
Policy-based NAT	Yes
Virtual IP	4



Mapped IP	4,000
MIP/VIP Grouping	Yes
Users supported	Unrestricted
<b>Firewall</b>	
Number of network attacks detected	31
Network attack detection	Yes
DoS and DDoS protections	Yes
TCP reassembly for fragmented packet protection	Yes
Malformed packet protections	Yes
IPS (Deep Inspection FW) (Baseline / Advanced)	No / Yes
Content Inspection	Yes
VLANs (Baseline / Advanced)	0 / 32
Routing Protocols (Baseline / Advanced)	RIPv1/v2 only / RIPv1/v2 OSPF/BGP
High Availability (Baseline / Advanced)	Active-Passive only / All modes
<b>VPN</b>	
Concurrent VPN tunnels (Baseline / Advanced)	500 / 1,000
Tunnel interfaces	256
DES (56-bit), 3DES (168-bit) and AES encryption	Yes
MD-5 and SHA-1 authentication	Yes
<b>Physical</b>	
Dimensions	Not greater than 2U
Weight	Max 15 lbs.
Power Supply (AC)	90 to 264 VAC, 45 watts maximum

Power Supply (DC)	-36 to -72 VDC, 50 watts maximum
Operating Temperature	23 to 122° F, -5 to 50° C
Non-Operating Temperature	-4 to 158° F, -20 to 70° C

- E. Security Device Manager: The Contractor shall provide and configure the firewall appliance management software.
- F. The Contractor shall provide and configure a suitable web security system with four (4) year software maintenance package.
- G. Refer to the Network Diagram for quantities and minimum configurations. Final configuration shall be coordinated with the NNHC through the network workshops.
- H. A third party vendor shall audit the security of the network. Pending the results of the security audit, the Contractor shall make revisions necessary to meet industry standard and NNHC security requirements.

## 4.0 IMPLEMENTATION

## 4.1 PROJECT MANAGEMENT

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**4.1.1. PROJECT PLAN - BIDDERS ARE REQUIRED TO SUPPLY A COMPLETE DESCRIPTION OF THE KEY ACTIVITIES REQUIRED FOR THE INSTALLATION OF THE PROPOSED SYSTEM**

**4.1.2. TRANSPARENCY - IT IS ESSENTIAL THAT THE INSTALLATION OF THE NEW SYSTEM BE AS TRANSPARENT AS POSSIBLE TO THE USERS. THERE SHOULD BE NO TELEPHONE SERVICE INTERRUPTIONS, NO INTERIM CHANGES IN DIALING PROCEDURES, AND NO PERCEIVED DEGRADATION IN THE QUALITY OF SERVICE.**

### 4.1.3. RESPONSIBILITY MATRIX AND PROJECT SCHEDULE –

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*A Master project schedule must be included, along with a work responsibility matrix, identifying the tasks the vendor will perform and the tasks NNHC is expected to perform to successfully implement the new system.*

## 4.2. INSTALLATION REQUIREMENTS

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**4.2.1. RESPONSIBILITY - THE SELECTED VENDOR IS SOLELY RESPONSIBLE FOR THE COMPLETE TURN-KEY ENGINEERING OF THE NEW TELECOMMUNICATIONS SYSTEM AND ALL INTERCONNECTING FACILITIES.**

**4.2.2. INITIAL WORK - VENDOR WILL PERFORM NETWORK ASSESSMENT, STATION REVIEWS, DATA BASE PREPARATION, AND ORIGINAL PROGRAM INITIALIZATIONS.**

- A. ALL COPPER AND FIBER-OPTIC JUMPERS INSTALLED SHALL BE NEATLY ARRANGED AND LABELED ACCORDING TO THEIR CIRCUIT NUMBERS.**
  - B. ALL EQUIPMENT SHALL BE CLEANED AND FREE OF DIRT, DEBRIS, AND OTHER BLEMISHES.**
  - C. ALL DEBRIS AND PACKING MATERIALS SHALL BE REMOVED FROM NETWORK EQUIPMENT ROOMS AND DISPOSED OF AT AN OFF-SITE OR DESIGNATED DISPOSAL LOCATION.**
  - D. A COMPLETE DRAWING SHALL BE PRODUCED IN VISIO FORMAT THAT REFLECTS ALL ITEMS OF NETWORK EQUIPMENT, ALL INTERFACES AND CORRESPONDING CIRCUIT NUMBERS.**
  - E. ALL SWITCH CONFIGURATIONS SHALL BE DOCUMENTED IN BOTH PRINTED AND ELECTRONIC FORM AND DELIVERED TO A DESIGNATED REPRESENTATIVE OF THE NNHC.**
  - F. A MASTER LIST OF ALL IP ADDRESSING FOR BOTH LAN AND LAN USER COMPONENTS SHALL BE COMPILED FOR BOTH NETWORK EQUIPMENT AND END USER EQUIPMENT.**
- END USER SYSTEMS USING DHCP ARE EXEMPT FROM THIS REQUIREMENT AND MUST BE IDENTIFIED AS DHCP SYSTEMS.**

*G. RACK LAYOUTS SHALL BE COORDINATED WITH THE STRUCTURED CABLING CONTRACTOR FOR COMPLETE RECORD DOCUMENTATION OF EQUIPMENT LOCATIONS IN EACH RACK/CABINET*

## **5 SYSTEM CONFIGURATION**

**5.1 THE NETWORK SHALL BE CONFIGURED AS INDICATED HEREIN AND IN COOPERATION WITH NNHC. CONFIGURATION SHALL NOT BE LIMITED TO THE EQUIPMENT PROVIDED BUT SHALL ALSO INCLUDE THE EXISTING SWITCHES AND OTHER EQUIPMENT AS NECESSARY.**

### **5.1.1 CONFIGURATION WORKSHOPS:**

- 1. PRIOR TO INSTALLATION, THE CONTRACTOR INCLUDING THE ON STAFF CERTIFIED ENGINEER SHALL MEET WITH NNHC DEPARTMENT IN WEEKLY WORKSHOPS FOR A MINIMUM OF 4 SESSIONS.*
- 2. WORKSHOPS SHALL DEFINE THE PROCESS OF INSTALLATION AND CONFIGURATION OF THE NETWORK COMPONENTS.*
- 3. THE CERTIFIED ENGINEER SHALL CONFIGURE AND TEST THE NETWORK BUILDOUT PRIOR TO INSTALLATION.*

### **5.1.2 ADDRESSING PLAN**

*A COMPLETE ADDRESSING PLAN FOR THE DATA NETWORK SHALL BE DEVELOPED AS PART OF THIS WORK THROUGH COORDINATION WITH THE NNHC. THE CONTRACTOR SHALL FULLY COORDINATE THE ADDRESSING SCHEME WITH THE NNHC.*

### **5.1.3 ROUTING PROTOCOLS**

*THE NNHC IP ROUTING PROTOCOL USED ON THE NETWORK SHALL BE DEVELOPED AS PART OF THIS WORK PROGRAM THROUGH COORDINATION WITH THE NNHC.*

### **5.1.4 PERFORMANCE VERIFICATION TESTING**

*BEGINNING 1 MONTH PRIOR TO THE ANTICIPATED PERFORMANCE TESTING THE CONTRACTOR SHALL, MEET WEEKLY WITH THE OWNER TO DETERMINE THE PROGRAMMING AND DISPLAY REQUIREMENTS OF THE SYSTEM. THE CONTRACTOR SHALL UTILIZE THE INFORMATION GATHERED IN THE MEETING TO PREPARE A SERIES OF PERFORMANCE VERIFICATION TEST CHECKLISTS. THE PERFORMANCE TESTS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY NNHC PRIOR TO TESTING. UPON AN APPROVED TEST PLAN THE CONTRACTOR SHALL PERFORM A PRE-PERFORMANCE VERIFICATION TEST TO VERIFY THE SYSTEM IS COMPLETELY OPERATIONAL PRIOR TO REQUESTING THE PERFORMANCE VERIFICATION TEST SCHEDULE. THE*

*CONTRACTOR SHALL SUBMIT A PROPOSED SCHEDULE FOR TESTING WITH A COPY OF THE SUCCESSFUL PRE-PERFORMANCE VERIFICATION CHECKLISTS AS PROOF OF READINESS.*

*THE PERFORMANCE VERIFICATION TEST SHALL CONSIST OF MULTIPLE CHECKLISTS THAT DESCRIBE EACH STEP REQUIRED TO OPERATE THE SYSTEM. OPERATIONAL FUNCTIONS SUCH AS LOGIN AT GATE LOCATION FOR INBOUND OR OUTBOUND FLIGHT FROM WORKSTATION LOCATIONS, MODIFYING FLIGHT DATA, VISUAL PAGING, AND OTHER ITEMS DISCUSSED IN THE WEEKLY MEETINGS SHALL BE ADDRESSED. THESE CHECKLISTS SHOULD HAVE CHECKBOXES FOR APPROVAL AND SIGNATURE LINES FOR BOTH THE CONTRACTOR AND NNHC PERSONNEL TO SIGN-OFF ON AS THE TEST IS SUCCESSFULLY COMPLETED.*

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## 5.2 FACILITY REQUIREMENTS

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### **5.2.1 BIDDERS MUST FURNISH ALL SPACE, POWER, AND ENVIRONMENTAL REQUIREMENTS FOR THE PROPOSED TELEPHONE SYSTEM AND OPTIONAL VOICE MESSAGING EQUIPMENT.**

- **SPACE** – PROVIDE THE PHYSICAL DIMENSIONS OF THE PROPOSED EQUIPMENT. SEE ATTACHED SPECIFICATION SHEET. ALL SYSTEM REQUIREMENTS UL APPROVED.
- **POWER** - ALL POWER REQUIREMENTS, INCLUDING ANY SPECIAL CONDITIONING OR GROUNDING REQUIREMENTS.
- **HEAT** - VENDOR MUST PROVIDE HEAT DISSIPATION FOR PROPOSED SWITCH ROOM AND THE RECOMMENDED SAFE TEMPERATURE OPERATING RANGE FOR THE PROPOSED SYSTEM.
- **FLOOR LOADING** - VENDOR MUST PROVIDE COMPLETE FLOOR LOADING REQUIREMENTS.

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## 5.3 TRAINING

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### **5.3.1 REQUIREMENTS - THE SUCCESSFUL BIDDER IS REQUIRED TO CONDUCT END-USER TRAINING ON NNHC PREMISES, TAILORED SPECIFICALLY TO NNHC PARTICULAR REQUIREMENTS (E.G., CONSOLE OPERATOR, MESSAGE CENTER OPERATOR, SECRETARY, AND PROFESSIONAL). TRAINING SHALL BE PROVIDED FOR NNHC TECHNICAL AND OPERATIONS STAFF WHO WILL MAINTAIN AND OPERATE THE IP TELEPHONY SYSTEM AND**

**LOCAL AREA NETWORK. THIS TRAINING SHALL RESULT IN FACTORY CERTIFICATION OF EACH INDIVIDUAL IN THE AREAS FOR WHICH THEY WILL BE RESPONSIBLE. ALL COSTS FOR THIS TRAINING SHALL BE INCLUDED IN THE COST FOR THIS WORK. TRAINING SHALL INCLUDE BUT**

*NOT LIMITED TO NETWORK OPERATION, CONFIGURATION, TRAFFIC MONITORING, TROUBLESHOOTING, REPAIR, AND ROUTINE MAINTENANCE. TRAINING SHALL INCLUDE CLASSROOM TRAINING AND HANDS-ON TRAINING ON THE ACTUAL NETWORK. EACH TRAINEE SHALL BE PROVIDED WITH FACTORY PRODUCED TRAINING MATERIALS ON THE PORTIONS OF THE NETWORK THEY WILL BE RESPONSIBLE FOR. ONE COMPLETE AND REPRODUCIBLE SET OF MATERIALS SHALL BE PROVIDED FOR FUTURE TRAINING USE.*

*5.3.2 TRAINING PLAN - VENDOR WILL ALSO PROVIDE A TRAINING PROGRAM AND TRAINING MATERIALS FOR DESIGNATED **NNHC** PERSONNEL WHO WILL TRAIN FUTURE EMPLOYEES.*

*5.3.3 DESCRIPTION - FOR EACH PRODUCT APPLICATION PROPOSED, PROVIDE A DETAILED DESCRIPTION OF THE TRAINING THE VENDOR WILL PROVIDE.*

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## 6.0 VENDOR SERVICE

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### 6.1 MAINTENANCE AND WARRANTY

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*6.1.1 COMPLETE MAINTENANCE AND SUPPORT SERVICES MUST BE INCLUDED FOR THE LIFETIME OF THE SYSTEM. THIS SERVICE IS TO BE MADE AVAILABLE ROUND THE CLOCK SEVEN DAYS A WEEK (24X7).*

*6.1.2 DEFECTIVE PARTS - DURING THE WARRANTY PERIOD AND ANY SUBSEQUENT MAINTENANCE AGREEMENT, ANY DEFECTIVE COMPONENTS SHALL BE REPAIRED OR REPLACED AT NO COST TO NNHC.*

### 6.2 LOGISTICAL SUPPORT

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*6.2.1 BIDDER SHOULD IDENTIFY THE ADDRESS OF THE VENDOR'S LOCAL SERVICE CENTERS AND THE NUMBER OF SERVICE PERSONNEL TRAINED ON THE PROPOSED SYSTEM. RESPONSE:*

*The Vendor (Vendor Company Address 1) (Vendor Company Address 2) (Vendor Company Address 3)  
Trained Personnel – (**Number**) Engineers with various levels of training to support the proposed system.*

*6.2.2 INCLUDE IN THIS SECTION ANY OTHER SUPPORT LEVELS IN THE LOCAL AREA AVAILABLE TO **NNHC** FOR THE MAINTENANCE OF THE PROPOSED SYSTEM.*

## 6.3 REPAIR RESPONSE

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**6.3.1 REPAIR COMMITMENT - THE BIDDER MUST INCLUDE A DESCRIPTION OF THE BIDDER'S REPAIR COMMITMENT FROM TIME OF TROUBLE DISCOVERY THROUGH THE TIME THE TROUBLE IS CLEARED.**

**6.3.2 RESPONSE TIME - NNHC IS GUARANTEED A RESPONSE TIME OF NO MORE THAN 2 HOURS FOR ALL MAJOR SYSTEM PROBLEMS AND A MAXIMUM OF 12 HOURS RESPONSE TO OTHER SYSTEM PROBLEMS.**

**6.3.3 MAJOR/MINOR PROBLEMS - BIDDERS MUST DESCRIBE THEIR DEFINITIONS OF MAJOR AND MINOR PROBLEMS.**

**6.3.4 REPLACEMENT TIME - EXPLAIN THE AMOUNT OF TIME REQUIRED FOR FULL REPLACEMENT OF THE CENTRAL OPERATING HARDWARE/SOFTWARE OF THE SYSTEM, ASSUMING A SUITABLE SITE EXISTS FOR LOCATING THE REPLACEMENT COMPONENTS.**

**6.3.5 EMERGENCY INSTALLATION - HOW LONG DOES IT TAKE TRAINED PERSONNEL TO INSTALL AND LOAD OPERATING SYSTEM SOFTWARE AND DATABASE SOFTWARE, IF A MAJOR DISASTER DESTROYS THE CALL PROCESSING COMPONENT (GATEKEEPER) OF THE SYSTEM?**

## 7.0 FINANCIAL REQUIREMENTS

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### 7.1 PAYMENT

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**BIDDER UNDERSTANDS THAT NNHC WILL CONTRACT SERVICES FOR A 36 MONTH PERIOD AND WILL MAKE 36 EQUAL PAYMENTS OVER THAT TIMEFRAME.**

**BIDDER WILL SUBMIT AND DETAIL PAYMENT TERMS FOR THE SALE OF EQUIPMENT.**

## 8.0 TERMS AND CONDITIONS

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**8.0.1 DAMAGE LIABILITY - THE SUCCESSFUL VENDOR IS LIABLE AND RESPONSIBLE FOR ANY DAMAGE TO THE PREMISES (E.G., FLOOR, WALLS, ETC.) CAUSED BY**

VENDOR PERSONNEL OR EQUIPMENT DURING INSTALLATION AND IS RESPONSIBLE FOR THE REMOVAL OF ALL PROJECTRELATED DEBRIS.

**8.0.2 PERMITS** - THE VENDOR SHALL OBTAIN AND PAY FOR ANY PERMITS AND LICENSES REQUIRED FOR THE PERFORMANCE OF THE WORK, POST ALL NOTICES REQUIRED BY LAW, AND COMPLY WITH ALL LAWS, ORDINANCES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK, AS SPECIFIED HEREIN. ON ANY WORK THAT REQUIRES AN INSPECTION CERTIFICATE ISSUED BY LOCAL AUTHORITIES, NATIONAL BOARD OF FIRE UNDERWRITERS, OR ANY OTHER GOVERNING BODY, SUCH INSPECTION CERTIFICATE(S) SHALL BE OBTAINED BY AND PAID FOR BY THE VENDOR. THE CHOSEN VENDOR SHALL PROCURE ALL REQUIRED CERTIFICATES OF ACCEPTANCE OR OF COMPLETIONS ISSUED BY THE STATE, MUNICIPAL OR OTHER AUTHORITIES AND MUST DELIVER THESE TO SHELBY COUNTY.

**8.0.3 INSURANCE** - THE VENDOR SHALL, AT VENDOR EXPENSE, PROCURE AND MAINTAIN SATISFACTORY PUBLIC LIABILITY AND CASUALTY INSURANCE TO ADEQUATELY PROTECT THE VENDOR'S PERSONNEL AND NNHC AGAINST DAMAGES FOR BODILY INJURY, INCLUDING DEATH, THAT MAY ARISE FROM OPERATIONS UNDER THIS CONTRACT, WHETHER SUCH OPERATIONS ARE BY THE VENDOR OR BY THE VENDOR'S SUBCONTRACTOR, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE VENDOR.

**Minimum levels of coverage are as follows:**

Workers' Compensation

Workers' Compensation coverage which is in accordance with the laws of Saint Lucia.

Comprehensive Liability

Comprehensive General Public Liability coverage with minimum Limits of Bodily Injury - \$500,000 per person, \$1,000,000 per accident, \$250,000 per occurrence of property damage. Blanket Contractual and completed operations coverage shall be included with the same minimums.

Comprehensive Auto

Comprehensive Auto Liability with the same minimum limits as for Comprehensive General Public Liability.

**Liability coverage shall name NNHC as an additional insured. The Vendor agrees to furnish Certificate of Insurance verifying coverage for insurance as indicated above to NNHC prior to starting work on this contract.**

**8.0.4 VENDOR RESPONSIBILITY** - UNLESS OTHERWISE STIPULATED, VENDOR SHALL PROVIDE, AND PAY FOR, ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRANSPORTATION, AND OTHER FACILITIES NECESSARY FOR THE



*PERFORMANCE AND COMPLETION OF THE WORK. VENDOR SHALL VERIFY CONDITIONS AT THE BUILDING, PARTICULARLY DOOR OPENINGS AND PASSAGES. ANY PIECES TOO BULKY FOR EXISTING FACILITIES SHALL BE HOISTED AND OTHERWISE HANDLED WITH APPARATUS AS REQUIRED.*

**8.0.5 SUBCONTRACTORS** - *The names and addresses of all proposed subcontractors shall be furnished as to NNHC upon request. The selection of subcontractors must be acceptable to NNHC. The Vendor shall at all times be the prime Vendor holding ultimate and final responsibility for the actions and work of each of Vendor's subcontractors. Vendor shall be fully responsible to NNHC for the acts and omissions of its subcontractors. If, in NNHC reasonable judgment, there is any failure on the part of subcontractors to perform their work in strict accordance with the specifications, Vendor, after due notice from NNHC, shall discharge the subcontractor. This shall in no way release Vendor from its obligations and responsibility under the contract. The items and the provisions of the contract documents that are applicable to its work shall bind each subcontractor. Nothing contained herein shall create any contractual relation between any subcontractor and NNHC.*

**8.0.6 RFP RESPONSES** - *ALL MATERIALS SUBMITTED BY THE VENDOR IN RESPONSE TO THIS RFP BECOME THE SOLE PROPERTY OF NNHC UPON RECEIPT OF THE PROPOSAL. THE MATERIAL CONTAINED IN THESE RESPONSES WILL BE APPENDED TO THE FINAL CONTRACT, FURTHER DEFINING THE CONTRACTUAL RESPONSIBILITIES OF THE VENDOR.*

## 9.0 NETWORK DIAGRAM

