

**REQUEST FOR PROPOSAL**

**NEPAL AIRLINES CORPORATION  
CONTINUING AIRWORTHINESS MANAGEMENT DEPARTMENT  
TRIBHUVAN INTERNATIONAL AIRPORT  
KATHMANDU, NEPAL**

**TENDER DOCUMENT  
FOR  
WEB BASED SOFTWARE FOR CAMO, AMO, QA & Logistics Functions**

**REF: -----**

(This document contains 29 pages including cover page)

**TENDER DOCUMENT FOR WEB BASED SOFTWARE FOR CAMO, AMO,  
QA & Logistics Functions**

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## 1.0 Sealed Tender Notice

**NEPAL AIRLINES CORPORATION  
CONTINUING AIRWORTHINESS MANAGEMENT  
DEPARTMENT TRIBHUVAN INTERNATIONAL AIRPORT  
KATHMANDU, NEPAL**

### **SEALED TENDER NOTICE**

(International Competitive  
Bidding) First Date of Publication  
(15-Feb-2017)

1.1 Nepal Airline Corporation (NAC) operates and maintains a fleet of following types of aircraft: -

<b>Nepal Airline Corporation Service Fleet Aircraft</b>		
<b>Aircraft Type</b>	<b>In Service</b>	<b>In Order</b>
Airbus A320-200	2	
Airbus A330-200	0	2
Boeing 757-200CB	1	
Harbin Y-12E	2	2
De Havilland Canada DHC-6/300	3	
Xian MA-60	2	
<b>Total</b>	<b>10</b>	<b>04</b>

1.2 Sealed tenders are invited by Continuing Airworthiness Management Department, Nepal Airlines Corporation (NAC), Kathmandu from the OEMs of Commercially Off-The shelf (COTS) web based software solution for CAMO, AMO, QA and Logistics functions which have already been enlisted as per EOI before.

1.3 The Request for Proposal (RFP) has been addressed to the following shortlisted Software Vendors:

- a. **AAR - WINGS**
- b. **Aviation Engineering & Planning Services Limited (AEPS) – AD Software**
- c. **Sheorey Digital Systems Pvt. Ltd., (Mumbai, India) - ARMS**
- d. **ELAM Nepal Pvt Ltd - RAMCO**
- e. **Rusada - ENVISION**
- f. **Seabury Solutions - ALKYM**
- g. **Swiss Aviation Software Ltd - AMOS**
- h. **Trax - TRAX**

1.4 The software offered should cover the following mandatory features

- i. At least 100 registered users, including at least 50 concurrent users, at the time of installation and provision for increasing the users.
- ii. Software must be web based and can be accessed anywhere by computer connected with internet.
- iii. The software should be able to address all the aircrafts along with the order as mentioned in item no 1.1 without any additional charge.

- iv. The software company should provide all the data in Readable format whenever requested by NAC.
- v. The software vendor should be able to migrate all the data from the existing software being used by NAC for similar purpose.

During the period of contract since the implementation of the Web based software, customization as per requirement of NAC shall be free of cost for at least 1 year and any hidden cost shall be recovered from software vendor. The software vendor shall furnish the certified commitment letter for the above requirements at the submission of proposals.

**1.5** The selection of the software solution will be based on both Technical & Functional evaluation and financial evaluation, as carried out by Nepal Airline Corporation (NAC). Only Software Vendors who meet minimum 80% of the Technical & Functional Requirements as stated in the Technical Bid (Appendix “A”) response will be allowed to participate in the Financial Bid (Appendix “B”) response stage.

**1.6** The Tender document can be downloaded from Nepal Airline Corporation website [www.nepalairlines.com.np](http://www.nepalairlines.com.np).

**1.7** Guidelines for submission of the tender response are elaborated in Section 2.

**1.8** Fully completed tender response is to be submitted in a sealed envelope. The main outer envelope should contain another two separate sealed envelopes; one sealed envelope containing TECHNICAL BID and the second sealed envelope containing the FINANCIAL BID. The sealed Tender response consisting of two sealed envelopes from each participating bidder must reach the address mentioned below not later than 1400 hrs on local time within 45 days (Forty Five) calendar days from the first date of publication of this notice in daily newspaper of national circulation and on NAC’s website mentioned above. Sealed tender response or modification/s of tender response received after the due date and time will not be accepted. Tender response received through electronic means of communications: Telex, Fax, e-mail etc. shall not be considered.

**1.9** The Technical Proposal shall be placed in a sealed envelope clearly marked “**TECHNICAL BID,**” and Financial Proposal in a sealed envelope clearly marked “**FINANCIAL BID**” and warning: “**DO NOT OPEN WITH THE TECHNICAL BID.**” Both envelopes shall be placed into an outer envelope and sealed. This outer envelope shall bear the submission address and be clearly marked, “**DO NOT OPEN, EXCEPT IN PRESENCE OF THE EVALUATION COMMITTEE**”.

**1.10** The sealed main outer envelope containing and only TECHNICAL BID will be opened in the Continuing Airworthiness Management Department of Nepal Airline Corporation (NAC) at 1400 local time hrs on the next day of the closing date for submission of the tender in presence of the bidder or his representative/nominee or even in their absence.

**1.11** In case, the last date of submission of the sealed tender response as prescribed above falls on a holiday, the last date of submission & sealed outer envelope opening will automatically get extended to the same time on the corresponding next working

day of Nepal Airline Corporation (NAC).

**1.12** Nepal Airline Corporation (NAC) reserves absolute right to accept or reject any or all tenders in full or part thereof without assigning any reason whatsoever.

**1.13** The sealed tender should be submitted to the following address: -

Nepal Airlines Corporation  
Continuing Airworthiness Management Department  
Tribhuvan International Airport  
Kathmandu, Nepal  
Tel: +977 1 4470670, Fax: +977 1 4470768  
Email: engdept@nac.com.np, estd@nac.com.np  
Website: <http://www.nepalairlines.com.np> (Notice/Announcement Page)

## **2.0 Instructions to Bidder**

### **2.1 General**

It is important that the bidders should in their own interest, carefully study and closely follow the instructions mentioned below in conjunction with the tender notice published, which is also attached to this document.

This tender consists of two parts.

The first part of the tender is the **Technical & Functional Requirements** for the proposed software solution as given in **Appendix “A”** of this tender document.

The second part of the tender is the **Financial Proposal**, as given in **Appendix “B”** of this tender document.

### **2.2 Tender Document**

The tender document consists of the following: -

- a. Tender Notice
- b. Instructions to the Bidders
- c. General Conditions of the contract to be awarded
- d. Schedule of the Work Scope and Other Conditions
- e. Tender response
- f. Technical & Functional Requirements (Appendix “A”)
- h. Financial Proposal (Appendix “B”)

### **2.3 Delivery of the Sealed Tender Response**

Response to the tender must be provided against each of the points given in Appendix “A” and Appendix “B”. The tender document and its Appendix “A”, & “B” can download from the website of Nepal Airline Corporation (NAC), as given above in this tender document.

Response to the points listed in Appendix “A” is the “**Technical Proposal**”. The sealed envelope containing response to Appendix “A” (i.e. Technical Proposal) must be clearly super scribed in capital letters as “**TECHNICAL PROPOSAL**”. **The Technical Proposal shall not include any financial information.**

Response to Appendix “B”, as per the format given, is the ‘Financial proposal’. The sealed envelope containing financial bid must be clearly super scribed in capital letters as “**FINANCIAL PRPOSAL**”.

The sealed main large outer envelope containing the sealed “Technical Proposal” envelope and sealed “Financial Proposal” envelope must be clearly super scribed in capital letters as follows: -

## **FOR SUBMISSION IN NEPAL**

### **TENDER DOCUMENT FOR WEB BASED SOFTWARE FOR CAMO, AMO, QA & Logistics Function**

#### **DO NOT OPEN, EXCEPT IN PRESENCE OF THE EVALUATION COMMITTEE.**

The main, large sealed envelope should be addressed to:  
Continuing Airworthiness Management  
Department, Deputy Director  
Engineering Services and Training  
Division Nepal Airlines Corporation  
Tribhuvan International Airport, Kathmandu,  
Nepal Tel: +977 1 4470670, Fax: +977 1  
4470768  
E mail: [engdept@nac.com.np](mailto:engdept@nac.com.np); [estd@nac.com.np](mailto:estd@nac.com.np)

The envelope should reach not later than the date and time prescribed in the Tender notice published in the Nepal Airline Corporation (NAC) website. Sealed tender or modification/s of the tender received after the stipulated date and time for submission will not be considered, whatever the cause maybe.

#### **2.4 Preparation and completeness of the tender response**

The bidder must fill in properly his response against ALL ITEMS in Technical Proposal (Appendix “A”) and in Financial Proposal (“Appendix “B”), as per the Appendix of this tender document.

The selection of the software solution will be based on both Technical & Functional evaluation and financial evaluation, as carried out by Nepal Airline Corporation (NAC). For the sake of uniformity, the price quoted against each item in the financial response/offer format (Appendix “B”) should be in **US Dollars**. If cost of any item is intended to be kept free, it should be written n/a.

Bidders are required to mandatorily fill in all the required information sought in their response to this tender. **The information /commitment should be clearly written both in figures and words, where applicable. If the figure does not match with the words, the words will be considered valid.**

Bidder should duly complete, sign and put his company seal or stamp on each page of the tender response forms. Any erasure/amendment/alteration or change should be initialed by the person signing the tender response forms.

## **2.5 Validity of the Prices/Rates/Offers Quoted**

The bidder should quote firm prices/rates/offers that shall remain valid for acceptance for the entire contract period commencing from the date of entering into contract. For purposes of this RFP, quoted to be provided by the bidder will be valid for a minimum period of three (3) Years. The Contract period may be extended with the mutual consent of both the parties based on the performance of the system.

## **2.6 Information about the Authorized Representative/Agent to be furnished**

If the bidder has already appointed a local agent or representative in Nepal, he must mention the name(s) & address of local agent(s) /representative(s). The rate/amount & the mode of commission/remuneration being paid to such agent/representative should also be mentioned in a separate letter and should be enclosed along with the tender response. Sealed tender submitted at Kathmandu by person/s other than the bidder himself must be accompanied by a letter certifying identification of the bearer.

## **2.7 Interpretation of the Tender document**

Inquiries regarding clarification/interpretation in connection with this tender document should be addressed to: -

Continuing Airworthiness Management Department  
Dy. Director  
Engineering Services & Training Division  
Nepal Airlines Corporation  
Tribhuvan International Airport, Kathmandu,  
Nepal Tel: +977 1 4470670, Fax: +977 1  
4470768  
E mail: [engdept@nac.com.np](mailto:engdept@nac.com.np); [estd@nac.com.np](mailto:estd@nac.com.np)

Such inquiries and official replies may be circulated to other bidders by NAC, if deemed appropriate.

Inquiries regarding clarification/interpretation mentioned as above must be sent to reach at least 07 (seven) days prior to the expiry date fixed for submission of the sealed tender response. Nepal Airline Corporation (NAC) will not be held responsible for any oral instructions, explanations and interpretations made by any of the employees of Nepal Airline Corporation (NAC) other than the Dy. Director, Engineering Services of Continuing Airworthiness Management Department.

## **2.8 Correspondence**

All correspondence in connection with the sealed tender and subsequent contract will be in English language.



## 2.9 Deviation

The Bidder must provide response to this tender document in accordance with the contents of this tender document and the forms and formats therein. If the bidder requires citing any deviation to any of the items asked for in the form/format, it must be specifically mentioned in the tender response/form. Such deviations will not be binding on the part of Nepal Airline Corporation (NAC) if they conflict in any way with requirements of the contract unless they are incorporated in the final agreement/contract.

## 2.10 Procedure of Evaluation of the Tender response (Evaluation criterion)

The selection of the software solution will be based on both Technical &Functional evaluation and Financial evaluation, as carried out by Nepal Airline Corporation (NAC).

Technical &Functional evaluation of the software will be carried out by the Evaluation committee based on on-site DEMO presented by the Software Vendor to NAC. Technical evaluation will be done on the basis of 130 (one hundred thirty) weighted criteria as mentioned in Appendix A. Each criteria has been given an appropriate weightage. Any of the criteria, if not complied or left blank, then the rating 0(zero) will be awarded to the particular criteria itself and the score will be calculated accordingly. NAC shall inform all vendors of the dates for their on-site demo. All proposals failing to achieve minimum 80% of the technical score will be rejected.

Evaluators of the Technical & Functional Response (Appendix A) shall have no access to the Financial Proposals until the technical evaluation is concluded.

After the Technical evaluation, NAC shall notify those software vendors who proposals did not meet the minimum requirement (80%) and their Financial Bid will be returned unopened after the completion of selection procedure. NAC shall simultaneously notify software vendors that scored the minimum qualifying marks, indicating the date and time set for opening the Financial Proposal.

The Financial proposal evaluation of those software vendors, who meet the minimum technical requirement, will be done on the basis of three (criteria) as mentioned in Appendix B. For the sake of uniformity, the price quoted against each item in the financial response (Appendix “B”) should be in US Dollars. **The information /commitment should be clearly written both in figures and words, where applicable. If the figure does not match with the words, the words will be considered valid.** The Financial Proposal shall be opened in the presence of the Authorized Software Vendors representatives.

The lowest financial proposal will be given a financial score of 100 points. The financial

score of the other financial proposal will be computed on the basis of lowest financial proposal. Proposals will be ranked according to their combined technical and financial scores. The software vendor(s) achieving the highest combined Technical (80%) and Financial (20%) score will be invited for negotiation. If the Software Vendor fails to sign an agreement, then NAC will invite the software vendor with the second highest score and soon.

### **2.11 Negotiations**

- a. Negotiations will include a discussion of the Technical Proposal, the proposed methodology (work plan), any suggestions made by the Software Vendor to improve the Negotiations Terms. NAC and Software Vendor will then work out final Terms. Price negotiation will be in exceptional cases with the bidder who is deemed the winner of the contract as per the evaluation process mention in the RFP. Software Vendors are therefore requested to submit the best quote in the initial stage itself and to clearly defining the inputs required from NAC to ensure satisfactory implementation of the assignment.
- b. The negotiations will conclude with a review of the draft form of the contract. The Software vendor shall submit the true presentation of the system to NAC before the contract entered. If negotiations fail and not designed as per plan, NAC will invite the Software Vendor whose proposal received the second highest score to negotiate a Contract

### **2.12 Award of Contract**

The Software Vendor, with whom agreement is reached following negotiation, shall be selected for approval of its proposal and NAC shall notify its intention to accept the proposal to the selected Software Vendor and other short-listed Software Vendors within 7 days of selection of the winning proposal.

### **2.13 Right to Accept or Reject the Tender**

Nepal Airline Corporation (NAC) reserves absolute right to accept or reject any or all tender responses or part thereof, should it be deemed in the interest of Nepal Airline Corporation (NAC) to do so. The lowest price/rate/offer or any tender response may not necessarily be accepted. Without derogating from the generality of the above, Nepal Airline Corporation (NAC) may reject any tender if: -

- The sealed tender response forms are incomplete or all items in the forms/formats are not filled in
- The sealed tender response document/forms/formats are not duly signed by the bidder or his authorized person or the tender document is not properly sealed if it is submitted by the bidder/authorized representative/agent within Nepal

- The sealed tender is not submitted within stipulated date and time
- The technical information/commitment are not firmly stated as per the format/form of the tender document
- The prices/rates/offers are not firmly quoted as per the format of the proposal
- There is any condition mentioned in the tender document which the bidder considers essential but contradicts the tender document prescribed by Nepal Airline Corporation (NAC)
- The bidder has already appointed a local agent or representative in Nepal, but does not declare the name/address of the agent or representative and does not disclose the amount & mode of commission/remuneration being paid to such agent/representative

### **3.0 General Conditions of the Contract to be awarded**

#### **3.1 Authority of Nepal Airline Corporation(NAC)**

Nepal Airline Corporation (NAC) or any of its authorized representative(s) or entities shall at all-time have free access to the contractor's facility. The contractor shall, at all times, cooperate with and give all possible facilities in order to have proper inspection of contractor's quality of service, facilities etc.

#### **3.2 Construction of Contract and Contract Document**

The contract document for the said commercially off- the shelf software solution and the related services shall be based on this tender document. The prices/rates/offers/quotes, as accepted, shall be binding between the contractor and Nepal Airline Corporation (NAC). The contents of this document shall be an integral part of the contract. The contract in all respects shall be interpreted in accordance with the Nepalese law.

#### **3.3 Alteration, Additions, Deductions and Extra Work**

Nepal Airline Corporation (NAC) reserves the right to make alterations, additions and deductions to the work or any part thereof, either before or after its commencement. The contractor, if instructed in writing by Nepal Airline Corporation (NAC), shall furnish by a separate side letter for such alterations/additions or amendments which are not included in the contract, but nevertheless form an inseparable part of the services.

#### **3.4 Terms of Payment**

The detailed terms and conditions of the payment will be incorporated in the final agreement/contract document to be signed later.

#### **3.5 Validity**

The contract shall come in to force from the date of signing the contract and shall remain valid till it is terminated in writing by either of the parties, by giving at least 180 (One Hundred Eighty) days' notice period.

#### **3.6 Performance Bond**

After acceptance of the tender response, the successful contractor should provide Nepal Airline Corporation (NAC) a Performance Bond issued by an internationally reputed bank and counter guaranteed by a Nepalese financial bank on the same day or prior to entering in to the agreement /contract. The amount of Performance Bond should be equivalent to 5% (five percent) of the one-time amount, payable as per the contract. The Performance Bond should remain valid for 6 (Six) months from the date of signing of the contract. Any charges incurred in furnishing the Performance Bond shall be borne by the contractor. The Performance Bond of contractor will be released soon after validity period, unless and until the disputes/pending issues, if any, are left unresolved.

### **3.7 Tax Liability**

Each party shall be responsible for all taxes, charges, fees and other imposts of whatever kind, including any fine, penalty imposed by its own respective Government in connection therewith.

#### **4.0 Schedule of work scope and other conditions**

The main scope of work under the contract will be mainly setting up and configuring the commercially off-the shelf software application, setting up & configuring software application hosting hardware & networking, software implementation, data migration for each aircraft type & each aircraft registration, each engine model & engine serial number, Training of authorized users and providing support towards supporting the Aircraft Engineering, Maintenance, Continuing Airworthiness Management, Quality Assurance and Aviation Logistics management functions related to the aircraft in the fleet of Nepal Airline Corporation(NAC).

All costs and expenses incurred by the vendor in any way associated with the development, preparation, and submission of responses, including but not limited to; the attendance at meetings, discussions, demonstrations, etc. and providing any additional information required by NAC, will be borne entirely and exclusively by the vendor.

## **5.0 Tender response (Offer/Price/Rate/Quote forms)**

### **5.1 Solicitation**

Nepal Airlines Corporation  
Continuing Airworthiness Management  
Department Tribhuvan International Airport  
Kathmandu, Nepal

**Subject: TENDER RESPONSE - WEB BASED SOFTWARE FOR CAMO, AMO,  
QA& Logistics Functions**

Dear Sirs,

1. Having carefully studied the Tender Notice, Instruction to the Bidders, General Conditions of Contract to be awarded, Schedule of Work Scope as in the Tender notice and Other Conditions, Tender Response (Price/Rate/Offer/Quote form /formats, as given in Appendix "A" and Appendix "B" of the Tender Notice), Evaluation Criteria in connection to the above mentioned subject, I/We, the undersigned, hereby intend to offer the services as required by Nepal Airline Corporation (NAC) in the tender.
2. If my/our technical bid response and prices/rates/offers quoted in the Tender response are accepted, I/We undertake to offer the services within the time and according to the Schedule of Work Scope as defined in the contents of the Tender Document.
3. Upon your written acceptance of my/our sealed tender response, I/We fully understand that 'General Conditions of the Contract to be Awarded' automatically comes into force and I/We agree to abide by all clauses covered in the Tender document.
4. I/we understand that NAC is not bound to accept the lowest (in terms of total cost/offer) or any tender that NAC may receive and also not bound to give any reasons whatsoever.
5. I/We declare that: -
  - (a) No person, firm or entity other than the bidder has any interest in this or in the proposed contract
  - (b) This offer is made by us without any connection, knowledge, comparison of figures or arrangements with any other person/s or person/s making the offer for the same work and is in all respects fair and without collusion or fraud
  - (c) No person of Nepal Airline Corporation (NAC) is, has become or will be interested directly or indirectly as contracting party, partner, stockholder, surety or otherwise howsoever in or in the performance of the said contract or in the supplies work or business in connection with the said contract or in the supplies to be used therein or in any of the money to be derived therefrom

(d) I/We have complied fully with the Instruction to the Bidder and accept all the terms there of without any reservation

Date: .....day of ..... (Month) of the year 2017

Full Name .....

In the capacity of

.....

Duly authorized to sign the Sealed Tender Response Document for and on behalf of:

Company's name: .....

Address: .....

Signature.....

Email address.....

Office seal /stamp:

Witness.....

Signature: .....

Name: .....

Position .....

Address.....

**Enclosures:**

1. Technical Proposal (As per Appendix "A" of the Tender document) in sealed envelope
2. Financial Proposal (As per Appendix "B" of the Tender document) in sealed envelop



**Appendix A: Technical & Functional Requirements  
Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
<b>GENERAL REQUIREMENTS</b>		
1.	The software system should have functionally integrated modules for monitoring & managing functions of CAMO (Part-M), AMO (Part-145, Line, Base & Shop), Tech Records & Publication, Crew Management, Quality Assurance, Inventory & Stores, Purchase & Procurement and Finance & Budget Management in a fully integrated manner	
2.	The software system should be able to support each individual aircraft in the fleet of Nepal Airline Corporation (NAC)	
3.	The proposed software system should be a Commercial Off the Shelf (COTS) solution and be available for immediate implementation. The bidder should also be the OEM of the proposed Commercial Off the Shelf (COTS) software product.	
4.	The proposed COTS software product shall be an internet based system, without any Performance limitations like delay in accessing in the system. The system should be accessible by the authorized users of Nepal Airline Corporation (NAC) from anywhere using internet, at any time of the day or night (24 x 7 availability)	
5.	Capability for fine grained access control to View, Add, Modify, Delete, Print and Export the records with capability to define user roles & assign different roles to the system users as per the requirement of Nepal Airline Corporation (NAC)	
6.	Users can simultaneously open multiple screens and record transactions in the software.	
7.	Individual users have the facility to define favourite menu items/functions based on preferences.	
8.	System must have capability to track all login attempts including failed login attempts with the time stamp	
9.	“System Audit Trail” with date, time & user details to track all changes made to any data entered in the system to ensure traceability & accountability in the upkeep of aircraft records	
10.	System Audit Trail feature i.e. log of all changes/modification/transaction done to aircraft the via the software with separate reports to be available to the system administrator	
11.	System should have a configurable option to use either UTC time or Local time for managing operations	
12.	Facility to generate instant System Alerts to authorized users of Nepal Airline Corporation (NAC) as per the notification requirements configurable in the system	

**Appendix A: Technical & Functional Requirements  
Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
13.	System must have the facility to define the data elements and the standard message for each of the transactions, and have the capability to generate email & text messages automatically for the defined transaction	
14.	Facility to create user groups for automatic email and text messaging	
15.	The vendor shall customize all reports/forms generated from the software to meet the exact requirements of NAC including formats and presented data at any time during the tenure of the contract FOC.	
16.	Facility to import ACARS data and industry standard movement messages	
17.	The Tech Records & Publication module must have the feature to monitor source documents due for review, record the review source document, record distribution of the documents and monitor the withdrawal of obsolete documents	
18.	System should have the capability to generate unique barcodes and print the same linked to specific work orders, work packs or individual tasks within work orders/packs as per user defined requirements to facilitate the easy tracking within the CAMO, AMO and supply chain of NAC.	
19.	The software system should have in-built capability for real time replication of data in the servers hosted in primary hosting site as well as in secondary hosting site, as part of Disaster Recovery arrangement	
20.	The company should be able to provide adequate training to the authorized users of Nepal Airline Corporation (NAC)	
<b>ENGINEERING SERVICES</b>		
21.	Facility to define engineering details against each part number item e.g. Alternate part number, applicability of the component to ALL or some serial number and/or registration number or a batch of serial numbers and/or registration numbers of aircraft	
22.	Facility to define the physical details against each part number item e.g. Weight, Dimensions (Length, Width & Height) and Volume.	
23.	Capability to define each individual aircraft in the fleet of Nepal Airline Corporation (NAC) inclusive of ownership, lease details, etc. and also technical specs like assemblies and/or sub-assemblies consisting of all components with the "as fitted" serial numbers.	

**Appendix A: Technical & Functional Requirements**  
**Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
24.	Capability to define the Maintenance Program related to each individual aircraft in the fleet of Nepal Airlines Corporation (NAC) along with the authority/approval reference for each maintenance program.	
25.	Facility to scan and attach complete documents for each aircrafts in the fleet of NAC with the capability to define renewal/expiry thresholds and generate the alerts for the same.	
26.	Facility to capture laid down scheduled maintenance requirements of each aircraft, with corresponding thresholds & intervals for carrying out each maintenance task	
27.	Facility to show an estimated due date by which each maintenance task related to a particular aircraft will fall due, based on the average utilization of an aircraft over the past x number of days	
28.	Facility to issue new sector log book & track its sector log pages. The flying details like flight hours, flight cycles/landings, sector of operation, fuel uplift, oil uplift, night flying hours, flying crew details, defects etc. are required to be captured	
29.	Facility to record defects encountered on each aircraft registration, rectification action taken, components replaced during defect rectification, details of person reporting the defect, details of defects deferred etc.	
30.	Facility to record fuel uplift & consumption. System must also be able to record fuel invoices and track the variation between the Technical Log data and fuel invoices data.	
31.	Facility to record the ECTM (Engine Trend Monitoring) related parameters	
32.	System must have the capability to record the Reduced Vertical Separation Minimum (RVSM) and Instrument Landing System (ILS) parameters	
33.	System generated work order numbers for accountability and control of work orders issued against each aircraft	
34.	Facility for controlled work sign off of work orders/work package by maintenance personnel	
35.	System should be capable of maintaining a “Work order” register, along with the status of each work order created in the system	
36.	Facility for the creation, scheduling and execution of work orders & work packages to meet the maintenance requirements	
37.	Provision must exist for adding task cards to a work order	

**Appendix A: Technical & Functional Requirements**  
**Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
38.	Capability for generation of Material List for scheduled maintenance tasks	
39.	Facility to capture details of components fitted on each aircraft. The details like component operating hours since manufacture, since last overhaul, since last work shop check like pressure test, calibration, weighing etc. related to each applicable component serial number are to be captured.	
40.	The component hours/cycles/ days are to be incremented, based on the actual utilization of each aircraft on which the component is fitted	
41.	Facility to record & track the part number and serial number details of the components fitted or removed from each aircraft	
42.	Facility to record defects encountered on each aircraft registration, rectification action taken, components replaced during defect rectification, details of person reporting the defect, details of defects deferred etc.	
43.	Facility to classify minor defects and major defects. Facility to associate a defect with an incident or accident occurred due to that defect	
44.	Analysis of defects reported and classification as per ATA four letter codes (i.e. Aircraft sub-system level) for each aircraft registration	
45.	Facility to create defect History for monitoring defects on each aircraft registration	
46.	The system should have the facility to monitor repetitive defects as per the user configured rule (e.g. occurrence of more than three defects under particular aircraft sub system in ten flying days)	
47.	System must have the feature to import Production Mod embodiment status report given by Airbus aircraft with capability to filter tasks based on the Production Mod status	
48.	The software system should have the ability to define applicability of AD, SB and Regulatory authority Directives to one, all or a batch of Aircraft MSN, Engine serial numbers and component serial numbers, based on the applicability criterion provided in the respective AD/SB/Regulatory authority Directive	
49.	The system should have the capability to block induction of ALL or a batch of serial numbers or different batches of serial numbers of a particular component part number, based on Appliances AD/SB/Regulatory Directive, with immediate effect or with effect from a prospective date/component hours/component cycle	

**Appendix A: Technical & Functional Requirements**  
**Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
50.	Facility to create ‘Installation & Removal Log’ (i.e. List of serial numbered components or assemblies fitted) on each serial number/registration number aircraft at any point of time from the system. Facility should be there to capture the component changes effected on each serial number/registration number aircraft during scheduled maintenance and non-scheduled maintenance	
51.	Capability to monitor the one-time & repetitive Structural repair repeat inspection requirements, with complex compliance requirements	
52.	System must have the ability to capture the Dent & Buckle details and depict the same on the schematic diagram of the aircraft at the relevant location for easy monitoring	
53.	System must have the function to monitor all one-time and repetitive maintenance activities related to the Dent & Buckle observations (including scheduled reweighing) for Continuing Airworthiness management.	
54.	System should be capable of monitoring the weight growth of the Aircraft related to maintenance activities like AD/SB/MODs.	
55.	Ability to configure Approved weight schedule (weight & arm) values of each Aircraft in the software system	
56.	System must be able to record the historical and ongoing weight growth of the aircraft	
57.	System should be able to calculate the new Center of Gravity based on the weight growth and moment change of the aircraft.	
58.	Feature to have the database of MEL items (MMEL) and the MEL invoke to be restricted based on the MEL item database.	
59.	System should have the ability to manage & monitor due details of all the categories of MEL with provision to forecast MEL expiry date, based on the Category of each of the MEL invoked	
60.	Facility to define expiry date for CDL & other deferred defects, based on the maintenance policy of Nepal Airline Corporation (NAC)	
61.	System should have the ability to manage & monitor CDL and other deferred maintenance items	
62.	Facility to monitor Time Since Installation (TSI) & Cycles Since Installation (CSI) of each component on each aircraft	

**Appendix A: Technical & Functional Requirements**  
**Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
63.	System should have the capability to monitor the “No Fault Found” (NFF) removals of aircraft components	
64.	System should have the capability to monitor premature removals of life limited aircraft components	
<b>PRODUCTION PLANNING &amp; CONTROL</b>		
65.	The software should have the feature to assign applicability of each scheduled maintenance task to ALL or one aircraft registration number or a batch of aircraft registration numbers, based on the corresponding applicability criterion.	
66.	Facility to define Life limited component /assembly replacement requirements (Hard Time components) related to each type of aircraft, with corresponding periodicity for replacement, as per the laid down maintenance program and technical instructions. Assigning applicability of such component/assembly replacement requirements to ALL or one aircraft registration number or a batch of aircraft registration numbers, based on the corresponding applicability criterion	
67.	The software system should be capable of monitoring scheduled maintenance tasks on airframe & engines and other aircraft components	
68.	Capability to monitor one-time & repetitive Airworthiness Directives related to airframe, engine & aircraft components, with complex compliance requirements	
69.	Facility to indicate and record duplicate inspection process or independent checks for critical maintenance tasks like engine changes, replacement of major assemblies, critical Non-Destructive testing etc.	
70.	Ability to view forecast for the pre-configured major maintenance checks/ workshop visits / major component or assembly replacements of each serial number/registration number aircraft under a particular type, with corresponding visibility on major cost outflow	
71.	System should have a dedicated separate screen for carrying out Maintenance forecasting, as per user selected criterion, without affecting the airworthiness monitoring function achieved through the dedicated maintenance monitoring screen	
72.	The software should have the capability to monitor multiple combinations of complex thresholds and intervals related to the conduct of maintenance of different aircraft operated by Nepal Airline Corporation (NAC)	

**Appendix A: Technical & Functional Requirements  
Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
73.	The software system should be designed to define & monitor special/exceptional parameters related to certain type of aircraft, engines or aircraft components. The exceptional parameters are those parameters other than the typical Flight hours, Flight cycles, Days/Date, which in exceptional cases drive the scheduled maintenance actions on some aircraft types	
74.	System should be capable of identifying & tracking the “First Driver component” which drives the scheduled removal” of an assembly from an aircraft registration	
75.	Capability to forecast the maintenance requirements related to airframe, engines and other aircraft components, based on any user selected utilization operational criterion of each aircraft in the fleet	
76.	Facility to view multiple information like access panels, zones, estimated man hours etc. related to a maintenance task	
77.	Ability to accurately monitor the Last Done details & Next Due details of each maintenance task as per the approved maintenance program for each aircraft in the fleet	
78.	The software should be capable to monitor all the possible combination of maintenance task intervals or thresholds or counts or a combination of them, without any manual intervention by the user for change in configuration	
79.	“Last Done” details should be readily visible against each maintenance program task on the maintenance monitoring screen	
80.	Ability to manage newly introduced or revised maintenance tasks arising out of Maintenance planning Document revisions & monitor “Next Due” details of these tasks, pending approval	
81.	The system should have provision to define & monitor “Sampling tasks”, to meet the ageing aircraft maintenance and structural inspection requirements, as part of approved maintenance program compliance	
<b>QUALITY ASSURANCE</b>		

**Appendix A: Technical & Functional Requirements  
Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
82.	The system must have the facility to define various types of Quality Assurance audits (internal, external, 3rd party, etc.) with facility to create audit check list, plan & schedule within individual audits, and provide reminder notification as per user defined schedule.	
83.	Facility to manage different types of Quality Assurance audits, record Non compliances (NCR Level1, Level 2, Level 3, etc.) and generate MIS reports to monitor the NCRs	
84.	System shall have the facility to record Quality & HR related information including Personal Details, Training Details, Licenses, Approvals & Authorizations, Medical details, Airport Entry pass, Passport details and Visa details with the facility to scan and attach the relevant documents where ever necessary.	
85.	Facility to monitor the validity of Trainings, Certifications, Licenses, Approvals & Authorizations, Airport Entry pass, Passport, Visas and Medical checks issued to maintenance personnel and also have the facility to provide reminder notification as per user defined schedule.	
86.	System should have facility to compute the Mean Time Between Unscheduled Removal (MTBUR) of user selected aircraft components	
87.	Facility to record Air Operating Permit details of Nepal Airline Corporation (NAC), Certificate of Airworthiness (C of A) details of each aircraft registration in NAC fleet, aircraft insurance details and to monitor their expiry dates	
88.	System should have the capability to generate reliability monitoring related reports like Defect report per ATA chapter, MEL per ATA chapter, Aircraft system performance report etc., along with corresponding graphical representation	
89.	System should have the capability to generate reliability related reports like Aircraft Operational Review, Engine Operational Review, Major Defect Details and Unscheduled Removal Report.	
90.	The system should have the capability to generate standard reports related to monitoring & management of aircraft engineering, maintenance, continuing airworthiness management, aviation spares management and stores management	
91.	Facility to record Air Operating Permit details of Nepal Airline Corporation (NAC), Certificate of Airworthiness (C of A) details of each aircraft registration in NAC fleet, aircraft insurance details and to monitor their expiry dates	



**Appendix A: Technical & Functional Requirements**  
**Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
92.	System should have “Task authentication” feature to authenticate a task after any maintenance program task have been edited by a user	
93.	The system must have the capability to create Roster Groups with facility to assign crews to the Groups. The system shall also have facility to plan the composition of personnel for each shift taking into account NAC's labour regulations and labour contracts.	
<b>FINANCE &amp; BUDGET MANAGEMENT</b>		
94.	Facility to lay down the Financial powers for different types of Purchase & Procurement, Training & License, Travel, etc., expenditure in local currency and foreign currency for different authorities (with Finance concurrence and without Finance concurrence) in the Engineering, Maintenance & Logistics department of NAC.	
95.	Software system should be able to manage Budget allocation in the different Budget Heads related to Engineering, Maintenance and Logistics functions.	
96.	System should have the capability to re-appropriate funds between different Engineering, Maintenance & Logistics Budget Heads, through appropriate approval process.	
97.	Software system should have facility to maintain Budget register and monitor the Budget remaining under Budget Heads related to Engineering, Maintenance and Logistics Departments.	
98.	The Finance & Budget Management system must be fully integrated with the Logistics Purchase & & Procurement module, and also have the capability to be integrated to Nepal Airlines Corporation's finance-accounts software.	
<b>TECH RECORDS &amp; PUBLICATION</b>		
99.	The Tech Records & Publication module must be fully integrated with the proposed CAMO, AMO, QA & Logistics management system with the facility to automatically archive all Tech Records, Tech Services & Logistics documents and access the same.	
100.	The system must be capable of managing digital content i.e. electronic documents (word, PDF, excel, etc.), images, scanned image files, multimedia documents (audio & video), web links, xml, etc. with the capability to setup hierarchical classification with the capability to transfer files using drag & drop.	

**Appendix A: Technical & Functional Requirements**  
**Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
101.	The system must have facility to define access control for the records, and the system should restrict access to the records based on the access defined.	
102.	The system shall have function for Delivery & Read receipt and capability for Revision Control management.	
<b>INVENTORY &amp; PROCUREMENT MANAGEMENT</b>		
103.	Ability to assign local serial numbers to non-serialized items, where required, to enable proper tracking of maintenance requirements, if any, on such non serialized items	
104.	Ability to define any inventory item (i.e. assemblies, sub-assemblies & components, special tools, support equipment, consumables & expendables etc.) and its part number with facility to assign local part number to a non-part number item , as per user definition	
105.	Ability to classify the inventory (i.e. assemblies, sub-assemblies & components, special tools, support equipment, consumables & expendables etc.) based on its type, serial number, batch number etc.	
106.	System shall have the capability to define and identify all Alternate items, Blocked items and Rogue items as per Logistics process of NAC	
107.	Facility to define Minimum Stock level (MSL) and any other threshold level for each part number components, assemblies, consumables, expendables etc. and capability to track fast moving, slow moving and non-moving stock based on user defined parameters	
108.	Facility to capture warranty details (if applicable) against each serial number components/ assemblies/ tools, which are inducted in to stores	
109.	Ability to track & monitor warranty applicability for unserviceable engines & components removed from aircraft, as per the component operating hours or operating cycles or date with relevant notifications as per user definable thresholds.	
110.	System should have the ability to define any type and any number of stores of Nepal Airline Corporation (NAC), as per the required hierarchy and nomenclature. There should be no limitations in the number of hierarchies of stores which can be configured in the system	

**Appendix A: Technical & Functional Requirements  
Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
111.	Ability to define & identify stores needing special storage considerations like Dangerous Goods, Electro static sensitive Devices (ESD) etc. towards storage/binning in a pre-defined stores, meeting the storage restriction criterion	
112.	Binning control of inspection cleared aircraft items, as per user defined store location, stores, rooms, rack, shelf, bin etc. with the ability to warn against inappropriate binning location (stores for different aircraft type, different serviceability condition, etc.) , with a facility to allocate alternate location, as per the user requirement	
113.	Ability for system to issue warning if aircraft items needing special storage requirements (i.e. Dangerous Goods items, ESD items etc.) are attempted to be stored/binning in inappropriate or wrong location	
114.	The system should provide facility for management of Rejected items and Quarantine stores	
115.	Centralized monitoring of stores i.e. view stock at any or all store locations & stores	
116.	Material availability verification by part number and the facility to track material consumption by part number & requisitioning station	
117.	System must have the capability to automatically import data from the Illustrated Parts Catalogue (IPC) and Recommended Spare Part List (RSPL) of NAC	
118.	The system must have a material planning function with the provision to prompt the user with the relevant information pertaining to each part number (i.e. MSL, dues-in, dues-out, average consumption, MTBUR etc.)	
119.	Facility to manage store inspection processes and for capturing Time Since New(TSN), Cycles Since New (CSN), Time Since Overhaul (TSO), Cycles Since Overhaul (CSO), Time Since Checks (TSC), Cycles Since Check (CSC) etc.	
120.	The system should have the capability to generate Request for Quotation (RFQ) with facility to create “Comparative Statement of Quotes” for one or multiple responded RFQs.	
121.	The software system should be able to capture the inventory receipt & consignment details Air Way Bill and Bill of Entry details, Customers, Freight Forwarder, Handling Charges, Taxes, etc.	
122.	Transfer of items between stores at different locations and between items in same location	
123.	Unserviceable item return monitoring from different user locations	

**Appendix A: Technical & Functional Requirements  
Web based Software for CAMO/AMO/QA and Logistics functions**

S.N	Functions & Features	Compliance (Yes/No)
124.	The system should provide facility for management of short supplied or excess supplied items, shelf life monitoring & calibration due (for special tools & equipment)	
125.	Facility to record service orders, and have the facility to record vendor invoices and track the invoices due for payment.	
126.	Features for procurement process i.e. purchase order creation & monitoring of supply status against each purchase order with capability to account for part supply (multiple receipts) of items against a single purchase order. The system must also indicate inventory items in transit during the dispatch process from one location to another.	
127.	System must have capability to handle 3-Levels Approval process based on Order value slab as per procurement rules of NAC	
128.	Capability to track loaned items, leased items and loan return due monitoring	
129.	Features for aviation rotatable repair process i.e. repair order creation & monitoring of receipt of items sent for repairs against each repair order. System must also have function to convert repair orders into exchange orders	
130.	The system should have the facility to handle Alternate part numbers during the procurement process (Purchase Orders, Repair Orders, Exchange Orders, Loan Orders, Sale Orders, Lease Orders)	

**Appendix B: Financial Response**  
**Web based Software for CAMO/AMO/QA and Logistics functions**

<b>Financial specification</b>				
<b>S. N.</b>	<b>Cost item</b>	<b>Amount (USD)</b>	<b>Amount in Words</b>	<b>Remarks</b>
1.	Initial Set up cost (including license cost, implementation cost and all hardware costs & networking costs for hosting application in primary site and secondary site)			
2.	Annual Cost (Hosting and Software Maintenance)			
3.	Training Cost (NAC Staff) if any			

Note:

1. Above mentioned cost items should be quoted for all NAC operated aircrafts
2. All the hardware & licenses required to run the software in primary hosting & secondary hosting (disaster recovery) facilities are to be included in the pricing given by the vendor. NAC will not be providing any hardware required for the project except the computer peripherals like PCs, laptops, printers which are required to operate the software system.