Request for Proposals IT Infrastructure System and Hardware Maintenance Service

Issued Date: July 19, 2017



ตะขาดขับรับลาอ LAO SECURITIES EXCHANCE



I. Purpose, Background and Scope of Service

1. Purpose of Request for Proposal

- Lao Securities Exchange (LSX) is seeking proposals from qualified IT maintenance companies (local/international) interested in providing the IT infrastructure maintenance and training services to LSX for the stable securities market operation.
- The LSX's intent and the requirements of this RFP are to provide the IT Infrastructure maintenance service for hardware part including training LSX's IT staff.

2. Background

The Lao Securities Exchange (LSX) is a joint venture limited company between the Bank of the Lao PDR (BOL) and Korea Exchange (KRX), which have entered their Joint Venture Agreement on July 22nd, 2009.

3. Scope of Services

The proposing company shall be required to provide the maintenance services as following:

- Be responsible for providing Infra maintenance services to LSX as the following fields:

Part Classification Deta	Detailed Description		
HP Server Syste LINUX and Wind Server - VMWare ESXi S H/W SAN Storage - HP SAN Switch Network - BACKUP Robot - Network System	m (HP-UX, REDHAT Enterprise dow Server 2008 R2);		

※ For further specification, please see the <appendix-1 "Detailed Specification for IT Infra H/W Maintenance">

- To train LSX's IT staff how to operate and maintain IT system
- Training topics and result shall be evaluated and approved by LSX



4. Candidate Conditions

The candidate companies shall meet the following criteria:

- Established and has at least 3 years experience in field related to each above-mentioned LSX IT infrastructure solution;
- Established as either international or national company;
- Have adequate human resources who are expert in the related field with fluent communication ability in English;
- Provide detail plans and activities in dealing with the above-mentioned field (what & how to be maintained and when should it be done);
- Interested enterprise shall be partner with manufacturer companies of the field (i.e. CISCO, HP);
- In case of the foreign company, shall have the contact person located in the Lao PDR;
- All information in the proposal shall be complete and accurate.

II. Proposal Requirements

1. Proposal Format

All RFP's are limited to a maximum of 20 pages in English. This page limit does not include cover letter, appendixes and draft of maintenance contract.

※ Cover Letter

Each response should include a cover letter no longer than two pages, signed by an officer of your company, indicating that the response is valid for 90 days and that officer is legally able to contractually bind your company. The cover letter should summarize your proposal's key points.

※ Non Collusion

The LSX prohibits collusion.

※ Company Qualifications

a. Provide information regarding your company's background and experience in providing these services.



- b. Identify references from entities where your company has performed similar services.
- c. Provide information describing your company's IT experts.

% Staffing Plan

- a. Provide the location, address, and contact information for the office that will provide the services to the LSX;
- b. Indicate which person and position will serve as the day-to-day contact for the LSX. Provide brief resume of that person;
- c. To provide qualified IT infra maintenance experts and experts' CV;
- d. Experts must be good in English communication, good manner and willing to share.

% Company Approach

- a. Discuss how your company will provide the services to be performed for the LSX;
- b. Please indicate the schedule for implementing the plan that your company will use to provide the services to be performed for the LSX.

% Price (Cost from the LSX perspective)

> Joint Proposals

A joint proposal developed by two or more proposers is allowed.

Term of contract

The term of contract will be one year.

Price Detail

The proposed Quotation of Price shall indicate maintenance price for each device as mentioned in *<appendix-1* "Detailed Specification for IT Infra H/W Maintenance">

※ Other

a. Please disclose any conflict or potential conflict of interest, if any, that your company may have concerning this engagement.

2. Submittal Requirements



Two copies of your company's response shall be submitted to Mr. Thepphasouk Lamanivong, Management Officer, Management and Administration Department of the LSX no later than 04 August, 2017.

Lao Securities Exchange Office Ban Phonthanh Neua, Saysettha District, Vientiane, Lao PDR Tel: +856-21-454 362 Mob: +856-20-5677 5544

E-mail: thepphasouk@lsx.com.la

Once submitted, proposals may not be corrected or modified prior to the time of opening.

X You are required to follow the following appendix in making a proposal

- <appendix-2 : Table of Contents for Proposal>
- <appendix-3 : Summary of Financial Statement>
- <appendix-4 : Summary of Staff in charge of LSX IT Infra Maintenance>
- <appendix-5 : CV of Staff in charge of LSX IT Infra Maintenance>

III. RFP Evaluation, Schedule and Other Matters

1. **RFP Evaluations**

RFPs will be evaluated based on the following criteria (not listed in any order of importance):

- a. Company's proven ability with similar projects;
- b. Expertise of Key personnel to be assigned to the contract;
- c. Company's proven track record of quality of performance;
- d. Company's capacity to perform; and,
- e. Company's cost proposal.

And first LSX is going to select top two-qualified proposer technically and then do price-evaluation targeting at top two-qualified proposers and finally select an proposer got the most score in adding technical-evaluation score (80%) and price-evaluation score (20%)

% For further criteria and credit, please see the <appendix-6: Evaluation Criteria & Credits of Proposal>



2. Negotiations

The LSX retains the right to make an award based on initial proposals without negotiations. Negotiations may be conducted with all responsible proposers.

3. Final Ranking and Selection

The LSX shall have a right to negotiate with the responder whose proposal is determined to be the most advantageous to the LSX, considering the Evaluation factors set forth in the RFP.

4. Discussions: Best and Final Proposer

The LSX may permit qualified proposers to revise their proposals by submitting "best and final" proposal when in the best interest of the LSX.

5. Contact

All inquiries related to this RFP shall be submitted in writing to:

Mr. Chanhthala Phommachit

IT Infrastructure Officer, Information Technology Department Lao Securities Exchange T4 Rd, Ban Phonthanh, Vientiane Capital, Lao PDR Phone: +856-21-454 361-4 Cell Phone: +856-20-9997 7704 E-mail: chanhthala@lsx.com.la

IV. Disposition of Proposals

- All materials submitted in response to this RFP will become the property of the LSX.
- There is no expressed or implied obligation for the LSX to reimburse responding firms for any expenses incurred in preparing proposals in response to this request.

****** This is the end of documents ******



<Appendix-1>

Detailed Specification for IT Infrastructure maintenance

(1) Server System Maintenance List

No.	Device Name	Specification	Operating System	Q'ty
1	HP rx6600 Server	HP rx6600 - 1.6GHz 2P/4C Processor - 64GB Memory (4GBX16) - 146GB x 4 Hard disk - 2 x Power supply - 3 x PCI-X 2-Port 1000Base-T Gigabit Adapter	HP-UNIX 11.31, HA Environment	4
2	HP rx3600 Server	HP rx3600 - 1.6GHz 1P/2C Processor - 16GB Memory (2GBX8) - 146GB x 2 Hard disk - 2 x Power supply - 3 x PCI-X 2-Port 1000Base-T Gigabit	HP-UNIX 11.31	2
3	HP rx3600 Server	HP rx3600 - 1.6GHz 1P/2C Processor - 8GB Memory (2GBX4) - 146GBx2 Hard disk - 2 x Power supply - 3 x PCI-X 2-Port 1000Base-T Gigabit Adapter - 1 x HP PCIe 2-Port 4Gb Fiber Channel HBA	HP-UNIX 11.31	1



		LAO SECURITIES EXCHANGE		
4	DL360G6 Server	DL360G6 [2.00GHz 1P/4C, 4GB Memory, 146GB x 2ea HDD, 300GB x 2ea HDD], 2 x Power Supply	Window Server 2008 R2 Standard	1
5	DL360G7 Server	DL360G7 [2.5GHz 1P/4C, 8GB Memory, 500GB x 4ea HDD], 2 x Power Supply	Redhat Enterprise Linux 5	1
6	DL380G7 Server	DL380G7 [2.53GHz 2P/8C, 16GB Memory, 500GB x 5ea HDD], 2 x Power Supply	Redhat Enterprise Linux 5	1
7	DL180G6 Server	DL180G6 [2.40GHz 1P/4C, 8GB Memory, 300GB xWindow Server 2008 R2 Standard2ea/1TB x 3ea HDD], 2 x Power		1
8	HP rx7620 Server	HP rx7620 [8P/16core, 48GB Memory, 73GB * 4ea], 2 x Power Supply	HP-UNIX Virtualization	1
9	VMware System	Lenovo System X3550 M5 - CPU Intel Xeon 6C E5-2620 - Memory 48GB, 16GB x3 - 2 x 300GB 10K 12Gbps SAS 2.5in G3HS HDD - 4 x1Gbps Ethernet port - Redundancy Power Supply	VMWare ESXi	2
		QNAP TS-863U-RP 8-BAY NAS - CPU AMD Quad Core 64bit - Memory 4GB DDR3 - HDD SATA 4TB x3 - 4 x1Gbps Ethernet port - Redundancy Power Supply	-	1
10	HA Switch	HP 2510-24G Switch	-	2
11	Modular PDU Control	HP Modular PDU Control Unit, Series EO4520	-	6



(2) SAN Storage System Maintenance List

No.	Device Name	Description	Qty
1	HP EVA4400 Storage	HP EVA4400 Dual Controller Array - 2 x HSV300 Controller Module - 2 x Power Supply - 2 x Cache Battery - 2 x System fans	1
1	HP EVA4400 Storage	M6412 Disk Enclosure - 300GB x 12ea HDD - 2 x Power Supply - 2 x I/O Module - 2 x Fans	2
2		HP EVA4400 Dual Controller Array - 2 x HSV300 Controller Module - 2 x Power Supply - 2 x Cache Battery - 2 x System fans	1
2 HP EVA	HP EVA4400 Storage	M6412 Disk Enclosure - 300GB x 12ea HDD - 2 x Power Supply - 2 x I/O Module - 2 x Fans	2
3	HP X1800 Server	HP X1800 [1P / 4 Core, 6GB Memory, 2*146 HHD] - 2 Power supply - 1 x HP PCIe 2-Port 4Gb Fiber Channel HBA	1
4	SAN Switch	FC 8Gbps 24 Port	2
5	Backup Library	HP MSL2024 LTO-4 1 Drive	1
6	Storage DAT Tape	HP Storage Works Tape Array 5300	3

(3) <u>Network System Maintenance List</u>

No	Device Name	Series	Component	
			1 Cat4500 E-Series 7-Slot Chassis, fan, no ps, Red Sup Capable	
1	Core Switch	Cat4500 E- Series	x2 Catalyst 4500 Supervisor V (2 GE),Console(RJ- 45)	2
			x2 Catalyst 4500 10/100 Auto Module, 48-Ports (RJ- 45)	



	1		1	
			x2 Catalyst 4500 1000W AC Power Supply(Data Only)	
			7206VXR with NPE-G2 includes 3GigE/FE/E Ports	
			and IP SW	
2	Desistan	7206VXR/NPE-	Cisco 7200 Redundant AC Power Supply Option	2
2	Router	G2	(280W)	2
			x8-Port Serial, V.35 Port Adapter	
			x8 Lead Octal Cable and 8 Male V35 DTE Connectors	
3	Router	CISCO2911/K9	Cisco 2911 w/3 GE,4 EHWIC,2 DSP,256MB	2
5	Kouter	CISCO2911/K9	CF,512MB DRAM,IP Base	Z
			Cisco 2901 w/2 GE,4 EHWIC,2 DSP,1 SM,256MB	
4			CF,512MB DRAM,IPB	2
4	Router	CISCO2901/K9	x2-Port Serial WAN Interface Card	
			1-Port 10/100 Routed Port HWIC	
5	Financell	ASA5520-BUN-	ASA 5520 Appliance with SW, HA, 4GE+1FE,	
5	5 Firewall	К9	3DES/AES	3
6	Firewall	ASA5510-SEC-	ASA 5510 Security Plus Appliance with SW, HA,	2
0	Filewan	BUN-K9	2GE+3FE, 3DES/AES	
7	IPS	IPS-4255-K9	IPS 4255 Appliance Sensor	2
8	IPS	ASA-5516X	Cisco ASA 5516-X with FirePOWER Services	2
0	Servitals I 2	WS-C3560-	Catalyst 2560 49 10/100 + 48ED + IDS Iman as	4
9	Switch L3	48TS-E	Catalyst 3560 48 10/100 + 4SFP + IPS Imange	4
10	Switch L3	WS-C3560-	Catalyst 2560 24 10/100 + 28ED + IDS Iman as	8
10	Switch L5	24TS-E	Catalyst 3560 24 10/100 + 2SFP + IPS Imange	
11	Switch L2	WS-C2960-	Catalyst 2960 48 10/100 + 2 T/SFP LAN Lite Image	4
11	Switch L2	48TC-S	Catalyst 2700 46 $10/100 \pm 2$ 1/SFF LAIN Life Illage	4
12	Switch L2	WS-C2960S-	Catalyst 2960S 24 GigE, 4xSFP LAN Base	2
12	Switch L2	24TS-L	Catalyst 27005 24 GigL, 4X511 LAIN Dase	4
13	Switch L2	WS-C2960-	Catalyst 2960 8 10/100 + 1 T/SFP LAN Lite Image	2
15	Switch L2	8TC-S	Cataryst 2700 6 $10/100 \pm 1$ 1/51 T LAIN Life illiage	2



<Appendix-2>

Table of Content for Proposal

I Introduction

- 1. Objectives
- 2. Maintenance Strategy
- 3. Expected effect

Ⅱ Company Status

- 1. Company Introduction and Company History
- 2. Company Organization and Human Resource
- 3. Main Business Performance and Possessing Technology
- 4. Company Financial Status (Capital, Turnover, current net income (during past three year)
- 5. Maintenance Performance over Financial sector (bank or securities market)
- 6. Introduction of Joint Company (in case of joint proposal)

II Maintenance Plan

- 1. Specification of maintenance organization and human resource
- 2. Maintenance Plan (How to do)
- 3. Education Plan (What & How to Train LSX IT staff)

III Business management & Quality Assurance

- 1. How to Make a Good Communicate and Management plan
- 2. Quality assurance Plan
- 3. Risk management plan
- 4. Observance of Security Plan

IV Other Miscellaneous

- 1. Additional proposal
- 2. miscellaneous



<Appendix-3>

Summary of Financial Statement

Summary of Income Statement

Classification	Latest year-1	Latest year
Turnover		
Gross Margin		
Operating Profit		
Non-Operating Profit		
Non-Operating Expense		
Ordinary Profit		
Extraordinary Profit		
Extraordinary Profit and Loss		
Current Net Income		

X You are kindly asked to write down an amount in USD.

Summary of Balance Sheet

Classification	Latest year-1	Latest year
Current Asset		
Fixed Asset		
Total Asset		
Current Debt		
Fixed Debt		
Total Debt		
Capital		
Capital Surplus		
Retained Earnings		
Total Capital		

X You are kindly asked to write down an amount in USD.



<Appendix-4>

Summary of Staff in charge of LSX IT Infra Maintenance

Name	Age	Academic Ability	Career(work experience	Job in charge	Certificate (ex. CCNA etc)



<Appendix-5>

CV of Staff in charge of LSX IT Infra Maintenance

Name			Company		age	
Final Academic	(Graduate School)			Appropriate experience of job in charge	year	month
Ability	Major			Company Continuous Service year	year	month
LSX Maintenance Role				participation period for LSX maintenance		
			Work Exp	perience		
					Ordering Inf	ormation
Busin	ess Name	(уууул	Period (yyyymm~yyyymm) Job in charge		Organization	Person In charge☎ number



<Appendix-6>

Evaluation Criteria & Credits of Proposal

Classification	Items	Score	Credit
	Company Organization & the status of possessing professional experts		
General	Capital, Turnover, current net income (during past three year)		10
	Performance & Experience for similar project about financial area, especially securities market)		
	Organization in charge of this project and human resources in charge		
Dania et	Quality assurance Risk management		50
Project	Pros and Cons of proposal		30
	Maintenance strategy		
	How to make a maintenance for LSX IT infra		
	How to train LSX staff		
	Hand IT technology over to LSX staff		
Support	How to maintain security		40
	Additional proposal etc		

X The above-mentioned evaluation criteria and credits are subject to change depending on LSX evaluation committee.