



**UCO BANK**

**Department of Information Technology**

**Request for Proposal (RFP) For RFP for Supply, Installation, Commissioning & Maintenance of HSM RFP REF NO:  
UCO/DIT/138/2016-17 Date: 30/04/2016**

### **Corrigendum/Clarification**

**Bidders are informed that Bank has changed the “Technical Specification (Annexure-C)” , Format of Bank Guarantee EMD (Annexure E)” & “Commercial Format (Annexure- G)” Bidders are requested to use these modified formats only while submitting the bid. Further the last date for submission of bid documents which was scheduled on **31.05.2016**, is hereby extended up to **03.06.2016 upto 4:00 P.M.** Technical bids will be opened on **03.06.2016 at 4:30 P.M.****

**Date:26/05/2016**

**Technical Specification- HSM Appliance for UPI- General Purpose**

<b>S. No</b>	<b>Description of Requirement</b>	<b>Compliance (Yes/No)</b>
1.	<b>Make:</b> <please specify>	
2.	<b>Model:</b> <please specify>	
3.	<b>General Aspects:</b>	
4.	The proposed HSM should have dual connectivity support.	
5.	The proposed HSM must be FIPS 140-2 Level 2 Certified	
6.	The proposed HSM should support SHA-256 RSA 2048 Format	
7.	HSM should be capable to perform minimum 300 RSA signature of 2048 bit key	
8.	It should support multi-threading so as maximum performance can be achieved.	
9.	Capable to support DES and 3DES KEY lengths 112 bit,168 bit	
10.	The relevant security settings in the firmware should have FIPS 140-2 compliant values	
11.	Shipment of the HSM should be compliant as per FIPS 140-2	
12.	End to End Pin/Password Encryption	
13.	Management facilities:	
14.	Should have GUI/CLI available with Authentication as per FIPS 140-2 Level 2 standards	
15.	Support SNMP	
16.	Utilization statistics - Health check diagnostic and error logs	
17.	Key Managements:	
18.	Security Certification:	
19.	Cryptographic module certified to FIPS: 140-2 Level 2	
20.	NIST SP800-20, SP800-90(A)	
21.	FIPS approved Random number generator	
22.	FIPS approved algorithms	
23.	<b>Security features:</b>	
24.	HSM should be Tamper resistance meeting requirements of FIPS 140-2 Level 2	
25.	Detection of cover removal in addition to Alarm triggers for motion, voltage and temperature	
26.	Multiple alarm triggers for motion, voltage and temperature	
27.	Audit trails should be as per FIPS 140-2 Level 2	
28.	<b>Key Features:</b>	
29.	Secure Key Storage and Generation for all key types used	
30.	Secure Host communication using TLS or SSL	

### Technical Specification- HSM Card for CTS Chennai

S. No	Description of Requirement	Compliance (Yes/No)
1.	<b>Make: Safenet</b>	
2.	<b>Model: LUNA PCIe 7000 v5.0 HSM</b>	
3.	<b>Operating System Support</b> - Windows, Linux, Solaris	
4.	<b>API Support</b> -- PKCS#11, Java (JCA/JCE), Microsoft CAPI and CNG, OpenSSL, Ruby, Python	
5.	<b>Cryptography</b>	
6.	PKCS#11, Java (JCA/JCE), Microsoft CAPI and CNG, Open SSL	
7.	Full Suite B support	
8.	Asymmetric: RSA (1024-8192), DSA (1024-3072), Diffie-Hellman, KCDISA, Elliptic Curve Cryptography (ECDISA, ECDH, ECIES) with named, user-defined and Brainpool curves	
9.	Symmetric: AES, RC2, RC4, RC5, CAST, DES, Triple DES,ARIA, SEED	
10.	Hash/Message Digest/HMAC: SHA-1, SHA-2 (224-512),SSL3-MD5-MAC, SSL3-SHA-1-MAC	
11.	Random Number Generation: FIPS 140-2 approved DRBG (SP 800-90 CTR mode)	
12.	<b>Physical Characteristics</b>	
13.	Power Consumption: 12W maximum, 8W typical	
14.	Temperature: operating 0°C – 50°C	
15.	<b>Security Certifications</b>	
16.	FIPS 140-2 Level 2 and Level 3	
17.	Common Criteria EAL4+ (in process)	
18.	BAC & EAC ePassport Support	
19.	<b>Safety and Environmental Compliance</b>	
20.	UL, CSA, CE	
21.	FCC, KC Mark, VCCI, CE	
22.	RoHS, WEEE	
23.	<b>Host Interface</b> - PCI-Express X4, PCI CEM 1.0a	
24.	<b>Reliability</b> - MTBF more than 2,10,000 hrs	

**Technical Specification- Backup HSM Device for CTS Chennai**

<b>S. No</b>	<b>Description of Requirement</b>	<b>Compliance (Yes/No)</b>
1.	<b>Make: Safenet</b>	
2.	<b>Model: LUNA Backup Remote HSM</b>	
3.	<b>Operating System Support</b> - Windows, Linux	
4.	<b>Physical Characteristics</b> <ul style="list-style-type: none"><li>• Dimensions: 8.5" x 6.675" x 1.7" (215.9mm x 169.545mm x 43.18mm)</li><li>• Weight: 3.3lb (1.5kg)</li><li>• Input Voltage: 100-240V, 50-60Hz</li><li>• Power Consumption: 26W maximum, 20W typical</li><li>• Temperature: operating 0°C – 35°C, storage -20°C – 70°C</li><li>• Relative Humidity: 20% to 95% (38°C) non-condensing</li></ul>	
5.	<b>Safety and Environmental Compliance</b> <ul style="list-style-type: none"><li>• UL, CSA, CE</li><li>• FCC, KC Mark, VCCI, CE</li><li>• RoHS, WEEE</li></ul>	
6.	<b>Host Interface</b> <ul style="list-style-type: none"><li>• USB 2.0</li></ul>	

**Technical Specification- Transactional HSM Appliance for Debit Card PIN  
Generation (Bank Sponsored RRBs)-Payment HSM**

<b>S. No</b>	<b>Description of Requirement</b>	<b>Compliance (Yes/No)</b>
1.	<b>Make:</b> <please specify>	
2.	<b>Model:</b> <please specify>	
3.	<b>Key management standards supported</b>	
4.	<ul style="list-style-type: none"> <li>•compliant with ANSI X9.24; superset of X9 TR-31</li> <li>•X9 TR-31 Key Block support</li> <li>•RSA Remote Key Transport</li> <li>•DUKPT</li> <li>•Master/Session Key Scheme</li> <li>•AS2805 support</li> </ul>	
5.	<b>Cryptographic algorithms supported</b>	
6.	<ul style="list-style-type: none"> <li>• DES and Triple-DES key lengths 112 bit, 168 bit</li> <li>• AES key lengths 128 bit, 192 bit, 256 bit</li> <li>• RSA (up to 2048 bits)</li> <li>• FIPS 198-1, MD5, SHA-1, SHA-2</li> </ul>	
7.	<b>Performance options</b>	
8.	<ul style="list-style-type: none"> <li>•Range of performance options up to 1500 Triple-DES PIN block translates / second using key blocks</li> <li>• Multi-threading to optimize performance</li> </ul>	
9.	<b>Host connectivity</b>	
10.	<ul style="list-style-type: none"> <li>•Asynchronous (v.24, RS-232)</li> <li>•TCP/IP &amp; UDP (10/100/1000 Base-T) – dual ports for resilience</li> </ul>	
11.	<b>Certifications / validations</b>	
12.	<ul style="list-style-type: none"> <li>•Cryptographic module certified to FIPS: 140-2 Level 3, 46, 81, 180-3, 186-3, 198</li> <li>• PCI HSM</li> <li>• APCA</li> <li>• GBIC</li> <li>• MEPS</li> <li>• NIST SP800-20, SP800-90(A)</li> </ul>	
13.	<b>Security features</b>	
14.	<ul style="list-style-type: none"> <li>•Multiple master keys option enabling cryptographic isolation</li> <li>•Two-Factor Authentication of security officers using smart cards</li> <li>•Dual physical locks and/or smart cards control authorization levels</li> <li>•Tamper-resistance exceeding requirements of PCI HSM and FIPS 140-2 Level 3</li> <li>•Detection of cover removal in addition to alarm triggers for motion, voltage and temperature</li> <li>•Device 'hardening' - ability to disable functions not required by the host application</li> <li>•Audit trails</li> </ul>	
15.	<b>Physical characteristics</b>	

16.	<ul style="list-style-type: none"> <li>•Form Factor: 1U/2U 19" rack mount</li> <li>•Electrical Supply: 100 to 240V AC Universal input.</li> <li>•Power Consumption: 180W (maximum)</li> <li>• Humidity: 5% to 95%</li> </ul>	
17.	<b>Card payments support</b>	
18.	<ul style="list-style-type: none"> <li>•American Express/MasterCard/VISA PIN and Card Verification functions</li> <li>•EMV 3.X and 4.X transactions and messaging (inc. PIN Change)</li> <li>•Remote Key Loading to NCR, Diebold and Wincor-Nixdorf ATMs</li> <li>•MasterCard On-behalf Key Management (OBKM)</li> <li>•Integration with all major payment authorization and switching applications</li> </ul>	
19.	<b>Financial services standards supported</b>	
20.	<ul style="list-style-type: none"> <li>•ISO: 9564, 10118, 11568, 13491, 16609</li> <li>•ANSI: X3.92, X9.8, X9.9, X9.17, X9.19, X9.24, X9.31, X9.52, X9.97</li> <li>• X9 TR-31, X9 TG-3/TR-39, APACS 40 &amp; 70, AS2805 Pt 14</li> </ul>	

**Format of Bank Guarantee**  
**(To be submitted as EMD)**

To,

The Deputy General Manager,  
IT, BPR & BTD (e-Banking & m-Banking)  
UCO BANK,  
Department of Information Technology,  
5<sup>th</sup> Floor, 3 & 4 DD Block,  
Sector-I, Salt Lake,  
Kolkata – 700064

Dear Sir,

In response to your invitation to respond to your RFP for Supply, Installation, Commissioning & Maintenance of HSM, M/s \_\_\_\_\_ (having their registered office at \_\_\_\_\_ hereinafter called the 'Bidder') wish to respond to the said Request for Proposal (RFP) and submit the proposal for Supply, Installation, Commissioning & Maintenance of HSM and to provide related services as listed in the RFP document.

Whereas the 'Bidder' has submitted the proposal in response to RFP, we, the \_\_\_\_\_ Bank having our Head Office \_\_\_\_\_ hereby irrevocably guarantee an amount of **Rs. 2 Lacs (Rupees Two Lacs Only)** as bid security as required to be submitted by the 'Bidder' as a condition for participation in the said process of RFP.

The Bid security for which this guarantee is given is liable to be enforced/ invoked:

1. If the Bidder withdraws his proposal during the period of the proposal validity; or
2. If the Bidder, having been notified of the acceptance of its proposal by the Bank during the period of the validity of the proposal fails or refuses to enter into the contract in accordance with the Terms and Conditions of the RFP or the terms and conditions mutually agreed subsequently.

We undertake to pay immediately on demand to UCO BANK the said amount of Rupees Two Lacs without any reservation, protest, demur, or recourse. The said guarantee is liable to be invoked/ enforced on the happening of the contingencies as mentioned above and also in the RFP document and we shall pay the amount on any Demand made by UCO BANK which shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

Notwithstanding anything contained herein:

1. Our liability under this Bank guarantee shall not exceed **Rs. 2 Lacs only** (Rupees Two Lacs Only).

2. This Bank guarantee will be valid upto\_\_\_\_\_; and
3. We are liable to pay the guarantee amount or any part thereof under this Bank guarantee only upon service of a written claim or demand by you on or before\_\_\_\_\_.

In witness whereof the Bank, through the authorized officer has sets its hand and stamp on this \_\_\_\_\_day of\_\_\_\_\_at \_\_\_\_\_.

Yours faithfully,

For and on behalf of

\_\_\_\_\_ Bank

Authorised Official

**Note:** This guarantee will require stamp duty as applicable and shall be signed by the official whose signature and authority shall be verified. The signatory shall affix his signature, name and designation.



## Revised Commercial Format

SL	Item Description	Qty.	Make & Model	Unit Cost	Applicable Tax Type & %	Applicable Taxes (₹)	Total Cost including all applicable taxes (₹)
1	HSM Appliance for UPI- General Purpose	02	<please specify>				
2	Annual Maintenance Support	1 <sup>st</sup> Year AMC					
		2 <sup>nd</sup> Year AMC					
2	HSM card for CTS Chennai	02	Safenet-LUNA PCIe 7000 v5.0 HSM				
		1 <sup>st</sup> Year AMC					
3	Annual Maintenance Support	2 <sup>nd</sup> Year AMC					
4	Backup HSM Device for CTS Chennai	01	Safenet-LUNA Backup remote HSM				
		1 <sup>st</sup> Year AMC					
5	Annual Maintenance Support	2 <sup>nd</sup> Year AMC					
6	Transactional HSM Appliance for Debit Card PIN Generation ( Bank Sponsored RRBs) (Performance Model- 50 TPS, 2 PSU, 2 Gig Ports)	02	<please specify>				
7	Annual Maintenance Support	1 <sup>st</sup> Year AMC					
		2 <sup>nd</sup> Year AMC					
5	Total Cost of Ownership (TCO) in figures						
6	Total Cost of Ownership (TCO) in words						

**Note:**

1. The AMC rate should not be more than 8% of final rates for HSMs and the bidder shall be required to quote the rate applicable for 2 years for HSMs after the expiry of warranty period.
2. VAT/CST and service Tax would be paid extra at actual on submission of relevant invoice and proof.
3. No increase in costs, duties, levies, taxes, charges, etc. irrespective of reasons (including exchange rate fluctuations, etc.) whatsoever, shall be admissible during the currency of the contract.
4. Bidders should strictly quote in the revised format as given along with this as Annexure "G".
5. No counter condition/assumption in response to commercial bid will be accepted. Bank reserve the right to reject such bid
6. The actual cost of Octroi will be reimbursed wherever applicable on production of requisite documents.
7. The quantity mentioned above is indicative only bank may increase or decrease the quantity as per the actual requirement.