



Department of Information Technology

Request for Proposal (RFP) for Procurement of Hardware Security Module (HSM) hardware and services.

RFP Ref. No: UCO/DIT/3325/2021-22 Date: 25/11/2021

Pre-Bid Responses/ Clarifications to Queries raised by the Bidder(s) Amendments, Addendums and Corrigendum

Sl. No.	RFP Page No.	RFP Clause No.	Original RFP Clause	Subject/ Description	Query Sought/Suggestions of the Bidder	Bank's Response
1.		General Query	General Query	General Query	The requirement for BBPS is HSM network HSMs. In case payment is required. Request Bank to specify and provide bifurcation on the requirement of Payment HSM and Network HSM in the BOQ	Bank requires General Purpose HSM with RSA 2048-bit encryption for UPI and BBPS applications.
2.	12 -15	3. Eligibility Criteria	For clauses 1 to 10 of the Eligibility Criteria section. Documentary Evidence for compliance to each of the eligibility criteria must be enclosed along with the bid together with references.		We request the Bank to allow the Eligibility Criteria compliance basis the documentary evidence from the Bidder OR Bidder's Parent Company (in case the Bidder is a wholly owned subsidiary of parent company). Please confirm the acceptance of our request.	Documentary evidence of only bidder company is to be submitted with bid documents.
3.	14	3 Eligibility Criteria Sl. No. 7	At least 5 numbers of the proposed OEM HSM should have supplied and running in India in last three years.		As per our understanding we can show 5 nos. of HSM from multiple PO's. Please confirm	Understanding is correct.

Sl. No.	RFP Page No.	RFP Clause No.	Original RFP Clause	Subject/ Description	Query Sought/Suggestions of the Bidder	Bank's Response
4.	37	PART - IV	1. SCOPE OF WORK		Please share existing Hardware Security Module (HSM) make and model with specifications, used for UPI and BBPS	Luna SA 1700
5.	38	2. Technical Specification of HSM for UPI - Req. no. 1	Speed: 500 TPS (Transactions per second)(or higher) with 2048 bit encryption	Generally, TPS general purpose HSM is measured in terms of Signatures/sec for RSA 2048 bit. Requirement of encryption depends on the size of data to be encrypted.	Please specify the size of data to be encrypted or best would be to convert performance solely into standard format which is RSA 2048 bit signing. The TPS requirement may get translated to higher in that case. As each transaction of UPI may involve signing/verification/encryption and decryption, 2000 TPS may be good to be considered, that would ensure TPS for end-to end flow.	Clause stands as per RFP. It is mentioned clearly in the RFP about required TPS.
6.	38	2. Technical Specification of HSM for UPI - Req. no. 1	Speed: 500 TPS (Transactions per second)(or higher) with 2048-bit encryption	Generally, TPS general purpose HSM is measured in terms of Signatures/sec for RSA 2048 bit. Requirement of encryption depends on the size of data to be encrypted.	Please specify the size of data to be encrypted or best would be to convert performance solely into standard format which is RSA 2048 bit signing. The TPS requirement may get translated to higher in that case. As each transaction of UPI may involve signing/verification/encryption and decryption, 2000 TPS may be good to be considered, that would ensure TPS for end-to end flow.	Clause stands as per RFP. It is mentioned clearly in the RFP about required TPS.
7.	38	2. Technical Specification of HSM for UPI - Req. no. 1	Speed: 500 TPS (Transactions per second)(or higher) with 2048-bit encryption	Generally, TPS general purpose HSM is measured in terms of Signatures/sec for RSA 2048 bit. Requirement of encryption depends on the size of data to be encrypted.	Please specify the size of data to be encrypted or best would be to convert performance solely into standard format which is RSA 2048 bit signing. The TPS requirement may get translated to higher in that case. As each transaction of UPI may involve signing/verification/encryption and decryption, 2000 TPS may be good to be considered, that would ensure TPS for end-to end flow.	Clause stands as per RFP. It is mentioned clearly in the RFP about required TPS.
8.	39	2. Technical	The proposed HSM must be PCI-HSM 3.0 Certified or	Generally, PCI-HSM certification is for payment HSMs. For general	Please remove this clause or change it to Indian stanrds BIS certification	HSM should be PCI compliant

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			above	purpose HSM, FIPS or CC EAL4+ certificate is considered as standard. Also from India perspective, BIS certification will be required as per Meity.		
9.	39	2. Technical Specification of HSM for UPI - Req. no. 8	Capable of translating up to 1000 PIN triple DES Pin block Per second and minimum of 500 PIN triple DES Pin block Per second	PIN block translations is required only in case of card related transactions and is supported by payment HSM. In case of UPI and BBPS, it uses signing certificate and this feature can be best supported by General purpose HSM. So this clause becomes not applicable.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
10.	39	2. Technical Specification of HSM for UPI - Req. no. 10	It should support following Crypto Graphic Standard: DES and Triple DES Algorithms - Provide PIN encryption, PIN Authorization and message authentication capabilities.	DES is not allowed in FIPS Level 3. This not only contradicts with FIPS clause but also not in support of the requirement of general purpose HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
11.	39	2. Technical Specification of HSM for UPI - Req. no. 12	The relevant security settings in the firmware should have PCI compliant values	This clause is not a standard for General purpose HSM. It is specific to payment HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
12.	39	2. Technical Specification of HSM for UPI -	Shipment of the HSM should be compliant as per PCI HSM requirement	This clause is not a standard for General purpose HSM. It is specific to payment HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP

Sl. No.	RFP Page No.	RFP Clause No.	Original RFP Clause	Subject/ Description	Query Sought/Suggestions of the Bidder	Bank's Response
		Req. no. 13				
13.	39	2. Technical Specification of HSM for UPI - Req. no. 14	End to End PIN/Password Encryption	Though general purpose HSM can easily support this requirement, the requirement itself suggests payment HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
14.	39	2. Technical Specification of HSM for UPI - Req. no. 15	HSM should store minimum 1500 2048-bit keys in its cryptographic memory.	Hardware security Module is not a Key storage device, it is Key management device. Advanced HSM technologies supports tokenized key management and brings in many management benefits that will not be available if you store keys in memory. Plus storing large no. of keys in memory might affect performance.	Please change this clause to HSM should be able to manage 1500 RSA 2048 bit keys in accordance with FIPS 140-2 Level 3	Clause stands as per RFP
15.	39	2. Technical Specification of HSM for UPI - Req. no. 16	compatible with all OS	Generally all major Linux distribution and Windows are supported. If any particular OS apart from this is required, please specify.	Details would be of help. Eg; Windows and major Linux distributions.	Clause stands as per RFP
16.	39	12	The relevant security settings in the firmware should have PCI compliant values	Technical Specification of HSM for UPI	This point is not applicable for this requirement BBPS and UPI use cases dose not need PCI compliant values. PCI compliant values applicable for Credit card/Debit card transactions	Clause stands as per RFP

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17.	40	2. Technical Specification of HSM for UPI - Req. no. 21	Should have GUI/CLI available with 2 factor Authentication using USB	USB tokens is specific to one vendor	Should have GUI/CLI available with 2 factor Authentication using USB / Smartcards	Audit trails and 2 Factor Authentication for Auditor using USB tokens/Smartcards
18.	40	2. Technical Specification of HSM for UPI - Req. no. 24	All Features for the HSM should be enabled by default and should not require purchase of any additional license for PIN transaction Processing, EMV Processing etc.	This clause is not a standard for General purpose HSM. It is specific to payment HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
19.	40	2. Technical Specification of HSM for UPI - Req. no. 26	Key Block support (superset of ANSI X9.24) or Higher	This clause is not a standard for General purpose HSM. It is specific to payment HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
20.	40	2. Technical Specification of HSM for UPI - Req. no. 27	DUKPT (DES and Triple-DES)	This clause is not a standard for General purpose HSM. It is specific to payment HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
21.	40	2. Technical Specification of HSM for UPI - Req. no. 28	Cryptographic module certified to FIPS: 140-2 Level 3, 46, 81, 180-3, 186-3, 198 or above	Few of the certificates are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Should adhere to all major industry standards, including FIPS-140-2 level 3, PCI compliant

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22.	40	2. Technical Specification of HSM for UPI - Req. no. 30	NIST SP800-20, SP800-90(A) or above	Few of the certificates are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
23.	40	2. Technical Specification of HSM for UPI - Req. no. 24	All Features for the HSM should be enabled by default and should not require purchase of any additional license for PIN transaction Processing, EMV Processing etc.	This clause is not a standard for General purpose HSM. It is specific to payment HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
24.	40	2. Technical Specification of HSM for UPI - Req. no. 30	NIST SP800-20, SP800-90(A) or above	Few of the certificates are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
25.	40	20	Should adhere to all major industry standards, including FIPS-140-2 level 3, PCI - DSS, qualified signature or Seal creation Device (QSCD) listing for eIDAS, common criteria EAL4+(AVA_VAN and ALC-FLR.2) against the protection profile EN 419 221-5 etc.	Technical Specification of HSM for UPI	This point is not applicable for this requirement UPI and BBPS transactions dose not require PCI complaint PCI-HSM 3.0 Certification is applicable for payment HSM. Payment HSMS	Should adhere to all major industry standards, including FIPS-140-2 level 3, PCI compliant
26.	40	24	All Features for the HSM should be enabled by default and should not require purchase of any	Technical Specification of HSM for UPI	This point is not applicable for this requirement BBPS and UPI use cases do not require any	Clause stands as per RFP

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			additional license for PIN transaction Processing, EMV Processing etc.		PIN transactions.	
27.	40	2. Technical Specification of HSM for UPI	24. All Features for the HSM should be enabled by default and should not require purchase of any additional license for PIN transaction Processing, EMV Processing etc.		BBPS and UPI use cases do not require any PIN transactions. This point is not applicable for this requirement, so please drop this requirement.	Clause stands as per RFP
28.	40	24	All Features for the HSM should be enabled by default and should not require purchase of any additional license for PIN transaction Processing, EMV Processing etc.	BBPS and UPI use cases do not require any PIN transactions.	This point is not applicable for this requirement	Clause stands as per RFP
29.	40	2. Technical Specification of HSM for UPI - Req. no. 24	All Features for the HSM should be enabled by default and should not require purchase of any additional license for PIN transaction Processing, EMV Processing etc.	This clause is not a standard for General purpose HSM. It is specific to payment HSM.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
30.	40	2. Technical Specification of HSM for UPI - Req. no. 30	NIST SP800-20, SP800-90(A) or above	Few of the certificates are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP

Sl. No.	RFP Page No.	RFP Clause No.	Original RFP Clause	Subject/ Description	Query Sought/Suggestions of the Bidder	Bank's Response
31.	41	2. Technical Specification of HSM for UPI - Req. no. 35	Detection of cover removal in addition to Alarm triggers for motion, voltage and temperature	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
32.	41	2. Technical Specification of HSM for UPI - Req. no. 36	Multiple alarm triggers for motion, voltage and temperature	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
33.	41	2. Technical Specification of HSM for UPI - Req. no. 37	Device hardening - ability to disable functions not required by the host application	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
34.	41	2. Technical Specification of HSM for UPI - Req. no. 38	Audit trails and 2 Factor Authentication for Auditor using USB tokens	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
35.	41	2. Technical Specification of HSM for UPI - Req. no. 39	Reporting of Authorization State identifies whether commands are Host, Console, or All	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP

Sl. No.	RFP Page No.	RFP Clause No.	Original RFP Clause	Subject/ Description	Query Sought/Suggestions of the Bidder	Bank's Response
36.	41	2. Technical Specification of HSM for UPI - Req. no. 42	Reduced Key check value: 6 HEX	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
37.	41	2. Technical Specification of HSM for UPI - Req. no. 43	Encrypted decimalization table	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
38.	41	2. Technical Specification of HSM for UPI - Req. no. 44	Secure Host communication using TLS or SSL	These features are specific to payment HSM which is a different product. For GP, secure channel offers better security than TLS/ SSL.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
39.	41	2. Technical Specification of HSM for UPI - Req. no. 45	PIN never appears in the clear outside of a tamper resistant security module as per PCI PIN security requirements	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
40.	41	2. Technical Specification of HSM for UPI - Req. no. 46	Key Entry Mechanism are protected as per PCI HSM 3.0 requirements	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Key Entry Mechanism are protected as per PCI Compliant

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41.	41	2. Technical Specification of HSM for UPI - Req. no. 35	Detection of cover removal in addition to Alarm triggers for motion, voltage and temperature	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
42.	41	2. Technical Specification of HSM for UPI - Req. no. 36	Multiple alarm triggers for motion, voltage and temperature	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
43.	41	2. Technical Specification of HSM for UPI - Req. no. 37	Device hardening - ability to disable functions not required by the host application	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
44.	41	2. Technical Specification of HSM for UPI - Req. no. 38	Audit trails and 2 Factor Authentication for Auditor using USB tokens	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Audit trails and 2 Factor Authentication for Auditor using USB tokens/smartcards
45.	41	2. Technical Specification of HSM for UPI - Req. no. 39	Reporting of Authorization State identifies whether commands are Host, Console, or All	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
46.	41	2. Technical Specification of HSM for UPI - Req. no. 42	Reduced Key check value: 6 HEX	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP

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47.	41	2. Technical Specification of HSM for UPI - Req. no. 43	Encrypted decimalization table	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
48.	41	2. Technical Specification of HSM for UPI - Req. no. 44	Secure Host communication using TLS or SSL	These features are specific to payment HSM which is a different product. For GP, secure channel offers better security than TLS/ SSL.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
49.	41	2. Technical Specification of HSM for UPI - Req. no. 45	PIN never appears in the clear outside of a tamper resistant security module as per PCI PIN security requirements	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
50.	41	2. Technical Specification of HSM for UPI - Req. no. 46	Key Entry Mechanism are protected as per PCI HSM 3.0 requirements	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Key Entry Mechanism are protected as per PCI Compliant
51.	41	42	Reduced Key check value: 6 HEX	Technical Specification of HSM for UPI	This point is not applicable for this requirement This applies to the credit/debit PIN requirement	Clause stands as per RFP
52.	41	45	PIN never appears in the clear outside of a tamper resistant security module as per PCI PIN security requirements	Technical Specification of HSM for UPI	This point is not applicable for this requirement This applies to the credit/debit PIN requirement	Clause stands as per RFP

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53.	41	2. Technical Specification of HSM for UPI	42. Reduced Key check value: 6 HEX		This applies to the credit/debit PIN requirement. This point is not applicable for this requirement, so please drop this requirement.	Clause stands as per RFP
54.	41	2. Technical Specification of HSM for UPI	45. PIN never appears in the clear outside of a tamper resistant security module as per PCI PIN security requirements		This applies to the credit/debit PIN requirement. This point is not applicable for this requirement, so please drop this requirement.	Clause stands as per RFP
55.	41	2. Technical Specification of HSM for UPI	46. Key Entry Mechanism are protected as per PCI HSM 3.0 requirements		BBPS and UPI use cases does not need PCI-HSM 3.0 Certification. This point is not applicable for this requirement, so please drop this requirement.	Key Entry Mechanism are protected as per PCI Compliant
56.	41	42	Reduced Key check value: 6 HEX	This applies to the credit/debit PIN requirement	This point is not applicable for this requirement	Clause stands as per RFP
57.	41	45	PIN never appears in the clear outside of a tamper resistant security module as per PCI PIN security requirements	This applies to the credit/debit PIN requirement	This point is not applicable for this requirement	Clause stands as per RFP
58.	41	2. Technical Specification of HSM for UPI - Req. no. 35	Detection of cover removal in addition to Alarm triggers for motion, voltage and temperature	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
59.	41	2. Technical Specification of HSM for UPI -	Multiple alarm triggers for motion, voltage and temperature	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP

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		Req. no. 36				
60.	41	2. Technical Specification of HSM for UPI - Req. no. 37	Device hardening - ability to disable functions not required by the host application	Few of the features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
61.	41	2. Technical Specification of HSM for UPI - Req. no. 39	Reporting of Authorization State identifies whether commands are Host, Console, or All	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
62.	41	2. Technical Specification of HSM for UPI - Req. no. 42	Reduced Key check value: 6 HEX	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
63.	41	2. Technical Specification of HSM for UPI - Req. no. 43	Encrypted decimalization table	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
64.	41	2. Technical Specification of HSM for UPI - Req. no. 44	Secure Host communication using TLS or SSL	These features are specific to payment HSM which is a different product. For GP, secure channel offers better security than TLS/ SSL.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP
65.	41	2. Technical Specification	PIN never appears in the clear outside of a tamper resistant security	These features are specific to payment HSM which is a different product.	Please remove / relax this clause as this clause is related to a different product (payment HSM)	Clause stands as per RFP

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			on of HSM module as per PCI PIN security requirements for UPI - Req. no. 45			
66.	42	Part V	DELIVERY AND INSTALLATION	The HSM device should be delivered at both sites within 4 weeks and 2 weeks for installation from date of issuance of Purchase Order	We request to revisit this clause: The HSM device should be delivered at both sites within 8 weeks and 4 weeks for installation from date of issuance of Purchase Order	Clause stand modified as : "The HSM device should be delivered at both sites within 6 weeks and 2 weeks for installation from date of issuance of Purchase Order"
67.	42	2. DELIVERY AND INSTALLATION	The delivery location is as stated below: (i) UCO Bank, Head Office-II, Department of Information Technology 4th Floor, 3 & 4 DD Block, Sector-1, Salt Lake, Kolkata-700064 (ii) UCO Bank, UCO Bank, Data Centre, C/o Tata Communication, NO-2, KEB Layout, Geddhalli, Sanjay Nagar, Bangalore-560094		Please confirm the number of HSM appliances that is required to installed at each of the two locations, namely Kolkata & Bangalore.	Details already shared in point 2 of scope of work of RFP.
68.	42	2. DELIVERY AND INSTALLATION	e) The software/equipment is considered accepted (Commissioned and Operationalized) after signing the Acceptance Test document jointly by the		We understand that the Bank would provide unhindered access to the Data Centres required for supply, installation & supporting the HSM devices. We further assume the necessary rack space, power and basic requisites required for installation & commissioning would be provided by the Bank at both the DCs.	Bank would provide assisted access to the selected bidder. Bank will also provide Rack Space, power and other essential requirement, but bidder has to provide rack with

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			representatives from the Bank and the selected bidder. The component level checking for individual service may be included during the acceptance test. Upon satisfactory installation of the equipment, vendor should obtain signed installation certificate from the Bank Official after making the stock entry at their end and specify the same in the installation certificate. The same shall be submitted by the vendor along with the bills for payment.		Please confirm our understanding & assumption.	all necessary accessories like power cord, lan wire etc.
69.	44	5	90% of the Hardware Cost will be paid after delivery and successful installation of the HSM	TERMS OF PAYMENT	We would request the Bank to change the payment terms to 70% against delivery and 20% against Installation	Clause stands as per RFP.
70.	44	5. TERMS OF PAYMENT	For Hardware (HSM) a. 90% of the Hardware Cost will be paid after delivery and successful installation of the HSM.	Payment terms	Request the bank to amend the clause if there is delay from the bank on installation for more than 4 weeks, bank will release 90% of the payment	Clause stands as per RFP.
71.	45	5. TERMS OF PAYMENT	For Hardware (HSM) a. 90% of the Hardware Cost will be paid after delivery and successful installation of the HSM.		We would request the Bank to amend the Payment Terms as suggested below to sync with the industry standard: For Hardware (HSM) a. 70% of the Hardware Cost will be paid after delivery	Clause stands as per RFP.

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			b. 10% of the Hardware Cost will be paid after the 3 years (i.e., warranty period of HSM). The amount may be claimed by submitting Bank guarantee equivalent to the cost.		of the HSM. b. 30% of the Hardware Cost will be paid after successful installation of the HSM.	
72.	46	7. Liquidated Damages	Notwithstanding Bank's right to cancel the order, liquidated damages at 1% (One percent) of the price of undelivered portion/ not installed services of per week will be charged for every week's delay in the specified delivery schedule subject to a maximum of 10% of the total cost of ownership. Bank will have right to recover these amounts by any mode such as adjusting from any payments to be made to the Bidder or from the performance Bank Guarantee. Liquidated damages will be calculated per week basis. The bidder shall share dispatch details regularly after handing over the consignment to the concerned Courier Agency/Indian Postal services.		We request you to kindly amend the clause as:- Notwithstanding Bank's right to cancel the order, liquidated damages at 0.5% of the price of undelivered portion/ not installed services of per week will be charged for every week's delay in the specified delivery schedule subject to a maximum of 5% of the total cost of ownership. Bank will have right to recover these amounts by any mode such as adjusting from any payments to be made to the Bidder or from the performance Bank Guarantee. Liquidated damages will be calculated per week basis. The bidder shall share dispatch details regularly after handing over the consignment to the concerned Courier Agency/Indian Postal services.	Clause stands as per RFP.

Corrigendum

Reference	Original clause	Modified Clause
BANK'S REQUIREMENT		Bank requires General Purpose HSM with RSA 2048-bit encryption for UPI and BBPS applications.
Delivery And Installation	The HSM device should be delivered at both sites within 4 weeks and 2 weeks for Installation from date of issuance of Purchase Order	The HSM device should be delivered at both sites within 6 weeks and 2 weeks for Installation from date of issuance of Purchase Order
Technical Specification of HSM for UPI	Audit trails and 2 Factor Authentication for Auditor using USB tokens	Audit trails and 2 Factor Authentication for Auditor using USB tokens/Smartcards
Technical Specification of HSM for UPI	Key Entry Mechanism are protected as per PCI HSM 3.0 requirements	Key Entry Mechanism are protected as per PCI Compliant.
Technical Specification of HSM for UPI	The proposed HSM must be PCI-HSM 3.0 Certified or above	The proposed HSM must be PCI compliant.
Technical Specification of HSM for UPI	Cryptographic module certified to FIPS: 140-2 Level 3, 46, 81, 180-3, 186- 3, 198 or above	Cryptographic module certified to FIPS and Should adhere to all major industry standards, including FIPS-140-2 level 3, PCI compliant.
Technical Specification of HSM for UPI	Key Entry Mechanism are protected as per PCI HSM 3.0 requirements	Key Entry Mechanism are protected as per PCI Compliant.
Technical Specification of HSM for UPI	Should have GUI/CLI available with 2 factor Authentication using USB	Should have GUI/CLI available with 2 factor Authentication using USB / Smartcards.
Last date for receipt of tender bids	27.12.2021 by 4:00PM	12.01.2022 by 4:00 PM
Opening of tender bids	27.12.2022 at 4:30 PM	12.01.2022 at 4:30 PM

Addendum

Part-V, Clause 5:: Terms of payment: (For Hardware- HSM)

In case, the item is delivered but the installation is delayed on account of site not ready, 70% payment may be released on production of site not ready (SNR) certificate from the concerned Site and rest 20% of the order value after completion of the installation and commissioning as mentioned in point (a) of payment terms or submission of Bank Guarantee of an equivalent amount having validity till contract period