Corrigendum-3

Response from UPLC against the Pre-Bid Queries raised by the prospective Bidders for the RFP for SELECTION OF AGENCY FOR EMPANELMENT OF OEM FOR CLOUD ENABLEMENT INFRASTRUCTURE (Tender No. UPLC-HW-CLOUD-05/18-03-2014)

SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
1.	Dual socket blade (half height) with 8 Core 2.4 Ghz with 16MB Cache or higher The bidder may propose higher configuration within 95Watt processor consumption from latest series.	**Please specifiy** whether server is to be populated with single processor or two processors.	Two processor required
2.	Memory (RAM) Low Voltage: Min. 512 GB@ 1600 Mhz scalable to min 50% or more without additional slots within the blade.	**Rephrase to** "Server is to be configured with 512GB memory using DDR3 modules operating at minimum of 1333 Mhz. " **Justifications:** The Low power Memory miodules operates at 1.35/1.25 V while the regular DDR3 Memory operating at 1.5/1.35 V, thus resulting into significantly no or negligible power saving. Secondly The Low power DIMMS also compromise on the Processing speed thus resulting in to Performance impacts as well. While using the Load reducced Memory or LRDIMMS which operates at 1333 MHz and reduces the system overhead during multi-tanency would be more effective. Also distributing memory across the Memory bank provides a better performance hence the clause for 50% bank free shoulc be removed. Hence request for change which will give you optimal performance at lower energy consumptions.	As per RFP
3.	RAID controller with RAID 0/1/5	The System Blades come with maxuimum of 2 internal Harddisk and implementing RAID 5 would not be possible as the RAID5 requires additional Disk Drive within the system which is not possible. Hence request for ammendment in the clause as " RAID CONTROLLER WITH RAID 0, RAID1"	RAID controller with RAID 0, 1. Accepted
4.	It should Provide aggregate I/O bandwidth of 2x10 Gb Eth, 2x8 Gb FC or 4x10 Gb CNA per server.	**Rephrase to**It should Provide aggregate I/O bandwidth of 2x10 Gb Eth,2x8 Gb FC or 2x10 Gb CNA per server. **Justifications:** Some major OEM like HP provide the required number of ports by virtualization technology and converged network adapters. Hence request you to modify the clause.	As per RFP

Corrigendum-3

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SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
5.	The blade solution should be capable of accommodating the min 8 blade server in a single chassis with redundant power supply options *Preference will be given to those bidder/OEM who can accommodate maximum number of blade servers in single rack within the power consumption of 6.5 KVA at 90% peak load.	Restruicting the Blade counts to minimum 8 would be restricting the future scalability in the Cloud environment of the Government. The Major infrastructure providers OEMs have the Blade chassis available with 14 or 16 number of Blades. The Power consumption of the Infrastructure depends on multiple factors such as : **a. That the chassis is fully populated with All Blades. b. That the CPU being used in the Servers are of Highest Clock speed and Highest Power. c. That all the interconnect modules in the servers are implemented and are running at saturation which is Utilisation is 100% and many more.** Restricting the Power requirement just on the number of Power supplies available in the system would be restricting SDC to use the best available technology and restricting them to the Vendor specific Infrastructure. The SDC Today has the equipments from Various vendors other than specified in the RFP and there is no challange seen in the Power requirements as such. **We rather request that the power rating for the solution to be asked instead.**	As per RFP
6.	The enclosure should be populated fully with power supplies of the highest capacity & energy efficiency of a minimum of 90%.	**Rephrase the clause to :** We request for ammendment in the clause that "The enclosure should be populated with adequate number of power supplies to support the number of servev populated in the enclosure with Redundancy & with energy efficiency of a minimum of 90%. Since vendors like HP support more number of servers (upto 16) in a single chassis, this clause will require to populate higher number of power supplies compared to other vendorsand these Power supplies would be lying un-utilised in the chassis .	As per RFP
7.	The Solution should support open Format.	Please elaborate on Open Format	This refers to support open industry standards.

Corrigendum-3

SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
8.	The Solution should have the ability to not just enforce policies but also track and report non-conformance	Since the idea is to begin with IaaS, would this feature be required from day 1	Solution should have ability to enfornce compliance whether IaaS or PaaS.
9.	The Solution shall have self-service capabilities to allow Users Departments to log service requests	This feature is predominently delivered by EMS solutions, Cloud software solutions (IaaS) would not address the same. Please remove this clause	As per RFP
10.	The Solution should use cloud helpdesk for logging calland maintaining escalation and in addition providestandard API for integration with existing helpdesk for maintaining record.	This feature is predominently delivered by EMS solutions, Cloud software solutions (IaaS) would not address the same. Please remove this clause	as per RFP
11.	The Solution should have the facility of Registration,Signup, Forgot Password and other standard pages(Profile, Billing or Contact information) and it should be able to integrate with LDAP solution.	This would be a state private cloud not a public cloud where user would be unknown & hence it would work on role base access as also mentioned under security capability clause on page no 20. Kindy remove the clause	As per RFP
12.	The Solution shall monitor all the critical operating system level services and shall check for their status like running, not running, paused. In addition, deviations from a defined Configuration shall be detectable and reported	Monitoring OS level services & application is been goverened by EMS solution; Cloud Solution is Infrastructure focus & monitors infrastructure parameters, however additional software can be used to monitor OS level services they are usually part of EMS solution. Since the RFP aspires to cover IaaS phase initially, please move this clause to later phases.	Should be read as "The Solution shall monitor all the critical services and shall check for their status like running, not running, paused. In addition, deviations from a defined Configuration shall be detectable and reported"
13.	The Solution shall give User Department ability to select performance counters and duration for which they want to view the performance data	Monitoring OS level services & application is been goverened by EMS solution; Cloud Solution is Infrastructure focus & monitors infrastructure parameters, however additional software can be used to monitor OS level services they are usually part of EMS solution. Since the RFP aspires to cover IaaS phase initially, please move this clause to later phases.	As per RFP
14.	The Solution shall provide a Knowledge base to store history of useful incident resolution	Knowledge Management is par tof EMS Solution. Kindly remove from Cloud Management software capability	As per RFP

U.P. Electronics Corporation Limited

Corrigendum-3

SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
15.	Dual socket blade (half height) with 8 Core 2.4 Ghz with 16MB Cache or higher The bidder may propose higher configuration within 95Watt processor consumption from latest series.	Every Oraganization have their own architecture and half hight blades are not available with every OEM and specific to particular OEMs. Request you to please exclude "half height" form factor so that the maximum participation can happen in bid.	As per RFP
16.	64bit OS support: Virtualization Software / Microsoft® Windows Server 2003/2010/2012, Enterprise Edition / Red Hat® Enterprise Linux 5 & 6 AS / SUSE® Linux Enterprise Server 10/Unix	Oracle offers Oracle Enterprise Linux 64-bit (OEL) which has been most adopted by many organizations globally and locally and running sucessfully mission critical setups. So requested you to please add OEL (Oracle Enterprise Linux) in supported Operating systems. Please revise the clause as following: **"64bit OS support: Virtualization Software / Microsoft® Windows Server 2003/2010/2012, Enterprise Edition / Oracle Enterprise Linux (OEL) / Red Hat® Enterprise Linux 5 & 6 AS / SUSE® Linux Enterprise Server 10/Unix"**	As per RFP
17.	The enclosure should be populated fully with power supplies of the highest capacity available with the vendor. Power supplies should support N+N as well as N+1 redundancy configuration, where N is greater than 1	Every OEM has its own blade chassis architecture and technology. All chassis provides redundant power supplies and supports N+N, N+1 architecture where N is equal to or greater than 1. Oracle Blade Chassis supports N+N, N+1 architecture where N is equal to 1. Request you to please amend the clause to **"The enclosure should be populated fully with power supplies of the highest capacity available with the vendor. Power supplies should support N+N as well as N+1 redundancy configuration, where N is greater than or equal to 1"**	As per RFP
18.	2 x 146 GB 10K or higher RPM hot plug SAS HDD	146GB disks are going to be end of life and may not be available with all vendor and same will be vanished out from market. Request you to consider 2 x 300 GB HDD. Please modify the clause to following: **"Minimum 2 x 300 GB 10K or higher RPM hot plug SAS HDD"**	The clause stands revised to " Minimum 2 x 300 GB 10K or higher RPM hot plug SAS HDD"
19.	Atleast 2 x 10/100/1000 Mbps Ethernet ports and 2 HBA cards with necessary ports, interfaces and cables for the solution to work.	The technology is getting advanced day by day and most of the vendors provide 10Gig ethernet ports on board. Even most of the application tier gives better performance with thicker ethernet pipe. For the benefit of UPECL please	as per RFP

Corrigendum-3

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SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
		modify the clause to "Atleast 2 x 10Gbps Ethernet ports and 2 HBA cards with necessary ports, interfaces and cables for the solution to work."	
20.	The OEM should be in the leader quadrant of Gartner Report from the last 3 years	This clause qualifies only Microsoft and Vmware whereas there are other major OEMs offerings available in market like Redhat Linux virtualization, Oracle VM to meet the customer requirement. Requesting you to remove this clause to have maximum participation in this opportunity.	As per RFP
21.	Role Based Access Control (granular user access control e.g. through integration with Active Directory)	AD-Intergration is specific to microsoft technology. We understand RBAC with DNS/NIS/LDAP etc is also accepted. Please confirm	accepted
22.	Integrated Power Management features Ability to automatically migrate vms onto fewer hosts and power off unused capacity (hosts), wake systems back up when required	This feature is specific to particular OEM. This clause is letting other OEM out of this opportunity. This capability can be achieved as per OEM virtualization sofware feature in other way. Request you to please relax this clause to Automatically/manually ability.	As per RFP
23.	Integrated ability to (ideally live) migrate virtual machine data (virtual disk files) to different storage e.g. for array upgrades/migration and I/O management	There is always change in file system layout in two different storages. Please elaborate the clause more in details.	As per RFP
24.	Support for the Open Virtualization Format - an open(vendor independent) standard for packaging anddistributing virtual appliances	There is no support for Open Standard based VM Formats and is pointing a single vendor and hence request for the removal.	As per RFP
25.	The Solution should be able to run various operatingsystems like windows client, windows server, Linux(Redhat, SUSE Linux etc) , Solaris x86, and any otheropen source (latest versions)	Solaris is not widely used Operating systems. Thus we request solarisx86, and any other open source should be removed.	As per RFP
26.	The Solution should be able to offer choice of variousService offering on multiple hypervisors (such as XEN, Hyper-V, VMware, KVM), with an option to select multioperating systems such as Windows 2008, 2012 RHEL / SUSE Linux, etc., VLAN, Storage and quickly computeassociated price for the same as well as shows the deduction for overall Tenant approved infrastructureQuota	The verbiage in clause says (such as XEN, Hyper-V,Vmware, KVM.....) does it mean that the proposed solution should offer choice with at least 2 hypervisors mentioned in the clause because it says such as. Or is it required for the cloud solution to support all specified Hypervisors. Further clarification solicited.	As per RFP

U.P. Electronics Corporation Limited

Corrigendum-3
Response from UPLC against the Pre-Bid Queries raised by the prospective Bidders for the RFP for SELECTION OF AGENCY FOR EMPANELMENT OF OEM FOR CLOUD ENABLEMENT INFRASTRUCTURE (Tender No. UPLC-HW-CLOUD-05/18-03-2014)

SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
27.	The Solution should support open Format.	No clarity as what is open format support. Hence request for the removal.	As per RFP
28.	The Solution should have the ability to manage Virtual Assets across the major multiple virtualization platforms(Microsoft, VMware, Xen, KVM) etc.)	The verbiage in clause says (major multiple virtualization platform of XEN, Hyper-V,Vmware, KVM.....) does it mean that the proposed solution should offer choice with at least 2 hypervisors mentioned in the clause because it says etc. Or is it required for the cloud solution to support all specified Hypervisors. Further clarification solicited.	This clause is modified as The Solution shall have the ability to manage Virtual Assets across the major multiple virtualization platforms (like Microsoft, VMware, Xen, etc)
29.	Proposed Cloud Service Catalog should integrate ·withexisting service desk system for workflow approvals while user request for provisioning in cloud environment.For example a user logs into the Cloud self-service Catalog chooses the relevant and appropriate VM/Service base on his identity, the request should goto the approving manager by integrating with existingService Desk and email systems. Thereafter theapproving manager approves the request the workflow should trigger through the Service Desk and SelfService Cloud Catalog and finally to the provisioningengine that finally does the provisioning	This functionality would add complexity. Since there is already a service desk then , would recommend to utilize the cloud service desk and approval mechanism in here at the same can get an email notification send to existing service desk for the record of an event.	As per RFP
30.	The cloud software OEM should be in the top 5 vendorsas per IDC/Forrester/Gartner	This point is deviation from model RFP and restricts cloud vendors to participate, hence request for removal	Cloud software should also have support for these features through standard interfaces like REST/ SOAP, Telnet, SSH. Though responsibility to underline infrastructure lies with department
31.	This invitation for e-Bids is for selection of Agencies for finalizing the Rate Contract (RC) from Original Equipment Manufacturers (O.E.M.)	Like many other OEMs, Cisco offers all products to its esteemed and valued clients through Cisco Certified Partners. These Partners are trained on Cisco products and architectures which enable them to install, implement & maintain large & complex networks. These partners are supported by Cisco specialists and engineers around the clock to ensure that the Service Level Agreements are not	Accepted

U.P. Electronics Corporation Limited

SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
		compromised. All Cisco networks are managed across India by our Certified partners (Primarily Gold Partners). In view of this, we request you to kindly allow our partners to participate directly to supply, install, implement & maintain our product and offerings.	
32.	7. The OEMs should certify that they have support mechanism	b) Cisco would provide the MAF & Undertaking duly signed by authorized signatory stating that Cisco shall support (including spares, patches, and upgrades for) all the quoted products for the duration of entire project period.	accepted
33.	The Solution should encrypt the communication between cloud framework and all target systems.	This is completeley dependent on target system abilitry to support encrypted communicatoipn for administration	accepted
34.	The solution should enable multi-tenancy by integration with technologies such as perimeter protection, portlevel. firewalls, network address translation (NAT) and DHCP services offering virtualization-awaresecurity, simplified application deployment and enforcing boundaries required by compliance standards.	We assume that It is completely dependent on Networking architecture to support all of the mentioned solution and its abilty to support isolated conatiner baised environment	Cloud software should also have support for these feature through standard interfaces like REST/ SOAP, Telnet, SSH. Though responsibility to underline infrastructure lies with department
35.	The Solution should offer Automated and Approval based Upgrades for Virtual Machines delivering cloud infrastructure	Is this asked for the VM for running the cloud soloutionb or are thjise VMs given to end users	This is VMs being delivered for IaaS.
36.	The Solution should provide resource-level operationsacross compute resources (IBM, Cisco, HP, Dell, Oracle and/or other hardware), hypervisors (VMware, Xen, Hyper-V, KVM), storage resources (EMC, Netapp,	We assume that the desired functionality is provided by the management systems for various infra & hypervisor vendors.	The solution should provide the required funcitionality, whteher it is achievable through cloud software or hypervisor.
37.	11 Proposed Cloud Service Catalog should integrate withexisting service desk system for workflow approvals while user request for provisioning in cloud environment. For example a user logs into	We understand that the solution should integrate with performance & capacity management softwares to provide an overview of overall environment and automate remedial tasks if necessary , pl clarify	Cloud software should have ability to integrate with performance & capacity Management softwares.
38.	RAID controller with RAID 0/1 with 256 MB cache	**Amendment Request:**8-port PCIe RAID controller with RAID 0/1 with on-board 1 GB data cache	As per RFP
39.	Optical / diskette: 8X / 24X slim-line DVD ROM drive	Amendment Request: Support for Local / Remote Optical / diskette: 8X / 24X slim-line DVD ROM drive	accepted
40.	Specification of SAN switch is missing?		As per RFP

SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
			implementation & integration. OEM/SI has to quote the professional services in two categories. (i) Man days for implemention & integration. (ii) monthly for operation & maintenance.
49.	kindly include in the commercial bid format	Cost of latest Hypervisors ESXi (as per requirements in FRS) (to create unlimited virtual machines on the 4-socket servers as mentioned in RFP)	As per RFP
50.	The Bidder should be Original Equipment Manufacturer (OEM) ofCloud Enablement	No OEM can give end to end quote for all cloud enablement components you have asked as part of commercial bid .There should be a reseller or partner allowed who can take individual costing from Cloud , Hypervisor , OD vendor ,Hardware ,network OEM's etc and submit bid.This model will not work .We request you to introduce a bidder to frontend this .Moreoever there will be legal implications with OEM's to directly bid as well as as per Government Guidlelines for empanelment bids should be submitted through resellers	OEM/SI is accepted
51.	The Cloud Software should support High Availability	why is availability required. Not asked in original DIT specs. This has cost implications.Please give an option to use virtualization HA capabilities to achieve HA for cloud software.	The overall solution should support HA.
52.	The cloud software OEM should be in the top 5 vendors as per IDC/Forrester/Gartner	Please relax this clause for other OEM's to qualify else this will restirct only to 5 OEM's. .Plese relax this to "The cloud software OEM should be in list of top evaluated vendors i.e top 10 as per IDC/Forrester/Gartner.	The clause is modified as The cloud software OEM should be in the top 10 vendors as per IDC/Forrester/Gartner
53.	• Certificate of Incorporation. • Certificate of Commencement of Business • Memorandum and Articles of Association. • Annual Reports for the last 3 years.	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner	OEM/SI is accepted
54.	A Certificate that confirming that the products quoted is not "end of life or end of sale products" as on Bid Submission date. If in case the support for the product quoted has been stopped/ withdrawn till the time of	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted

Corrigendum-3

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SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
	delivery of equipment, the same will be changed with the superior product at no extra cost the Bill of material (BOM) • The Bidder for Hypervisor Segment should be in the leader quadrant of Gartner Report from the last 2 years in reference to Market Position		
55.	Page No. 10 : Section II- Qualification Criteria The Authorized Signatory signing the Bid on behalf of the Bidder should be duly authorized by the Managing Director/ Board of Directors of the Bidding Company to sign the Bid and the Contract on their behalf.	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
56.	Copy of Work Orders in Cloud Enablement services	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
57.	Audited Profit and Loss Statement and Balance sheets. • Statutory Auditor Certificate or Certificate from the Company Secretary of the Bidder/ Chartered Accountant clearly specifying the turnover for the specified years.	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
58.	Statutory Auditor Certificate or Certificate from the Company Secretary of the Bidder/ Chartered Accountant clearly specifying the positive net worth for the specified years.	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
59.	Undertaking from the authorized signatory of the OEM that support including spares, patches, and upgrades for the quoted products shall be available for the entire project period.	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted

U.P. Electronics Corporation Limited

Corrigendum-3

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SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
60.	Copy of Work order and Certificate of completion or successful implementation by the client or Proof of Delivery OR self Certificate attested by the client. • Documentary proof for the stated Project value attested by the client. • Statutory Auditor Certificate or Certificate from the Company Secretary of the Bidder/ Chartered Accountant for an minimum aggregate	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
61.	Copy of Work order and Certificate of completion or successful implementation by the client or Proof of Delivery OR self Certificate attested by the client.	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
62.	Certificate from the Authorized Signatory to the effect that the Bidder is not blacklisted by any of the Ministry/ Department of Government of India/ State Governments	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
63.	• Copy of valid certificates.	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
64.	Certificate from Bidder's HR Department	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
65.	Copy of each Certificate of the Bidder.	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised	OEM/SI is accepted
66.	DD/ Banker's Cheque/ Bank Guarantee	Pls. consider/amend : "Bidder" called as OEM	OEM/SI is accepted
67.	Undertaking from the authorized signatory of the Bidder	Pls. consider/amend : "Bidder" called as OEM or OEM Authorised Partner and OEM letter is required to be fulfilled the required qualification criteria	OEM/SI is accepted
68.	The Bidder should be Original Equipment Manufacturer (OEM) of Cloud Enablement	The Bidder should be Original Equipment Manufacturer (OEM)/ OEM Authorised Distributor/OEM Authorised Reseller of Cloud Enablement	OEM/SI is accepted
69.	The Bidder should have been in this business of Supply / Installation Cloud Enablement Infrastructure / IT Infrastructure projects for a period exceeding three years	The Bidder should have been in this business of Supply / Installation Cloud Enablement Infrastructure / IT Infrastructure projects/ Network Infrastructure projects for a period exceeding three years as on 31.03.2013.	as per RFP

Corrigendum-3

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SN	Existing Clause from the RFP	Question / Clarification / Request	UPLC Response
	as on 31.03.2013.		
70.	The Bidder should have an average annual turnover of at least INR 200 crores during the last three financial years (i.e. 2010-11, 2011-12, 2012-13).	The Bidder should have an average annual turnover of at least INR 100 crores during the last three financial years (i.e. 2010-11, 2011-12, 2012-13).	as per RFP
71.	The Bidder shall have positive net worth of at least INR 50 Crores as on 31st March 2013, and shall have a positive net worth in each of the following years 2010-2011, 2011-2012, and 2012-2013.	The Bidder shall have positive net worth of at least INR 10 Crores as on 31st March 2013, and shall have a positive net worth in each of the following years 2010-2011, 2011-2012, and 2012-2013.	as per RFP
72.	The Bidder should have successfully supplied and installed Cloud Enablement Infrastructure at minimum 05 locations in India for an minimum aggregate value of INR 1 crore in the last 3 financial years (i.e. 2010-11, 2011-12, 2012-13).	The Bidder should have successfully supplied and installed Cloud Enablement Infrastructure/ IT Infrastructure projects/ Network Infrastructure projects at minimum 03 locations in India for an minimum aggregate value of INR 1 crore in the last 5 financial years (i.e.2008-09,2009-10,2010-11, 2011-12, 2012-13).	as per RFP
73.	The Bidder should have successfully executed similar work (cloud eneblement infrastructure) with minimum single order value of INR 50 Lacs during last 3 financial years.(i.e.2010-11,2011-12,2012-13)	The Bidder should have successfully executed similar work (cloud eneblement infrastructure/IT Infrastructure projects/Network Infrastructure projects) with minimum single order value of INR 50 Lacs during last 5 financial years.(i.e.2010-11,2011-12,2012-13)	as per RFP
74.	The Bidder must have a team of 100 technically qualified professionals having valid professional certifications and must have on its pay roll.	The Bidder must have a team of 50 technically qualified professionals having valid professional certifications and must have on its pay roll.	as per RFP
75.	The Bidder should be Original Equipment Manufacturer (OEM) of Cloud Enablement	The Bidder should be Original Equipment Manufacturer (OEM)/ OEM Authorised Distributor/OEM Authorised Reseller of Cloud Enablement	OEM/SI is accepted
76.	The Bidder should have been in this business of Supply / Installation Cloud Enablement Infrastructure / IT Infrastructure projects for a period exceeding three years as on 31.03.2013.	The Bidder should have been in this business of Supply / Installation Cloud Enablement Infrastructure / IT Infrastructure projects/Network Infrastructure projects for a periodexceeding three years as on 31.03.2013.	As per RFP
77.	The Bidder should have an average annual turnover of at least INR 200 crores during the last three financial years (i.e. 2010-11, 2011-12, 2012-13).	The Bidder should have an cumulative annual turnover of at least INR 200 crores during the last three financial years (i.e. 2010-11, 2011-12, 2012-13).	as per RFP

U.P. Electronics Corporation Limited

a.   Server Virtualization Software with required security capabilities

b.   Integration of new and existing components with Cloud Solution based on the site survey. Tendering authority at its discretion may ask to integrate the existing components for this SI has to quote separately.

c.   Cloud Enablement components

    i.   Self Service provisioning

    ii.   Automation & Orchestration

    iii.   Capacity Management

    iv.   Life Cycle Management

    v.   Catalogue and directory Maintenance

    vi.   Monitoring and Reporting

The following are steps for Cloud Implementation:

- The System Integrator has to provide the services into following categories:
  - a.   Infrastructure as a Service (IaaS)
  - b.   Platform as a Service (PaaS)
  - c.   Software as a Service (SaaS)
- The services can be initiated with Compute Services (CPU, RAM, Storage, OS, and Database) and Network Components to the departments on demand basis along with integration, test and development environment after that gradually migration of existing infrastructure and applications may happen on cloud.

The State/SIA is looking for a solution approach and architecture based design principles from market leading cloud solution providers in providing a low-cost solution enabled through factors such as using commodity hardware and efficient operations to ensure a cost-effective, scalable, efficient e-Governance platform. The architecture needs to be scalable to meet future demand and provide sufficient levels of security and interoperability so that customers (internal and external) are comfortable having critical infrastructure hosted in a safe environment.

4.2 Supply, Installation, Testing & Commissioning, Integration, Training, Support and Operation and Maintenance for Cloud Enablement Infrastructure

The minimum specified scope of work to be undertaken by the Selected OEM/SI for supply, installation, Commissioning, Integration, Testing, , knowledge transfer, Support for Data Centre Cloud Enablement Infrastructure is mentioned below:

a)   Finalize the deployment architecture/layout with the tenderer & concerned department.

b)   TheServices that SI has to provisioned & Integrated w.r.t Hypervisor & Cloud software are divided into two categories are given below:

Basic Services:

1. Integration Services.

It is the responsibility of the OEM/SI that cloud software and their assorted components should integrate with the new hardware/software such as compute & network components, supplied by them.The UPLC may also ask the OEM/SI to integrate the already existing hardware/software at additional cost.The integration with already existing hardware/softwareis subject to capability of the hardware/software to integrate with the cloud software. In case, ifthe already existing hardware/software is not cloud ready or not able to integrate with the cloud solution, the OEM/SI will not be held responsible.

Integration Testing

- This shall be a black-box testing role primarily to ensure that the application to be deployed does not disrupt the Data Centre operations and affect other Data Centre infrastructure in terms of performance and security. The technical tasks to be carried out shall be as follows:

- Functional Testing: Ensuring that the application functionality as described by the department works adequately on the Data Centre environment. The functional testing of application will necessarily be minimal as this is a core responsibility of the department,

- Performance Testing: Ensuring that the application *and the database* meets expressed performance requirements on the Data Centre servers by using performance test tools and performance monitoring tools

- Security Testing: Testing for exploitable application security weaknesses that undermine the application security or the security of the infrastructure.

2. IaaS

The IaaS offerings should include VM provisioning for already existing &new Hardware on Windows andRHEL (Latest versions also),Bare Metal OS Provisioning etc.

Optional Services

The Optional services may be availed with the basic services or as when required by the department. For optional services, the price will be discovered later in consultation with the requested department according to their requirement & scope of work for PaaS & SaaS or through a separate tender.

The bidder has the capability or competency to provide the services as mentioned below

1. PaaS

PaaS offerings may also include facilities for application design, application development, testing, and deployment as well as services such as team collaboration, web service integration, and marshalling, database integration, security, scalability, storage, persistence, state management, application versioning, application instrumentation, and developer community facilitation etc.

2. SaaS

SaaS offering may include department software/application, office & messaging software, DBMS software, management software, CAD software,Development software, accounting, customer relationship management (CRM), management information systems (MIS), enterprise resource planning (ERP), invoicing, human resource management (HRM), content management (CM) and service desk managementetc.

This scope is at least but not limited to the defined services. The tenderer may increase or decrease the services.

c) Procurement, supply, installation & commissioning, Integration of all the components & sub components including all necessary hardware & software as per the proposed solution. The Bidder has to ensure that the solution should work as desired and the Bidder is also responsible to supply, install and integrate any other components that is inadvertently missed out but required for the overall solution to work.

d) The Bidder shall be responsible for ensuring implementation of the proposed solution with existing infrastructure and solutions present in the data centre and optimal functioning of all the components post installation and integration. This implementation should comply with all the functionalities stated in the Functional Requirement Specifications (FRS) and conform to the agreed deployment/implementation/integration architecture. It should be noted that any customization / API development that is carried out by the Bidder for such implementation/integration will have to be supported (error correction, patch management, updates, upgrades) for the same duration of support applicable for the overall solution. The Bidder should ensure that the Cloud solution should be able to permit utilization of the existing security devices like, firewall, IPS etc. such that entire functionality of these devices can be used to monitor security features and provide alerts, alarms, reports, proactive actions on virtual environment similar to those provided in physical environment.

Corrigendum-3

Response from UPLC against the Pre-Bid Queries raised by the prospective Bidders for the RFP for SELECTION OF AGENCY FOR EMPANELMENT OF OEM FOR CLOUD ENABLEMENT INFRASTRUCTURE (Tender No. UPLC-HW-CLOUD-05/18-03-2014)

e) The tenderer will appoint a representativeto be associated with the Selected Bidder team so that full hand holding of the entire solution should be done from the beginning, to ensure complete and smooth knowledge transfer

f) The necessary server, operating system, database and any other required Licenses for Cloud Solution etc. would be provisioned by SI/*Bidder* on its own and cost of the same would be built-in the solution proposed as per proposed Solution. No separate line items would be mentioned for these items in the BOM. *The Bidder is required to quote unit price of the same in this Bid only. If additional line items are mentioned in the bid of a Bidder then prices of the same shall be added to the Total cost of the bid. No additional amount, whatsoever, shall be claimed/paid by/to the Bidder.*

g) Comprehensive training during the transition phase shall be key to successful Operations and Maintenance; hence the Bidder is required to undertake robust training. The successful Bidder is free to propose the training plan. However at a minimum, the plan should include the following:

SDC Cloud Enablement Training Schedule		
S. No.	Training Description	
A	IT Training	
1.	Overview of Components Installed	
2.	Server Virtualization	
3.	Adherence and Compliance	
4.	Overview of Migration from stand-alone Applications to the Virtualized Environment	
5.	Overview of Cloud Management and Monitoring Modules	
6.	Services that can be leveraged through SDC Private Cloud	
7.	Service Provisioning Portal, Orchestration, Automation etc.	
8.	Customization of Service Catalogue and Directory to able to add more services	
B	SLA	
1.	Overview of SLA Monitoring & Management	
C	Others	
1.	Overview of Service Provisioning, security adherence etc.	
2.	Do's and Don'ts	
3.	Any other points/topics (for e.g., Open Format, Interoperability, consolidation, virtualization etc.)	

The above plan is only indicative; the final training plan shall be finalized between the SI/*Bidder* and the Tenderer/Department.

h) A training workshop needs to be arranged by the Bidder for hands-on training. This workshop shall be for 2 weeks and will be delivered by people certified in Cloud and Virtualization.

i) 1 week training would be prior to the FAT and 1 week after the FAT

j) The State/SIA, prior to the O&M phase, shall undertake a detailed Acceptance Test process, which will include:
- Component wise Acceptance
- Overall Solution Acceptance
- *Documentation*

k) It is required that OEM provide the design(High Level/Low Level Design/ Build Spec) and implementation services for their respective components supplied for the cloud solution so that deployment is as per the best practices and to make sure that the supplied technology & products work as per the design and solution objectives. All resources from OEM and Bidder are required to be their own resources; i.e. all resources required from the OEM should

Corrigendum-3
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be directly from the OEM and the same for the bidder and OEM resource must be present onsite during entire duration of the implementation. & It is the mandate that cloud OEM representative, *not less than the level of a Senior Manager/Solution Architect,* will certify for satisfactory deployment of their components. Representatives from the OEM shall also be present during the Final Acceptance Tests

l) Bidder has to provide documentary evidence for back-to-back support agreement with the respective OEMs for all solution components for the entire period of warranty and support. Customer should have direct access to OEM technical support center for these products for the entire period of warranty and support.

m) FAT completion would be decided mutually by the department/UPLC & OEM/SI.
    Application(s) may be changed by the Tenderer/Department, depending on their criticality and availability.All documents in this regard have to be prepared and submitted to the SIA prior to integrating and making it Cloud Enabled for approval.

n) Prior to deployment of the solution, the Bidder shall convey to the tenderer all the requirements to be fulfilled by the Tenderer/Department for ensuring smooth operations. The requirements may include:

    i.   Rack Space requirements in the available 'U' racks
    ii.   Power requirements
    iii. Passive component requirements
    iv.   Planned downtime requirements, if any

(The Bidder shall ensure that the planned downtime is during non-peak hours and on weekends, so that the downtime has minimum effect on the existing operations of the Data Centre).

o) The successful Bidder shall ensure that the project documents are maintained as per ISO 9001-2008 requirements.

p) During the support period of the Cloud solution, the successful Bidder shall comply with the SLAs provided under this RFP.

q) All complaints shall be logged in the current Help Desk (if already deployed) of the Data Centre or the cloud helpdesk and the data shall be used to comply with the SLA compliance

r) The call and escalation that would be *required* for the support period should be properly recorded in the helpdesk system of the Data Centre

s) The Bidder shall ensure that the products quoted are not "end of life as on Bid Submission date. If, in case, the support for the product quoted has been stopped/ withdrawn till the time of delivery of equipment, the same will be changed with the superior product at no extra cost. The support including spares, patches, update for the quoted products shall be available for the entire period of the Project

t) The prices would be discovered in two parts:
    - CAPEX (which shall include the Supply, Installation, Integration & Commissioning, Testing, Support, Training and FAT).
    - OPEX (This shall include the O&M and subscription (patches& updates etc.) cost for the period of one year.

4.3 Operation and Maintenance (O&M) Services

The subscription of O&M services will depends on the requirements of the line department. The line department may or may not opt for O&M services, however the bidder has to quote the O&M services separately for price the discovery based on the below mentioned scope of O&M. The bidder has to quote the price for 1 year. The bidder has to furnish the detailed resource deployment plan in order to run the cloud solution successfully.

The scope of work for the Operations Phase is categorized below:

Basic Services

- Facilitate integration and hosting of departmental application on Cloud and in Virtualized Environment at the data center:
    - Provision *(creation and/or migration)* of Virtual Machines based on the requirement of the user department *from time to time.*

Corrigendum-3

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- o Maintaining catalogue and templates in the self service provisioning portal
- o Ensuring Connectivity of servers to the LAN and SAN Storage
- o Ensuring required configuration for maintaining virtual IP and switch where the virtual machines do the communication.

- Proactive and reactive maintenance, repair and replacement of defective components installed at the Data center through this RFP. The cost for repair and replacement shall be borne by the SI *for the entire project duration*.

- Any component that is reported to be faulty / non-functional on a given date should be either fully repaired or replaced by temporary substitute (of equivalent *or higher* configuration) within the time frame agreed upon in the Service Level Agreement (SLA).

- SI shall maintain *complete* records *and submit weekly or fortnightly reports, as required by the Department*of the maintenance of the basic infrastructure and shall maintain a logbook on-site *and on the web by developing and hosting a web based application for this purpose* that may be inspected by the State/SIA at any time.

- Activities related to providing Platform as a service &would be the responsibility of the SI.
- Providing redundancy through virtual switches for VMs.
- L1, L2, L3 Services.
- Server Monitoring, Administration & Management Services *along with Dashboard*.
- Backup & Restore Services of Virtual Machines.
- Preventive Maintenance Services.
- Corrective Maintenance Services.
- MIS Reports.
- *Etc.*

The applications that are going to be hosted in the Cloud Environment in Data Centre by the user department, some prior checks need to be considered before hosting:-

- Whether the Cloud infrastructure implemented in the data centre is capable enough to provide services to the hosting application.
- OS/ Database etc. need to be taken care of for hosting the application.
- Is there any specific infrastructure requirement of the hosting application?
- Who is going to take care of the licensing for the hosting application?
- Is any security measure being compromised due to the requirements of the application to be migrated?
- L-1 Services
    - o Shutdown/Reboot of the Virtual Machines and other network equipment, as directed by User/ Department.
    - o Handover of tapes, material etc to the Department /representative, as directed by Department.
    - o Help in the movement of material etc... In/out of the SDC, from vendor/representative, as directed by Department.
    - o Securing the cables in Equipment and ensuring the power cords in sockets/replacing/*procuring* the cords and cables from spares on site, as directed by Department.
    - o Providing vendors /customer/representative access to the site, as directed by the Department.

Corrigendum-3

SI is needed to prepare a compliance document/ Questionnaire for the application to be hosted by the different departments. The filled document/ Questionnaire will be verified by SI in consultation with SIA.

The Broad Classification of the services to be provided by SI is categorized below:

Integration Testing

- This shall be a black-box testing role primarily to ensure that the application to be deployed does not disrupt the Data Centre operations and affect other Data Centre infrastructure in terms of performance and security. The technical tasks to be carried out shall be as follows:

- Functional Testing: Ensuring that the application functionality as described by the department works adequately on the Data Centre environment. The functional testing of application will necessarily be minimal as this is a core responsibility of the department,

- Performance Testing: Ensuring that the application *and the database* meets expressed performance requirements on the Data Centre servers by using performance test tools and performance monitoring tools

- Security Testing: Testing for exploitable application security weaknesses that undermine the application security or the security of the infrastructure.

Change Management

- Tracking the changes in hard / soft configurations, changes to applications, changes to policies, applying of upgrades, updates, patches, etc.

- *Updates, patches, etc. must be applied within a fortnight of its release to avoid any unwanted impact on the systems.*

- Plan for changes to be made - draw up a task list, decide on responsibilities, coordinate with all the affected parties, establish and maintain communication between parties to identify and mitigate risks, manage the schedule, execute the change, ensure and manage the port change tests and documentation.

Vendor Management Services

The activities shall include:

- Coordination with all the project to ensure that all Data Centre activities are carried out in a timely *and proper* manner.

- Coordination with vendors and OEMs to ensure that time and equipment dependencies are optimally managed

- SI shall coordinate and follow-up with all the relevant vendors of the State User Department to ensure that the user problems and issues are resolved in accordance with the SLAs agreed upon with them.

- SI shall also ensure that unresolved issues are escalated to respective user departments in accordance with the escalation matrix.

- SI shall also coordinate with vendors of user departments who would host their infrastructure at SDC and ensure that the issues are resolved in accordance with the SLA signed between the User Departments and the vendors. SI shall maintain a track of SLA performance for such vendors.

- SI shall maintain database of the various vendors with details like contact person, telephone nos., escalation matrix, response time and resolution time commitments etc.

- SI shall draw a consolidated quarterly SLA performance report across vendors for consideration of the user departments *and submit relevant reports to the department accordingly.*

- *SI shall develop and host web based applications through which the Tenderer/Department and/or the Government officers concerned can see and analyse the performance of the SI, applications hosted, performance of the virtual machines and their utilization and also the inventory deployed at the data centre.*

Corrigendum-3

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Installation and Configuration of Applications

SI shall provide installation and configuration support for the application infrastructure to be hosted by User Departments in Cloud Environment. This service shall be availed by Departments based on their specific requirements. It shall not include application deployment, tuning or any other application related work. The activities shall include:

a. SI shall carry out the planning and layout design for the installation of Virtual Machines in the DATA CENTRE. The plan and layout design should be developed in a manner so as to optimally and efficiently use the resources and facilities being provisioned at the SDC through Cloud Solution.

b. The plan and design documents thus developed shall be submitted to the user departments *and the SIA* for approval and the acceptance would be obtained prior to commencement of installation.

Help Desk Services

The help desk service will serve as a single point of contact for all incidents and service requests at the SDC. The service will provide a Single Point of Contact (SPOC) and also escalation / closure of incidents for the user departments whose infrastructure is hosted at the data center. The activities related to Cloud shall include the following:

- Solution should comprise of a completely automated system of raising issues on a portal through web / intranet, call logging, ticket generation, sending alerts on email and escalation to the cloud administrators and end users.

- Provide Help Desk facility during agreed service period window for reporting user department incidents / issues / problems with the IT infrastructure. Type of incidents / calls logged. Provide necessary channels for reporting issues to the help desk. The Help desk shall log user calls related to Cloud Solution and assign an incident/ call ID number. Severity shall be assigned to each call as per the SLAs.

- Creation of knowledge base on frequently asked questions to assist user departments in resolving basic issues themselves

- Track each incident / call to resolution Provide feedback to callers.

- Analyze the call statistics

- Creation of knowledge base on frequently asked questions to aid users.

- Continuous monitoring of the physical as well as the IT infrastructure at the SDC to ensure availability as per agreed SLAs.

- Escalate the calls, to the appropriate levels, if necessary as per the escalation matrix agreed between the SI and the user department. The escalation matrix shall be developed by the SI in discussion with the SIA.

- Coordinate with respective vendors for closure of calls.

- Analyze the incident / call statistics and provide monthly reports including but not limited to:

- Type of incidents / calls logged o Incidents / calls resolved

- Incidents / calls open

Server Monitoring, Administration

The activities shall include:

- Configuration of server parameters, operating systems administration and tuning.

- Operating system administration, including but not limited to management of users, processes, resource contention, preventive maintenance and management of upgrades, updates & patches to ensure that the system is properly updated.

- Re-installation in the event of system crash/failures.
- Maintenance of a log of the performance monitoring of servers including but not limited to monitoring CPU, disk space, memory utilization, I/O utilization, etc.
- Event log analysis generated in all the sub systems including but not limited to servers, operating systems, applications, etc. Ensuring that the logs are backed up and truncated at regular intervals.
- Periodic health check of the systems, troubleshooting problems, analyzing and implementing rectification measures.
- *Quarterly Preventive Maintenance of the systems.*
- Ensuring the upkeep of existing systems that would be reused and also incorporate necessary changes for new applications, if any, during the tenure of the contract.
- Identification, diagnosis and resolution of problem areas pertaining to the data centre infrastructure and application and maintenance of assured SLA levels.
- Implementation and maintenance of standard operating procedures for maintenance of the infrastructure based on the State's policies.

Backup and Restore Services

The SI shall be using the existing backup solution, policies and procedures that is available at data centre. The activities shall include:

- Backup of operating system, Virtual Machines and application as per stipulated policies at the data centre.
- Monitoring and enhancement of the performance of scheduled backups, schedule regular testing of backups and ensure adherence to related retention policies.
- Real-time monitoring, log maintenance and reporting of backup status on a regular basis. Prompt problem resolution in case of failures in the backup processes.

MIS Reports

SI shall submit the reports on a regular basis in a mutually decided format. The following is only an indicative list of MIS reports that may be submitted to the State/SIA:

a. Daily reports

- o Summary of issues / complaints logged at the Help Desk
- o Summary of resolved, unresolved and escalated issues / complaints
- o Summary of resolved, unresolved and escalated issues / complaints to vendors.
- o Log of backup and restoration undertaken.
- o Hypervisor patch upgrades, update status of all servers including the Virtual Machines running on in

b. Weekly Reports

- o Summary of systems rebooted.
- o Summary of issues / complaints logged with the OEMs.
- o Summary of changes undertaken in the Data Centre including major changes like configuration changes, patch upgrades, etc. and minor changes like log truncation, volume expansion, user creation, user password reset, etc.

U.P. Electronics Corporation Limited

Corrigendum-3

c. Monthly reports

- o Component wise server as well as Virtual machines availability and resource utilization
- o Consolidated SLA / (non)- conformance report.
- o Summary of component wise uptime.
- o Log of preventive / scheduled maintenance undertaken
- o Log of break-fix maintenance undertaken

d. Quarterly Reports

- o Consolidated component-wise availability and resource utilization.

The MIS reports should be in-line with the SLAs and the same shall be scrutinized by the TPA.

SI shall develop and host web based applications through which the SIA/User Department and/or the Government officers concerned can see and analyse the performance of the SI, applications hosted, performance of the virtual machines and their utilization and also the inventory deployed at the DATA CENTRE.

Note: The Selected bidder will also provide any other report requested by the department

Corrigendum-3

| | | Rate List | | | | | | |
| | | A | | | B | | | C |
S.No	Item	Unit Price	Taxes	Total Price	Unit Support (OEM + SI) Price/year	Taxes	Total Price	Grand Total (Total Price A+ Total Price B)
1	Enterprise Hypervisor License to virtualize physical host along with management software license to integrate with Cloud software							
2	Cloud Software Cost. (Bidder has to bifurcate the price of IaaS, PaaS & SaaS module cost, if applicable)							
3	Professional Services for Cloud such as integration services, installation, commsioning etc (quoted as per man day)				NA	NA	NA	
4	Professional Services for Hypervisor such as integration services, installation, commsioning etc (quoted as per man day)				NA	NA	NA	
5	Windows 2012 server Data Centre edition along with management software license to integrate with Cloud software							
6	RHEL Latest version along with management software license to integrate with Cloud software							
7	2 Blade Server + Chassis + 2 (48P) Top of the Rack switches supporting blade server bandwidth along with management software license to integrate with Cloud software. (Bidder has to bifurcate the price of Chassis, Blade server & supporing top of the rack switch)							
8	Rack Server along with management software license to integrate with Cloud software							
9	Application Switch along with management software license to integrate with Cloud software							
10	O&M cost/year							

(Praveen Kumar)
Dy General Manager