RFI (REQUEST FOR INFORMATION) FOR TACTICAL OPPORTUNITY BASED SERVICE DELIVERY CAPABILITY

1. PTCL is seeking information from the well reputed Service provider vendors for Tactical opportunity-based service delivery capability for its planning and corporate team requirements.

2. This Request for Information is an information gathering process in which PTCL seeks to collect information and opinions from the industry best service providers. This request for information does not constitute a Request for Proposal (RFP) or a promise to issue an RFP in the future. This request for information does not commit the PTCL to contract for any supply or service whatsoever. PTCL will not pay for any information or administrative costs incurred in response to this RFI; all costs associated with responding to this RFI will be solely at the interested party's expense. However, this RFI and the responses provided may be used as a precursor to a procurement process.

3. The proposals in response to this RFI (technical + high level costing comparison of intended solution), prepared in accordance with the instructions provided for Tactical opportunity-based service delivery capability, must be submitted on or before **11:00 Hours March 25, 2022**. Due to prevailing situation in the country, online bids submission is allowed by PTCL as per following instructions:

   a. Submit password protected bids in excel or pdf format through email i.e. bidsubmission@ptcl.net.pk on or before the deadline 17.03.2022 (before 1200 hours). Bids submitted after due time and on other e-mail addresses shall not be considered.

4. The PTCL will treat all responses confidentially. Proprietary information, if any, should be minimized and must be clearly marked. PTCL Technical representatives may or may not choose to meet with potential offerors. Such discussions would only be intended to get further clarification of potential capability to meet the requirements.

5. The information provided in the RFI and attached documents is subject to change and is not binding on the PTCL. The PTCL has not made a commitment to procure any of the items discussed, and release of this RFI should not be construed as such a commitment or as authorization to incur cost for which reimbursement would be required or sought. All submissions become PTCL property and will not be returned.

Scope:

Like global and regional players, PTCL has been the customer of various ICT service providers (Hardware, Software and Implementation services). As part of its growth strategy, PTCL intends to transition from consumption model to supplier model by building inhouse capacities spanning solution design and planning, pre-sales, sales and post sales activities across Pakistan. This will give PTCL revenues a boost that is currently facing price and competition pressure alike. Currently in Business Services such capability is very limited and current compensation for such expertise is not attractive enough to on-board and retain market established primes. Besides there is a headcount and HR cost issue that is not limited to salary structure but also the associated benefits.

Proposed Interim Solution:

One solution to address this challenge is to on-board a technical Personnel provider company that caters the need for various segment such as solution design pre-sales and post sales with agreed turnaround timelines. This model in Etisalat is being used through purpose build arrangement with the name of Etisalat Technology Services (ETS). The engagement is to be financed through the Opex budget of Business Solutions and even can be project based. Currently PTCL is using M/s ASK, M/s HRSG etc. for its business operations who are deploying DSL and FTTH installations. Currently, over 5000 headcounts is on-boarded in this domain along with 1400 call centre staff. For technology, FMC teams and some IT resources are on-boarded through third parties (Like Inbox).

Vendor Evaluation criteria

Following Evaluation criteria shall be used:
- Vendor should have presence in the local industry and experience in managing end-to-end operations at large scale specially cloud, info sec, microservices, DevOps, Net Ops, Sec Ops, IT operations and ICT delivery.
- Vendor should have experience in managing a minimum of 3 projects of IT Services platform implementation locally in Pakistan.
- Vendor should have a skilled resource pool of at least 35+ service delivery professionals/consultants based in Pakistan.
- Vendor should have local presence and hands-on experience on at least 2 hyperscale clouds such as AWS, Azure, Google with both presales and delivery skillset locally available in Pakistan.
- Vendor should have local presence and hands-on experience on at least 4 certified resources on OEM in specific HR role defined locally available in Pakistan.
- Vendor preferably be a public listed company in Pakistan with revenue at least market cap of PKR 100 million.

HR Roles Required

DevOps Engineer

Responsibilities:

• Building and maintaining tools, solutions and micro services that are associated with deployment ensuring that it meets the requirements and reduce errors.
• Actively troubleshoot any issues that arise during testing and production, catching and solving issues before launch.
• Test the system's integrity, implemented designs, application developments and other processes related to infrastructure, making improvements as needed.
• Update the processes and design new processes as needed.
• Deploy product updates as required while implementing integrations when they arise.
• Automate the operational processes as needed, with accuracy and in compliance with the security requirements.
• Specifying, documenting and developing new product features, and writing automating scripts.
• Manage code deployments, updates and related processes.
• Stay updated about the industry trends and source new ways for the business to improve.

Requirements:

• Bachelor's Degree or Master's in Computer Science, Engineering, Software Engineering or a relevant field.
• Experience in a DevOps Engineer role (or similar role); experience in software development and infrastructure development is a plus.
• Sound knowledge of Linux/Windows based infrastructures, Linux/Unix administration, and AWS.
• Strong experience with databases such as SQL, MS SQL, MySQL, NoSQL, Hadoop, Elasticsearch, Redis, Cassandra, and/or Mongo.
• Knowledge of scripting languages such as Java, JavaScript, Perl, Ruby, Python, PHP, Groovy, Bash.
• Experience of project management and workflow tools such as Agile, Jira, WorkFront, Scrum/Kanban/SAFe, etc.
• Experience in open-source technologies and cloud services.
• Experience in working with Puppet or Chef for automation and configuration.

Security Engineer

Responsibilities:

• Establish system controls by developing framework for controls and levels of access; recommending improvements.
• Maintain access by providing information, resources, and technical support.
• Ensure authorized access by investigating improper access; revoking access; reporting violations; monitoring information requests by new programming; recommending improvements.
• Establish computer and terminal physical security by developing standards, policies, and procedures; coordinating with facilities security; recommending improvements.
• Safeguard computer files by performing regular backups; developing procedures for source code management and disaster preparedness; recommending improvements.
• Responsible for the tracking and monitoring of security tools for alerts
• Review security violation reports; investigate possible security exceptions; and update, maintain, and document security controls.
• Prepare status reports on security matters to develop security risk analysis scenarios and response procedures.
• Interact with, support business partners, and participate in projects that directly impact business value.
• Creating, testing and implementing network disaster recovery plans.
• Performing risk assessments and testing of data processing systems
• Track performance improvement using data analytics.
• Tracking and categorization of ticking history and conducting end user surveys at ticket closures.
• Develop security awareness by providing orientation, educational programs, and on-going communication.
• Update job knowledge by participating in educational opportunities; reading professional publications; maintaining personal networks; participating in professional organizations.

Requirements:

• Up-to-date knowledge of current threats.
• Certifications required in Security+, GSEC, Network+, SSCP or higher level.
• Excellent analytical, communication, multi-tasking, pressure handling and problem-solving skills.
• Hardworking, innovative, team player, passionate, energetic, organized, polished and sharp.

NetOps Engineer

Responsibilities:

• Proactively monitor the health and status of the network infrastructure.
• Proactively help maintain the network infrastructure to prevent outages.

- Review release plans and functionality for operational readiness.
- Troubleshoot and resolve network and connectivity issues as they occur.
    - Perform hardware/software problem analyses, identification, and resolution; execute problem documentation, escalation, and notification procedures.
    - Experience in managing high-end routers, switches, load balancers and firewalls.
    - Responsible for the architectural design, planning and operational implementation of networking solutions into various network environments and communication systems (i.e. on premise, cloud, remote and hybrid).
    - Able to analyses problems and conduct effective fault diagnosis and system recovery.

Requirements:

- Understanding of the technologies such as: IP Protocols IP filtering and firewalling; Routing Protocols Quality of Service; MPLS; Ethernet.
- Good working knowledge of BRAS / LNS / L2TP / DSL.
- Basic understanding of AAA platforms such as Radius and/or TACACS.
- Experience with Juniper, Foundry / Brocade, Cisco, Adva and Ericsson.
- Familiar working in a data centre environment.
- Knowledge fibre and WDM systems.
- Knowledge of Openreach access products

Solution Architect

Responsibilities:

Provide support for sales or presales pursuits, conduct architectural evaluation, design, and analysis of enterprise-wide systems.
- Identify customer requirements, analyze alternatives, and conduct product recommendations related to software, platform, and network configurations.
- Design and Architect end to end solutions content that characterizes what products or services are being proposed and how these services will be delivered.
- Develop, enhance, and maintain established service design procedure and process to assure apt and robust service design.
- Estimate for project or program management and or technical effort to drive scope and produce deliverables.
- Collaborate with IT development team to assure architectural solution could be suitably translated into effectual and robust implementation.
- Good commercial sense with a fair understanding of cost, price, margin including contractual obligations and risks involved.
- Perform with sales personnel on every customer visit to converse requirements as well as perform demonstrations. Initiate proactively client contact as part of total sales team effort.

Requirements:

- Experience in a Solution Architect role; experience in software development and infrastructure development is a plus.
- Conversant with industry standard frameworks such as TMF, CNA.
- At least 7 years of relevant IT or Operations experience on the following areas, including 3 years of Project or Program Management experience in software development, application support and infrastructure support.
- Relevant experience in a role or similar capacity in providing support for sales or presales pursuits either for a Systems Integrator, Services, or a Product line.
- Experience in interpreting the requirements into a solution translating into design and architect end-to-end solution content that characterizes what products or services are being proposed and how these services will be delivered.
- Experienced in cost estimation for project or program management and or technical effort to drive scope and produce deliverables. Create and develop a bill of materials or resourcing and staffing plans. Provide costing or pricing support. Write and provide content for bids and proposals.
- Excellent interpersonal and communication skills with C-level executives.

System Administrator/Engineer

Responsibilities:

- Develop, configure, implement and manage the systems that comprise the underlying cloud platform.
- Provide technical assistance on windows, cloud-based systems, and resolve operational problems.
- Install and configure the Windows operating system in cloud IaaS providers.
- Provide all the necessary assistance to the cloud servers, including security configurations, patching, and troubleshooting.
- Configure and fine tune cloud infrastructure systems
- Implement and maintain technology, processes, and strategies of existing public and private cloud systems.

Requirements:

- Experience with cloud infrastructure systems e.g. Office 365, AWS, Azure
- Knowledge of AWS to Azure Migration or on - prem to azure migration will be an added advantage.
- Knowledge about enterprise computer and storage systems, both physical and virtual.
- Hands on experience on automation/scripting languages e.g. Python, PowerShell and JavaScript.

- Should have extensive knowledge about Code Green, Proofpoint, Active Directory, Exchange, GCP, and other Windows-based technologies.
- Knowledge and experience of VMWare vSphere ESXi and KVM.
- Analytical and problem-solving abilities, with keen attention to detail

SecOps Engineer

Responsibilities:

- Implement and monitor security measures for the protection of computer systems, networks, and information.

- Identify and define system security requirements.

- Create and maintain standard security operating procedures and protocols.

- Configure and troubleshoot security infrastructure issues and incidents.

- Develop technical solutions with security tools and processes to help mitigate security vulnerabilities along with automating repeatable tasks.

- Deploy security software and hardware, and regular updates.

- Check firewalls and data encryption technologies in order to determine when a replacement is needed.

- Monitor networks and systems for intrusions.

- Update policies that ensure all systems follow regulatory security standards and compliance

- Run internal penetration testing for all products.

- Review and research system and component level alerts and provide remediations as necessary.

Requirements:

- Deep knowledge/experience in networking, infrastructure, and applications from a DevOps perspective with a security focus.

- Extensive experience with intrusion analysis, incident handling, incident response,

malware analysis, vulnerability assessment or penetration testing.

• Strong experience in implementing, operating, and analysing continuous monitoring tools.

• Broad knowledge of release engineering: build, integration, deployment, and provisioning.

• Experience in operations management, including monitoring, configuration management, automation, backup, and recovery.

• Experience with Cloud security services and best practices.

Network Engineer

Responsibilities:

• Designing and implementing new network solutions and/or improving the efficiency of current networks

• Installing, configuring and supporting network equipment including routers, proxy servers, switches, WAN accelerators, DNS and DHCP

• Procuring network equipment and managing subcontractors involved with network installation

• Configuring firewalls, routing and switching to maximize network efficiency and security

• Maximizing network performance through ongoing monitoring and troubleshooting

• Accomplish information systems and organization mission by completing related results as needed.

• Reporting network operational status by gathering, prioritizing information; managing projects.

• Tracking and categorization of ticking history and conducting end user surveys at ticket closures.

• Arranging scheduled upgrades

• Investigating faults in the network

- Updating network equipment to the latest firmware releases

Requirements:

- CCNP or related certification are huge plus

- Experience purely in datacom field while managing medium to Large Enterprise IT Infrastructure or deployment experience in datacom related projects

- Hands on experience and expertise in L7 L.B and WAF

- Must have strong routing, switching, security concepts

- Must have hands on experience on cisco L2, L3 switches

- Must have hands on experience on Granter Leaders Quadrant NGFWs.

- Technical expertise in network and systems administration with good knowledge of databases.

- Excellent analytical, communication and problem-solving skills.

- An ability to learn new technologies quickly

Database Administrator

Responsibilities:

- Design, develop, implement and maintain the core Oracle applications.

- Installing and maintaining the Oracle database software.

- Create storage database structures with high-level security features.

- Altering storage structures to meet the evolving needs of the company.

- Setting up database user accounts.

- Finding and debugging malfunctioning programs affecting the database integrity.

- Creating database autonomous database backups.

- Regularly updating the database security protocols.

Requirements:

- Bachelor's or Master's degree in computer engineering or computer science.

- 1-5+ years' experience with MySQL, SQL or Oracle.

- Experience should include DB design (modelling and normalization), capacity planning, performance tuning, storage management, backup and recovery, managing schemas, report generation and DB clustering technologies.

- Operating system experience in Linux.

- Strong grip on Oracle management tools (Data Guard, RMAN, and Data pump).

- Hands on experience with DB standards and end user applications-translating capacity requirements into infrastructure deployment technology.

- Knowledge about RedHat Linux.

- Excellent communication and problem-solving skills

- Ability to visualize algorithmic structure.

Field Engineer

Responsibilities:

- To install, execute integration and offer support to all desktop based and server assisted technology.

- Assist in network setups like LAN, WAN, VLAN, Wi-Fi, router installation, and ISP broadband.

- Help in setting up the network structure while commissioning of the sites patching in the parenting sites.

- To install, repair and upgrade all network set-up and deliver technical and onsite support.

- Should deliver backup to NOC and manage operating field groups through

upgrades.

- Travel to customer sites to install, test, and document fibre optic communication systems.

- Choose and verify cable pathways and conduct site surveys for clients.

- Assist in designing, creating and implementing standards and specifications.

- Carry out installation of cable supports and pulling network cable pathways.

- Testing and troubleshooting correctly copper installations, troubleshoot attendant cabling AV issues and install IP devices.

- Ability to understand signal flow and signal path, and DSL and Ethernet connections.

Requirements:

- Knowledge of IP Networking Protocols (IGMPv2/v3, RIP, BGP, OSPF, EIGRP).

- Knowledge of Internet network technologies (DNS, Firewall, SSH, HTTP).

- Experience in Windows or Linux Server.

- Understanding of Firewall technologies.

- Strong troubleshooting skills regarding systems, network and storage-based concepts.

- Experience of LAN troubleshooting and configuration.

- Knowledge of networking protocols and components including TCPIP, DNS and DHCP.

Application Admin

Responsibilities:

- Document and analyse problems of business applications.

- Collaborate with IT department to ensure proper integration of applications platforms.

- Develop test plans to verify logic of new systems functionality.

- Plan, coordinate, test, and communicate changes, upgrades/maintenance schedules, and new services within IT and business customers, ensuring business operations operates correctly.

- Administer systems accounts.

- Maintain system documentation.

- Understand the workflow and process requirements of business units related to applications.

Requirements:

- Demonstrated outstanding customer service, be a good listener and work well with a diverse group of business customers and IT.

- Demonstrated ability to be the subject matter expert in supporting, maintaining, and administering complex applications, data and systems integration.

- Excellent problem solving/analytical skills, knowledge of analytical tools, and complex troubleshooting methods.

- Hands-on experience in process automation, best practice approach, technology efficiency, and effectiveness.

- Ability to install, customize and navigate applications.

- Proficient in standard database and web development technologies such as Oracle, SQL, CSS, JavaScript and Microsoft SQL Server Database.

Storage & Server Admin

Responsibilities:

- Install, configure as well as maintain storage hardware backup inclusive of physical plus virtual tape libraries or drives along with disk storage targets.
- Ensure to install as well as configure Backup Solution, customer software on UNIX or Linux as well as Windows systems.
- Perform activities related to install, configure and managing SAN devices and fiber switches.

- Administer Brocade director FC switches as well as blade chassis FC devices.
- Execute FC zoning for development and production storage volumes.
- Manage Backup snapshot as well as recovery methods for storage volumes.
- Execute across-site replication of significant DR data.
- Supervise volume replication overnight jobs and execute improvements.
- Oversee IO performance of production along with development of databases LUNs.
- Provide architecture as well as performance recommendations to DBAs and Ops.
- Conduct bottleneck evaluation to identify performance issues.
- Ensure backup methods are in place as well as tested for FC LUNs.
- Develop and maintain records for entire storage as well as FC systems.
- Administer entire server systems.
- Collaborate with DBA as well as Ops to assure apt storage usage
- Responsible for the maintenance, configuration, and reliable operation of computer systems, network servers, and virtualization
- Install and upgrade computer components and software, manage virtual servers, and integrate automation processes
- Troubleshoot hardware and software errors by running diagnostics, documenting problems and resolutions, prioritizing problems, and assessing impact of issues
- Provide documentation and technical specifications to IT staff for planning and implementing new or upgrades of IT infrastructure
- Perform or delegate regular backup operations and implement appropriate processes for data protection, disaster recovery, and failover procedures
- Lead desktop and helpdesk support efforts, making sure all desktop applications, workstations, and related equipment problems are resolved in a timely manner with limited disruptions
- Responsible for capacity, storage planning, and database performance