QICT IT INFRASTRUCTURE – 2015

In today's fast-paced & dynamic world, a reliable, robust, up-to-date&secure IT Infrastructure setup is the backbone of any company's business & services. High-available Infrastructure & high-quality support & services with minimal response time provided by the IT team play a vital role in achieving company's business objectives & strategic goals making a good impression on internal/external customerswhile retaining &increasing the customer base.

QICT IT department is well aware of all these necessary factors & the critical nature of port business where minutes of delays & downtimes can have numerous losses & severe impact on ongoing operations, upcoming projects &overall business reputation. IT Department is performing a key role in successfully maintaining IT Infrastructure uptime as 99.9% for last several years &delivering all required services & support to end-users & external customers as per agreed service-levels & within the agreed timelines.

We have a state-of-the-art IT infrastructure in place connecting all sites with the Head Office using redundant communications links including fiber optic& wireless media minimizing the downtimes & optimizing the IT services for end-users & customers.

We are in no doubt that security is the biggest concern in today's world in every aspect & securing internal/external communications including internet surfing is of key importance so we also give that due attention in our infrastructure design. Our IT infrastructure contains but not limited to latest Cisco ISR routers, Layer-2 & Layer-3 switches, stateful packet inspection firewalls& software based firewalls with top of the line antivirus.

We have implemented several lines of defense to stop any intrusion or malware entrance in our network through internet traffic where it is first examined by our hardware firewalls & then by the built-in software based firewalls inside our antivirus software installed, configured & regularly updated on every machine.

We have been using Navis TOS (EXPRESS and SPARCS) from day one, and Navis is the market leader in terminal software business. Navis TOS provides all required functionalities. EXPRESS is being used for Gate Operations and documentations.

We also have EDI connectivity with Pakistan's customs and EXPRESS is fully integrated with Pakistan Custom Software (Weboc). All Customs-related activities are being communicated through EDIs.

Navis SPARCS is being used for Vessel and Yard Planning it is state of the art application. SPARCS has lots of functionally like Vessel Planning/Yard Planning Expert Decking, etc.   It has rich GUI interface, and it is also a user friendly application.

Customer is always first priority for us. So, we deployed a web-based application (LFS) for shipping lines and customers. LFS provides online DO release, Booking and Reports options.

Online system also provides Container Inquiry, Container History and Invoice amount inquiry.

QICT also deployed an automated reefer monitoring system. Now all reefer containers are being monitored automatically. It provides us data accuracy and timely fault reporting. Automated Reefer Monitoring system is also integrated with our TOS.

Recently, we started state of the art automated In-Gates. Transaction time and truck turn-around time is also reduced due to automation of gates.

To avoid any communications breakdown with external world& within QICT sites, we have multiple internet & data connections with redundant public servers providing nonstop & round the clock services to our users &customers. For internet surfing control & monitoring we have implemented the globally recognized &world leading products including Blue Coat & Barracuda proxy devices & have segregated the internet traffic of QICT users, contractors & other non-QICT users including Govt. officials for more granular control.

For real-time monitoring of our country-wide IT infrastructure& to alert IT team in case of any issue at any site with any IT equipment, we are using multiple software & tools including PRTG, Syslog & Netflow Analyzer. This helps us to monitor our all equipments&take proactive action in case of any problem. This gives us ample time to tackle with the problems & resolve the issues in timely manner.

Voice communications play a vital role in today's world & is also of great importance in our environment where our users & customers could interact with each other anytime. To accommodate these requirements, we have implemented state-of-the-art Cisco's IP Telephony (VoIP) setup in QICT where Head Office is covered by the CUCM 9 version including IVR, Voice recording & Contact Center services being used by our Helpdesk department & our branch offices are using the smaller router based version of Cisco VoIP Setup (CME).Our VoIP communications system between all sites is well-connected. As an additional benefit, our VoIP setup supports low-cost & low-powered SIP phones which are participating towards our global target of reducing the power consumption& costs.

We have implemented an in-house designed call logging & monitoring system which is being used in our environment & is very helpful for calls logging, tracking, monitoring,follow-up& KPI's management for IT Support team & overall response time for different categories with customized reports generation as per requirements.

Virtualization is playing an important role in our environment & our several Servers including Active Directory & Exchange are running over virtual machines. We are taking benefit from both leading products in the industry i.e. VMWare & Microsoft's Hyper-V.

Managing IT hardware & software inventory with patches installation & centralized management of Servers & clients machines can be a big pain point for any IT department & we also agree with this so to overcome such issues, we are using Microsoft's SCCM & SCOM

products for centralized management & patches deployment with customized reports generation. We have also Microsoft's Share Point in place & being used by our different departments including IT & Finance as centralized documents repository & intranet.

A fully-functional, tested & well-communicated Business Continuity Plan is the lifeline of any company's business in case of disaster. QICT IT Department takes this responsibility seriously & we have designed & implemented two Disaster Recovery Sites at different locations to minimize the effect of any disaster & to provide access to our core applications & services to keep the business up & running in case of any disaster.One is our Hot DR Site located at Terminal T2 in port area & the other one is our Cold DR Site located at our dry port in other city. The available applications & services along with the level of availability is already communicated to other departments.