HARDWARE INFRASTRUCTURE REQUIRED FOR IMPLEMETATION OF EXCISE E-GOVERNANCE APPLICATION (ASSAM)

C-TEL INFOSYSTEMS PVT LTD

: - <u>Usage of Hardware for functioning of Excise e-governance application</u> <u>at Company Wholesaler</u>

S. No	Item Description	Specifications	Purpose	Units
1 1	Item Description IP68 Grade Server (Primary & Secondary)	 Specifications Intel i7 Octa Core 16 GB RAM, 1 TB HDD, Fanless Operates in -20 to +90 degree Celsius. Dual LAN port, Inbuilt 4G / 5G SIM and Wi-fi Module OS: Ubuntu 22:04 	Installation of Excise e-governance application - Modules and Features to achieve Control and Regulation at Wholesales Features List: Add Approved Route Route Approval Indent for Supply / Purchase Order to Bottling Plants or Breweries / Import Stock List of waiting Trucks Indent & Approval of Transport Permit Advance Shipment Notice Verification Gate Inward Register Transport Pass Revalidation Gate Pass Generation Receiving process of different consignments Record Transit Breakages Record Transit Shortages Repack process for Part bottles Verification of Stock Receipt acknowledgement	2
			 Generation of Product wise Stock Beer Consignment Receiving Process Retailer Indents (IFS) Issue Order for Supply for Retailers Scanning the cases/Bottles/for Shipment Bottle Replace incase of storage breakage Storage / Breakages & Shortages Breakage Verification by Excise Officers Day end Process tool Gate Pass generation and Outward register Alerts and Notifications Hologram Procurement Hologram Packing Process Import Stock Receiving 	

			 Lab Sample reports Destruction of Sedimented Stock etc. 	
2	IP 68 Industrial Grade PC (Client PC) with monitor Keyboard Mouse	 8 GB RAM, 500 GB HDD Operates in -20 to +90 degree Celsius. LAN port, 4 USB Hub, Inbuilt 4G/5G SIM and Wi-fi Module OS: Ubuntu 18:04 	Computer (Industrial Grade Computer) required to Access and Operate the e-governance Application by the Warehouse Management and Excise Officer of the Company Wholesaler for the modules and features mentioned in the above feature list.	4
3	Handheld Scanners Wi-Fi (For Dispatch section) WLAN/ Bluetooth with 2D, 1D with linear imager	 CPU: Octa-Core 1.4 Ghz RAM: 2GB(Standard)/4GB (Optional) ROM: 16GB(Standard)/64GB(Optional) O.S: Android 8.1 Display: 5.0-inch TFT-LCD HD (720 x 1280) color screen Dimensions: 158mm x 76.2 mm x 13.3mm Weight: 210g (Battery included Buttons: Volume up/down, Power button, Custom buttons, Scan button, Home, Menu, Back Input: Chinese/English, and supports handwriting and soft keyboard Barcode Scanner: 2D imager Main Battery: Rechargeable 3.8V 3800mAh lithium, Polymer battery pack (Typical Operation time >8 hours) RTC Battery: Real time clock battery Radio Communication: - Wi-Fi: 802.11 a/b/g/n/ac - Bluetooth: 4G FDD-LTE (B1/B2/B3/B4/B5/B7/B8/B20 - Radio Bands: - 3G: WCDMA(B1/B2/B5/B8) - 2G: GSM/EDGE/GPRS (850/900/1800/1900MZ) Expansion and peripherals: - Camera: 13MP auto-focus color rear camera with flash, 2MP front-facing camera RFID GPS: Supports 13.56Mhz, ISO14443A&B and ISO15693 standard, Supports NFC GPS: GPS, A-GPS, Bei-Dou satellite navigation system, GLONASS Slot Interfaces: - Micro SD/TF * 1, Micro SIM 2 - Type-C USB, 3.5mm Audio port, POGO PIN 	Mobile Based application on Handheld devices is provided to operate the transaction where a computer cannot be used to facilitate such transaction (Mainly at warehouse, Security Gate etc.) • Scanning of Permit Barcodes to auto generate the Gate Inward and Outward Registers • Mobile based application is developed for scanning the Barcodes printed on each Carton box before loading into the truck or vehicle against each Transit Pass. Breakages or Shortages identified in the bottling plant warehouse shall be scanned through the device for capturing & recording the Breakages or Shortages to automatically update / generate the respective inventory registers.	6

		 Sensor: Light sensor, Range sensor, Acceleration sensor, Compass, Gyroscope, Barometer Audio: Loudspeaker, Microphone, Earpiece Fingerprint Module: Optional Standard Accessories: Power adaptor, Data cable, One battery User Environment: Operating Temperature: -10 50 C (14=122"F) Storage Temperature: -40 70 C (-40=158'F) Humidity: s% - 95% Drop Durability: 1.5m IP rating: 65 		
4	2 D wired scanner	 Scan Pattern: Area Image (838 x 640-pixel array) Motion Tolerance: Up to 610 cm/s (240 in/s) for 13 mil UPC at optimal focus Scan Angle: HD Focus: Horizontal 41.4°; Vertical: 32.2° SR Focus: Horizontal: 42.4°; Vertical: 33° ER Focus: Horizontal: 42.4° Symbol Contrast: 20% minimum reflectance difference Pitch, Skew: 45°, 65° Decode Capability: Reads standard 1D, PDF, 2D, Postal and OCR symbologies Environmental Sealing: IP41 Drop: Designed to withstand at least 1.8 m (6') drops to concrete. Ratchet stand: Designed to (4') drops to concrete on each of the faces. Input Voltage: 4 VDC to 5.5 VDC Operating Power: 2.3 W (450mA @ 5 VDC) Standby Power: 0.45 W (90mA @ 5 VDC) Host System Interfaces: USB, Keyboard Wedge, RS232, IBM 46xx (RS485) 	 2D-wired scanners are integrated with the Excise e- governance application for certain process where scanning of Barcodes is required by Management and Excise officer connected with the Integrated Computers. Scanning of Barcode Printed on Delivery challan for receiving the Hologram consignment to generate / Update the Inventory. Scanning the 1D / 2D Barcodes printed on the Hologram Carton or Spool for issuing it to the bottling Plant management from Excise Custody / Inventory for Daily utilization Scanning of Spool Barcodes for allocation of Holograms to the production lines Scanning of Damaged or Smudged Case Barcode 	2
5	LED Display 40"	 Ethernet Specification: Integrated Ethernet LAN Enabled Inbuilt Browser 	Displaying Realtime Dashboard for Line wise Production, Active Shipments, Revenue Generated, Sales, Inventory, etc.	1
	Network Equipment*			
6	Wireless Access Points	 Power: External power adapter Input: 110-240V AC Output: 12V DC, 1.0A Power over Ethernet Class 0 Ethernet ports:1 auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45, POE port 2 	Wireless Access Points will be installed in the Wholesale Warehouse, dispatch point and any other location within the Wholesale Premises for establishing the connectivity between mobile based	2

		 auto MDX, auto-sensing 10/100 Mbps, RJ-45 ports Lock option: Padlock & Kensington lock supported with optional mounting bracket (902-0166-0000). Kensington Lock supported with low profile mounting bracket (902-0181-0000) Power draw: ZF7363: 12.95W (PoE), 12W (12V DC) WIFI: Standards: IEEE 802.11a/b/g/n*, 2.4GHz and 5GHz* Supported data rates: 802.11n: 6.5Mbps – 130Mbps (20MHz) 6.5Mbps – 300Mbps (40MHz) 802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps* 802.11b: 11, 5.5, 2 and 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6 Mbps. Radio chains: 2 x 2 Spatial streams: 2 RF power output: 26 dBm for 2.4GHz†, 24 dBm for 5GHz*† Channelization: 20MHz and/or 40MHz Frequency band: IEEE802.11n: 2.4 – 2.484GHzand 5.15 - 5.85GHz* IEEE 802.11a: 5.15 – 5.85 GHz* IEEE 802.11b: 2.4 – 2.484 GHz Performance & capacity: - Concurrent stations: 256 - Simultaneous VoIP clients: Up to 20 	handheld device, Integrated computers etc. and the servers installed within the Company Wholesaler Location to operate / access the Excise e-governance application.	
7	6 PIN industrial power spike	 Maximum Spike Current: 13,000 Amps Long chord around 1.5 Mtr. *Preferably with Universal Sockets 	Required for providing Power supply to the Equipment installed within the Server Rack	4
8	Network Switch 24 Port	 1000Base-T Interface: 12 1000Base-T POE Interface: 12 Auto MDI/MDIX: Yes 10/100/1000BASE-T POE ports: 12 10/100/1000BASE-T ports: 12 Switch Capacity: 48 Gbps Max. Packet Forwarding Rate: 35.71 Mpps Power Input: AC: 100-240V Comply with RoHS 6: Yes MAC Address Table Size: 8K 802.3x Flow Control: Yes 802.1D Spanning Tree (STP): Yes 802.1w Rapid Spanning Tree (RSTP): Yes 802.1aX Link Aggregation: Yes 802.3ad Link Aggregation: Yes Link Aggregation Group Per Device: 12 Max Port Per Link Aggregation Group: 8 Port Mirroring: Yes Jumbo Frame: 9216 bytes 	Required to provide the network connectivity (LAN) between the equipment installed within the Wholesale Premises	4

9	Lacer printer	 IGMP Snooping: Yes Max IGMP Snooping Groups: 64 802.1Q VLAN: Yes VLAN Groups: 128 Port-based VLAN: Yes Voice VLAN: Yes Auto Surveillance VLAN: Yes Asymmetric VLAN: Yes Number of Queue: 4 DHCP/BootP Client: Yes Ping: Yes Surge/Lightning Protection (AC Power Inet): 2kV Surge/Lightning Protection (All Ethernet Ports): 1Kv Operation Temperature: -5-50°C Operation Humidity: 0%-95% RH Maximum Power Consumption: 131.5 W (PoE on) Standby Power Consumption: 8.8 Watts Maximum PoE Budget: 100W PoE Budget: 100 W (30 W max. per PoE port) 	Paguired to Print the Parmits Page	1
9	Laser printer	 Printing Method: Monochrome Laser Beam Printing Print Speed (Simplex): A4: Up to 25ppm Print Speed (Duplex): A4: Up to 7.7spm (sheets/minute) Print Resolution: 600 x 600dpi. Print Language: UFR II LT Paper Sizes: A4, B5, A5, Legal, Letter, Executive, 16K, Envelope COM10, Envelope Monarch, Envelope C5, Envelope DL/ Index card Custom (Width: 76.2 - 216mm x Length 127 - 356mm) USB Interface - USB 2.0 High Speed Network Protocol: Print: LPD, RAW, WSD-Print Management: SNMPv1, SNMPv3, SLP TCP/IP Application Services: WINS (IPv4), DHCP, BOOTP, RARP, DHCPv6 (IPv6), Auto IP, mDNS, DNS, DDNS Compatible Operating Systems- Windows 7(32/64bit) or later, Windows Server 2012 R2 or later, Linux, Citrix (FR2 and later) 	Required to Print the Permits, Pass, Chemical Reports, different types of Registers etc.	1
10	Server Rack (12U)	 Dimensions: 12U 19", 590x600x440 mm, (H x W x D), 370mm working depth, (distance from bars to rear panel) Type: wall-mounted, welded body, removable sides Door: 4mm toughened glass Cable entry: top + bottom Mounting profiles: 1 pair – 19" 	Required to Mount the Primary & Secondary Servers, Switch, Router etc	1

11 12	Server Rack Partition Plates Network cable (Cat6 - 305) mtrs	 Fan openings: yes Colour: RAL 7035 (grey) Protection degree: IP 20 Additional equipment: 3 sets of fixing screws in the holes of the supporting rails and a set of four screws for wall mounting 1 pair – 19" Category: 6 UTP Solid cable Conductor Meta: Bare Copper OD: 6.1mm ±0.2 Capacitance Unbalance: 330pF/100m Conductor: 23 AWG (Solid) Insulation Material: HD-PE Resistance Unbalance: 5% Max 	Partition plates are required to place Primary and Secondary servers separately inside the Server Rack Cable required for providing network connectivity between each equipment to be installed within primary distillery premises.	1 pair – 19" As per usage
13	RJ 45 Jack	 Delay Skew: <45nS Performance category: CAT6 Housing material: Polycarbonate Contact material: Copper Housing Colour: Clear Operating temperature: -10° to 60°C Voltage/Current rating [UL applications]: 125Volts AC/1.5Amps 	Rj-45 Jacks are used to connect computers, Network Switches, Router and other equipment's onto Ethernet-based local area networks (LAN) though Network Cable. (Point No 11)	As per usage
14	1KVA UPS Connectivity	 Input Voltage Range: 140 V ~ 300 V AC Frequency: 50 Hz ± 10% Output Voltage: 230 V ± 10% Charging Time: 4-8 Hours recover to 90% capacity Operating Temperature: 0°C-40°C 	Required for Connecting Servers and Other computer equipment to avoid forceful shutdown and to achieve seamless / uninterrupted operations.	1
15	Firewall +5yr License	 Interface: Hardware Accelerated 10 GE SFP+ Slots: 2 Hardware Accelerated GE SFP Slots: 8 Hardware Accelerated GE RJ45 Ports: 20 GE RJ45 Management / HA Ports: 2 USB Ports (Client / Server): 1 / 2 Onboard Storage: 240 GB Included Transceivers: 2x SFP (SX 1 GE) Capacity: IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP): 36 / 36 / 22 Gbps IPv6 Firewall Throughput (1518 / 512 / 86 byte, UDP): 3 6 / 36 / 22 Gbps Firewall Latency (64 byte, UDP): 3 μs Firewall Throughput (Packet per Second): 33 Mpps Concurrent Sessions (TCP): 5 Million New Sessions/Second (TCP): 280,000 Firewall Policies: ~10,000 IPsec VPN Throughput (512 byte): 20 Gbps SSL-VPN Throughput: 2.2 Gbps 	The Servers Installed at the Company Wholesaler with Excise e-governance application has a sensitive data of Excise revenue and other important data, A firewall is installed for network security which monitors and restricts incoming and outgoing network traffic and decides whether to allow or block specific traffic based on a defined set of security rules.	1

		 Concurrent SSL-VPN Users: 5,000 IPS Throughput: 8 Gbps CAPWAP Throughput: 5.5 Gbps Maximum Number of Registered Endpoints: 2,000 Power: AC Power Supply: 100–240V AC, 60–50 Hz Power Consumption (Average / Maximum): 128 W / 187 W Current (Maximum): 110V/7A, 220V/3.5A 		
16	Lan Patch cards 2mtrs	 4 Pairs Unshielded Twisted Pair (UTP) Cable Conductor Metal: Bare Copper Color Code: Gray Conductor: 24 AWG Insulation Material: HD-PE Jacket Material: PVC UL94V-0 Heat-resistant: 60oC minimum (Temperature limited) Flame property: The purpose of the vertical flame test is to screen out flammable wires. It follows the VW-1 (UL); FT-1 (CSA) standards. 	Cable required for providing network connectivity between equipment which will be installed within Company Wholesaler premises.	As per usage
17	Internet (Dedicated) + 2 Static IPs	• 10mbps	Required to establish the connectivity and data or Transactions exchange between Locally installed servers and Central Server.	1
18	Ports to be open	• 5434, 8082 and 2202	Following ports to be open	