

FINAL EVALUATION REPORT

1. Name of Procuring Agency Federal Board of Revenue (HQ)
2. Method of Procurement Single Stage One Envelope
3. Title of Procurement ***AUTHORIZED VENDORS FOR INSTALLATION AND MAINTENANCE OF PRODUCTION COUNTING SYSTEM IN BEVERAGE (PET, CANS, RGB) INCLUDING BOTTLED WATER, PACKAGED JUICES AND PACKAGED MILK SECTOR.***
4. Tender Inquiry No. 7(2)/IR/TDU/2026
5. PPRA Ref. No. (TSE). TS0000010428E
6. Date & Time of Bid Closing 27th August, 2026 11:00 AM
7. Date & Time of Bid Opening 27th August, 2026 11:30 AM
8. No of Bids Received 08
9. Criteria for Bid Evaluation Criteria laid down in Bidding Documents
10. Details of Bid(s) Evaluation Bids were evaluated in accordance with the criteria laid down in the Bidding Documents

Name of Bidder	Marks/ POCs compliance			Technical %	Rule/Regulation/SBD*/Policy/Basis of Rejection/Acceptance
	Technical	POC Status	Financial		
M/s Tollink Pakistan Pvt Ltd.	49/60	Successful POC	-	81.66%	Recommended for authorization, subject to applicable approvals/conditions.
M/s Obsidian Technologies	43/60	Successful POC	-	71.66%	Recommended for authorization, subject to applicable approvals/conditions.
M/s Dwise Tech Pvt Ltd.	15/60	Unsuccessful POC	-	25%	Not Qualified; not recommended for authorization
M/s Nature Tech Pvt Ltd.	15/60	Unsuccessful POC	-	25%	Not Qualified; not recommended for authorization
M/s NRTC	48/60	Successful POC	-	80%	Recommended for authorization, subject to applicable approvals/conditions.
M/s Excellence Delivered (ExD) Pvt Ltd.	46/60	Successful POC	-	76.66%	Recommended for authorization, subject to applicable approvals/conditions.
M/s AJCL Pvt. Ltd	45/60	Successful POC	-	75%	Recommended for authorization, subject to applicable approvals/conditions.
M/s ISSM Labelling Solutions Pvt Ltd.	48/60	Successful POC	-	80%	Recommended for authorization, subject to applicable approvals/conditions.

11. Any other additional/supporting information, the procuring agency may like to share.

Signature: _____



Farrukh Amir Sial
Secretary (Administration)
Federal Board of Revenue
Islamabad

Official Stamp: _____

**Standard Bidding Documents (SBD).*

FINAL

Invitation to Bid (ITB)

**COMBINED TECHNICAL AND INDICATIVE
FINANCIAL EVALUATION REPORT
(POST-POC STAGE)**

Request for Proposal Reference No.	F. No. 7(2)/IR/TDU/2026
Request for Proposal Title	Authorized Vendors for Installation and Maintenance of Production Counting System in Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk Sector
ITB Issuance/ Publishing Date	28 th July, 2026
Corrigendum-01 (Extension in Bid Submission Date)	20 th August, 2026
Pre-Bid meeting Date	5 th August, 2026
Bid Submission Date (Original)	20 th August, 2026
Bid Submission Date (Revised)	27 th August, 2026
Publishing	National Press (two leading national daily newspapers – One English and One Urdu) Website(s): FBR, EPADS & PPRA
Procurement Method/ Process	Single Stage – One Envelope Bidding Procedure– Open Competitive Bidding Process
Date of Technical Assessment	9 th September 2026
Combined Technical and Indicative Financial Evaluation Report Signing Date	21 st October 2026

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1. Project Background

The Federal Board of Revenue (FBR) invites sealed bids from eligible vendors, registered with PPRA on E-PADS as vendors and with Income Tax and Sales Tax Departments, and included in Active Taxpayer's List of FBR, for the deployment of a production counting solution across the Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk in Pakistan. The vendors are required to submit their proposals for a production count solution (e.g. Barcode Scanning & object detection and counting sensor -detailed in RFP), provided it meets both the Technical and Proof of Concept (POC) evaluation criteria (including preferable accuracy of 99% with a minimum requirement of 95%) defined in Section V-Scope of Work and is cost-effective.

2. Business Objectives of the FBR

The FBR is undertaking a significant digitalization initiative aimed at enhancing its tax collection capabilities and addressing structural gaps in Pakistan's tax system. As part of this transformation, FBR seeks to deploy a production counting system at all Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk facilities in Pakistan to improve tax compliance and prevent revenue leakage within the Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk, particularly in the handling of filled PET bottles and cans at Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk manufacturing facilities in Pakistan. As part of the agreement, selected vendors will be responsible for providing and installing barcode scanning and unit counting systems. Vendors will also be responsible for providing post installation maintenance and tech support services to the procuring client.

FBR recognizes the critical role of technology in tackling the challenges of tax evasion, unreported production, and discrepancies in Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk production data. This production counting project aims to deliver real-time visibility into total production of Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk. The solution will enable FBR to monitor the production count of Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk ensuring accurate reporting, transparent audits, and correct tax payments. A panel of multiple authorized vendors will provide manufacturers access to a pool of competitive vendors.

3. Business Requirements to be Met by the Information System

The solution specified in the RFP will scan barcodes from PET bottles and cans (covering aerated waters, bottled water, packaged juices, packaged milk, and reusable glass bottles), recognize each unique SKU, count individual units and report key metrics including but not limited to number of units for each SKU and type (e.g. brand) produced in Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk (Note: System should be able to expand coverage of SKU types through a user-friendly SKU management interface). It will then store the recorded data and transmit to FBR's system. FBR will access the data and should have access to an interactive dashboard. The user should be able to filter across multiple indicators including by SKU, time frame and information of the company (e.g., site, production line). The user can analyze data and compare it to reported quantities by the manufacturer.

4. Functional Performance Requirements of the Information System

Functional Performance Requirements of the Information System

- i. The system must maintain an uptime of 99% on daily basis to ensure seamless real-time transfer of data from manufacturer to FBR for live production monitoring.

Pre-Award Viability:

- i. The bidder must conduct a viability and capability demonstration test at a designated FBR approved site (e.g., a Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk plant) to validate that the proposed solution meets the operational and technical specifications. This test will form a prerequisite for final award approval.
- ii. Technical evaluation must be completed by FBR's technical evaluation committee.

Vendors authorized through this RFP process will also undertake an extended testing and validation phase with manufacturers.

5. General Technical Requirements

- i. Language Support: All information technologies with the Barcode scanning and counting system must provide support for English language. Specifically, all display technologies and software must support the ISO 639-1 EN character set and perform sorting according to ISO/IEC 14651
- ii. Dates: All information technologies MUST properly display, calculate, and transmit date data, including, but not restricted to 21st-Century date data.
- iii. Electrical Power: All active (powered) equipment must operate on 220v +/- 20v, 50Hz +/- 2Hz for V AC. For DC, power must be supplied by an industrial Power Supply Source for 24V or 12 V, depending on the hardware required as IPC, sensors, industrial switch, etc. All active equipment must include power plugs standard in Pakistan.
- iv. Environmental: All equipment must comply with food industry standards. Specifically, jigs fixing the sensors, cables, enclosures and electrical cabinets must use connectors and buttons made of stainless steel or food-grade, approved plastics. The equipment must be robust enough to meet IP66.

6. Brief Terms of Request for Proposal Document

Schedule for requirement	FBR intends to cover a 100% of Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk lines in Pakistan by 31 st December 2026. The production counting system shall cover all Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk categories, including Beverages (PET, CANS, RGB), including Bottled Water, Packaged Juices and Packaged Milk. The solution shall remain the same across all categories, i.e., barcode scanning and counting through scanners and sensors as specified in this RFP. Authorized vendor(s) should have all required equipment (hardware and software) readily available to be able to deploy the required barcode scanning and counting system across Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk manufacturing facilities in Pakistan.
Proposal Validity from proposal opening	The Proposal/ Bid Validity period shall be 120 days or extendable as mutually agreed.
Bid Security	The amount of Bid Security shall be PKR 1,000,000/-
Performance Guarantee	The Performance Guarantee shall be applicable and will be set at fixed amount of PKR 5,000,000 only. Note: This limit may be revised and lowered.

Currency for Evaluation of Proposals	Pak Rupees (PKR)
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7. Technical/ Financial Evaluation Committee

Following Technical/ Financial Evaluation Committee was designated for the evaluation of the subject Request for Proposal (RFP):

Sr. No	Name	Designation	Role
1.	Mr. Zubair Bilal	Member (IR-Operations), FBR	Chairman/ Convener
2.	Mr. Ashhad Jawwad	Member (Customs Policy)	Member
3.	Dr. Najeebullah	Chief (Tax Reforms)	Member
4.	Dr. Muhammad Khurram	Chief (Mgt/HR-IR)	Member
5.	Mr. Rizwan Salabat	Chief (Mgt/HR-Customs)	Member
6.	Mr. Amjad-ur-Rehman	Chief (F&C) – Customs	Member
7.	Mr. Waqas Ahmed Langah	Secretary (Budget & Expenditure)	Member/Secretary
8.	Faisal Sattar	Chief Executive Officer	Member

8. Procurement Process

The procurement process for the subject activity is **Single Stage – One Envelope Bidding Procedure** – Invitation to Bid – Open Competitive Bidding Process. Invitation to Bid notification was published in national press (two leading national daily newspapers – One English and One Urdu) on **28th July, 2026 (Annexure-I)** as well as uploaded on FBR (<https://www.fbr.gov.pk/>) and PPRA (<https://www.ppra.gov.pk>) websites. Following table mentions the publication of corrigendum, addendums and other aspects of the procurement process.

Bidding Document Reference No.	F. No. 7(2)/IR/TDU/2026
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Date of Technical Assessment	09 th September, 2026
Combined Technical and Indicative Financial Evaluation Report Signing Date	21 st October 2026

9. Proposal(s) Received

On the bid submission date and time **27th August, 2026 at 11:00 a.m.**, following bids were received:

Sr. No	Bidder	Bid Submitted	Remarks
1.	M/s Tollink Pakistan Pvt Ltd	✓	Bid Submitted in hard copy.
2.	M/s Obsidian	✓	Bid Submitted in hard copy.
3.	M/s Dwisetech (Pvt) Ltd	✓	Bid Submitted in hard copy.
4.	M/s Naturetech (Pvt) Ltd	✓	Bid Submitted in hard copy.
5.	M/s NRTC	✓	Bid Submitted in hard copy.
6.	M/s Excellence Delivered (ExD) Pvt Ltd	✓	Bid Submitted in hard copy.
7.	M/s AJCL (Pvt) Ltd	✓	Bid Submitted in hard copy.
8.	M/s ISSM Labelling Pvt Ltd	✓	Bid Submitted in hard copy.

10. Proposal(s) Opening

In accordance with the Single Stage – One Envelope Bidding Procedure, the bids were opened publicly on the same date immediately after the bid submission deadline at FBR House by the Technical/ Financial Evaluation Committee in the presence of authorized representatives of participating firms. The completeness of the bids and availability of the required bid security were checked in the presence of the bidders' representatives. As the bidding document required the technical proposal to include an indicative price per installation point and a breakdown of price per component, no separate financial envelope or subsequent financial opening formed part of the prescribed procedure.

- (i) the name of the Bidder and, where applicable, details of the Joint Venture/Consortium; and
- (ii) availability and amount of the bid security and other particulars required to be announced at bid opening.

The bid opening sheet is placed at **Annexure-II**.

11. Preliminary Examination

Preliminary examination of the technical proposals was carried out. The examination included verification/ review of technical proposal submission form, completeness of the proposal, eligible countries, proposal validity confirmation and availability of bid security as per requirements of the Bidding Document. The finding(s) from preliminary examination is summarized below:

Proposer	Proposal Form	Eligible Country	Proposal Validity	Proposal Security	Acceptance for detailed Examination
M/s Tollink Pakistan Pvt Ltd	Yes	Pakistan	Yes	Yes	Yes
M/s Obsidian	Yes	Pakistan	Yes	Yes	Yes
M/s Dwisetech (Pvt) Ltd	Yes	Pakistan	Yes	Yes	Yes
M/s Naturetech (Pvt) Ltd	Yes	Pakistan	Yes	Yes	Yes
M/s NRTC	Yes	Pakistan	Yes	Yes	Yes
M/s Excellence Delivered (ExD) Pvt Ltd	Yes	Pakistan	Yes	Yes	Yes
M/s AJCL (Pvt) Ltd	Yes	Pakistan	Yes	Yes	Yes
M/s ISSM Labelling Pvt Ltd	Yes	Pakistan	Yes	Yes	Yes

12. Detailed Technical Evaluation

The mandatory requirements and marking criteria for evaluation of proposals advertised in the Request for Proposal along with detailed proposal's evaluation, are submitted at **Annexure-III**. The summary of evaluation is mentioned below:

Sr.	Proposer	Compliance with Mandatory Criteria	Technical Score/ Marks (Maximum marks 60)
1.	M/s Tollink Pakistan Pvt Ltd	Compliant/ Technically qualified	49/60
2.	M/s Obsidian	Compliant/ Technically qualified	43/60
3.	M/s Dwisetech (Pvt) Ltd	Non-Compliant/ Non-Technically qualified	15/60
4.	M/s Naturetech (Pvt) Ltd	Non-Compliant/ Non-Technically qualified	15/60
5.	M/s NRTC	Compliant/ Technically qualified	48/60
6.	M/s Excellence Delivered (ExD) Pvt Ltd	Compliant/ Technically qualified	46/60
7.	M/s AJCL (Pvt) Ltd	Compliant/ Technically qualified	45/60
8.	M/s ISSM Labelling (Pvt) Ltd	Compliant/ Technically qualified	48/60
<i>Note: The minimum technical score (St) required to pass is: Forty-Two (42) points / marks being 70% of total marks of 60 points/marks.</i>			

13. Indicative Financial / Cost Analysis

The Bidding Document adopts a Single Stage - One Envelope procedure and requires the technical proposal to include an indicative price per installation point together with the component-wise price breakdown. The commercial submissions have therefore been reviewed as indicative cost information accompanying the technical proposals. The table below consolidates the quoted one-time and recurring cost structures of all eight

bidders for transparency and record. Financial information of bidders found technically non-qualified is shown for record only and is not carried forward for POC, authorization, financial ranking or award.

For recurring charges, the three-year authorization period has been used solely for arithmetic consolidation: annual charges are multiplied by 3 and monthly charges by 36. Variable charges linked to SKU volume, security labels or production units cannot be fully quantified at this stage. The calculated aggregates are therefore indicative arithmetic totals only and shall not be treated as normalized evaluated bid prices or used to rank the bidders, because the quoted commercial structures and cost inclusions/exclusions are not uniform.

Sr. No.	Bidder / Firm	Estimated One-Time Cost (PKR)	Estimated Recurring Cost (PKR)	Calculated 3-Year Aggregate*	Remarks / Calculation Basis
1	M/s Tollink Pakistan Pvt. Ltd.	PKR 7,408,427/- Hardware & Software: PKR 4,559,420/- Infrastructure: PKR 2,514,518/- Installation, Testing & Commissioning: PKR 334,489/-	PKR 4,798,872/- Monthly support per line: PKR 133,302/-	PKR 12,207,299/-	One-time: PKR 4,559,420 + PKR 2,514,518 + PKR 334,489 = PKR 7,408,427. Recurring: PKR 133,302 x 36 months = PKR 4,798,872. • Prices are exclusive of Sales Tax and quoted per line item. • Prices are based on current forex rates and taxes; changes will be adjusted accordingly.
2	M/s Obsidian	PKR 4,454,050/- Equipment (Hardware) Cost: PKR 2,590,000/- Spare Parts/ Equivalent: PKR 764,050/- (for 5 quantity, PKR 152,810/unit) Software Cost with One-Time Deployment: PKR 1,100,000/-	PKR 1,500,000/- Annual SLA: PKR 500,000/-	PKR 5,954,050/-	• Pricing is exclusive of shipment, on-site installation and applicable GST. • Quoted tentative prices are subject to successful POC; final pricing may vary after POC depending on equipment configuration, performance validation and finalized scope.

Sr. No.	Bidder / Firm	Estimated One-Time Cost (PKR)	Estimated Recurring Cost (PKR)	Calculated 3-Year Aggregate*	Remarks / Calculation Basis
3	M/s National Radio and Telecommunication Corporation (NRTC)	PKR 11,365,127.55/- Production Line • Hardware (Equipment) for One Site + One Line: PKR 7,499,250/- (Infrastructure Client Site: PKR 3,118,500/- & Production Line BOQ: PKR 4,380,750/-) • Software License (Per site basis + 1 Line): PKR 3,865,877.55/- (PKR 249,750/- for additional corresponding lines)	Maintenance for Year 2: Tier 1: PKR 346,685.4/- Tier 2: PKR 378,270/- Tier 3: 402,622.65/- Maintenance for Year 3: Tier 1: PKR 531,819.4/- Tier 2: PKR 554,473/- Tier 3: 562,950/- Installation Mobilization Cost for Tier 2: PKR 87,750/- & for Tier 3: PKR 129,060/-	PKR 12,243,632/- Considering Tier 1 Costs.	- All prices are exclusive of applicable taxes, duties and government levies. - Three-year comprehensive warranty on hardware is included. - Proposed BOQ includes 4 scheduled maintenance/ review visits per year during the applicable support period. - The indicative price has been calculated based on anticipated deployment of 125 production lines. In case of a reduction in total awarded quantity, the per-site/ per-line pricing will be revised accordingly. - Prices are based on current forex rates and taxes; changes will be adjusted accordingly.
4	M/s Excellence Delivered (ExD) Pvt. Ltd.	PKR 5,163,557/- (Hardware Cost: PKR 2,911,000/- Software Cost: PKR 1,907,557/- One-Time Deployment: PKR 345,000/-)	PKR 1,725,000/- (Annual SLA: PKR 575,000/-)	PKR 6,888,557/-	Annual SLA: PKR 575,000 x 3 years = PKR 1,725,000. • Pricing is exclusive of shipment and on-site installation. • Prices are exclusive of all applicable taxes.
5	M/s AJCL Pvt. Ltd.	PKR 9,591,771/-	PKR 19,808,568/- (Monthly Maintenance per Line: PKR 550,238/-) Per SKU Charge: PKR 1/-	PKR 29,400,339/- + PKR 1/- per SKU (actual)	Monthly maintenance: PKR 550,238 x 36 months = PKR 19,808,568. • Per-SKU charge will be costed as per actual. • Pricing is exclusive of all applicable taxes.
6	M/s ISSM Labeling Solutions Pvt. Ltd.	PKR 4,520,500/- (Hardware: PKR 2,520,500/- Softwares: PKR 1,000,000/- Installation & Commissioning: PKR 1,000,000/-)	SLA: PKR 2,000,000/-	PKR 6,520,500/-	• All prices quoted are exclusive of applicable taxes, duties and levies which shall be itemized separately and borne by the client in accordance with prevailing government regulations.

**Calculated three-year aggregates are arithmetic consolidations of the displayed one-time and recurring amounts only. They do not represent evaluated/normalized bid prices and exclude variable or unquantified elements identified in the remarks.*

Technical qualification treatment of financial information: The commercial information of M/s DwiseTech and M/s Naturetech Pvt. Ltd. is not announced since both bidders failed the technical threshold, their prices have no bearing on the subsequent POC/authorization process. The remaining six technically qualified bidders proceed on the basis of technical qualification, not price ranking.

14. Combined Evaluation Status (Post-POC)

The technical evaluation and indicative cost review result in the following post-POC status. No bidder is ranked as Lowest or Most Advantageous Bid at this stage. Commercial information is retained to support transparency, reasonableness review and any subsequent determination of an upper price restriction/maximum fee, while progression to POC was governed by technical qualification.

Sr.	Proposer	Technical Score/ Marks (Maximum marks 60)	Technical %	POC Status
1.	M/s Tollink Pakistan (Pvt) Ltd	49	81.66%	Successful POC
2.	M/s Obsidian	43	71.66%	Successful POC
3.	M/s DwiseTech (Pvt) Ltd	15	25%	Unsuccessful POC
4.	M/s Naturetech (Pvt) Ltd	15	25%	Unsuccessful POC
5.	M/s NRTC	48	80%	Successful POC
6.	M/s Excellence Delivered (ExD) Pvt Ltd	46	76.66%	Successful POC
7.	M/s AJCL (Pvt) Ltd	45	75%	Successful POC
8.	M/s ISSM Labelling (Pvt) Ltd	48	80%	Successful POC

Note: The minimum technical score required to qualify was 42 marks out of 60 (70%). The POC reports conducted on various dates by the authorized officers of FBR are attached at **Annexure-IV**. The indicative commercial information provided by the qualified bidders has been mentioned above in Section 14. Indicative costs are not used to eliminate or rank technically qualified bidders from Authorization process.

15. Technical/ Financial Evaluation Committee Recommendations

- a) M/s Tollink Pakistan Pvt Ltd, M/s Obsidian, M/s AJCL Pvt. Ltd., M/s NRTC, M/s Excellence Delivered (ExD) Pvt. Ltd. and M/s ISSM Labeling Solutions Pvt. Ltd. may be issued authorization, subject to satisfactory completion of the cost reasonableness assessment, including a comparative analysis of the quoted prices against relevant market benchmarks and other applicable checks prescribed in the bidding documents. Although price is not a determining factor for qualification under the present procurement process, the assessment shall ensure that the proposed solutions are cost-effective, reasonably priced, and represent value for money, thereby safeguarding FBR's interests and protecting the manufacturers from potential overpricing. The issuance of authorization shall be subject to compliance with the applicable requirements of the bidding documents and satisfaction of the aforementioned checks. Any final commercial terms/authorized fee or upper price restriction shall be determined/processed in accordance with the Bidding Document, the applicable

statutory framework and approval of the competent forum, after reconciliation of the bidders' original price schedules, applicable taxes and the finalized configuration/scope.

- b)** The indicative one-time and recurring cost structures, together with the three-year arithmetic consolidations above, be retained as commercial reference information without financial ranking. Variable charges (including per-SKU, security-label and per-unit charges), taxes, shipment/installation exclusions, optional components and site/line-specific cost bases shall be verified and normalized only if required for any subsequent price-cap/maximum-fee determination.
- c)** Subject to the above compliances, FBR may issue none or more than one authorization.

Proof of Concept Report — Bottled Water

Date: 12th October 2026

Vendor: M/s Excellence Delivered (ExD) (Pvt.) Ltd.

Facility: Qarshi Industries (Private) Limited

Attendees:

1. Mr. Abdur Rehman, Second Secretary (TDU)
2. Mr. Ali Saeed, Second Secretary (TDU)

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by M/s Excellence Delivered (ExD) (Pvt.) Ltd. (hereinafter, 'the Vendor'). This Proof of Concept (POC) for the Production Counting System — barcode scanning & object detection and counting sensor — for the Bottled Water sector was conducted on one installation point, the bottled water line of Qarshi Industries (Private) Limited (hereinafter, 'the manufacturer'), in adherence to the Bidding Document for Authorized Vendors for Installation and Maintenance of Production Counting System in Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk Sector (No. 7(2)/IR/TDU/2026).

SKU Tested:

Bottled water — 125 bottles processed on the running production line through the Vendor's barcode scanning and counting point.

Solution Topology:

The Vendor's proposed solution is an end-to-end deployment package (hardware, AI software and FBR Cloud integration) built on paired barcode scanning and object-detection sensing, drawing on the Vendor's prior FBR deployment for the Packaged Juices sector. Each installation point is equipped with fixed-mount industrial barcode scanners, photoelectric/ultrasonic/laser/retro-reflective object sensors, industrial IP cameras (1080p, IP65), an Industrial PC (i7-class, 1TB SSD) with PLC, a 16-channel NVR with one-month retention, managed Ethernet switches, a VPN-enabled firewall/router and a lockable IP66/IP67 electrical cabinet.

The unit-counting module cross-validates dual sensors, and the verification module cross-checks the SKU read at the labelling stage against the conveyor read, with configurable alerts for malfunction, obstruction, outage and unidentified SKU. Data is transmitted to FBR Cloud through an encrypted VPN/API with TLS, with immutable audit logs, local storage of at least two months per line and NTP-synchronised devices, against targets of 99% accuracy and 99% daily uptime.

For the purpose of this POC, the Vendor's barcode scanning and counting point was installed in an enclosure over the production line conveyor. As each bottle passed the scanning point, the system read its barcode label to detect the SKU, as provided under Section V(B), clause 01(b) (Capture Data) of the Bidding Document, and counted the unit against the identified SKU.



POC Results

The POC was evaluated against the accuracy requirement of the Bidding Document — a preferable accuracy of 99% with a minimum requirement of 95% (Invitation to Bid, clause 1, and Bid Data Sheet) — with the result obtained as below:

Sr. No.	Metric	Requirement	Qualification Criteria	Result
1	Solution Accuracy	Correctly detect units on a running production line, identify the SKU through barcode scanning, and count the number of units against the relevant SKU.	Preferable accuracy: 99% Minimum requirement: 95%	Pass (100%)

Count Reconciliation:

Units Processed	Units Counted by System	Accuracy
125	125	100%

Test Observations:

(a) **Detection and SKU identification:** Each bottle passing the scanning point on the running line was detected, and its barcode was read to identify the product (SKU) without manual intervention.

(b) **Count against the relevant SKU:** A total of 125 bottles were processed through the scanning point, and all 125 were counted by the system against the identified SKU, giving a correct count of 100%. No unit was missed or counted twice.

(c) **Running production line:** The test was carried out on the manufacturer's running bottled water line under normal operating conditions, without any modification to the manufacturer's filling or conveying equipment.



POC Images



Image 1 — The Vendor's barcode scanning enclosure installed over the production line conveyor



Image 2 — Bottled water line at Qarshi Industries on which the POC was conducted

✓

APR



Image 3 — Production floor and bottled water line at the manufacturer's facility (frame from POC video)

Conclusions

The POC demonstrated that the Vendor's barcode scanning and counting solution correctly detects units on a running production line, identifies the SKU by reading the barcode on each unit, and counts the units against the relevant SKU. All 125 bottles processed during the POC were counted correctly, giving an accuracy of 100%.

Against the 'Solution Accuracy' metric, the Vendor's solution achieved a correct count of units against correct SKU of 100% exceeding the preferable accuracy of 99% specified in the Bidding Document.

Based on the above, M/s Excellence Delivered (ExD) (Pvt.) Ltd. has successfully qualified the Proof of Concept for the Bottled Water sector under Bid No. 7(2)/IR/TDU/2026, achieving 100% accuracy against the preferable accuracy of 99% and the minimum requirement of 95%.

A blue ink signature of Mr. Abdur Rehman, consisting of a stylized 'A' followed by a horizontal line and some smaller marks.

Mr. Abdur Rehman
Second Secretary, TDU

A blue ink signature of Mr. Ali Saeed, featuring a large, flowing 'A' followed by 'li Saeed' in a cursive style.

Mr. Ali Saeed
Second Secretary, TDU

Proof of Concept (POC) Report – Beverages Sector Production Monitoring

Noncompliant / failed in POC
also
Excluded 98

Date: 17th September, 2026

Facility: Pepsi Northern Bottling (Pvt.) Ltd., Peshawar

Attendees: Shiraz Ali Khan, Ali Saeed, Syeda Maimoona

Objective:

The objective of this Proof of Concept (POC) was to evaluate the production-counting and SKU-identification solution proposed by the vendor NatureTech for deployment under Production Monitoring at the beverages sector facility of Pepsi Northern Bottling (Pvt.) Ltd., Peshawar, and to determine whether the proposed equipment reliably and accurately counts production units and identifies SKUs for reconciliation with declared production data. As per the RFP scope, the solution was to be based on a barcode scanner.

SKU Tested:

The SKU(s) running on the production/labelling line at the time of the POC were tested, including PET bottle packs identified via visual analytics (computer vision) at the labelling reel.

Key Equipment Deployed

Equipment	Description / Purpose
Visual Analytics Camera (AI/Computer Vision) – vendor's demonstrated solution, not as per RFP	Fixed-mount vision camera installed at the labelling reel to detect and count each bottle/pack as it passes, using computer-vision analytics for automated SKU identification and unit counting.
Industrial PC / Compute Unit	Edge computing unit that receives count events from the vendor's AI camera, timestamps and logs each event, and pushes counted data to the central dashboard.
Data Storage (SSD/NVR)	Local solid-state storage for buffering and retaining count logs and event data prior to upload.
Networking (Switches/Cabling)	Industrial-grade switches and structured cabling connecting the camera and compute unit to the plant network.
Electrical Enclosure / Junction Box	Weatherproof/dust-proof enclosure housing power and data connections at the production line.
Power Backup (UPS)	Uninterruptible power supply ensuring continuous operation of the counting unit during power fluctuations.
Cloud/Central Dashboard	Web-based dashboard aggregating unit counts in real time for reconciliation with declared production.

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Syeda Maimoona

Solution Topology

As per the RFP scope, production counting and SKU identification at the production reel were to be performed using a barcode scanner. Instead, the vendor demonstrated an AI-based solution: a computer-vision (visual analytics) camera fixed at the production reel, which counts units and logs count events to an edge Industrial PC, with data sent to a central/cloud dashboard. The barcode scanner solution required by the RFP was not deployed or demonstrated during this POC.

POC Results

Evaluation Parameter	Requirement	Result
SKU Identification Accuracy	$\geq 95\%$ (99% preferred)	Not met – AI/computer vision used instead of barcode scanner
Unit Counting Accuracy (Barcode Scanner, as per RFP)	$\geq 95\%$ (99% preferred)	Not met – AI/computer vision used instead of barcode scanner
Barcode Scanner Solution (RFP-required)	Reliable read rate at line speed	Not demonstrated – Not met
Solution Type Demonstrated	Barcode scanner, as per RFP scope	AI/computer vision demonstrated – not as per RFP
Data Reconciliation with Production Monitor Reading	Match with line/monitor counters	Not established for required solution
Overall POC Outcome	Pass / Fail	FAIL

POC Conclusions and Observations

The POC conducted at Pepsi Northern Bottling (Pvt.) Ltd., Peshawar, on 17th September, 2026 was not successful, and the vendor NatureTech has FAILED the POC, because the solution demonstrated was not the solution required under the RFP. The following observations were recorded:

- The production reel is the identified location for deployment of the counting and SKU-identification solution.
- The RFP required a barcode scanner-based solution. The vendor instead demonstrated an AI/computer-vision camera, which is not the solution required by the RFP.

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Syeda Maimoona

- The readings and SKU-identification results obtained from the AI/computer-vision camera, and the model training/validation screen shown by the vendor, do not constitute valid POC results, as they do not relate to the barcode scanner solution required by the RFP. The readings recorded in the earlier draft of this report were therefore not correct and have been withdrawn.
- The barcode scanner was not demonstrated or tested at any point during the POC, so its read rate at line speed, SKU-identification accuracy and counting accuracy could not be verified.
- Reconciliation with the production line monitor was not established for the required solution. The monitor screen displayed the message "Monitoring device 3 inactive" and carried a date stamp of 09/17/2025; its production counter is cumulative, not a count for a test window.
- The architecture described by the vendor (vision camera, edge compute unit, central dashboard) does not match the barcode scanner-based solution required by the RFP, and its suitability for Production Monitoring cannot be accepted on the basis of this POC.
- The vendor's team was present throughout and demonstrated its AI-based solution on the live production line during the visit.

Conclusion: NatureTech has FAILED the POC. The solution offered was wrong: an AI/computer-vision system was demonstrated whereas the RFP required a barcode scanner, and the required barcode scanner solution was not demonstrated.



Shiraz Ali Khan



Ali Saeed



Syeda Maimoona

Site Photographs



Labelling reel at the production line — the identified deployment point. The vendor's AI camera was demonstrated here instead of the RFP-required barcode scanner.

Shiraz Ali Khan

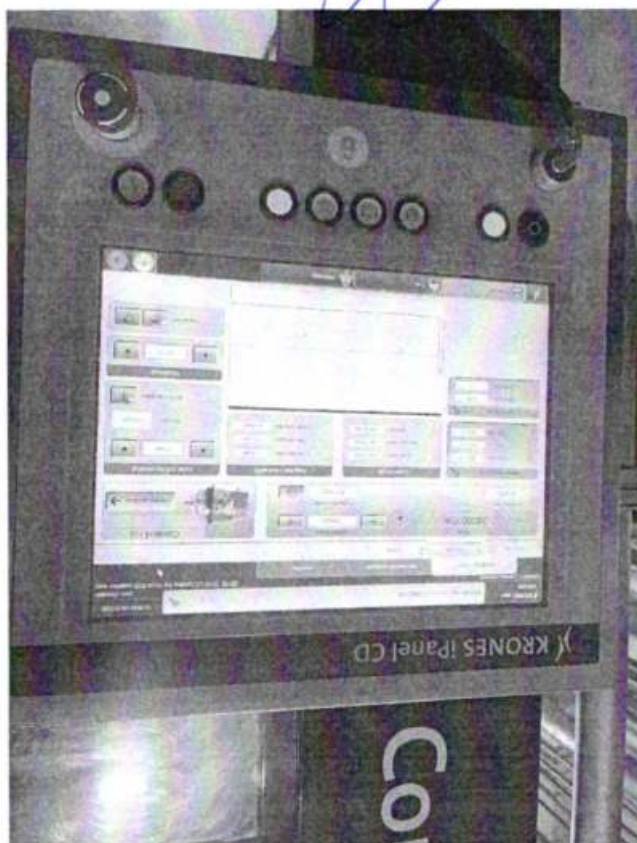
Ali Saeed

Syeda Maimoona

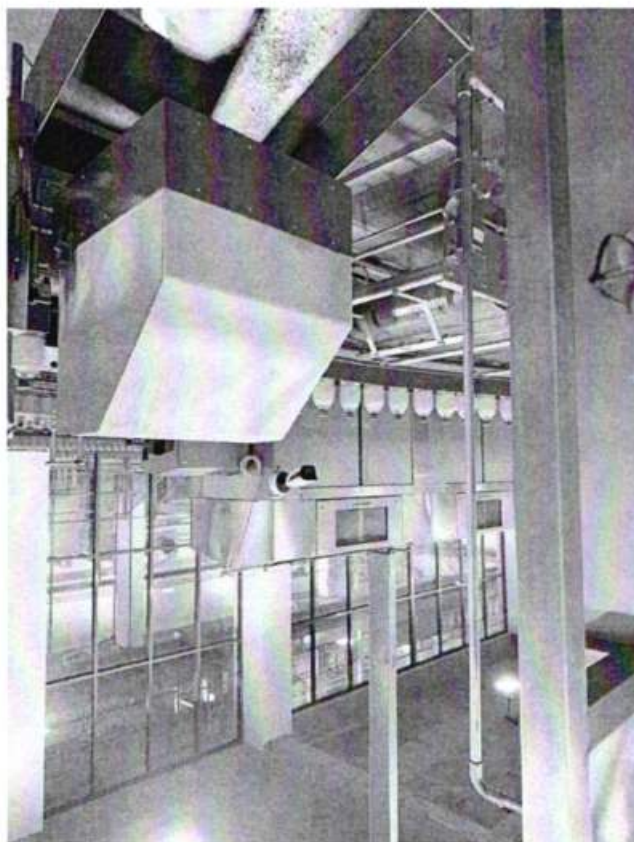
Syeda Maimona

Ali Saeed

Shiraz Ali Khan



Bottles moving on the conveyor past the production line, in view of the counting/monitoring point.



Baseline, production line monitor reading. The screen shows the message "Monitoring device 3 inactive" and a date stamp of 09/17/2025.

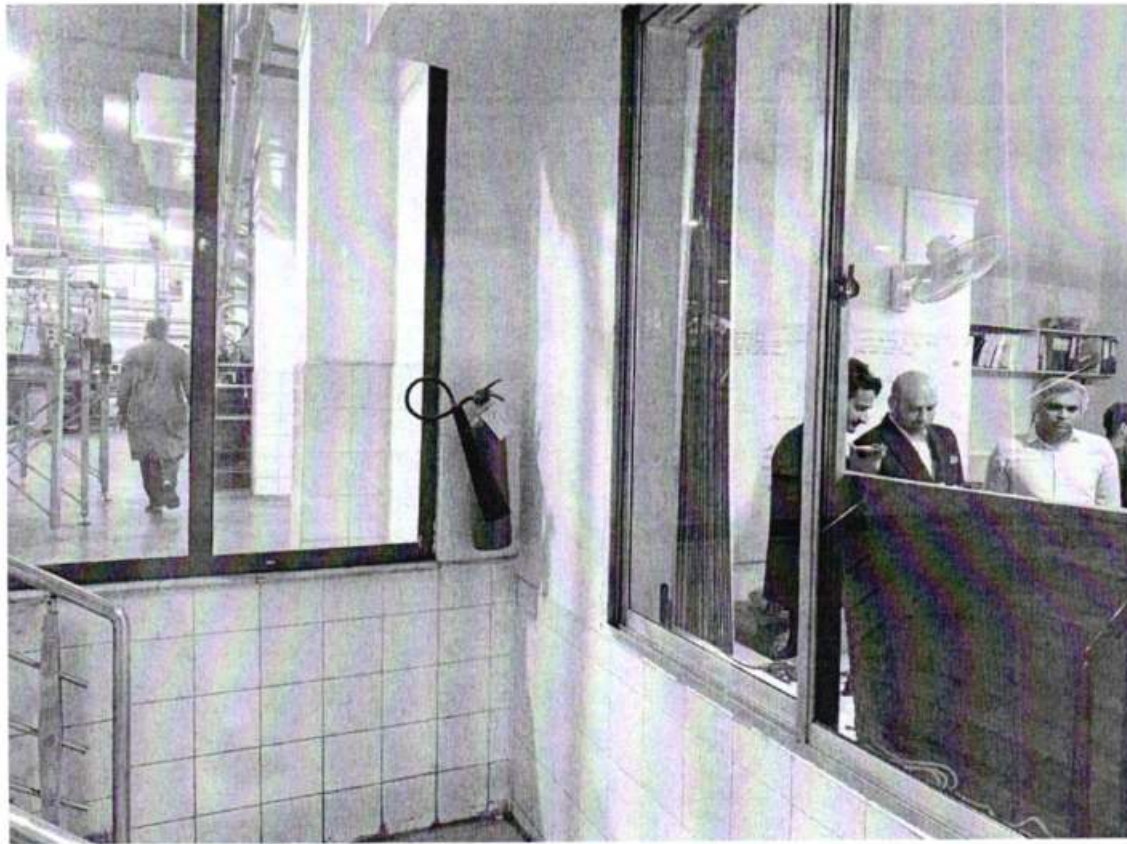


Vendor's AI model training/validation run, shown during the POC. It relates to the AI solution, not the RFP-required barcode scanner.

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FBR and vendor team during the site visit at the facility.


Shiraz Ali Khan


Ali Saeed


Syeda Maimoona

Proof of Concept Report Beverages

Date: 10th June 2026

Facility: Shezan International Limited, Hattar Industrial Estate, Khyber Pakhtunkhwa

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by M/s Obsidian (hereinafter, 'the Vendor'). This Proof of Concept (POC) for Beverages sector production monitoring, automated detection of product/SKU and counting of individual packs on the running filling line, was conducted on the aseptic carton filling line of Shezan International Limited, Hattar (hereinafter, 'the manufacturer'), in adherence to the Proof of Concept (POC) Qualification Criteria specified in the Bidding Document for the Beverages sector. ✓

SKU Tested:

Packaged juice drink (Shezan 'Punch') in Tetra Brik Aseptic carton packs (TBA250B), run on the manufacturer's Tetra Pak A3/Speed 0400 filling machine (machine no. 21219/00304, rated capacity 24,000 packages per hour), with filled packs conveyed singly on the outfeed conveyor towards straw application and packing. At the time of the exercise the Vendor's platform carried two (2) SKUs, barcodes 5078643001024 and 5078643001017, configured against one (1) active lane at the site.

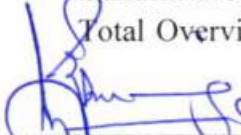
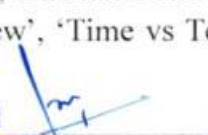
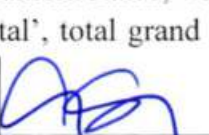
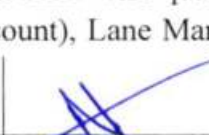
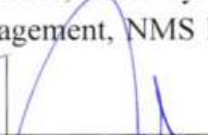
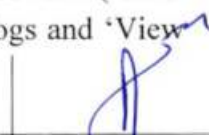
Solution Topology:

The Vendor's proposed solution is a camera-based visual analytics architecture, in which each pack leaving the filling machine is detected and counted at a monitoring point on the outfeed conveyor, and its product barcode is read to attribute the count to the correct SKU. Counts are transmitted to the Vendor's web platform and displayed in real time by sector, site, lane and SKU.

Product/SKU detection and unit count: A vision camera mounted on the conveyor guide rails at the filler outfeed views each pack passing the monitoring point, registers it as a discrete production event and reads its product barcode. Packs whose barcode is not read are still counted and are recorded under 'UNKNOWN', so that the total count is not lost.

Optical sensor at packaging material: An optical (red-light) sensor is mounted inside the filling machine facing the printed packaging-material web, ahead of the forming section.

Dashboard: Counts are displayed on the Vendor's web platform, organised by sector ('All Spoke Sites of Packaged Juices'), site (Shezan, Code P01, Hattar) and lane, showing total SKUs, total manufactured, total lanes and camera status, with SKU-wise quantities, an Analytics view ('SKU Total Overview', 'Time vs Total', total grand count), Lane Management, NMS logs and 'View

 Shiraz Ali Khan Second Secretary TDU	 Abdur Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Sajal Tariq Second Secretary TDU	 Alishba Anif Second Secretary TDU
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Detected Frames' for visual verification, filterable by period (today, yesterday, week, month and custom).

Solution Components:

The components of the solution observed at the facility are listed below.

Sr. No.	Component	Function	Location	Make / Model / Specifications
1	Vision Camera	Detects and counts each pack; reads product barcode for SKU attribution	Filler outfeed conveyor, on guide rails	Vision camera with barcode reading, mounted on the conveyor guide rails and cabled along the conveyor frame.
2	Optical Sensor	Monitors the printed packaging-material web feeding the filler	Inside the filling machine, at the packaging-material web	Optical (red-light) sensor on bracket, wired to the Vendor's system.
3	Web Platform and Dashboard	Real-time display of site, lane and SKU-wise counts, analytics, NMS logs and detected frames	Cloud-based web platform	Vendor's web platform; 1/1 cameras active at site.

POC Results

The solution was evaluated against the evaluation parameters and benchmarks applicable to the Beverages sector. The parameters, the requirement against each and the result obtained are reproduced below:

Sr. No.	Evaluation Parameter	Requirement	Result
1	SKU Identification Accuracy (Barcode reading)	≥ 95% (99% preferred)	Achieved – 97.6% (17,594 of 18,033)
2	Unit Counting (Individual Packs)	≥ 95% (99% preferred)	Achieved – count rate consistent with filler counter


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TDU


Abeer Rehman
Second Secretary
TDU


Ali Saeed
Second Secretary
TDU


Syeda Maimoona
Second Secretary
TDU


Sajal Tanq
Second Secretary
TDU


Alishba Asif
Second Secretary
TDU

Sr. No.	Evaluation Parameter	Requirement	Result
3	Exclusion of Rejected Packs	Rejects not counted as production	Achieved
4	Data Reconciliation with Production Monitor Reading	Match with line/monitor counters	Achieved (rate-based)
5	Real-time Dashboard and Reporting	Live site, lane and SKU-wise display	Achieved
6	Overall POC Outcome	Pass / Fail	PASS

Test Observations:

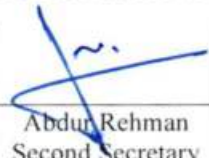
(a) Product/SKU detection: The platform registered two SKUs at the site. At 2:28 pm the Analytics view showed 17,560 packs against SKU 5078643001024, 34 against SKU 5078643001017 and 439 under 'UNKNOWN', a total grand count of 18,033. Packs attributed to a SKU were 17,594, i.e. SKU identification of 97.6%, meeting the benchmark of $\geq 95\%$ (99% preferred).

(b) Progression of the count: The site's 'Manufactured' total advanced from 16,941 to 17,276 (2:26 pm; SKU 5078643001024 – 17,066 and UNKNOWN – 210) and to 18,033 (2:28 pm), with the camera status shown as 1/1 active throughout.

(c) Filling machine counter: The Tetra Pak counter showed 19,667 packages produced and 19,660 to distribution at 02:17:00 pm. The counters were then reset; at 02:30:07 pm they read 2,723 produced, 2,717 to distribution and 93 rejected, and at 02:31:28 pm 3,214 produced, 3,214 to distribution and 101 rejected, i.e. 491 packs in 81 seconds (about 364 packs per minute, or about 21,800 per hour against the rated 24,000).

(d) Reconciliation: Since the filling machine counters were reset during the POC whereas the dashboard total runs from the start of the day, the cumulative totals of the two cannot be compared directly, and reconciliation was made on the rate of production. The dashboard count rose by 757 between 2:26 pm and 2:28 pm (about 380 packs per minute), within about 4% of the rate recorded on the filler counter; as the dashboard readings carry minute-level time-stamps only, the comparison is indicative.

(e) Rejected packs: Packs rejected by the filling machine (93 rising to 101 during the observation) are discharged at the reject chute of the filler, upstream of the monitoring point on the outfeed conveyor, and are therefore not counted as production by the Vendor's system.

					
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(f) **Unidentified packs:** 439 packs (2.4% of the total) were counted without a barcode read and recorded under 'UNKNOWN'. These are included in the total count but are not attributed to a SKU; the Vendor should reduce this share towards the preferred 99% identification.

(g) **Dashboard:** The dashboard provides period filters, SKU-wise and lane-wise views, NMS logs and 'View Detected Frames' for frame-level verification of counts. The time axis of the 'Time vs Total' chart (03:00 to 08:00 for readings taken up to about 2:28 pm) appears to be in UTC rather than Pakistan Standard Time, and should be set to local time.

POC Images

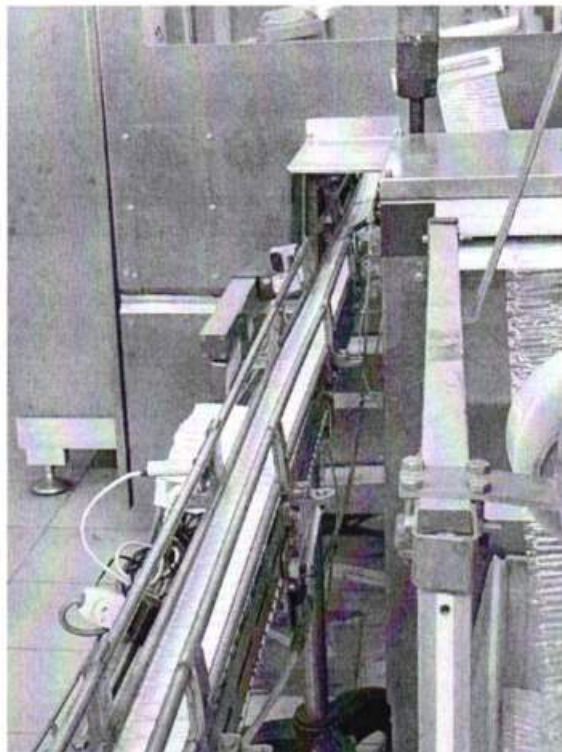


Image 1 Vision camera mounted on the conveyor guide rails at the filler outfeed

					
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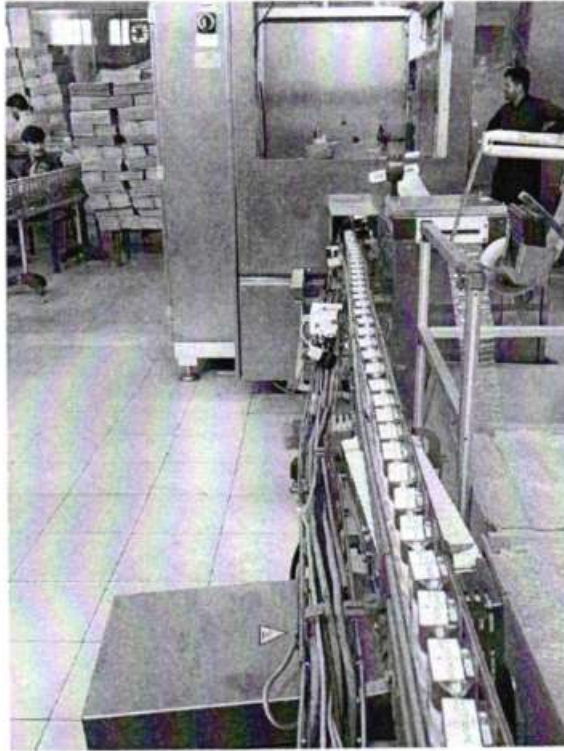


Image 2 Shezan packs on the outfeed conveyor of the Tetra Pak A3/Speed filler, with the monitoring point and straw application station

					
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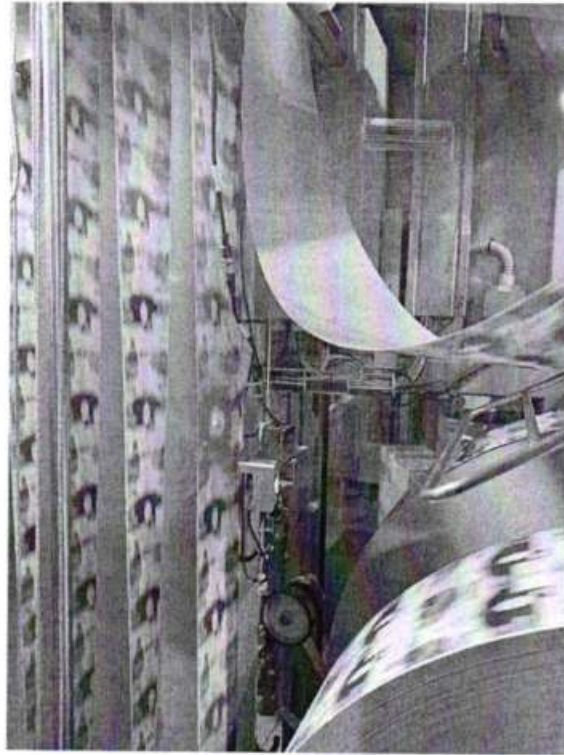
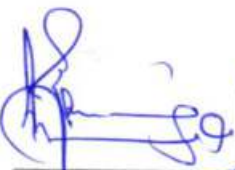


Image 3 Optical sensor mounted inside the filling machine at the printed packaging-material web

					
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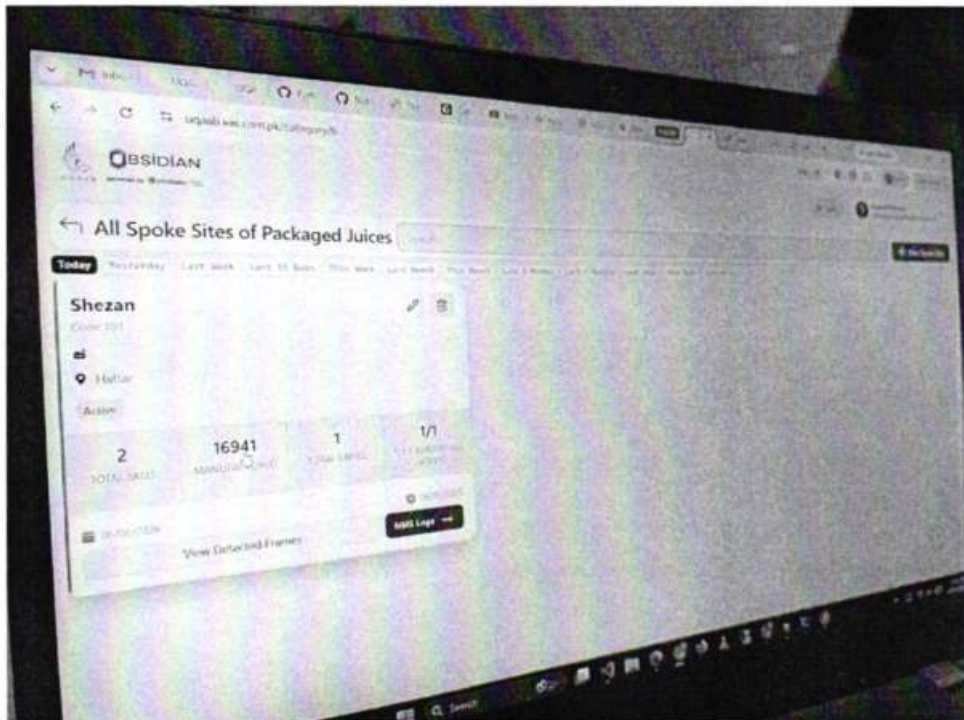


Image 4 Dashboard – Shezan, Hattar (Code P01): 2 SKUs, 16,941 manufactured, 1 lane, 1/1 cameras active

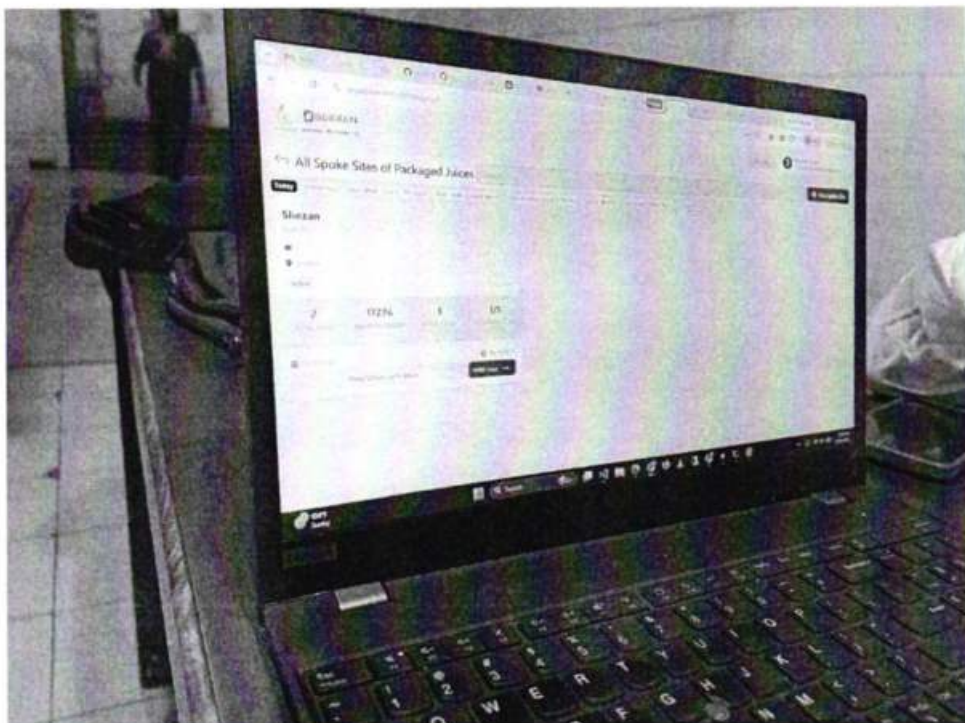


Image 5 Dashboard – manufactured count advanced to 17,276

					
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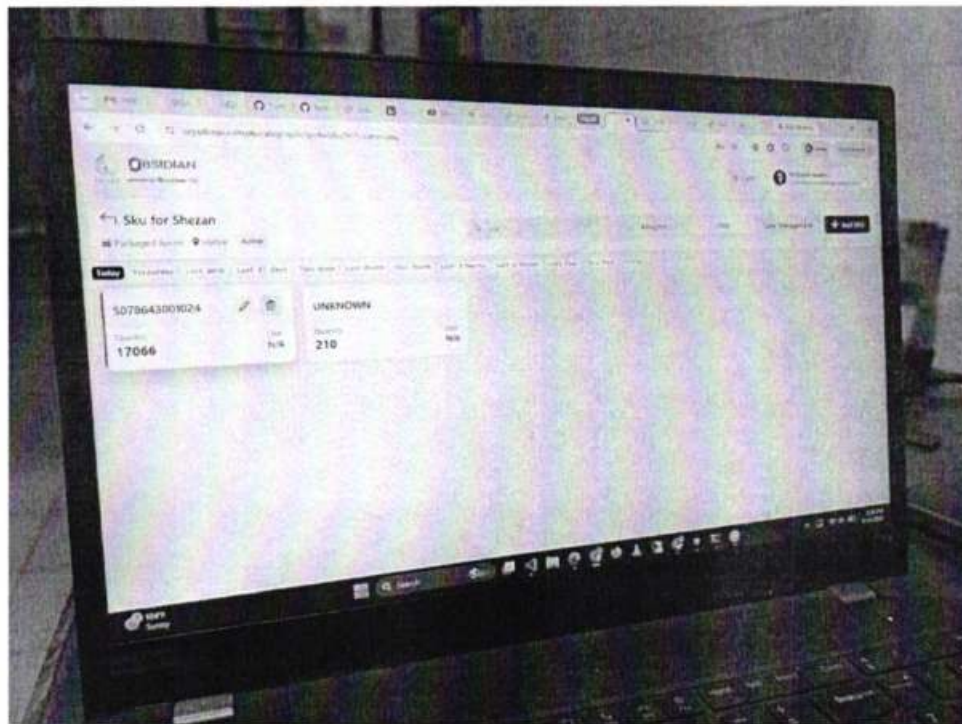


Image 6 SKU view at 2:26 pm – SKU 5078643001024: 17,066; UNKNOWN: 210

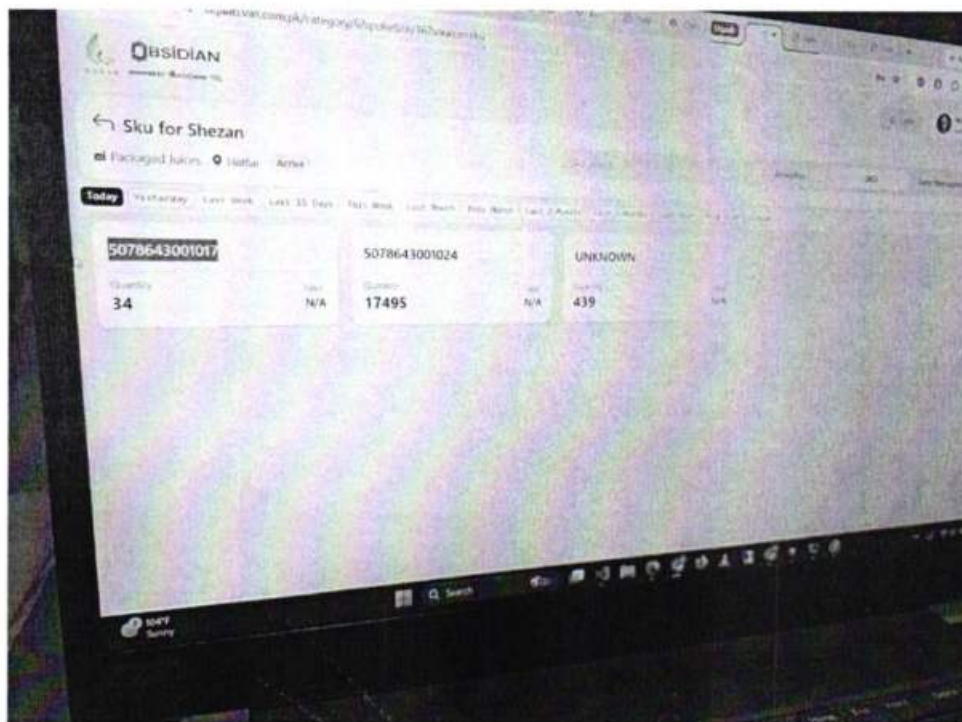


Image 7 SKU view – SKU 5078643001017: 34; SKU 5078643001024: 17,495; UNKNOWN: 439


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Syeda Maimoona
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Sajal Tariq
Second Secretary
TDU


Alishba Asif
Second Secretary
TDU

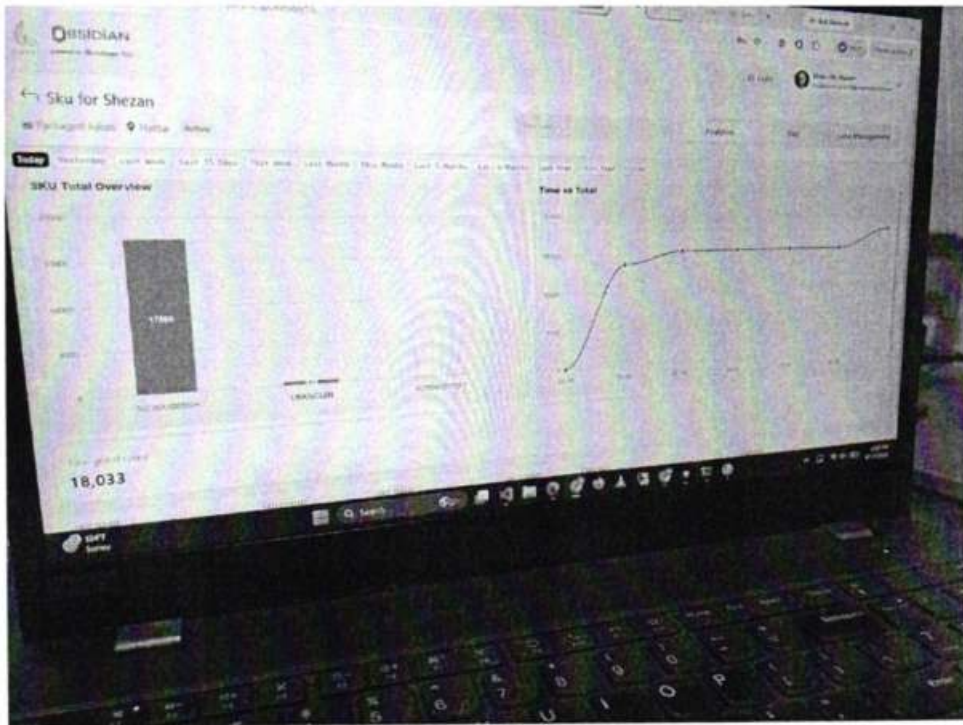


Image 8 Analytics at 2:28 pm – SKU Total Overview and Time vs Total; total grand count 18,033



Image 9 Tetra Pak A3/Speed counters at 02:17:00 pm – 19,667 produced; 19,660 to distribution

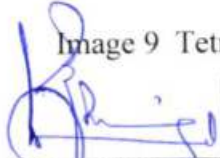
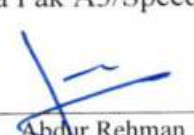
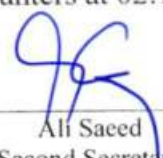
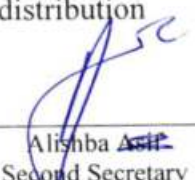
					
Shiraz Ali Khan Second Secretary TDU	Abdur Rehman Second Secretary TDU	Ali Saeed Second Secretary TDU	Syeda Maimoona Second Secretary TDU	Sajal Tariq Second Secretary TDU	Alishba Second Secretary TDU



Image 10 Tetra Pak counters after reset, 02:30:07 pm – 2,723 produced; 2,717 to distribution; 93 rejected

					
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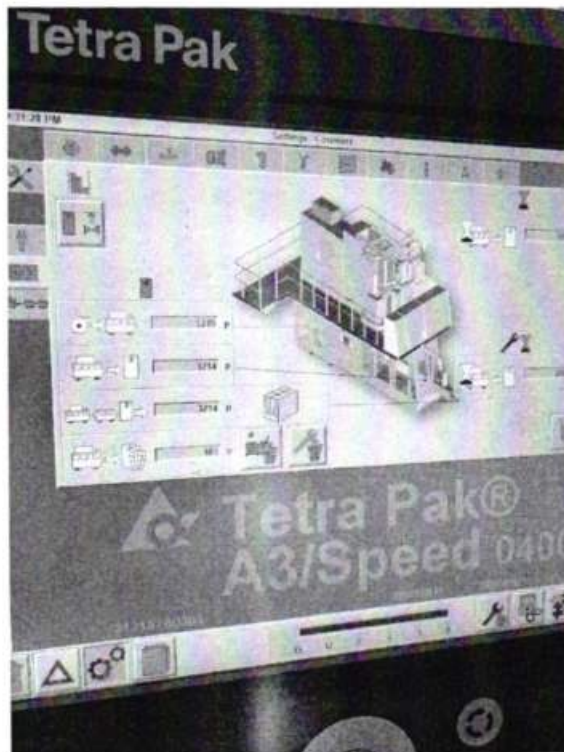


Image 11 Tetra Pak counters, 02:31:28 pm – 3,214 produced; 3,214 to distribution; 101 rejected



Image 12 Shezan Punch pack examined at the line, with rejected packs collected at the filler

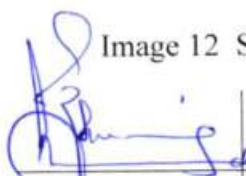
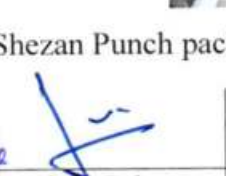
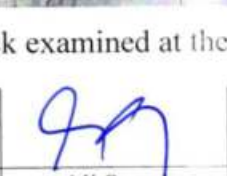
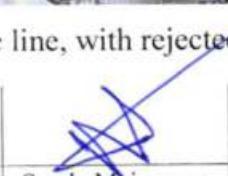
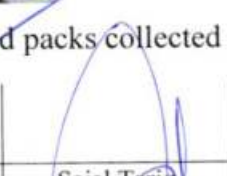
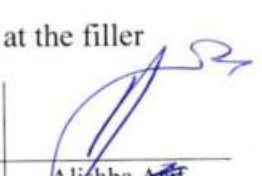
					
Shiraz Ali Khan Second Secretary TDU	Abdur Rehman Second Secretary TDU	Ali Saeed Second Secretary TDU	Syeda Maimoona Second Secretary TDU	Sajal Tariq Second Secretary TDU	Alishba Asif Second Secretary TDU



Image 13 Rejected packs discharged at the filler reject chute, upstream of the monitoring point

Conclusions

The POC demonstrated that the Vendor's solution detects and counts each pack leaving the filling machine through a vision camera at the outfeed conveyor, reads the product barcode to attribute each count to the correct SKU, records packs without a barcode read under 'UNKNOWN' so that no production is lost from the total, and displays the result in real time on its web platform by site, lane and SKU, with detected frames available for verification.

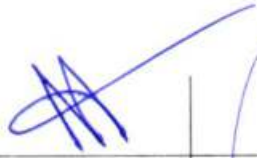
Against the evaluation parameters applicable to the Beverages sector, the solution achieved SKU identification of 97.6%, meeting the benchmark of $\geq 95\%$ (99% preferred); its rate of counting was consistent with the filling machine counter; and rejected packs, discharged upstream of the monitoring point, were not counted as production. The overall POC outcome is accordingly rated 'PASS'.

For deployment, the Vendor should reduce the share of unidentified packs towards the preferred 99%, set the dashboard time axis to Pakistan Standard Time, and provide time-stamped counts that allow exact reconciliation with the filling machine counters.

Based on the above, the POC conducted at Shezan International Limited, Hattar on 10th June 2026 was successfully completed, and M/s Obsidian has PASSED the Proof of Concept for the

					
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Beverages sector, having achieved SKU identification and unit counting accuracy of $\geq 95\%$ (99% preferred).

					
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Qualification Note – Proof of Concept Beverages

Date: 07, October 2026

Vendor: M/s ISSM Labelling Solutions

Tender Reference: Bid No. 7(2)/IR/TDU/2026 – Authorized Vendors for Installation and Maintenance of Production Counting System in Beverages (PET, Cans, RGB) including Bottled Water, Packaged Juices and Packaged Milk Sector (Three Years from Authorization)

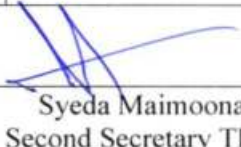
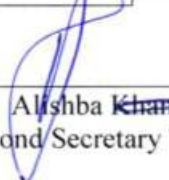
Basis of Qualification: Existing FBR authorization as vendor for production monitoring in the Beverages sub-sectors of Bottled Water and Packaged Juices

Purpose:

This note records the position of M/s ISSM Labelling Solutions (hereinafter, 'the Vendor') with respect to the Proof of Concept (POC) requirement of Stage-I of the Two-Stage Bidding Procedure under Bid No. 7(2)/IR/TDU/2026, for which the Invitation to Bid was issued on 28th July 2026 and the bid submission date was extended to 27th August 2026 vide Corrigendum-01. Since the Vendor already holds an FBR authorization for production monitoring in the Beverages sector, a separate POC has not been conducted in the current round, and the Vendor's qualification is determined on the basis of that authorization.

Existing Authorization:

The Federal Board of Revenue has finalized the authorization of vendors for installation of production monitoring solutions in the Beverages sub-sectors of Bottled Water and Packaged Juices, and has announced that M/s ISSM Labelling Solutions, M/s Tollink and M/s Authentik have been duly authorized as vendors for the deployment and implementation of production monitoring solutions in these sub-sectors. As announced by FBR, the authorization was carried out through a transparent and competitive process in accordance with the applicable regulatory framework, ensuring that the selected firms possess the requisite technical and operational capacity to deliver reliable monitoring solutions. The particulars of the authorization are as follows:

Sr. No.	Particular	Detail	
1	Authorization	Authorized Vendor – Production Monitoring Solution, Beverages Sector	
2	Authorized Sub-Sectors	Bottled Water and Packaged Juices	
			
Abdur Rehman Second Secretary TDU	Ali Saeed Second Secretary TDU	Syeda Maimoona Second Secretary TDU	Alishba Khan Second Secretary TDU

Sr. No.	Particular	Detail
3	Vendors Authorized in the Same Process	M/s ISSM Labelling Solutions, M/s Tollink and M/s Authentik
4	Legal Framework	Chapter XIV-BA, Sales Tax Rules, 2006 read with the Sales Tax Act, 1990

Assessment:

(a) Same process as other authorized vendors: The Vendor was authorized in the same process as M/s Tollink, whose Certificate of Authorization for the Beverages sector provides (Section 13.2) that the Proof of Concept tests under Section V-E(2) of the Scope of Work serve as the Operational Acceptance Tests, with a requirement of at least 95% (preferably 99%) correct count accuracy of units against correct SKU. This is the same benchmark that applies to the Beverages sector in the current round.

(b) Technical capacity established: FBR's authorization of the Vendor followed an evaluation of its technical and operational capacity to deliver production monitoring solutions in bottled water and packaged juices, which form part of the scope of the current round. The Vendor has, in addition, demonstrated its production monitoring solution before FBR in other sectors.

(c) Continuing obligations: As an authorized vendor, the Vendor remains subject to Chapter XIV-BA of the Sales Tax Rules, 2006, including inspection and testing by FBR, annual audit of the electronic monitoring system, and operational acceptance testing at each installation. Repeating the POC would therefore not add to the assurance already available to FBR.

Coverage against the Current Scope:

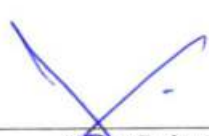
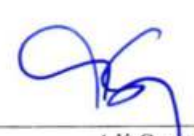
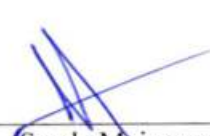
Sr. No.	Current Scope (Bid No. 7(2)/IR/TDU/2026)	Existing Authorization	Position
1	Bottled water	Bottled Water	Covered
2	Packaged juices	Packaged Juices	Covered

 Abdur Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Alishba Khan Second Secretary TDU
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Sr. No.	Current Scope (Bid No. 7(2)/IR/TDU/2026)	Existing Authorization	Position
3	Other beverages in PET bottles and cans	Not expressly included	Authorized Vendor – Production Monitoring Solution, Beverages Sector
4	RGB (returnable glass bottles)	Not expressly included, therefore participated in second round	Authorized Vendor – Production Monitoring Solution, Beverages Sector
5	Packaged milk	Not expressly included, therefore participated in second round	Authorized Vendor – Production Monitoring Solution, Beverages Sector

Conclusion:

M/s ISSM Labelling Solutions has been authorized by FBR as a vendor for production monitoring solutions in the Beverages sub-sectors of Bottled Water and Packaged Juices, through the same process in which M/s Tollink and M/s Authentik were authorized, and against the same accuracy benchmark of at least 95% (99% preferred) correct count of units against correct SKU that applies in the current round.

 Abdur Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Alishba Khan Second Secretary TDU
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**Qualification Note – Proof of Concept
Beverages**

Date: 07, October 2026

Vendor: M/s Tollink, Plot # 23, Street E 3, Near Winsteel Mill, Rawat Industrial Estate, RCCI, Rawat, Rawalpindi

Tender Reference: Bid No. 7(2)/IR/TDU/2026 – Authorized Vendors for Installation and Maintenance of Production Counting System in Beverages (PET, Cans, RGB) including Bottled Water, Packaged Juices and Packaged Milk Sector (Three Years from Authorization)

Basis of Qualification: Existing FBR Certificate of Authorization, Beverages Sector – Bidding Document No. 5(1)-S(Admin)/2025 (Stage Two)

Purpose:

This note records the position of M/s Tollink (hereinafter, 'the Vendor') with respect to the Proof of Concept (POC) requirement of Stage-I of the Two-Stage Bidding Procedure under Bid No. 7(2)/IR/TDU/2026, for which the Invitation to Bid was issued on 28th July 2026 and the bid submission date was extended to 27th August 2026 vide Corrigendum-01. Since the Vendor already holds an FBR authorization for the same production counting system in the Beverages sector, granted after it had demonstrated the system under the earlier procurement, a separate POC has not been conducted in the current round, and the Vendor's qualification is determined on the basis of that authorization.

Existing Authorization:

The Federal Board of Revenue, on the recommendations of the Approval Committee, has authorized the Vendor as an Approved Vendor for the procurement, delivery, installation, commissioning, operation, maintenance, technical support and upgrade of a Barcode Scanning and Counting System (Production Monitoring Equipment) at the production lines of beverage manufacturers, under Chapter XIV-BA of the Sales Tax Rules, 2006 read with the Sales Tax Act, 1990. The particulars of the authorization are as follows:

 Abdur Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Alishpa Asif Second Secretary TDU
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Sr. No.	Particular	Detail	Reference
1	Authorization	Certificate of Authorization – Authorized Vendor, Production Counting System (Barcode Scanning & Counting), Beverages Sector	Auth. No. 6(22)/TTS/Juices/2026/32443-R
2	Bid Reference	Bidding Document No. 5(1)-S(Admin)/2025 (Stage Two), under PPRA Ordinance, 2002 and PPR, 2004	Certificate, p. 1
3	Date of Issue / Validity	Issued 29th May 2026; valid for three years, to 29th May 2029	Certificate, p. 1
4	Authorized Sector	Beverages – PET Bottles & Cans	Certificate, p. 1
5	System Authorized	Barcode Scanning & Counting System: industrial barcode scanners, object detection sensors, video cameras, Industrial PC/PLC, electrical cabinet, NVR, cloud/server integration and software	Section 4.1.1
6	Performance Guarantee	PKR 5,000,000/- (unconditional bank guarantee)	Section 3

 Abdul Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Alishpa Asif Second Secretary TDU
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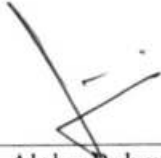
Sr. No.	Particular	Detail	Reference
7	Issuing Authority	Approval Committee, FBR – signed by Chief IR (Revenue Operations), Director General (IT & DT) and Project Director (Track & Trace)	Certificate, p. 12
8	Vendor Acknowledgement	Executed by the Vendor's Director on 2nd June 2026	Certificate, p. 12

Assessment:

(a) Accuracy benchmark already met: Under Section 13.2 of the Certificate, the Proof of Concept tests set out in Section V-E(2) of the Scope of Work serve as the Operational Acceptance Tests, and the system must achieve at least 95% (preferably 99%) correct count accuracy of units against correct SKU. This is the same benchmark that applies to the Beverages sector in the current round. The Vendor's system has been evaluated and authorized against it.

(b) Same system and specifications: The current round seeks a production counting system for beverages based on product/SKU identification and unit counting on a running line. The Vendor's authorized system performs real-time barcode scanning to recognize each unique SKU and counts individual units, reporting units per SKU, brand and production line to FBR's monitoring hub (Section 4.1.1). Its minimum technical specifications (Section 5.1) cover industrial IP67 barcode scanners with liquid lens, redundant IP67 photoelectric object detection sensors, an Industrial PC, IP cameras with NVR storage, an IP67 electrical cabinet, two-hour UPS backup, and line speeds above 40,000 bottles per hour.

(c) Continuing obligations: The authorization is valid until 29th May 2029 and carries continuing obligations for 99% daily uptime, real-time transmission to FBR's Central Control Unit, annual audits, and inspection and testing by FBR at any time (Sections 4.1.1, 13.1 and 13.4). Repeating the POC would therefore not add to the assurance already available to FBR.

			
Abdur Rehman Second Secretary TDU	Ali Saeed Second Secretary TDU	Syeda Maimoona Second Secretary TDU	Alishpa Asif Second Secretary TDU

Coverage against the Current Scope:

Sr. No.	Current Scope (Bid No. 7(2)/IR/TDU/2026)	Existing Authorization	Position
1	PET bottles (incl. bottled water)	Beverages – PET Bottles	Covered
2	Cans	Beverages – Cans	Covered
3	Packaged juices	Covered where packed in PET bottles or cans	Covered (PET/cans)
4	RGB (returnable glass bottles)	Not expressly included	Authorized Vendor – Production Monitoring Solution, Beverages Sector
5	Packaged milk	Not expressly included	Authorized Vendor – Production Monitoring Solution, Beverages Sector

Conclusion:

M/s Tollink holds a valid FBR Certificate of Authorization for a Barcode Scanning and Counting System in the Beverages sector, issued after evaluation under Bidding Document No. 5(1)-S(Admin)/2025 (Stage Two), against the same accuracy benchmark of at least 95% (99% preferred) correct count of units against correct SKU that applies in the current round.

 Abdur Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Alishpa Asif Second Secretary TDU
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Proof of Concept Report Beverages

Date: 22nd September 2026

Facility: Mehran Bottlers (Pvt.) Ltd.

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by M/s National Radio and Telecommunication Corporation (NRTC) (hereinafter, 'the Vendor'). This Proof of Concept (POC) for Beverages sector production monitoring, automated detection of product/SKU, counting of individual bottles and counting of aggregated packs on the running filling line, was conducted on the PET bottling line of Mehran Bottlers (Pvt.) Ltd. (hereinafter, 'the manufacturer'), in adherence to the Proof of Concept (POC) Qualification Criteria specified in the Bidding Document for the Beverages sector (Procurement No. Bid No. 7(2)/IR/TDU/2026). The POC was scheduled by the Federal Board of Revenue for 22 September 2026 as a fixed date, with Mr. Javed A. Khan designated as the manufacturer's focal person for coordination and facilitation at site. ✓

SKU Tested:

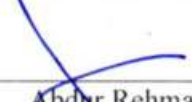
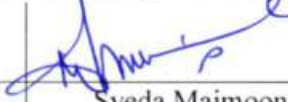
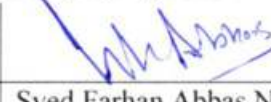
Carbonated soft drink in PET bottles, Pakola Cream Soda 1.5 L (product SKU 'Cream Soda'), run on the manufacturer's PET-Line, with finished bottles aggregated into shrink-wrapped packs of six (6) bottles each. At the time of the exercise the Vendor's platform carried two (2) products and three (3) SKUs configured against one (1) active production line.

Solution Topology:

The Vendor's proposed solution is a sensor-based production event detection and counting architecture, in which production is measured directly at designated monitoring points on the manufacturer's line rather than through the application of a unique identifier to each unit. The solution operates at three levels; product identification, unit counting and pack counting, with the output of all three consolidated in a line controller and transmitted to the Vendor's database for real-time display.

Product/SKU detection: An industrial image-based barcode reader (Cognex DataMan 290) is mounted on the machine frame at the filler/capper outfeed, facing the bottle conveyor, and reads the product barcode on each bottle as it passes. The reading is used to identify the product and SKU under production, so that each count is attributed to the correct SKU and a change of SKU on the line is registered by the system without manual re-selection.

Individual bottle count: A dedicated counter, consisting of a photoelectric retro-reflective sensor (SICK WL12-3P2431) mounted on an aluminium stand clamped to the bottle conveyor, registers

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each bottle crossing the monitoring point as a discrete production event, giving the count of individual bottles produced.

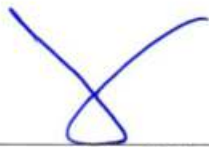
Aggregated pack count: On the downstream packing conveyor, a second set of sensors is enclosed within an acrylic case built over the conveyor, and counts each finished pack of six (6) bottles leaving the shrink-wrapping stage. The acrylic enclosure shields the sensors from interference and from obstruction of the beam, so that each aggregated pack is counted once. The pack count is reconciled against the bottle count on the dashboard (expected case count against actual case count).

Controller and connectivity: The sensors and the barcode reader are wired through protective conduit to a line controller housed in a wall-mounted stainless-steel waterproof enclosure, which contains the controller (PLC) with its I/O modules, a DIN-rail power supply, terminal blocks and circuit protection, an industrial edge computer, a UPS for power backup and a cooling fan. Connectivity is provided over a fibre-optic link terminated at the enclosure. A camera mounted above the stainless-steel enclosure monitors the barcode reading position, so that any change in the position of the barcode reader, whether through displacement, tampering or obstruction, is detected and captured.

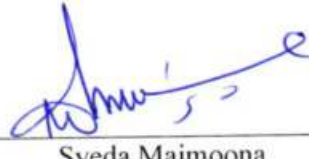
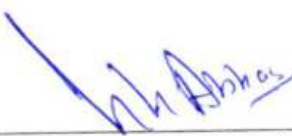
Dashboard: Counts are displayed in real time on the Vendor's 'FBR Beverages-Dashboard', accessed on a local instance and shown on a wall-mounted display on the production floor, with modules for Dashboard, Batch List, Production, Alert Management, Product and CCTV.

Solution Components:

The components of the solution observed at the facility are listed below. Make, model and technical specifications have been completed from the manufacturer datasheets provided; where no datasheet was provided, the entry has been left blank, to be completed from the Vendor's technical submission.

			
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Sr. No.	Component	Function	Location	Make / Model / Specifications
1	Barcode Reader	Reads product barcode on each bottle for product/SKU detection and change-of-SKU registration	Filler/capper outfeed, bottle conveyor	Cognex DataMan 290 Series (DM290) fixed-mount image-based barcode reader; 1/3-inch CMOS global-shutter sensor, 1440 × 1080 (1.6 MP), up to 45 Hz at full resolution; 6.2 mm or 16 mm high-speed liquid lens; decodes 1-D (incl. UPC/EAN, Code 128) and 2-D (Data Matrix, QR) codes; 24 VDC ±10%, ≤ 7.5 W average; Ethernet 10/100BASE-T, RS-232, USB 2.0; operating temperature 0–40 °C.
2	Bottle Counter (photoelectric sensor)	Counts individual bottles as discrete production events	Bottle conveyor, on aluminium stand	SICK WL12-3P2431 (W12 series, part no. 1041436) photoelectric retro-reflective sensor with polarisation filter; sensing range 0–5 m (max. 7 m with PL80A reflector); visible red LED, 640 nm; PNP complementary output, response time ≤ 330 µs, switching frequency 1,500 Hz; 10–30 VDC; metal housing, M12 4-pin connector; IP66/IP67/IP69K; –40 °C to +60 °C.
3	Aggregated Pack Counter (photoelectric sensors in acrylic case)	Counts finished packs of six (6) bottles	Packing conveyor, within acrylic enclosure	SICK WL12-3P2431 (W12 series) photoelectric retro-reflective sensors; specifications as at Sr. No. 2.

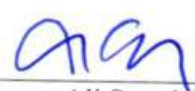
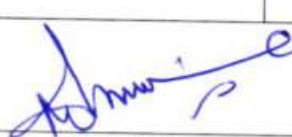
 Abdur Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Syed Farhan Abbas Naqvi AD Track & Trace
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Sr. No.	Component	Function	Location	Make / Model / Specifications
4	Network Video Recorder (NVR)	Records and stores video from the camera(s) for CCTV monitoring	Not specified	Hikvision DS-7608NI-M2 (M Series 8K NVR); 8-ch IP camera input, up to 32 MP; H.265+/H.265/H.264+/H.264; 128 Mbps incoming / 256 Mbps outgoing bandwidth; HDMI (up to 8K) and VGA outputs; 2 SATA HDD interfaces, up to 16 TB each; 2 × RJ-45 10/100/1000 Mbps; 12 VDC, ≤ 15 W (without HDD).
5	Fibre-Optic Termination	Network connectivity of the line equipment	Wall-mounted, beside enclosure	Normal
6	Production Dashboard and Display	Real-time display of batches, counts, alerts and CCTV	Local instance 50.50.0.234; wall-mounted display on production floor	Local

POC Results

The solution was evaluated against the evaluation parameters and benchmarks applicable to the Beverages sector. The parameters, the requirement against each and the result obtained are reproduced below:

Sr. No.	Evaluation Parameter	Requirement	Result
1	SKU Identification Accuracy (Barcode Reader)	≥ 95% (99% preferred)	Achieved
2	Unit Counting Accuracy (Individual Bottle Counter)	≥ 95% (99% preferred)	Achieved

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Sr. No.	Evaluation Parameter	Requirement	Result
3	Aggregated Pack Counting Accuracy (6-Bottle Pack Counter)	$\geq 95\%$ (99% preferred)	Achieved
4	Barcode Reader Deployment at Line	Reliable read rate at line speed	Achieved
5	Data Reconciliation with Production Monitor Reading	Match with line/monitor counters	Achieved
6	Overall POC Outcome	Pass / Fail	PASS

Test Observations:

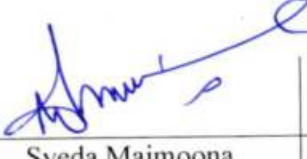
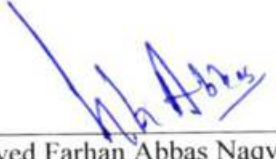
(a) Product/SKU detection: The barcode reader read the product barcode on bottles passing the filler/capper outfeed at line speed and identified the product as Pakola Cream Soda 1.5 L (SKU 'Cream Soda') on the PET-Line, with each count attributed to that SKU on the dashboard. SKU identification accuracy met the benchmark of $\geq 95\%$ (99% preferred).

(b) Individual bottle count: The photoelectric bottle counter registered each bottle crossing the monitoring point as a discrete production event. The bottle count recorded by the system was reconciled against the production line/monitor reading and met the unit counting accuracy benchmark of $\geq 95\%$ (99% preferred).

(c) Aggregated pack count: The photoelectric sensors within the acrylic case on the packing conveyor counted finished packs of six (6) bottles. The dashboard reconciled the bottle count against the pack count: a batch of Pakola Cream Soda 1.5 L recorded a total count of six (6) bottles against an actual case count of one (1) with a remaining count of zero (0), confirming that the aggregation ratio of six bottles per pack is applied correctly and that bottles and packs are reconciled at batch level.

(d) Reader-position monitoring and CCTV: A camera mounted above the stainless-steel controller enclosure monitors the barcode reading position, so that any displacement of, tampering with or obstruction of the barcode reader is detected. A CCTV module is provided on the dashboard, with camera video recorded on a Hikvision DS-7608NI-M2 network video recorder (NVR).

(e) Alerts: An Alert Management module is provided on the dashboard for exceptions arising on the line.

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(f) Real-time dashboard and reporting: The Beverage Production Dashboard ('Real-time Beverage Manufacturing & Quality Control') operated live on the local instance at 50.50.0.234 and on a wall-mounted display on the production floor, showing summary tiles for Total Batches (22), Products (2), SKUs (3) and Production Lines (1); the active line card (PET-Line Active) with product name, SKU and start time; Quality Metrics tiles for bottle count, expected case count, remaining bottles to pack and actual case count; and a batch-wise table of product name, product SKU, line name, total count, case count and remaining count. A Batch List view is provided for production and traceability reporting.

(g) Installation and hardware: The line controller, edge computer, power supply and UPS are housed in a stainless-steel waterproof enclosure with a cooling fan, suited to the wet environment of the bottling hall, with all field cabling run through protective conduit and connectivity provided over a fibre-optic link.

POC Images



Image 1 Stainless-steel waterproof controller enclosure with the camera mounted above to monitor the barcode reading position, conduit cabling and fibre-optic termination

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Image 2 Interior of the controller enclosure showing the PLC with I/O modules, DIN-rail power supply, terminal blocks, circuit protection, industrial edge computer, UPS and cooling fan

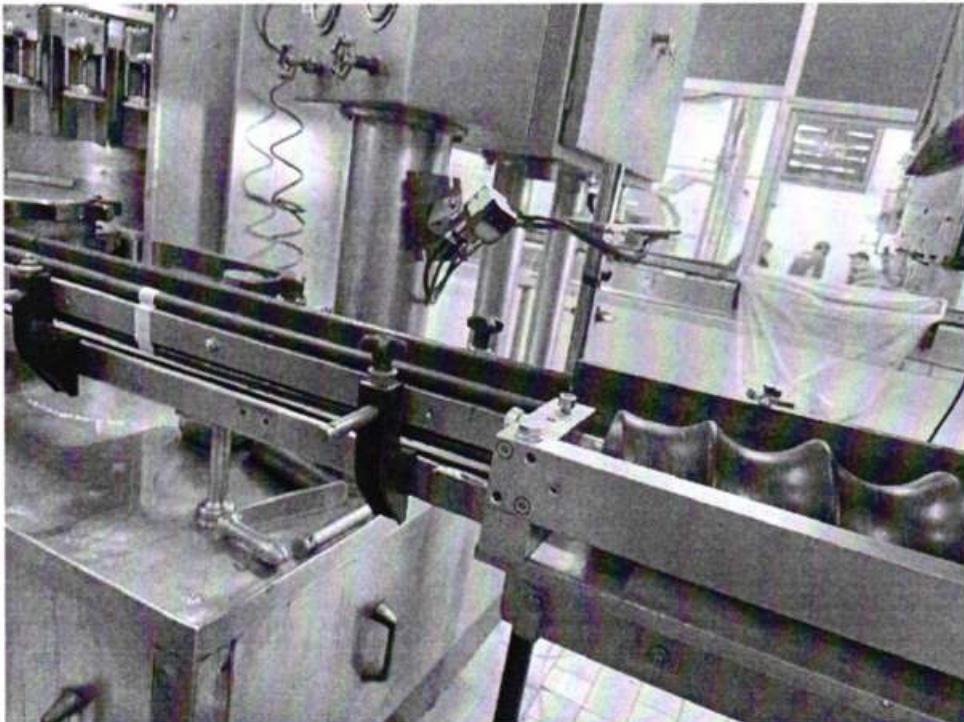


Image 3 Barcode reader (Cognex DataMan 290) mounted at the filler/capper outfeed for product/SKU detection

Abdur Rehman
Second Secretary TDU

Ali Saeed
Second Secretary TDU

Syeda Maimoona
Second Secretary TDU

Syed Farhan Abbas Naqvi
AD Track & Trace

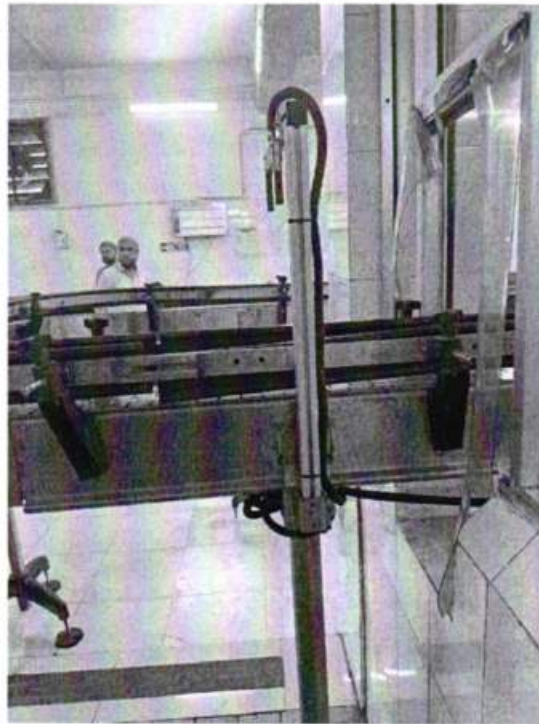


Image 4 Photoelectric bottle counter on aluminium stand clamped to the bottle conveyor, with the production dashboard display in the background



Image 5 Acrylic case built over the packing conveyor housing the aggregated pack (six-bottle) counter

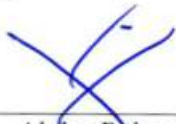
 Abdur Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Syed Farhan Abbas Naqvi AD Track & Trace
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Image 6 Photoelectric sensor within the acrylic enclosure on the packing conveyor

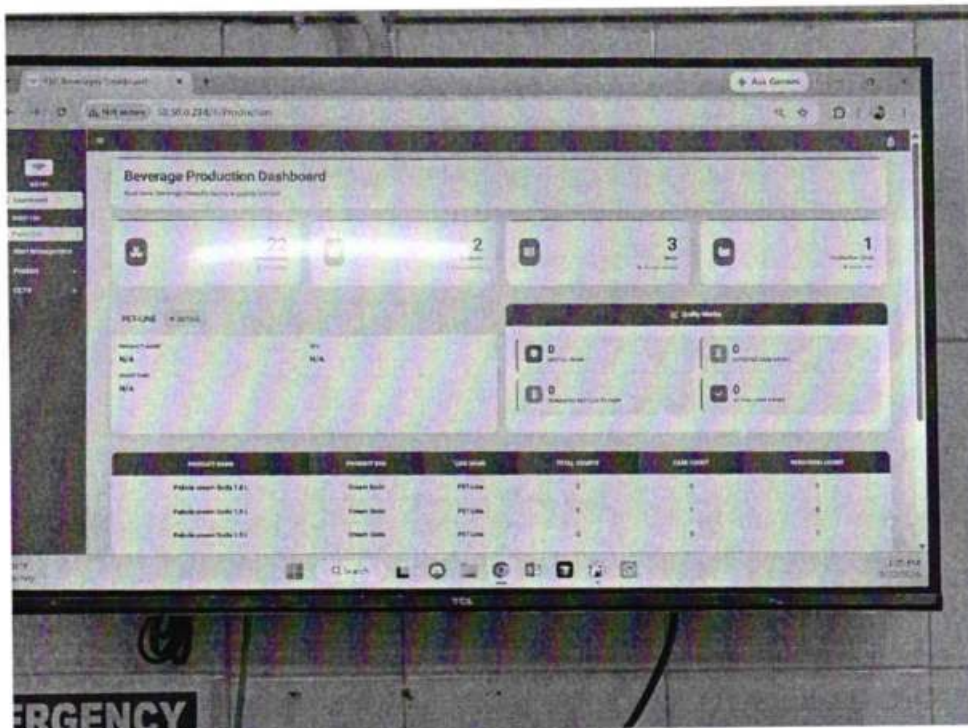
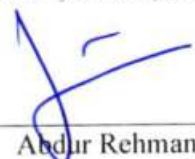
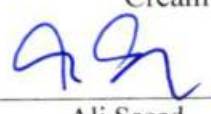
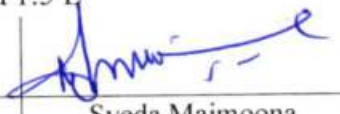
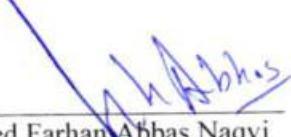


Image 7 Beverage Production Dashboard on the local instance (50.50.0.234) showing batches, products, SKUs, the active PET-Line, quality metrics and the batch-wise count table for Pakola Cream Soda 1.5 L

 Andur Rehman Second Secretary TDU	 Ali Saeed Second Secretary TDU	 Syeda Maimoona Second Secretary TDU	 Syed Farhan Abbas Naqvi AD Track & Trace
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Conclusions

The POC demonstrated that the Vendor's solution detects the product and SKU under production through an image-based barcode reader at the filler outfeed, counts individual bottles through a photoelectric counter on the bottle conveyor, and counts aggregated packs of six bottles through photoelectric sensors enclosed in an acrylic case on the packing conveyor, consolidating all three through a line controller housed in a stainless-steel waterproof enclosure and displaying the result in real time on the production dashboard, with bottle and pack counts reconciled at batch level. A camera above the controller enclosure guards the integrity of the barcode reading position.

Against the evaluation parameters applicable to the Beverages sector, the solution achieved the benchmark of $\geq 95\%$ (99% preferred) for SKU identification accuracy, unit counting accuracy and aggregated pack counting accuracy, demonstrated a reliable barcode read rate at line speed, and its counts matched the production line/monitor reading. The overall POC outcome is accordingly rated 'PASS'.

Counting at two independent levels, individual bottles and aggregated packs with automated reconciliation between them, provides a cross-check on declared production that does not depend on the manufacturer's own records, while monitoring of the barcode reading position guards against displacement of or tampering with the product detection point.

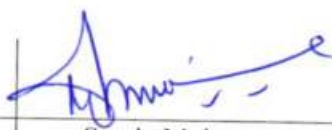
Based on the above, the POC conducted at Mehran Bottlers (Pvt.) Ltd. on 22nd September 2026 was successfully completed, and M/s NRTC has PASSED the Proof of Concept for the Beverages sector, having achieved all evaluation parameters, including SKU identification, unit counting and aggregated pack counting accuracy of $\geq 95\%$ (99% preferred) and data reconciliation with the production monitor reading.



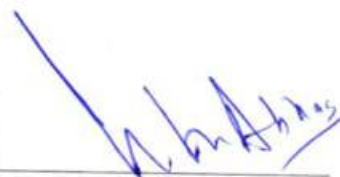
Abdur Rehman
Second Secretary TDU



Ali Saeed
Second Secretary TDU



Syeda Maimoona
Second Secretary TDU



Syed Farhan Abbas Naqvi
AD Track & Trace

Proof of Concept Report **Beverages**

Date: 24th September 2026

Facility: Pakistan Beverages, Karachi

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by M/s AJCL (hereinafter, 'the Vendor'). This Proof of Concept (POC) for Beverages sector production monitoring, automated detection of product/SKU and counting of individual bottles on the running filling line, was conducted on the PET bottling line of Pakistan Beverages, Karachi (hereinafter, 'the manufacturer'), in adherence to the Proof of Concept (POC) Qualification Criteria specified in the Bidding Document for the Beverages sector (Procurement No. Bid No. 7(2)/IR/TDU/2026).

Background and Schedule:

The POC was conducted on 24 September 2026 as per schedule.

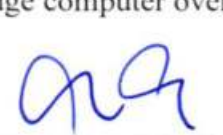
SKU Tested:

Bottled drinking water in PET bottles, AQUAFINA, run on the manufacturer's PET filling line (EKTAM filler/capper), with filled bottles conveyed singly on the outfeed conveyor. The product was registered as the active product on the Vendor's platform through synchronisation with its database ('Active Product (MySQL Sync)').

Solution Topology:

The Vendor's proposed solution is a hybrid production monitoring architecture that measures production through three independent streams at the same monitoring point on the outfeed conveyor: barcode scanning, photoelectric sensing and AI video analytics. The three streams are consolidated on an edge computer and reconciled against each other in real time on the Vendor's dashboard.

Product/SKU detection (360° barcode scanning): Four fixed-mount industrial image-based barcode readers, one Zebra FS40 and three Cognex DataMan 260 series readers, are mounted on a stand and on the conveyor guide rails around the bottle conveyor, facing the bottles from different directions so that the product barcode is read whichever way the bottle is oriented, giving 360-degree coverage. The readers support infrared (850 nm) illumination for reading through clear PET and reflective labels. Each read identifies the product and SKU under production, and the readers are connected to the edge computer over Ethernet.

				
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Individual bottle count (sensor): A photoelectric sensor (Fotek A3R-1MX, as shown on the dashboard) mounted on the conveyor registers each bottle crossing the monitoring point as a discrete production event, and is connected to the edge computer over a serial link (COM5, 9,600 baud).

Individual bottle count (AI vision): An IP bullet camera mounted over the conveyor streams video (RTSP) to an AI model that counts each bottle crossing a defined counting gate (region of interest) in the camera view.

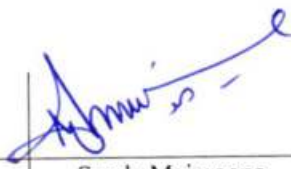
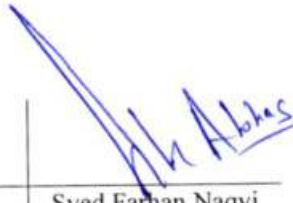
Dashboard: Counts are displayed on two interfaces: (i) a desktop application, 'Unified Industrial Production Monitor', showing the live camera view, the count of each barcode reader, the sensor count, and a 'Production Telemetry' panel reconciling the AI, sensor and barcode totals; and (ii) a web dashboard, 'PLMS Pro', on a local instance, presenting daily, weekly and monthly production overviews by analytics stream.

Solution Components:

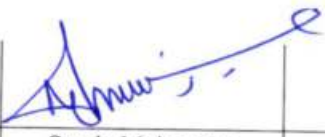
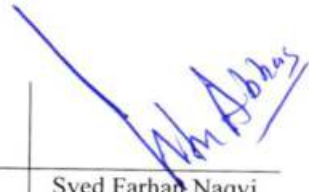
The components of the solution observed at the facility are listed below. Make, model and technical specifications have been completed from the manufacturer datasheets provided by the Vendor; where no datasheet was provided, the entry has been completed from the dashboard and left to be confirmed from the Vendor's technical submission.

				
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Sr. No.	Component	Function	Location	Make / Model / Specifications
1	Barcode Reader – Line 1	Reads product barcode on each bottle for product/SKU detection; one of four readers giving 360° coverage	Outfeed bottle conveyor, stand-mounted	Zebra FS40 Fixed Industrial Scanner (dashboard: 'Zebra S40 Line 1', 192.168.10.9); 2.3 MP 1/2.3-inch global-shutter CMOS, 1920 × 1200, up to 60 fps (or 5.1 MP rolling shutter, up to 30 fps); liquid lens, 30° (SR) or 46° (WA) field of view; field-replaceable illumination incl. 850 nm IR, 660 nm red, 470 nm blue and white LEDs; decodes 1-D (incl. UPC/EAN, Code 128), 2-D (Data Matrix, QR), DPM and OCR; Ethernet/IP, PROFINET, Modbus TCP, TCP/IP, RS-232; 10–30 VDC or PoE/PoE+; IP65/IP67; 0–45 °C.

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Sr. No.	Component	Function	Location	Make / Model / Specifications
2	Barcode Readers – (three units)	Read product barcode on each bottle; together with Line 1 give 360° coverage	Around the outfeed bottle conveyor, on guide rails and stand	Cognex DataMan 260 Series fixed-mount image-based readers (dashboard: 'Cognex DataMan Line 2/3/4', 192.168.10.10/.12/.13); 1/3-inch CMOS, 752 × 480 (DM260) or 1280 × 960 (DM262); S-mount 6.2 mm or 16 mm lens with optional liquid lens; illumination options red (617 nm), blue (470 nm), white, IR (850 nm) and UV; decodes 1-D (incl. Code 128, UPC/EAN/JAN) and 2-D (Data Matrix, QR, PDF417) codes; Ethernet 10/100, RS-232; +24 VDC ±10% (≤ 5 W average) or PoE Class 1; IP65; 0–40 °C.
3	Bottle Counter (photoelectric sensor)	Counts individual bottles as discrete production events	Outfeed bottle conveyor	Fotek A3R-1MX photoelectric sensor (as shown on dashboard); serial connection COM5 @ 9,600 baud. Specifications to be completed from the Vendor's technical submission.
4	AI Vision Camera	Counts bottles crossing an AI counting gate (region of interest)	Over the outfeed conveyor	IP bullet camera (Dahua; model to be confirmed); RTSP stream to GPU-based AI model; 7.6–8.7 fps observed on the dashboard.

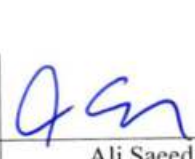
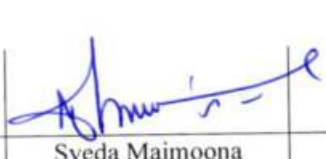
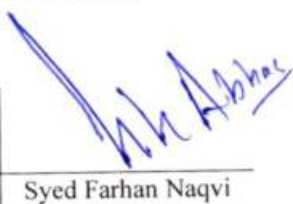
				
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Sr. No.	Component	Function	Location	Make / Model / Specifications
5	Edge Computer and Dashboards	Consolidation of the three streams, reconciliation and display	Laptop at the line	'Unified Industrial Production Monitor' desktop application and 'PLMS Pro' web dashboard (local instance); product master synchronised from MySQL.

POC Results

The solution was evaluated against the evaluation parameters and benchmarks applicable to the Beverages sector. As no independent manual count was recorded, the photoelectric sensor count has been taken as the reference against which the barcode and AI vision counts are compared. The parameters, the requirement against each and the result obtained (readings at 15:47:04, after 1 hour 20 minutes of system uptime) are reproduced below:

Sr. No.	Evaluation Parameter	Requirement	Result
1	SKU Identification Accuracy (Barcode Readers)	$\geq 95\%$ (99% preferred)	Achieved – all reads identified AQUAFINA
2	Barcode Read Rate at Line Speed (four readers, 360°)	$\geq 95\%$ (99% preferred)	96.5% (1,259 to 1,304) – Satisfactory
3	Unit Counting (Photoelectric Sensor)	$\geq 95\%$ (99% preferred)	1,259 to 1,304 bottles counted; used as reference
4	Unit Counting (AI Vision Camera)	$\geq 95\%$ (99% preferred)	Not required yet installed: 94.0% of sensor count (1,225 of 1,304) – below benchmark
5	Aggregated Pack Counting	$\geq 95\%$ (99% preferred)	Not demonstrated

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Sr. No.	Evaluation Parameter	Requirement	Result
6	Data Reconciliation across Streams	Match between streams	Line sync efficiency 96.8%; differences displayed live
7	Overall POC Outcome	Pass / Fail	PASS

Test Observations:

(a) **Product/SKU detection:** All four barcode readers read the same product barcode (8964000103449) and identified the product as AQUAFINA 6 Litre Bottle, matching the active product synchronised from the Vendor's database. SKU identification met the benchmark of $\geq 95\%$ (99% preferred).

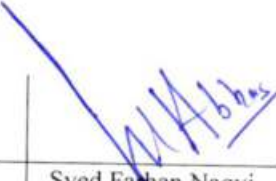
(b) **360° barcode reading:** At 15:47:04 the readers had recorded 352 (Zebra, Line 1), 341 (Cognex, Line 2), 239 (Cognex, Line 3) and 327 (Cognex, Line 4) barcodes, a total of 1,259. The total equals the sum of the four readers, indicating that each bottle is attributed to one reader only and is not double-counted. Against the sensor count of 1,304, the barcode scan rate was 96.5% (96.6% at 15:37:42), within the Satisfactory band but short of the preferred 99%; 45 bottles passed without a recorded barcode read.

(c) **Photoelectric sensor count:** The sensor counted 1,257 bottles at 15:37:42 and 1,304 at 15:47:04, with optical status shown live ('Beam clear (monitoring)' / 'Beam broken / detected').

(d) **AI vision count:** The AI vision count stood at 1,185 at 15:37:42 and 1,225 at 15:47:04, consistently about 6% below the sensor count (difference of -72 and -79 respectively), i.e. 94.0% of the sensor count, below the benchmark of $\geq 95\%$. The web dashboard reported an AI vision confidence of 68.8%.

(e) **Movement of the streams:** Between 15:37:42 and 15:47:04 the sensor count rose by 47, the barcode total by 45 and the AI count by 40, showing that the three streams tracked the same production, with the AI stream registering fewest events.

(f) **Three-way reconciliation:** The 'Production Telemetry' panel displayed the differences between the streams in real time (AI-sensor -79, AI-barcode -34, sensor-barcode +45 at 15:47:04), the barcode scan rate (96.5%) and a line sync efficiency of 96.8%, together with a batch production breakdown by stream.

				
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(g) **Web dashboard:** The 'PLMS Pro' web dashboard showed a daily overview of 2,326 video detections, 3,047 barcode scans (Cognex 2,189; Zebra 858) and 3,151 sensor triggers, with target versus achieved of 97.9%. However, its hourly production chart and 'Fill Accuracy Ranking' included products not produced at the facility (oil pouch, Dalda and Tullo ghee) and entries for hours later than the time of viewing, indicating that the web dashboard was populated with sample data. Its figures could not be reconciled with the live session, and its integration with live line data remains to be demonstrated.

(h) **Aggregated pack count:** Counting of aggregated packs was not demonstrated during the POC.

(i) **Installation and hardware:** The readers and the sensor were installed on a temporary stand and on the conveyor guide rails, fastened with cable ties, and the edge computer was a laptop placed at the line. An industrial enclosure, power backup and permanent network connectivity were not part of the POC installation and would be required at deployment.

POC Images

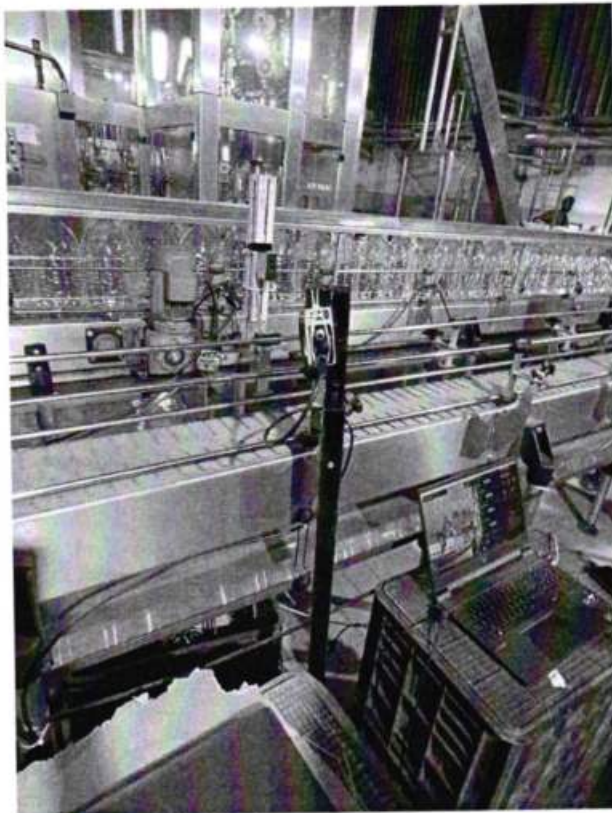
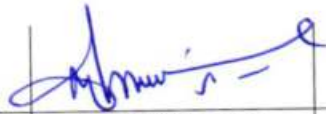
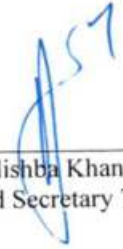
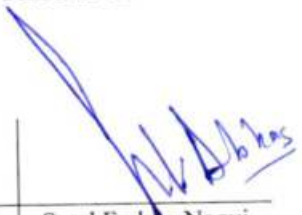


Image 1 Barcode readers mounted on a stand and on the conveyor guide rails at the outfeed of the EKTAM filler, with the edge computer and dashboard at the line

				
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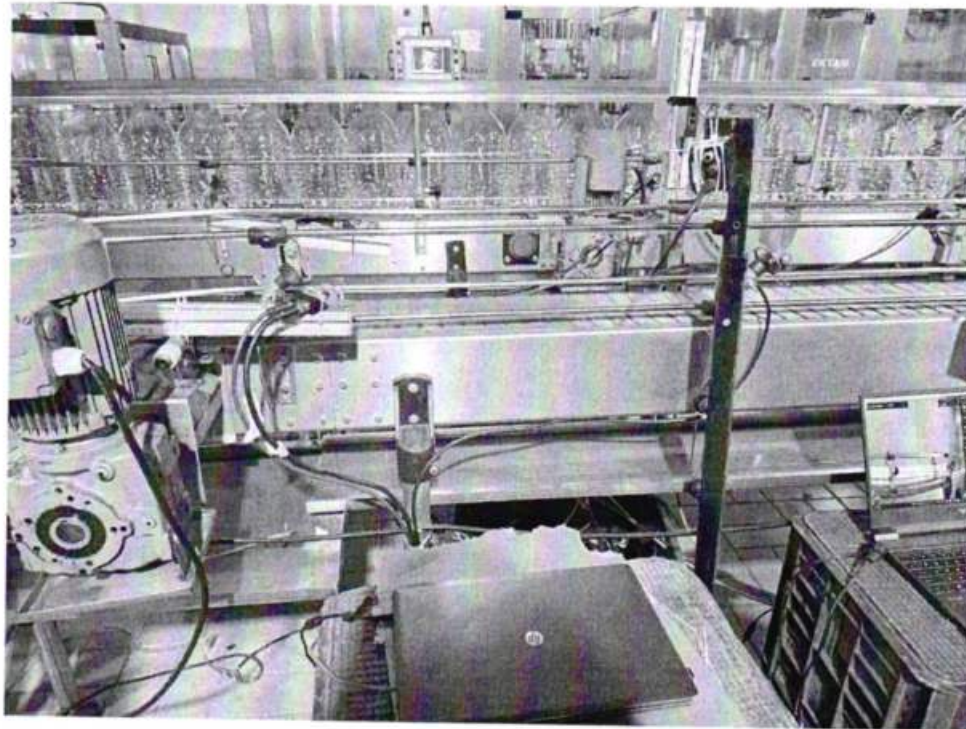


Image 2 Barcode readers positioned around the bottle conveyor for 360° reading, with aiming patterns visible on the conveyor



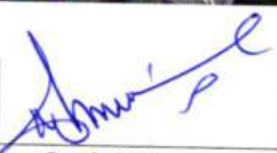
				
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Image 3 Barcode reader on the conveyor guide rail, with the AI vision camera mounted over the conveyor in the background



Image 4 AI vision camera (IP bullet camera) mounted over the outfeed conveyor

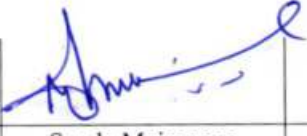
				
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Image 5 AQUAFINA 6 Litre bottles on the conveyor, with the live production monitor in the foreground



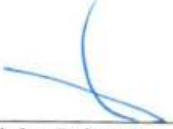
				
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Image 6 Unified Industrial Production Monitor at 15:37:41 – AI 1,185; sensor 1,257; barcodes 1,214



Image 7 Unified Industrial Production Monitor at 15:37:42 – live camera view with counting gate, per-reader counts and sensor count

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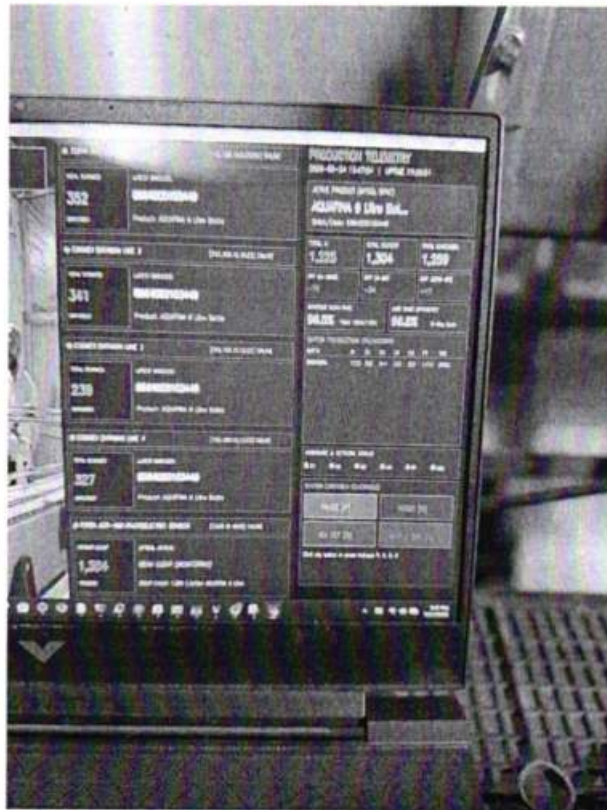
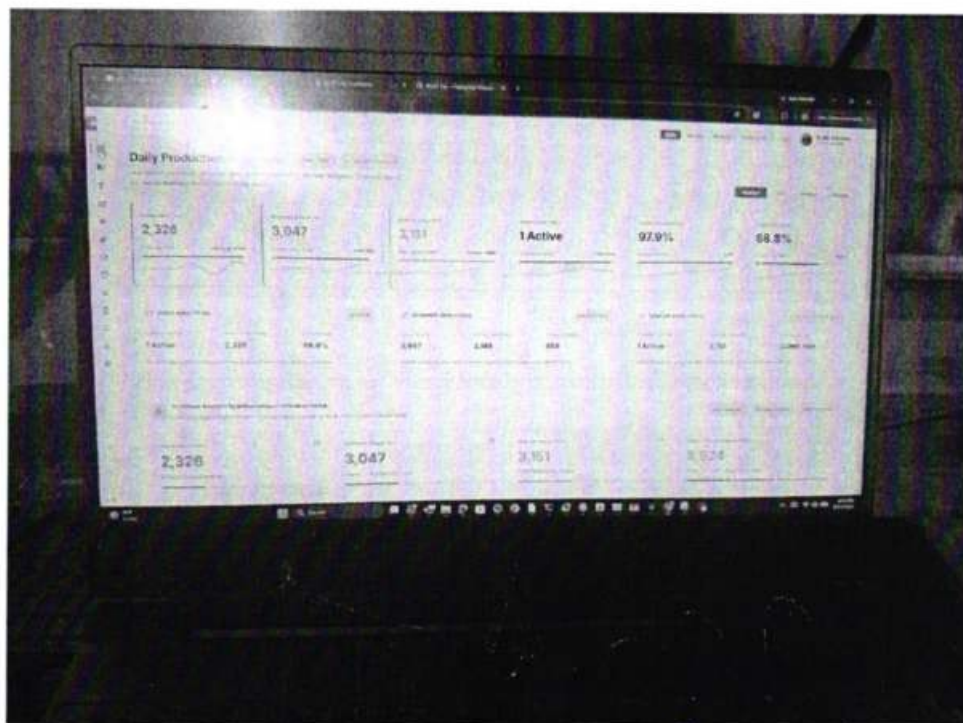


Image 8 Production Telemetry at 15:47:04 – AI 1,225; sensor 1,304



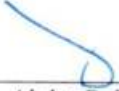
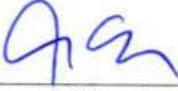
				
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Image 9 PLMS Pro web dashboard – daily production overview by analytics stream

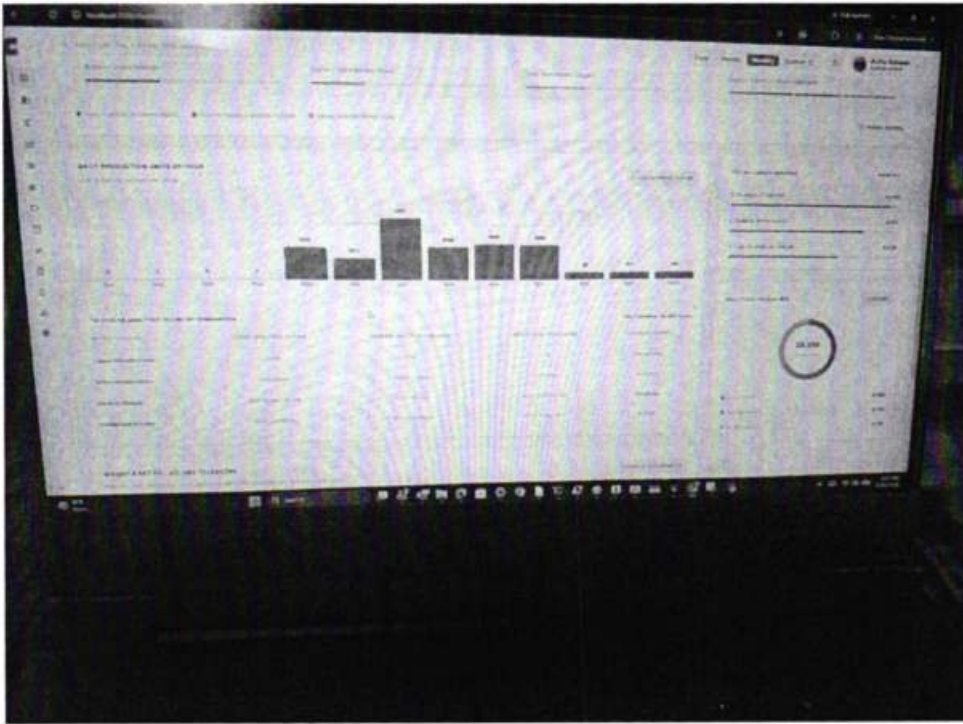


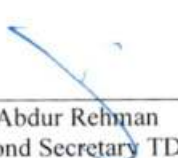
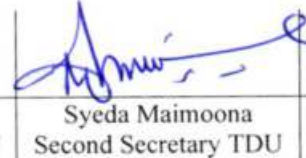
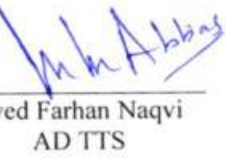
Image 10 PLMS Pro web dashboard – hourly production chart and tri-stream comparison, including sample data for products not produced at the facility

Conclusions

The POC demonstrated that the Vendor's solution identifies the product and SKU under production through four industrial barcode readers arranged around the conveyor for 360-degree reading, counts individual bottles through a photoelectric sensor and an AI vision camera, and reconciles the three streams in real time on its production monitor, with the difference between streams, the barcode scan rate and the line sync efficiency displayed live.

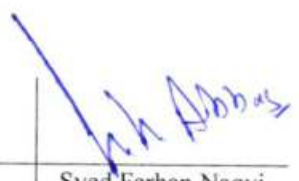
Against the evaluation parameters applicable to the Beverages sector, SKU identification was achieved, and the barcode read rate of 96.5% met the minimum benchmark of $\geq 95\%$ but not the preferred 99%. The AI vision count, at 94.0% of the sensor count, fell below the benchmark. Aggregated pack counting was not demonstrated, and the web dashboard displayed sample data that could not be reconciled with the live session.

Counting through independent streams with automated reconciliation provides a cross-check on declared production that does not depend on the manufacturer's own records. For deployment, the Vendor would need to raise the barcode read rate towards 99%, improve the accuracy of the AI

				
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vision count, demonstrate aggregated pack counting, integrate the web dashboard with live line data, and provide an industrial installation with power backup and permanent connectivity.

Based on the above, the POC of M/s AJCL was conducted, on 24th September 2026 as per the revised schedule. The overall outcome is passed.

				
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INVITATION TO BID

BID EVALUATION REPORT

Request for Proposal Reference No.	F. No.7(2)/IR/TDU/2026
Request for Proposal Title	Authorized Vendors for Installation and Maintenance of Production Counting System in Beverages (PET, CANS, RGB) Including Bottled Water, Packaged Juices and Packaged Milk Sector
RFP Issuance/ Publishing Date	28 th July, 2026
Corrigendum-01 (Extension in Bid Submission Date)	20 th August, 2026
Pre-Bid meeting Date	5 th August, 2026
Proposal Submission Date (Original)	20 th August, 2026
Proposal Submission Date (Revised)	27 th August, 2026
Publishing	National Press (two leading national daily newspapers – One English and One Urdu) Website(s): FBR & PPRA
Procurement Method/ Process	Single Stage – One Envelope Bidding Procedure– Open Competitive Bidding Process
Technical Evaluation Report Signing Date	09 th September, 2026


Waqas Ahmed Langan
Secretary (Budget & Expenditure)
Federal Board of Revenue
Islamabad

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<i>Annexure-I</i>	<i>Request for Proposal Publications (Clippings)</i>
<i>Annexure-II</i>	<i>Technical Proposal Opening Statement.</i>
<i>Annexure-III</i>	<i>Mandatory Requirements for Eligibility/Responsiveness/ Proposal Evaluation Criteria (Technical)</i>


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Secretary (Budget & Expenditure)
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Islamabad

1. Project Background

The Federal Board of Revenue (FBR) invites sealed bids from eligible vendors, registered with PPRA on E-PADS as vendors and with Income Tax and Sales Tax Departments, and included in Active Taxpayer's List of FBR, for the deployment of a production counting solution across the Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk in Pakistan. The vendors are required to submit their proposals for a production count solution (e.g. Barcode Scanning & object detection and counting sensor -detailed in RFP), provided it meets both the Technical and Proof of Concept (POC) evaluation criteria (including preferable accuracy of 99% with a minimum requirement of 95%) defined in Section V–Scope of Work and is cost-effective.

2. Business Objectives of the FBR

The FBR is undertaking a significant digitalization initiative aimed at enhancing its tax collection capabilities and addressing structural gaps in Pakistan's tax system. As part of this transformation, FBR seeks to deploy a production counting system at all Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk facilities in Pakistan to improve tax compliance and prevent revenue leakage within the Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk, particularly in the handling of filled PET bottles and cans at Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk manufacturing facilities in Pakistan. As part of the agreement, selected vendors will be responsible for providing and installing barcode scanning and unit counting systems. Vendors will also be responsible for providing post installation maintenance and tech support services to the procuring client.

FBR recognizes the critical role of technology in tackling the challenges of tax evasion, unreported production, and discrepancies in Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk production data. This production counting project aims to deliver real-time visibility into total production of Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk. The solution will enable FBR to monitor the production count of Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk ensuring accurate reporting, transparent audits, and correct tax payments. A panel of multiple authorized vendors will provide manufacturers access to a pool of competitive vendors.

3. Business Requirements to Be Met by the Information System

The solution specified in the RFP will scan barcodes from PET bottles and cans (covering aerated waters, bottled water, packaged juices, packaged milk, and reusable glass bottles), recognize each unique SKU, count individual units and report key metrics including but not limited to number of units for each SKU and type (e.g. brand) produced in Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and Packaged Milk (Note: System should be able to expand coverage of SKU types through a user-friendly SKU management interface). It will then store the recorded data and transmit to FBR's system. FBR will access the data and should have access to an interactive dashboard. The user should be able to filter across multiple indicators including by SKU, time frame and information of the company (e.g., site, production line). The user can analyze data and compare it to reported quantities by the manufacturer.

4. Functional Performance Requirements of the Information System

Functional Performance Requirements of the Information System

- i. The system must maintain an uptime of 99% on daily basis to ensure seamless real-time transfer of data from manufacturer to FBR for live production monitoring.

Pre-Award Viability:

- i. The bidder must conduct a viability and capability demonstration test at a designated FBR approved site (e.g., a Beverages (PET, CANS, RGB), Bottled Water, Packaged Juices and


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Packaged Milk plant) to validate that the proposed solution meets the operational and technical specifications. This test will form a prerequisite for final award approval.

- ii. Technical evaluation must be completed by FBR's technical evaluation committee.
- iii. Vendors authorized through this RFP process will also undertake an extended testing and validation phase with manufacturers.

5. **General Technical Requirements**

- i. Language Support: All information technologies with the Barcode scanning and counting system must provide support for English language. Specifically, all display technologies and software must support the ISO 639-1 EN character set and perform sorting according to ISO/IEC 14651
- ii. Dates: All information technologies MUST properly display, calculate, and transmit date data, including, but not restricted to 21st-Century date data.
- iii. Electrical Power: All active (powered) equipment must operate on 220v +/- 20v, 50Hz +/- 2Hz for V AC. For DC, power must be supplied by an industrial Power Supply Source for 24V or 12 V, depending on the hardware required as IPC, sensors, industrial switch, etc. All active equipment must include power plugs standard in Pakistan.
- iv. Environmental: All equipment must comply with food industry standards. Specifically, jigs fixing the sensors, cables, enclosures and electrical cabinets must use connectors and buttons made of stainless steel or food-grade, approved plastics. The equipment must be robust enough to meet IP66.

6. **Brief Terms of Request for Proposal Document**

Schedule for requirement	FBR intends to cover a 100% of Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk lines in Pakistan by 31 st December 2026. The production counting system shall cover all Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk categories, including Beverages (PET, CANS, RGB), including Bottled Water, Packaged Juices and Packaged Milk. The solution shall remain the same across all categories, i.e., barcode scanning and counting through scanners and sensors as specified in this RFP. Authorized vendor(s) should have all required equipment (hardware and software) readily available to be able to deploy the required barcode scanning and counting system across Beverages (PET, CANS, RGB) including Bottled Water, Packaged Juices and Packaged Milk manufacturing facilities in Pakistan.
Proposal Validity from proposal opening	The Proposal/ Bid Validity period shall be 120 days or extendable as mutually agreed.
Bid Security	The amount of Bid Security shall be PKR 1,000,000/-
Performance Guarantee	The Performance Guarantee shall be applicable and will be set at fixed amount of PKR 5,000,000 only. Note: This limit may be revised and lowered.
Currency for Evaluation of Proposals	Pak Rupees (PKR)

7. Procurement Process

The procurement process for the subject procurement activity is **Single Stage – One Envelope Bidding Procedure** – Open Competitive Bidding Process. Request for Proposal notification was published in national press (two leading national daily newspapers – One English and One Urdu) on **28th July, 2026 (Annexure-I)** as well as uploaded on FBR (<https://www.fbr.gov.pk/>) and PPRA (<https://www.ppra.gov.pk>) websites. Following table mentions the publication of corrigendum, addendums and other aspects of the procurement process.

Request for Proposal Reference No.	F. No.7(2)/IR/TDU/2026
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Proposal Submission Date (Original)	20 th August, 2026
Proposal Submission Date (Revised)	27 th August, 2026
Publishing	National Press (two leading national daily newspapers – One English and One Urdu) Website(s): FBR & PPRA
Procurement Method/ Process	Single Stage – One Envelope Bidding Procedure – Open Competitive Bidding Process
Technical Evaluation Report Signing Date	09 th September, 2026

8. Technical/ Financial Evaluation Committee

Following Technical/ Financial Evaluation Committee was designated for the evaluation of the subject Request for Proposal (RFP):

Sr. No	Name	Designation	Role
1.	Mr. Zubair Bilal	Member (IR-Operations), FBR	Chairman/ Convener
2.	Mr. Ashhad Jawwad	Member (Customs Policy)	Member
3.	Dr. Najeebullah	Chief (Tax Reforms)	Member
4.	Dr. Muhammad Khurram	Chief (Mgt/HR-IR)	Member
5.	Mr. Rizwan Salabat	Chief (Mgt/HR-Customs)	Member
6.	Mr. Amjad-ur-Rehman	Chief (F&C) – Customs	Member
7.	Mr. Waqas Ahmed Langah	Secretary (Budget & Expenditure)	Member/Secretary
8.	Faisal Sattar	Chief Executive Officer	Member

9. Proposal(s) Received

On the revised proposal submission date and time 27th August 2026 at 11:00 a.m., following proposals were received:

Sr. No	Proposer	Submission of Proposal
1.	M/s Tollink Pakistan Pvt Ltd	Yes
2.	M/s Obsidian	Yes
3.	M/s Dwisetech (Pvt) Ltd	Yes
4.	M/s Naturetech (Pvt) Ltd	Yes
5.	M/s NRTC	Yes
6.	M/s Excellence Delivered (ExD) Pvt Ltd	Yes
7.	M/s AJCL (Pvt) Ltd	Yes
8.	M/s ISSM Labelling Pvt Ltd	YES

10. Proposals Opening

In accordance with the proposal opening procedure of **Single Stage – One Envelope Bidding Procedure**, technical proposals were opened publicly on the same date immediately after proposal submission time at FBR House by the Technical/ Financial Evaluation Committee in the presence of authorized representatives of participating firms. The proposals completion was checked and confirmed in presence of proposers authorized representatives. Availability of proposal security as per request for proposal terms and confirmation of financial proposal was checked. The following aspects of the proposals were read out at the time of technical proposal opening:

- the name and the country of the bidder and in case of a Joint Venture, the name of the Joint Venture, the name of the lead member and the names and the countries of all members.
- availability and amount of proposal security submitted.

The bid opening statement is placed at **Annexure-II**. Financial bids in the envelope submitted by the bidders/vendors were kept in safe custody.

11. Preliminary Examination

Preliminary examination of the technical proposals was carried out. The examination included verification/ review of technical proposal submission form, completeness of the proposal, eligible countries, proposal validity confirmation and availability of proposal security as per requirement of the Request for Proposal. The finding(s) from preliminary examination is summarized below:

Proposer	Proposal Form	Eligible Country	Proposal Validity	Proposal Security	Acceptance for detailed Examination
1. M/s Tollink Pakistan Pvt Ltd	Yes	Pakistan	Yes	Yes	Yes
2. M/s Obsidian	Yes	Pakistan	Yes	Yes	Yes
3. M/s Dwisetech (Pvt) Ltd	Yes	Pakistan	Yes	Yes	Yes
4. M/s Naturetech (Pvt) Ltd	Yes	Pakistan	Yes	Yes	Yes
5. M/s NRTC	Yes	Pakistan	Yes	Yes	Yes
6. M/s Excellence Delivered (ExD) Pvt Ltd	Yes	Pakistan	Yes	Yes	Yes
7. M/s AJCL (Pvt) Ltd	Yes	Pakistan	Yes	Yes	Yes
8. M/s ISSM Labelling Pvt Ltd	Yes	Pakistan	Yes	Yes	Yes

12. Detailed Technical Evaluation

The mandatory requirements and marking criteria for evaluation of proposals advertised in the Request for Proposal along with detailed proposal's evaluation, are submitted at **Annexure-III**. The summary of evaluation is mentioned below:

Sr.	Proposer	Compliance with Mandatory Criteria	Technical Score/ Marks (Maximum marks 60)
1.	M/s Tollink Pakistan Pvt Ltd	Compliant/ Technically qualified	49
2.	M/s Obsidian	Compliant/ Technically qualified	43
3.	M/s Dwisetech (Pvt) Ltd	Non-Compliant/ Non-Technically qualified	15
4.	M/s Naturetech (Pvt) Ltd	Non-Compliant/ Non-Technically qualified	15
5.	M/s NRTC	Compliant/ Technically qualified	48
6.	M/s Excellence Delivered (ExD) Pvt Ltd	Compliant/ Technically qualified	46
7.	M/s AJCL (Pvt) Ltd	Compliant/ Technically qualified	45
8.	M/s ISSM Labelling Pvt Ltd	Compliant/ Technically qualified	48
• <i>Note: The minimum technical score (St) required to pass is: Forty-Two (42) points / marks being 70% of total marks of 60 points/marks.</i>			

13. Proposals Accepted as "Responsive/Technically Qualified" to the RFP

Sr.	Proposers
1.	M/s Tollink Pakistan Pvt Ltd
2.	M/s Obsidian
3.	M/s NRTC
4.	M/s Excellence Delivered (ExD) Pvt Ltd
5.	M/s AJCL (Pvt) Ltd
6.	M/s ISSM Labelling Pvt Ltd

14. Proposals Rejected as "Non-Responsive/Non-Technically Qualified" to the RFP

Sr.	Proposer
1.	M/s Dwisetech (Pvt) Ltd
2.	M/s Naturetech (Pvt) Ltd


Waqas Ahmed Langah
Secretary (Budget & Expenditure)
Federal Board of Revenue
Islamabad

Technical Bid Evaluation Sheet

AUTHORIZED VENDORS FOR INSTALLATION AND MAINTENANCE OF PRODUCTION COUNTING SYSTEM IN Beverages (PET, CANS, RGB) Including Bottled Water, Packaged Juices and Packaged Milk SECTOR

Criteria: Total Marks = 60, Qualifying Marks= 42 being 70% of the total marks

S #.	Metric	Particulars	Marks	M/s Tollink Pakistan Pvt Ltd	M/s Obsidian	M/s Dwisetech Pvt Ltd	M/s Naturetech	M/s NRTC	M/s ExD Pvt Ltd	M/s AJCL	M/s ISSM Labelling
1.	Specific experience of the applicant for their proposed solution in an industrial environment	No. of projects where the applicant has deployed their proposed solution in a manufacturing plant in any industry	2 or more projects = 10 marks 1 project = 5 marks No project = 0 marks	10	05	00	00	10	10	10	10
2.	Specific experience of the applicant for production counting on high-speed lines	No. of projects where the applicant has deployed real time production counting system on high-speed production lines	2 or more projects = 10 marks 1 project = 5 marks No project = 0 marks	10	05	00	00	10	10	10	10
3.	Specific experience of the applicant with deployment of fully integrated IT systems	No. of projects where the applicant has deployed IT systems integrating hardware and software involving transmission of captured data through cloud-based systems	2 or more projects = 10 marks 1 project = 5 marks No project = 0 marks	10	10	00	00	10	10	10	10
4.	Robustness of the solution	This metric will assess the solution's robustness. This would include: i) coverage of all SKU types (e.g., packs, pouches, tins, cans, plastic bottles); ii) ease of adding new SKUs; iii) estimated deployment time in days; iv) detection and validation of change in SKU.	Maximum marks: 30 of which i) 7.5 marks ii) 7.5 marks iii) 7.5 marks iv) 7.5 mark	19	23	15	15	18	16	15	18
Total Marks/Scored				49	43	15	15	48	46	45	48


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08.	08. Consumables and other recurrent cost items Vendors shall provide the details of all consumables and Other Recurrent Cost items as per the proposed solution. Example of possible consumables and other recurrent cost items are: • Costs for hosting the application online: cloud or server-based installation • Costs for software licenses: Integrated Development Environment (IDE) such as Visual Studio, other software tools for frontend development or database management. Nonetheless, it is highly recommended Open-source tools are more recommended • Costs for software licenses involving hardware: necessary software needed for developing and maintaining the different hardware such as barcode readers • Costs for Operating System: Windows license in installed machines or Windows Server for hosting the application
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D. Technical Evaluation Criteria

01.	01. Technical Evaluation				
	TECHNICAL EVALUATION CRITERIA				
	Technical Evaluation Criteria				
	Sr. No.	Metric	Particulars	Marks	Supporting documents
	1	Specific experience of the applicant for their proposed solution in an industrial environment	No. of projects where the applicant has deployed their proposed solution in a manufacturing plant in any industry	2 or more projects = 10 marks	Previous clients' PO or experience certificate mentioning total number of projects.
				1 project = 5 marks	
				No project = 0 marks	
	2	Specific experience of the applicant for production counting on high-speed lines	No. of projects where the applicant has deployed real time production counting system on high-speed production lines	2 or more projects = 10 marks	Previous clients' PO or experience certificate mentioning total number of projects.
				1 project = 5 marks	
				No project = 0 marks	
	3	Specific experience of the applicant with deployment of fully integrated IT systems	No. of projects where the applicant has deployed IT systems integrating hardware and software involving transmission of captured data through cloud-based systems	2 or more projects = 10 marks	Previous clients' PO or experience certificate mentioning total number of projects.
				1 project = 5 marks	
				No project = 0 marks	

	4	Robustness of the solution	This metric will assess the solution's robustness. This would include: i) coverage of all SKU types (e.g., cans, plastic bottles); ii) ease of adding new SKUs; iii) estimated deployment time in days; iv) detection and validation of change in SKU	Maximum marks: 30 of which i) 7.5 marks ii) 7.5 marks iii) 7.5 marks iv) 7.5 marks	i) Bidder technical proposals to state SKU types covered by solution ii) Technical proposals to describe process for adding new SKU iii) Deployment timelines / implementation plan iv) to be detailed in bidders technical proposals and POC
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	Upon submission of proposals, bidders will be evaluated based on the Technical Evaluation Criteria specified above and the POC test. Vendors must achieve a minimum technical evaluation score of 70% and successfully meet the defined POC criteria . Any proposal that does not meet this minimum threshold will be considered non-compliant and will not be further considered in the bidding process.
02.	The Project Plan submitted by the Authorized Vendor shall comprehensively address the following subjects for the barcode scanning and counting solution or an alternative solution proposed by the vendor: 1. Project Organization and Management Plan • Define the roles, responsibilities, and governance structure for effective project execution. • Include escalation pathways and points of contact for smooth communication and issue resolution. 2. Equipment Details • Detailed specifications, quantities, and brands of all equipment being used to deploy the system (including hardware and software). • Indicative price per installation point and breakdown of price per component of deploying the bidder's proposed production count solution 3. Delivery and Installation Plan • Detailed timelines and logistics for delivering and installing all components of the barcode scanning system. • Specify dependencies (e.g., on-site readiness, power, and connectivity requirements). 4. Disaster Recovery Plan • Detailed disaster recovery plan which includes details of primary contact, response team, post-mortem analysis of incident, and plan for restoration of operations in case of an on-site disaster. • Detailed communication plan including disaster recovery calling tree with escalation levels and contacts information • Detailed activation criteria which include conditions or events that trigger the activation of the disaster recovery plan • Detailed recovery runbook which includes guidelines to follow to restore all operations for all components • Detailed backup and restoration procedures to ensure daily backups in place while ensuring minimal production disruption