

TECHNICAL EVALUATION REPORT

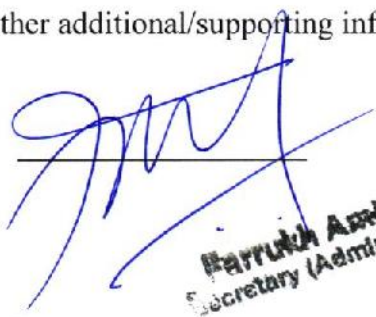
(As Per Rule 35 of PP Rules, 2004)

- 1 Name of Procuring Agency Federal Board of Revenue (HQ)
- 2 Method of Procurement Two Stage Bidding Procedure
3. Title of Procurement AUTHORIZED VENDORS FOR SUPPLY, INSTALLATION AND MAINTENANCE OF A PRODUCTIONS MONITORING SYSTEM IN THE HATCHERIES SECTOR
4. Tender Inquiry No. 1(9)/TDU/IR/2026
5. PPRA Ref. No. (TSE). ----- EPADS Reference No: F-26011678878
6. Date & Time of Bid Closing 14th September 2026 02:00 PM
7. Date & Time of Bid Opening 14th September 2026 02:30 PM
8. No of Bids Received 03
9. Criteria for Bid Evaluation Technical Bid Evaluation Report Attached.
- 10 Details of Bid(s) Evaluation Technical Bid Evaluation Report Attached.

Name of Bidder	Technical Marks (if applicable)	POC Status	Rule/Regulation/SBD*/Policy/Basis of Rejection/Acceptance as per Rule 35 of PP Rules, 2004.
M/s ISSM Labeling Solutions Pvt Ltd.	75	Passed	Responsive
M/s Obsidian.	70	Passed	Responsive
M/s Green Earth Solutions Pvt Ltd.	70	Passed	Responsive

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

Signature: _____


Farrukh Amir Sial
Secretary (Administration)

Official Stamp: _____

**Standard Bidding Documents (SBD).*

1(9)/IR/TDU/2026

INVITATION TO BID (ITB)

TECHNICAL BID(S) EVALUATION REPORT

Invitation to Bid Reference No.	1(9)TDU/IR/2026
Invitation to Bid Title	AUTHORIZED VENDORS FOR SUPPLY, INSTALLATION AND MAINTENANCE OF PRODUCTION MONITORING SYSTEM IN <u>HATCHERIES SECTOR (Stage-2)</u>
Invitation to Bid Issuance/ Publishing Date (Stage-I)	24 th January, 2026
Pre-Bid meeting Date (Stage-I)	29 th January, 2026
Bids Submission Date (Stage-I)	24 th February, 2026
Publishing (Stage-I)	National Press (two leading national daily newspapers – One English and One Urdu) Website(s): FBR
Invitation to Bid (Stage-II) uploading date on EPADS	31 st August, 2026
Procurement Method/ Process	Two stage bidding procedure – Open Competitive Bidding Process
Bids Submission Date (Stage-II)	14 th September, 2026
Technical Bids Evaluation Report Signing Date	22 nd September, 2026


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

Table of contents

1.	<i>Project Background</i>	3
2.	<i>Objective & Vision</i>	3
3.	<i>Scope of the System</i>	3
4.	<i>Brief Terms of Invitation to Bid Document</i>	4
5.	<i>Bid Process</i>	4
6.	<i>Technical/ Financial Evaluation Committee</i>	5
7.	<i>Bid(s) Received</i>	5
8.	<i>Bid Opening</i>	5
9.	<i>Preliminary Examination</i>	6
10.	<i>Detailed Technical Evaluation</i>	6
11.	<i>Bids Accepted as "Responsive/Technical Qualified" to the Invitation to Bid</i>	6
12.	<i>Proof-of-Concept Testing</i>	7
13.	<i>Bids Accepted as "Non-responsive/Non-Technically Qualified" to the Invitation to Bid ITB</i>	7

Annexure-I	Invitation to Bid Publications (Clippings)
Annexure-II	Technical Bid Opening Statement.
Annexure-III	Mandatory Requirements for Eligibility/Responsiveness and Bid Evaluation Criteria (Technical)
Annexure-IV	Proof-of-Concept Reports


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

1. Project Background

The Federal Board of Revenue (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 monitoring and day-old chick (DOC) counting system at all commercial poultry hatchery facilities in Pakistan (including broiler hatcheries, layer hatcheries, and integrated breeder-hatchery operations) to improve tax compliance and prevent revenue leakage within the sector, particularly in relation to the production, processing, and clearance of day-old chicks. As part of the authorization arrangement, selected vendors shall be responsible for supplying and installing a production monitoring and counting system (AI-based Vision Analytics for Tray Counting and Verification (as an approximation of Day-Old Chick output), or equivalent validated technologies). Vendors shall also be responsible for providing post-installation maintenance and technical support services to the hatchery operators.

2. Objective & Vision:

FBR recognizes the critical role of technology in addressing challenges related to tax evasion, underreporting of production, and discrepancies in hatchery output data. This production monitoring initiative aims to deliver real-time visibility into the total production of day-old chicks across the hatchery sector. The proposed solution shall enable FBR to monitor and reconcile production counts, ensuring accurate reporting, transparent audits, and correct tax treatment of hatchery output. To promote competition, scalability, and non-exclusivity, a panel of multiple authorized vendors shall be established, providing hatchery operators access to a pool of qualified and competitive technology providers.

- (i) Business Functions and Performance Requirement
- (ii) Functional Performance Requirements of the Information System
- (iii) Related Information Technology Issues and Initiatives

3. Scope of the System

The scope of the system is to implement an end-to-end production monitoring and counting system (including software, hardware, and system integration) primarily utilizing Video Analytics), or equivalent validated technologies as proposed by the bidder, provided that the proposed solution meets the Technical Evaluation and Proof of Concept (POC) criteria defined in Section V – Scope of Work and is cost effective. The system shall be deployed across poultry hatcheries in Pakistan to accurately detect, count, and record the production of Day-Old Chicks (DOCs) at designated installation points, and to prevent under-reporting, misreporting, or manipulation of hatchery production data. The proposed solution shall enable independent, real-time visibility of hatchery production for FBR, ensuring transparent audits, verifiable production timelines, and accurate tax reporting, without disrupting normal hatchery operations.

4. Brief Terms of Invitation to Bid Document

Schedule of Requirements	FBR intends to ensure all hatchery facilities in Pakistan are covered as per the following installation schedule: Cumulative 20% lines to be covered by: 31st October 2026 Cumulative 50% lines to be covered by: 30 th November 2026 Cumulative 100% lines to be covered by: 31st December 2026
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	Authorized vendor(s) shall have all required equipment (both hardware and software) readily available to enable timely deployment of the required production monitoring and day-old chick (DOC) counting system across commercial poultry hatchery facilities in Pakistan.
Bid Validity from bid opening	The Bid Validity period shall be 120 days or extendable as mutually agreed.
Bid Security	PKR 1,000,000 (mandatory)
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
Liquidated Damages	• Rate: A penalty of 0.2% of the total performance guarantee per day of non-compliance for each affected site. • Maximum Deduction: The cumulative penalty shall not exceed the value of the performance guarantee submitted by the vendor
Currency for Evaluation of Bid	Pak Rupees (PKR)

5. Bid Process

The bidding process for the subject activity is **Two stage bidding procedure** – Invitation to Bid – Open Competitive Bidding Process. Invitation to Bid (**Stage-I**) notification was published in national press (two leading national daily newspapers – One English and One Urdu) on **24th January, 2026** (**Annexure-I**) as well as uploaded on e-PADS, FBR (<https://www.fbr.gov.pk/>) and PPRA (<https://www.ppra.gov.pk>). Invitation to Bid (**Stage-2**) was uploaded on EPADS portal on **31st August, 2026**.

Invitation to Bid Reference No.	1(9)TDU/IR/2026
Invitation to Bid Title	AUTHORIZED VENDORS FOR SUPPLY, INSTALLATION AND MAINTENANCE OF PRODUCTION MONITORING SYSTEM IN <u>HATCHERIES SECTOR (Stage-2)</u>
Invitation to Bid Issuance/ Publishing Date (Stage-I)	24 th January, 2026
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Secretary (Budget & Expenditure)
Federal Board of Revenue
Islamabad

6. Technical/ Financial Evaluation Committee

Following Technical/ Financial Evaluation Committee was designated for the evaluation of the subject Invitation to Bid:

Sr. No	Name	Designation	Role
1.	Mr. Zubair Bilal	Member (IR-Operations), FBR	Chairman/ Convener
2.	Mr. Ashhad Jawwadss	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

7. Bid(s) Received

On the bid submission date and time 14th September, 2026 at 2:30 p.m., following bids were received:

Sr. No	Bidders	Bid submitted online through E-PADS	Bid (Hard Copy) Submitted
1.	M/s ISSM Labelling Solutions (Pvt) Ltd	Yes	Yes
2.	M/s Obsidian	Yes	Yes
3.	M/s Green Earth Solutions (Pvt) Ltd	Yes	Yes

8. Bid/Proposal Opening

In accordance with the bid opening procedure of **Two stage bidding procedure**, technical bids for **Stage-II** of the subject procurement activity were opened publicly on the same date immediately after bid submission time at FBR House by the Technical/ Financial Evaluation Committee in the presence of bidders authorized representatives. The bids availability on e-PADS was checked and confirmed in presence of bidders authorized representatives. Availability of required documents/information as per ITB's terms, were read out at the time of bid opening meeting. The bid opening statement is placed at Annexure-II.

9. Preliminary Examination of Bids/Proposals

Preliminary examination of the technical bids was carried out. The examination included verification/ review of bidder bid form, completeness of the bid, eligible countries, bid

validity confirmation and availability of bid security as per requirement of the Invitation to Bid. The finding(s) from preliminary examination is summarized below:

Bidders	Bid Form	Eligible Country	Bid Validity	Bid Security	Acceptance for detailed Examination
M/s ISSM Labelling Solutions (Pvt) Ltd	Yes	Pakistan	Yes	No	Yes
M/s Obsidian	Yes	Pakistan	Yes	No	Yes
M/s Green Earth Solutions (Pvt) Ltd	Yes	Pakistan	Yes	No	Yes

10. 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.

11. Proof-of-Concept Testing

Bidders were required to conduct mandatory Proof-of-Concept (POC) testing for proposed solutions at selected industry sites. After conducting evaluation with reference to technical criteria given in the relevant bidding document, the following bidders found technically qualified/responsive therefore, POC tests of following bidders were conducted on **14th September, 2026**. As per the test results of the POCs, following bidders successfully passed the POC requirements. The POC reports are attached at Annexure-IV.

1.	M/s ISSM Labelling Solutions (Pvt) Ltd
2.	M/s Obsidian
3.	M/s Green Earth Solutions (Pvt) Ltd

12. Bids Accepted as "Responsive/Technical Qualified" to the Invitation to Bid

In accordance with **Stage-2** of the bidding process, the following bidders submitted their Technical Proposals, including financial proposals encompassing the price per installation point and breakdown of price per component.

Sr.	Bidder
1.	M/s ISSM Labelling Solutions (Pvt) Ltd
2.	M/s Obsidian
3.	M/s Green Earth Solutions (Pvt) Ltd

Upon submission, the proposals were evaluated based on the Technical Evaluation Criteria specified in Section V. All three (03) bidders/vendors successfully achieved the minimum

technical evaluation score of 70%, are considered compliant/technically qualified, and have been recommended by the Committee.

Sr.	Bidder	Compliance with Mandatory Criteria	Technical Score/ Marks (Maximum marks 100)
1.	M/s ISSM Labelling Solutions (Pvt) Ltd	Compliant	75
2.	M/s Obsidian	Compliant	70
3.	M/s Green Earth Solutions (Pvt) Ltd	Compliant	70
Note: The minimum technical score (St) required to pass is: Seventy (70) points / marks			

13. Bids Accepted as “Non-responsive/Non-Technically Qualified” to the ITB

During technical bid evaluation process, no bidder/vendor was declared as “Non-responsive/non-technically qualified”.


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

TECHNICAL BID OPENING SHEET

Tender Reference No:

1(9)TDU/R/2026

Project Title:

AUTHORIZED VENDORS FOR SUPPLY, INSTALLATION AND
MAINTENANCE OF PRODUCTION MONITORING SYSTEM IN
HATCHERIES SECTOR HATCHERIES SECTOR (Stage-2)

Technical Bid Opening Date/ Time:

14th Sept-26, 2026 at 2:30 P.m.

S.No.	Name of Firm	Name of Representative	Bid Submission (Hard/Soft)	Bid Security submission	Financial Bid submission	Signature
1.	M/S ISSM Labelling	an epads-Yes	USB Yes		YES	_____
2.	M/s obsidian	an E-Pads-Yes	No		Yes	No rep. from the bidder attended the meeting
3.	M/s Green Earth Solution (Pvt) Ltd	an Epads- Yes	No		Yes	_____
4.						
5.						
6.						
7.						
8.						
9.						

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

Fazal Ahmad Shah
Secretary (Administration)

D. Technical Evaluation Criteria

01.

TECHNICAL EVALUATION CRITERIA				
Sr. No.	Evaluation Metric	Evaluation Criteria	Maximum Marks	Supporting Documents
1	Relevant Hatchery / Live-Production Solution Deployment	Proven deployment of production monitoring, live counting, or AI-based vision solutions in poultry hatcheries or comparable live-production environments, high speed production lines (e.g., poultry processing, livestock counting, pharma clean rooms, food-grade automation). • 2 or more live hatchery / live-animal/high speed production lines deployments – 10 marks • 1 live deployment – 5 marks • No live deployment – 0 marks	10	Purchase Orders, Completion Certificates, Go-Live Letters, Client References clearly indicating live-production or hatchery environments.
2	Bio-Secure & High-Humidity Environment Capability	Demonstrated experience of deploying hardware in bio-secure, high-humidity, wash-down, and temperature-controlled environments, where equipment must operate reliably around live animals. • Proven experience in bio-secure / humid / wash-down environments – 10 marks • Experience limited to dry or office-grade environments – 5 marks	10	Experience Certificates, Site Environmental Descriptions, IP Ratings used, Hygienic Design Notes, Photographic Evidence.

3	End-to-End Hatchery System Integration Capability	Demonstrated capability to deliver a complete, integrated solution, not merely hardware supply. Must demonstrate: • Edge Processing (IPCs / AI inference) • Sensor / Camera Integration • Secure Connectivity (VPN / Encrypted Channels) • Centralized Dashboards & Databases • Integration with Government / Regulatory Systems	10	System Architecture Diagrams, Integration Case Studies, Software Stack Details, Data Flow Diagrams.
4	Proposed Solution Ruggedness (Hatchery-Specific Engineering Design)	Regardless of past experience, the solution proposed for THIS RFP must be engineered specifically for poultry hatcheries, addressing: • Moisture & Wash-Down Protection: IP65/IP66 enclosures specified • Humidity & Condensation Control: Sealed housings, desiccants, filtered ventilation • Biosecurity Compatibility: Materials suitable for disinfectants and sanitation • Live-Object Safety: Non-intrusive, welfare-safe counting methods • Ease of Cleaning: Quick-access lens covers / hygienic mounts	40	Proposal Document, Detailed Engineering Drawings, IP Specifications, Bill of Materials, Environmental Protection Strategy.
5	Implementation, Continuity &	Demonstrated ability to deploy and sustain the system without disrupting hatchery operations or	30	Deployment Timeline / Gantt Chart, Support Organization Chart, SLA Draft, Training & Maintenance Plan.

	Support Strategy	compromising biosecurity, including: • Implementation Plan: Installation during production cycles without chick stress • Consumables Strategy: Local availability of lenses, sensors, filters, mounts • SLA Commitments: Defined response times (e.g., ≤1-hour critical faults) • Training Plan: Training of hatchery staff & FBR officers on calibration, hygiene-safe handling		
	Grand Total	Total Technical Evaluation Score	100 Marks	
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 shall comprehensively address: Project Organization and Management Plan - Roles & Governance: A detailed project governance structure shall be provided, clearly identifying key roles including the Project Manager, Technical Lead (Hatchery Automation / Vision Analytics Specialist), and Site Engineers / Field Support Staff. The bidder shall define a clear governance and communication model, specifying reporting lines, decision-making authority, and coordination mechanisms with FBR and hatchery management, including procedures for approvals, change management, and operational reporting. - A defined escalation matrix shall be provided, outlining structured protocols for issue escalation during deployment, Proof of Concept, and post-go-live operations. This shall include escalation procedures for issues such as integration failures with hatchers or chick processing lines, counting inaccuracies, system downtime, data transmission failures, or biosecurity-related operational constraints, along with response times, responsible personnel, and resolution timelines. Equipment Details			

AUTHORIZED VENDORS FOR SUPPLY, INSTALLATION AND MAINTENANCE OF PRODUCTION MONITORING SYSTEM IN HATCHERIES SECTOR (STAGE-2)

TECHNICAL BIDS EVALUATION SHEET

(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)

r. No.	Evaluation Metric	Evaluation Criteria	Maximum Marks	M/s ISSM Labelling Solutions (Pvt) Ltd	M/s Obsidian	M/s Green Earth Solutions (Pvt) Ltd
1.	Relevant Hatchery / Live Production Solution Deployment	Proven deployment of production monitoring, live counting, or AI-based vision solutions in poultry hatcheries or comparable live-production environments, high speed production lines (e.g., poultry processing, livestock counting, pharma clean rooms, food-grade automation). • 2 or more live hatchery / live-animal/high speed production lines deployments – 10 marks • 1 live deployment – 5 marks • No live deployment – 0 marks	10	10	10	00
2.	Bio-Secure & High Humidity Environment Capability	Demonstrated experience of deploying hardware in bio-secure, high-humidity, wash-down, and temperature-controlled environments, where equipment must operate reliably around live animals. • Proven experience in bio secure / humid / washdown environments – 10 marks • Experience limited to dry or office-grade environments – 5 marks	10	10	10	10
3	End-to-End Hatchery Integration System Capability	Demonstrated capability to deliver a complete, integrated solution, not merely hardware supply. Must demonstrate: • Edge Processing (IPCs / AI inference) • Sensor / Camera Integration • Secure Connectivity (VPN / Encrypted Channels) • Centralized Dashboards & Databases • Integration with Government / Regulatory Systems	10	10	10	10

4.	Proposed Solution Ruggedness (Hatchery Specific Engineering Design)	Regardless of past experience, the solution proposed for THIS RFP must be engineered specifically for poultry hatcheries, addressing: • Moisture & Wash-Down Protection: IP65/IP66 enclosures specified • Humidity & Condensation Control: Sealed housings, desiccants, filtered ventilation • Biosecurity Compatibility: Materials suitable for disinfectants and sanitation • Live-Object Safety: Non-intrusive, welfare safe counting methods • Ease of Cleaning: Quick access lens covers / hygienic mounts	40	25	20	30
5.	Implementation, Continuity & Support Strategy	Demonstrated ability to deploy and sustain the system without disrupting hatchery operations or compromising biosecurity, including: • Implementation Plan: Installation during production cycles without chick stress • Consumables Strategy: Local availability of lenses, sensors, filters, mounts • SLA Commitments: Defined response times (e.g., ≤1-hour critical faults) • Training Plan: Training of hatchery staff & FBR officers on calibration, hygiene-safe handling	30	20	20	20
Total Marks/Scored Marks			100	75	70	70
Status/Remarks				Compliant	Compliant	Compliant

Proof of Concept Report- Hatchery (Stage-II)

Date: 14th September 2026

Facility: Sabir's Poultry

Attendees: Shiraz Ali Khan, Ali Saeed, Sajal Tariq, Saqib bajwa, Fakhar Sharif

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by **M/s Green Earth Solutions** (hereinafter, 'the Vendor'). This Proof of Concept (POC) for Hatchery production monitoring Box/Tray-Based Verification for determination of Day-Old Chick (DOC) production was conducted at the packing/dispatch station of Sabir's Poultry (hereinafter, 'the hatchery'), in adherence to the Stage-II POC Evaluation Criteria specified in the RFP.

SKU Tested:

Day-Old Chicks (DOC) -Basket/Tray count at the Chick Exit (packing/dispatch) point

Solution Topology:

The solution uses AI-based computer vision to monitor Day-Old Chick (DOC) dispatch at the hatchery's packing/dispatch station. It detects and tracks trays/baskets as they pass through the designated Chick Exit point, distinguishes filled, dispatch-bound baskets from empty or reversed (re-passed) baskets, and maintains a real-time running basket count on the live camera overlay as well as on a web-based dashboard. The system logs per-camera basket counts, reverse-basket events, and generates alerts on the dashboard in the event of camera obstruction or tampering, with daily and trend-level reporting available through the Reports module.

POC Results

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
1	Counting Accuracy of Box/Tray for determination of Day-Old Chicks (DOCs)	Accuracy Test: The vendor's solution was benchmarked against a reference count (manual physical tray counting / hatchery dispatch log) for a defined production sample. The system was required to accurately detect and count fully filled, dispatch-bound trays only (stacked or unstacked), excluding empty trays, duplicate/re-passed trays, or non-dispatch tray movements. Scoring: 99–100% accuracy: 30 Marks · 95–98.9%: 20 Marks · 90–94.9%: 10 Marks · Below 90%: 0 Marks (Disqualified)	30	28
2	Environmental Endurance	Environmental Stress Test: Hardware (cameras, counting modules) was installed at the	10	8

Shiraz Ali Khan

Ali Saeed

Sajal Tariq

Saqib Bajwa

Fakhar Sharif

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
	(Humidity & Bio-Secure Conditions)	actual hatchery installation point (chick processing/dispatch line) characterized by high humidity, condensation risk, disinfectant aerosols, and organic dust (feathers/fluff). Requirement: continuous operation for at least 24 hours without hardware failure, condensation-related image degradation, lens fouling, or system restart. Scoring: No failure/manual intervention required: 10 Marks · Any major cleaning, reset, or intervention required: 0 Marks		
3	Process Logic Validation (Non-Production vs. Production Events)	Logic Validation Test: The system was required to differentiate valid production output from non-productive events such as test runs, empty conveyor movement, cleaning operations, or chick handling without dispatch. The evaluator simulated non-production movements and paused hatch discharge to test logic robustness. Scoring: System correctly ignores non-production events (Zero False Count): 10 Marks · Deduct 2 marks per false count	10	8
4	Real-Time Data Latency & Dashboard Visibility	Connectivity & Latency Test: The evaluator measured the time delay between the physical counting event and its appearance on the dashboard/monitoring interface. Aggregate figures on the Reports/Daily Summary views were observed to reflect completed basket counts only after a manual refresh Scoring: Data visible within < 60 seconds: 10 Marks · 1–5 minutes: 5 Marks · Delay > 5 minutes: 0 Marks	10	4
5	Tamper Detection & Failure Response	Security & Resilience Test: The evaluator simulated fault and tamper conditions, including partial/full obstruction of the camera/sensor view and disconnection of power/network. The system generated instant "Camera Partially Obstructed" alerts on the dashboard, flagging the affected camera points along with the	10	10

Spiraz Ali Khan

Ali Saeed

Sajal Tariq

Saqib Bajwa

Fakhar Sharif

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
		percentage of obstructed cells, requiring operator acknowledgement (ACK). Scoring: System generates immediate alert (tamper/obstruction/offline status) on dashboard: 10 Marks · System fails silently or records invalid data: 0 Marks		
	TOTAL MARKS	Total POC Evaluation Score	70	59

POC in Images form:

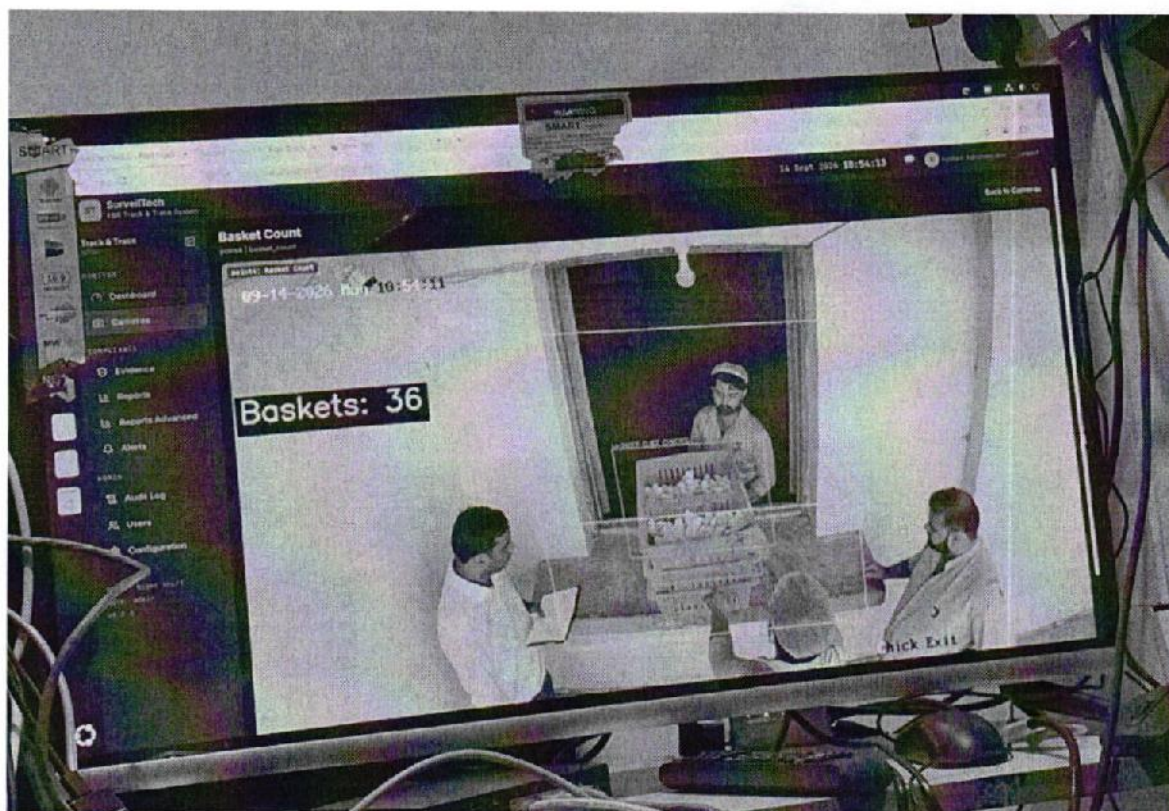


Image 1 — Live Basket Counting at the Chick Exit / Dispatch Point

Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif
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Image 2 — AI Detection with Bounding Box — Basket Identification

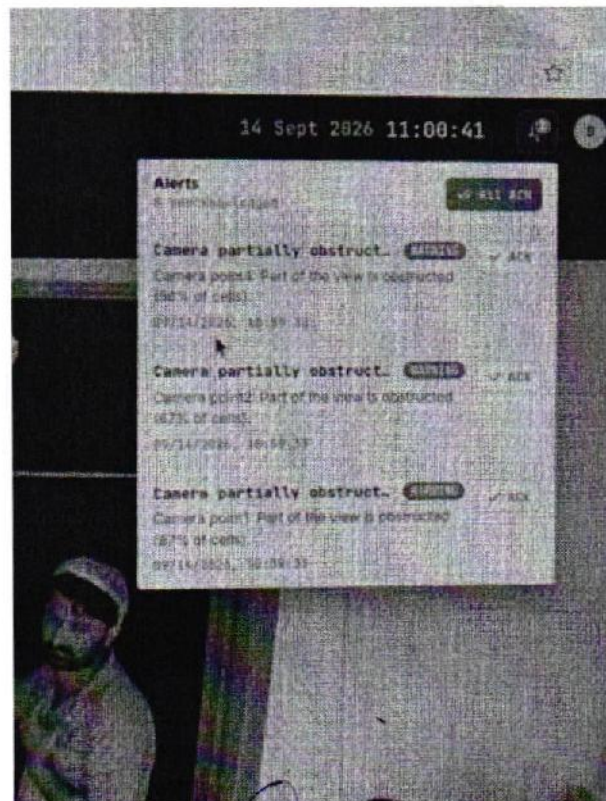


Image 3 — Camera Obstruction / Tamper Alerts Generated on the Dashboard

Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif

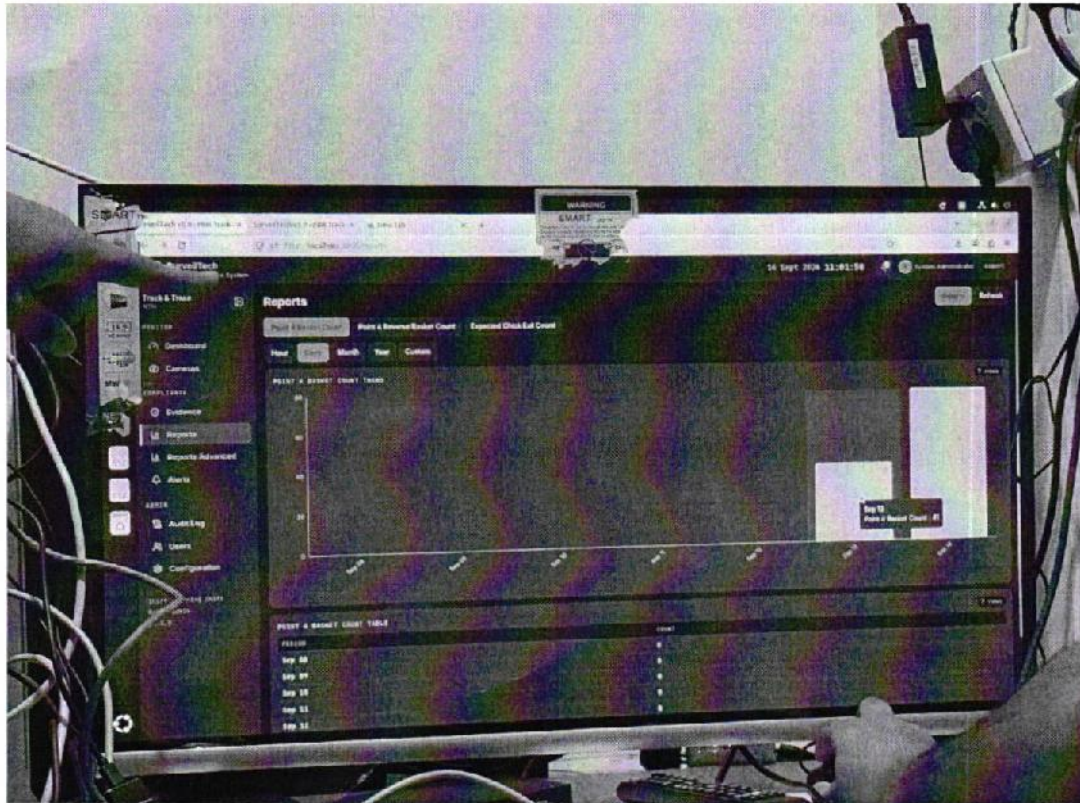
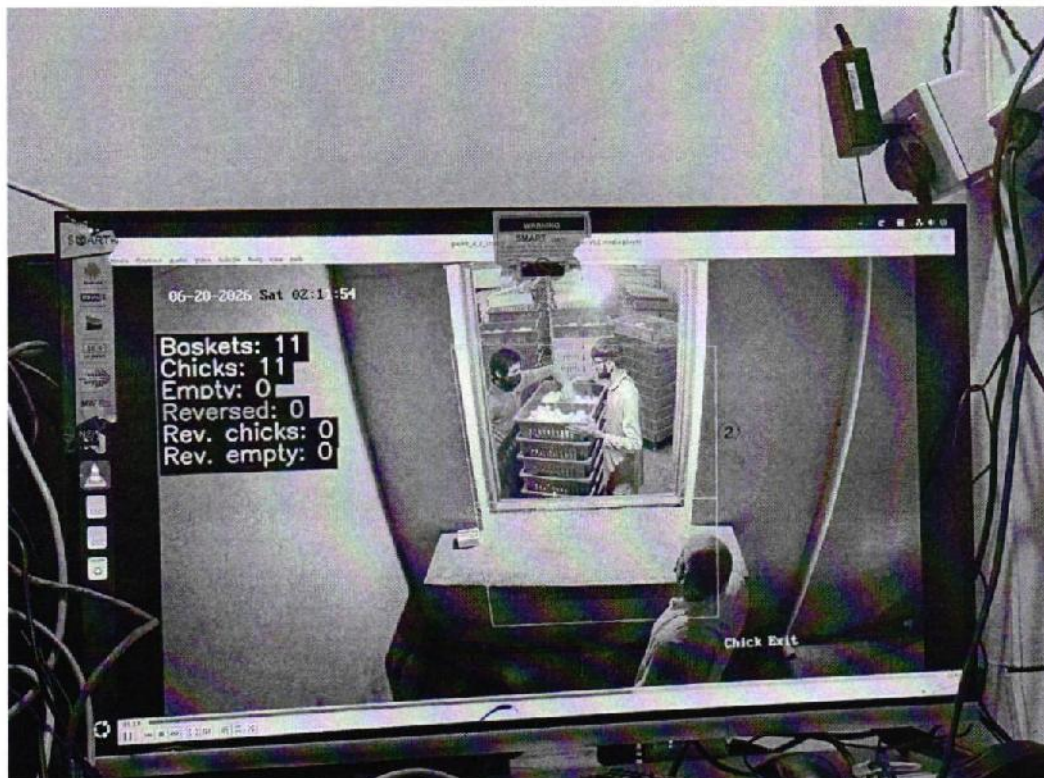


Image 4 — Point 4 Basket Count Trend — Reports Module

Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif
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Image 5 — Daily Production Summary Dashboard



Shiraz Ali Khan

Ali Saeed

Sajal Tariq

Sagib Bajwa

Fakhar Sharif

Image 6 — Recorded Evidence Playback — Basket / Reversed Count Log

POC Conclusions and Observations

The Stage-II Proof of Concept was conducted at Sabir's Poultry on 14th September 2026. The solution demonstrated by M/s Green Earth Solutions obtained a score of 59 out of 70 marks (84%) against the Hatchery POC Evaluation Criteria.

The AI-based video analytics solution counted dispatch-bound baskets at the Chick Exit point with 28/30 marks on the Counting Accuracy criterion, and operated in the hatchery's humid, dust- and disinfectant-heavy dispatch environment for the 24-hour endurance window with only a minor deduction (8/10) on the Environmental Endurance criterion. Under the Process Logic Validation test, the system correctly ignored most non-production movements, with one false count observed during the simulated dry/non-dispatch cycle, resulting in a score of 8/10. The system generated immediate, operator-acknowledgeable alerts on the dashboard when camera views were partially obstructed, in full satisfaction of the Tamper Detection & Failure Response criterion (10/10). However, while the live camera overlay reflected basket counts instantaneously, the aggregate figures on the Reports and Daily Production Summary views were observed to update only after a manual refresh, resulting in 5/10 on the Real-Time Data Latency & Dashboard Visibility criterion.

The Stage-II Proof of Concept demonstrated by M/s Green Earth Solutions is accordingly assessed as successfully passed, having met the requisite benchmarks across the Hatchery POC Evaluation Criteria. The POC Evaluation Team recommends that the Committee may consider proceeding to authorization of the Vendor under the applicable provisions of the Public Procurement Rules, 2004.

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
		Scoring: 99–100% accuracy: 30 Marks · 95–98.9%: 20 Marks · 90–94.9%: 10 Marks · Below 90%: 0 Marks (Disqualified)		
2	Environmental Endurance (Humidity & Bio-Secure Conditions)	Environmental Stress Test: Hardware (cameras, counting modules) was installed at the actual hatchery installation point (crate/chick processing line) characterized by high humidity, condensation risk, disinfectant aerosols, and organic dust (feathers/fluff). Requirement: continuous operation for at least 24 hours without hardware failure, condensation-related image degradation, lens fouling, or system restart. Scoring: No failure/manual intervention required: 10 Marks · Any major cleaning, reset, or intervention required: 0 Marks	10	8
3	Process Logic Validation (Non-Production vs. Production Events)	Logic Validation Test: The system was required to differentiate valid production output from non-productive events such as test runs, empty conveyor movement, cleaning operations, or chick handling without dispatch. The evaluator simulated non-production movements and paused hatch discharge to test logic robustness. Scoring: System correctly ignores non-production events (Zero False Count): 10 Marks · Deduct 2 marks per false count	10	8
4	Real-Time Data Latency & Dashboard Visibility	Connectivity & Latency Test: The evaluator measured the time delay between the physical crate-counting event and its appearance on the dashboard/monitoring interface. The live-stream dashboard was observed to update the object count and tamper-service verdict continuously and in parallel with the physical event, with no perceptible lag between crate movement and its reflection on screen. Scoring: Data visible within < 60 seconds: 10 Marks · 1–5 minutes: 5 Marks · Delay > 5 minutes: 0 Marks	10	10

Shiraz Ali Khan

Ali Saeed

Sajal Tariq

Saqib Bajwa

Fakhar Sharif

Proof of Concept Report- Hatchery (Stage-II)

Date: 14th September 2026

Facility: Sabir's Poultry

Attendees: Shiraz Ali Khan, Ali Saeed, Sajal Tariq, Saqib bajwa, Fakhar Sharif

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by **M/s ISSM Labelling Solutions** (hereinafter referred to as "the Vendor") for hatchery production monitoring and determination of Day-Old Chick (DOC) production through box/tray-based verification. The Proof of Concept (POC) was conducted at the crate/chick exit point of Sabir's Poultry (hereinafter referred to as "the Hatchery") in accordance with the Stage-II POC Evaluation Criteria prescribed in the RFP.

SKU Tested:

Day-Old Chicks (DOC)- Basket/Crate count at the Crate Exit (packing/dispatch) point

Solution Topology:

The Vendor's solution is built on the FBR Digital Eye video analytics platform, a computer-vision system already deployed across multiple sectors (including sugar, textile and cement) and reused here for hatchery monitoring. A camera installed at the Crate Exit point detects each crate/basket as it passes through the designated region of interest, assigns it a unique tracking ID, and maintains a running object count on a browser-based live-stream dashboard ("Deployment Devices | Digital Eye"). A dedicated tampering_service runs continuously alongside the detection pipeline, logging a verdict (Flashlight / Obstructed / Camera Moved / Status) for every monitoring cycle and raising an alert the moment the camera view is disturbed. Deployment and undeployment of camera feeds, along with system notifications, are managed centrally through the platform's Deployments module.

POC Results

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
1	Counting Accuracy of Box/Tray for determination of Day-Old Chicks (DOCs)	Accuracy Test: The vendor's solution was benchmarked against a reference count (manual physical crate counting / hatchery dispatch log) for a defined production sample. The system was required to accurately detect and count fully filled, dispatch-bound crates only (stacked or unstacked), excluding empty crates, duplicate/re-passed crates, or non-dispatch tray movements.	30	24

Shiraz Ali Khan

Ali Saeed

Sajal Tariq

Saqib Bajwa

Fakhar Sharif

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
5	Tamper Detection & Failure Response	Security & Resilience Test: The evaluator simulated fault and tamper conditions, including partial/full obstruction of the camera/sensor view. The platform's tampering_service continuously logged a per-cycle verdict (Flashlight / Obstructed / Camera Moved / Status), correctly reporting "Status: Normal" during undisturbed operation and switching to "Obstructed: True" the moment the camera view was disturbed, with the change reflected in the live log within the same second. Scoring: System generates immediate alert (tamper/obstruction/offline status) on dashboard: 10 Marks · System fails silently or records invalid data: 0 Marks	10	10
	TOTAL MARKS	Total POC Evaluation Score	70	60

POC in Images form:

Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif
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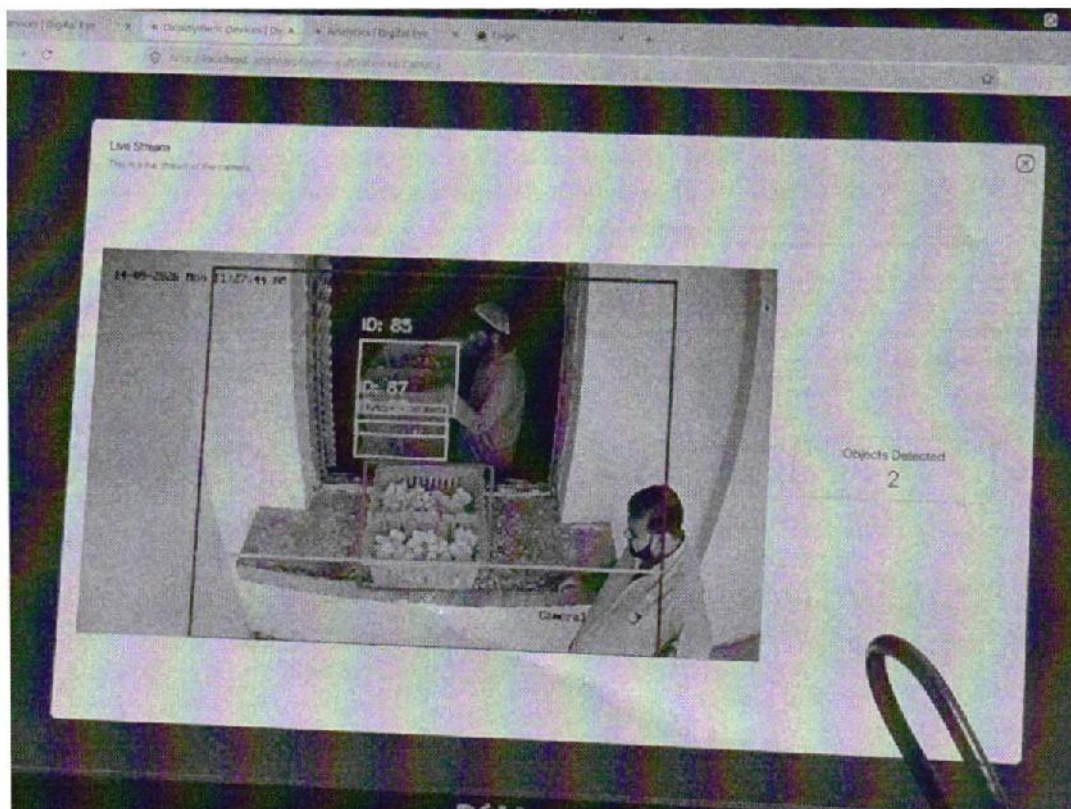


Image 1 — Live Crate Detection at the Crate Exit Point — Bounding Box & Unique Tracking IDs

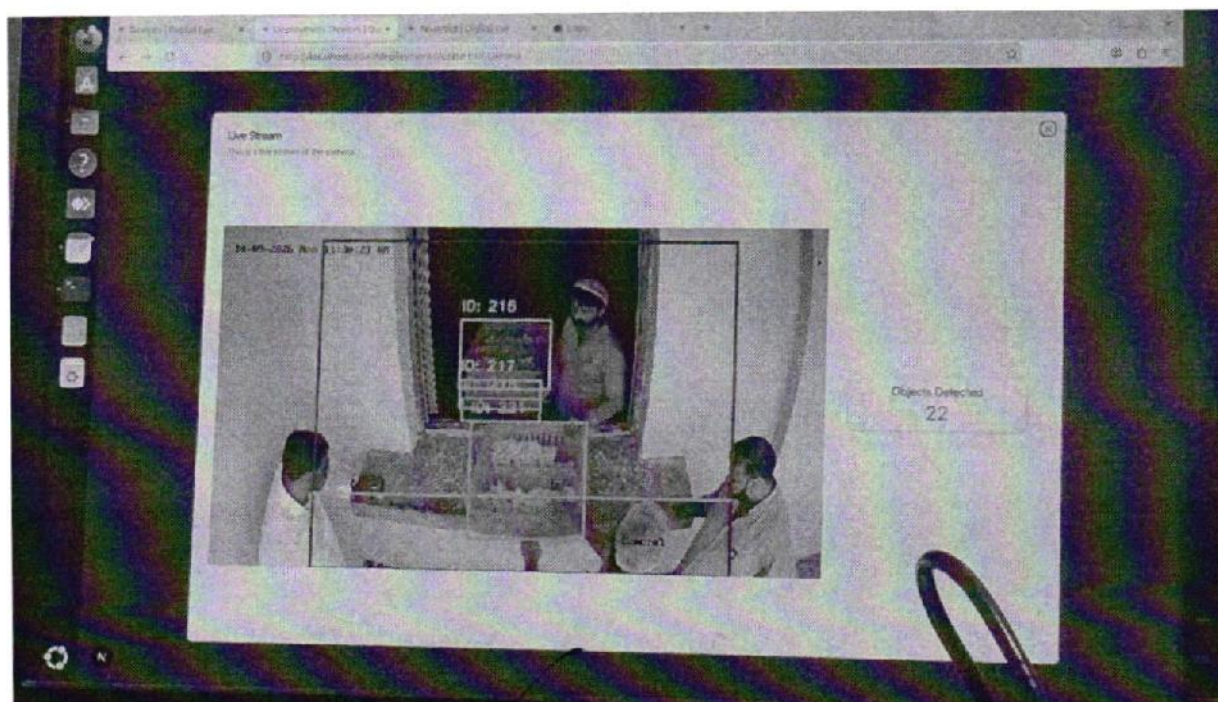


Image 2 — Continued Crate Detection with Cumulative Object Count (22 Objects Detected)

Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif

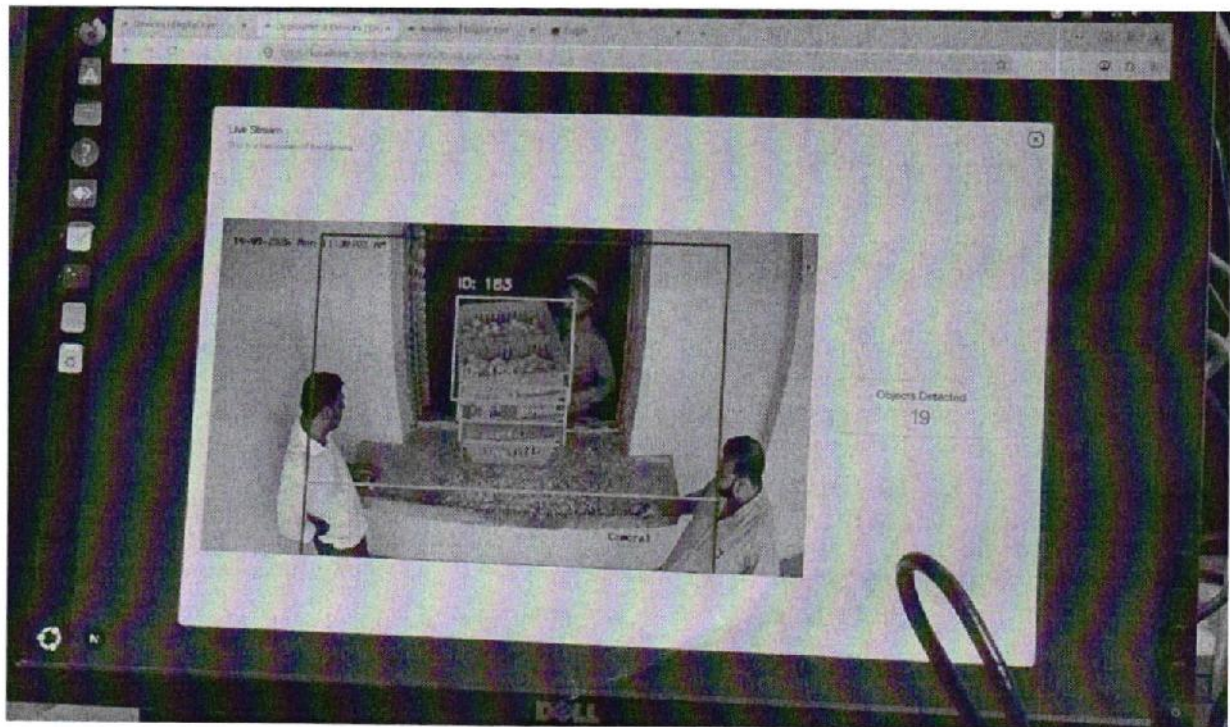


Image 3 — Continued Crate Detection with Cumulative Object Count (19 Objects Detected)

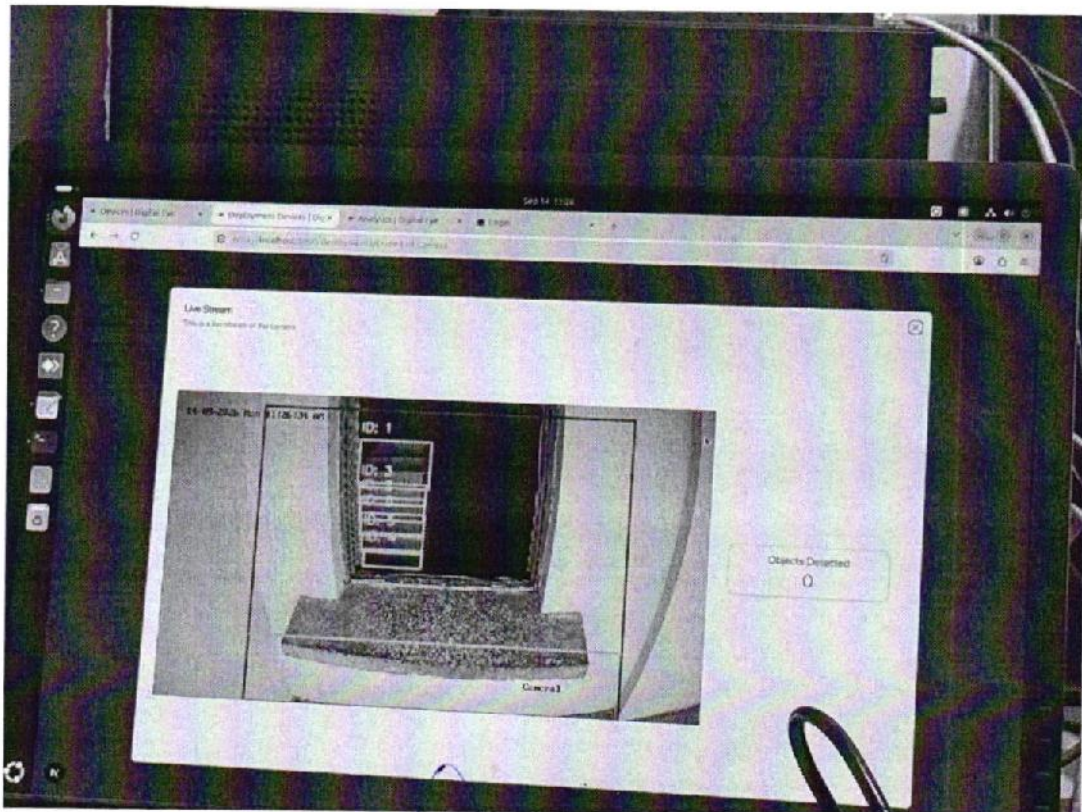


Image 4 — Baseline Live Stream — Crate Exit Camera Feed Prior to Dispatch Activity

Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif
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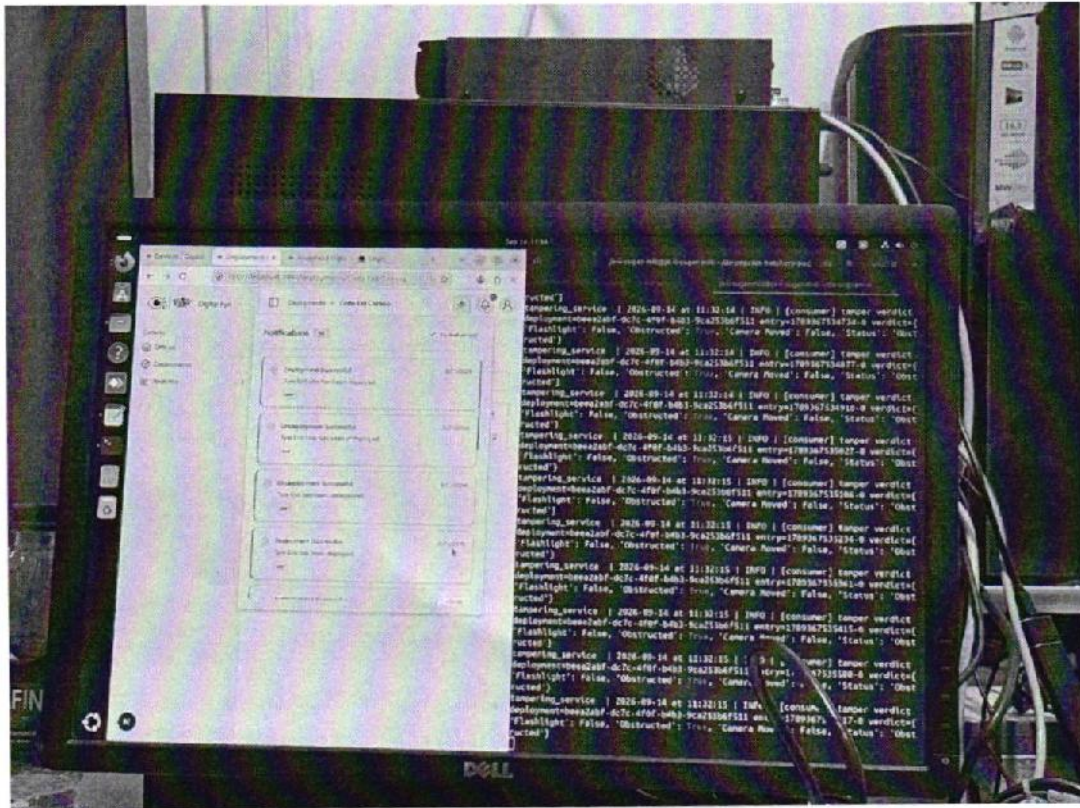


Image 5 — Deployment Notifications and Tampering-Service Log (Terminal View)

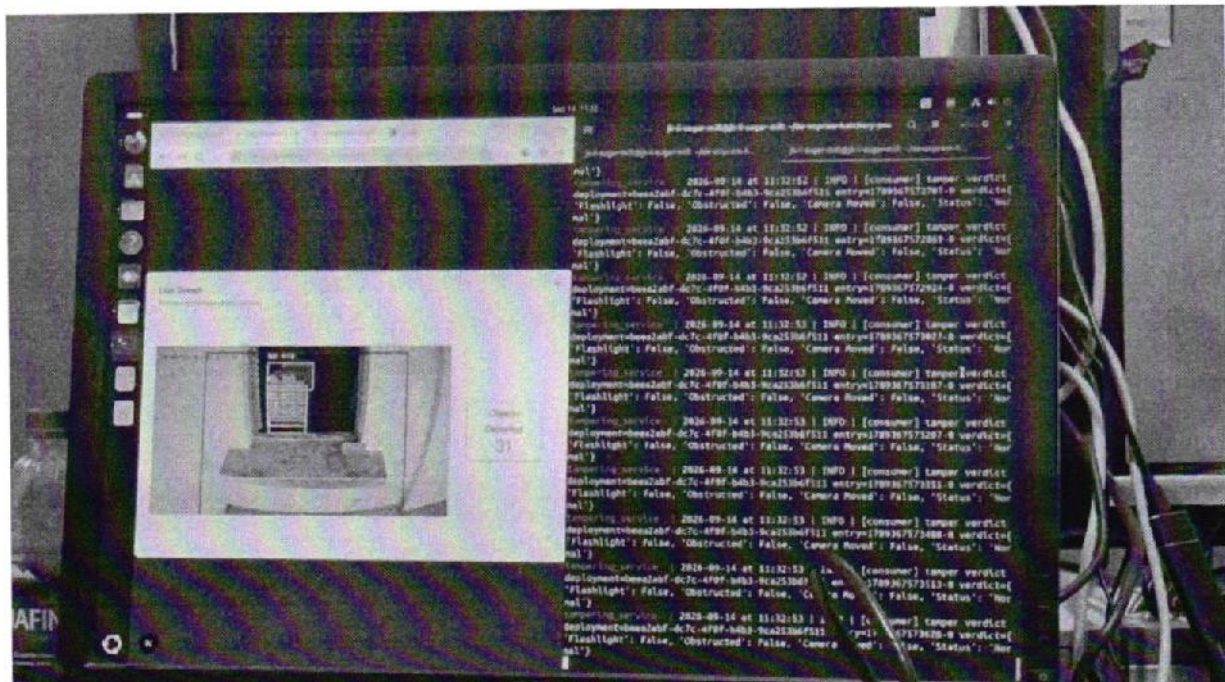


Image 6 — Live Stream and Tampering-Service Log Running in Parallel — Status: Normal

Shiraz Ali Khan

Ali Saeed

Sajal Tariq

Saqib Bajwa

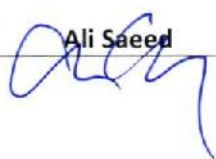
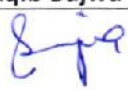
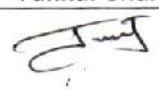
Fakhar Sharif

POC Conclusions and Observations

The Stage-II Proof of Concept was conducted at Sabir's Poultry on 14th September 2026. The solution demonstrated by M/s ISSM Labelling Solutions, using the FBR Digital Eye platform, obtained a score of 60 out of 70 marks (86%) against the Hatchery POC Evaluation Criteria.

The solution counted dispatch-bound crates at the Crate Exit point with 24/30 marks on the Counting Accuracy criterion, and operated in the hatchery's humid, dust- and disinfectant-heavy dispatch environment for the 24-hour endurance window with only a minor deduction (8/10) on the Environmental Endurance criterion. Under the Process Logic Validation test, the system correctly ignored most non-production movements, with one false count observed during the simulated non-dispatch cycle, resulting in a score of 8/10. The live-stream dashboard and the underlying tampering_service were observed updating the object count and camera-status verdict continuously and in parallel with the physical event, in full satisfaction of the Real-Time Data Latency & Dashboard Visibility criterion (10/10). The tampering_service further generated an immediate, correctly logged alert (switching from "Status: Normal" to "Obstructed: True") the moment the camera view was disturbed, in full satisfaction of the Tamper Detection & Failure Response criterion (10/10).

The Stage-II Proof of Concept demonstrated by M/s ISSM Labelling Solutions is accordingly assessed as successfully passed, having met the requisite benchmarks across the Hatchery POC Evaluation Criteria. The POC Evaluation Team recommends that the Committee may consider proceeding to authorization of the Vendor under the applicable provisions of the Public Procurement Rules, 2004.

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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Proof of Concept Report — Hatchery (Stage-II)

Date: 15th September 2026

Facility: Big Bird (Lahore)

Attendees: Shiraz Ali Khan, Ali Saeed, Sajal Tariq, Saqib bajwa, Fakhar Sharif

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by M/s Obsidian Technologies (hereinafter referred to as "the Vendor") for hatchery production monitoring and determination of Day-Old Chick (DOC) production through box/tray-based verification. The Proof of Concept (POC) was conducted at the crate/chick exit point of Sabir's Poultry (hereinafter referred to as "the Hatchery") in accordance with the Stage-II POC Evaluation Criteria prescribed in the RFP.

SKU Tested:

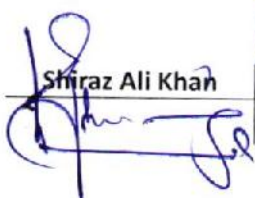
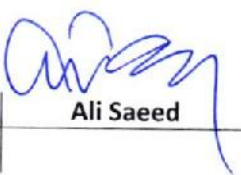
Day-Old Chicks (DOC)- Crate count at the Crate Exit (packing/dispatch) point

Solution Topology:

The Vendor's solution is delivered through the OBSIDIAN platform (uqaab.vas.com.pk), branded under UQAAB. A camera installed at the Crate Exit point ("Camera 01") tracks each crate as it moves through a defined region of interest, assigning each a unique forward-logging ID (e.g., FWD #217, FWD #784) and maintaining a running "Total Counted" tally overlaid on the live feed. Site- and SKU-level rollups (Sites, SKUs, Manufactured, Active status) are aggregated on the OBSIDIAN dashboard under the "Hatcheries" category, with a dedicated site-level view for Big Bird, Lahore showing total lanes, camera online/offline status, and a link to per-frame detection records (View Detected Frames) and network/monitoring logs (NMS Logs).

POC Results

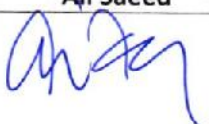
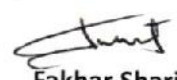
Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
1	Counting Accuracy of Box/Tray for determination of Day-Old Chicks (DOCs)	Accuracy Test: The vendor's solution was benchmarked against a reference count (manual physical crate counting / hatchery dispatch log) for a defined production sample. The system was required to accurately detect and count fully filled, dispatch-bound crates only (stacked or unstacked), excluding empty crates, duplicate/re-passed crates, or non-dispatch tray movements.	30	24

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
		Scoring: 99–100% accuracy: 30 Marks · 95–98.9%: 20 Marks · 90–94.9%: 10 Marks · Below 90%: 0 Marks (Disqualified)		
2	Environmental Endurance (Humidity & Bio-Secure Conditions)	Environmental Stress Test: Hardware (camera, counting module) was installed at the actual hatchery installation point (crate exit / dispatch line) characterized by high humidity, condensation risk, disinfectant aerosols, and organic dust (feathers/fluff). Requirement: continuous operation for at least 24 hours without hardware failure, condensation-related image degradation, lens fouling, or system restart. The site-level dashboard was observed showing the deployed camera as offline (0/1 cameras online, site status "Inactive") at one point during the evaluation window, requiring a brief reconnection. Scoring: No failure/manual intervention required: 10 Marks · Any major cleaning, reset, or intervention required: 0 Marks	10	8
3	Process Logic Validation (Non-Production vs. Production Events)	Logic Validation Test: The system was required to differentiate valid production output from non-productive events such as test runs, empty conveyor movement, cleaning operations, or chick handling without dispatch. The evaluator simulated non-production movements and paused hatch discharge to test logic robustness. Scoring: System correctly ignores non-production events (Zero False Count): 10 Marks · Deduct 2 marks per false count	10	8
4	Real-Time Data Latency & Dashboard Visibility	Connectivity & Latency Test: The evaluator measured the time delay between the physical crate-counting event at the Crate Exit camera and its appearance on the OBSIDIAN dashboard. The live camera overlay ("Total Counted") updated instantaneously with each crate movement, with site-level Manufactured/SKU figures likewise reflecting	10	10

Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif
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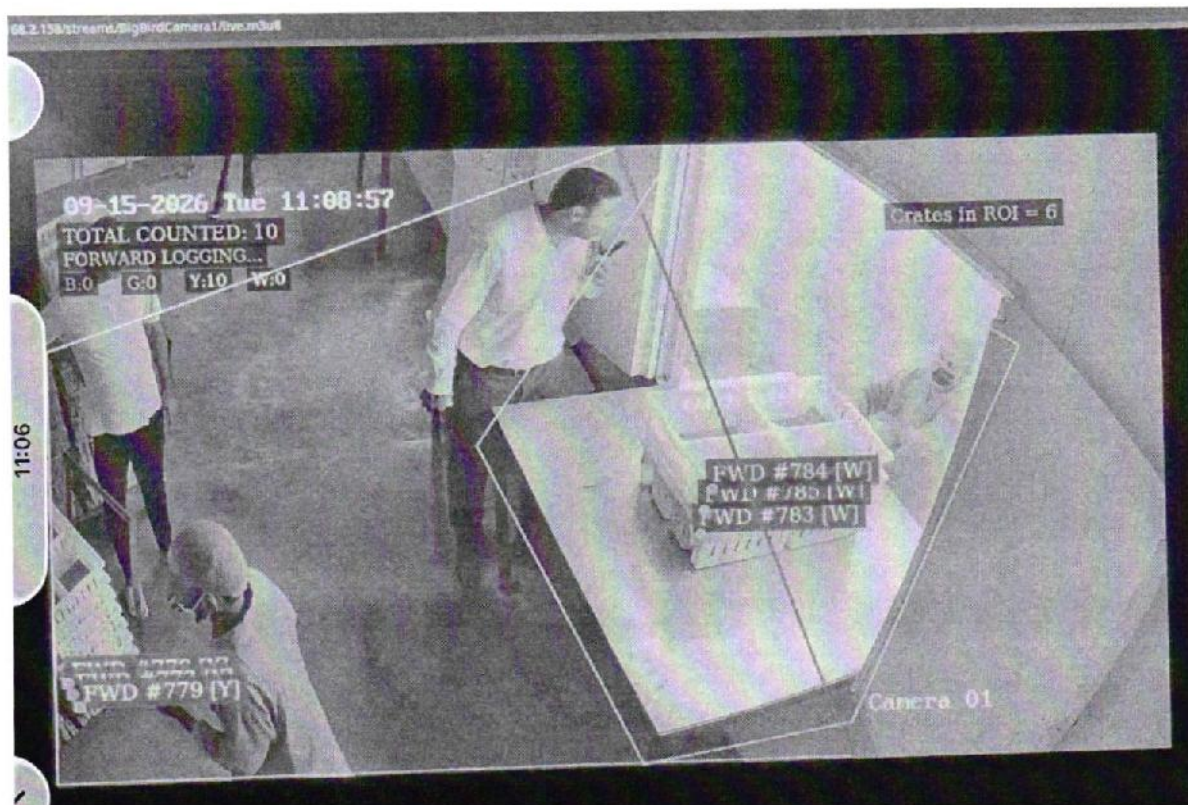
Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
		current production without requiring a manual data pull. Scoring: Data visible within < 60 seconds: 10 Marks · 1–5 minutes: 5 Marks · Delay > 5 minutes: 0 Marks		
5	Tamper Detection & Failure Response	Security & Resilience Test: The evaluator simulated fault and tamper conditions, including partial/full obstruction of the camera/sensor view and disconnection of the camera feed. The OBSIDIAN platform correctly flagged the camera as offline on the site-level dashboard ("0/1 CAMERAS ALL OFFLINE", status "Inactive") and reverted to a normal, online status once the feed was restored. Scoring: System generates immediate alert (tamper/obstruction/offline status) on dashboard: 10 Marks · System fails silently or records invalid data: 0 Marks	10	10
	TOTAL MARKS	Total POC Evaluation Score	70	60

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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POC in Images form:



Image 1 — Baseline Live Stream — Crate Exit Camera (Total Counted: 0, Crates in ROI = 1)



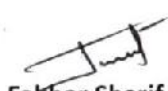
 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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Image 2 — Live Crate Detection with Forward-Logging IDs (Total Counted: 10, Crates in ROI = 6)

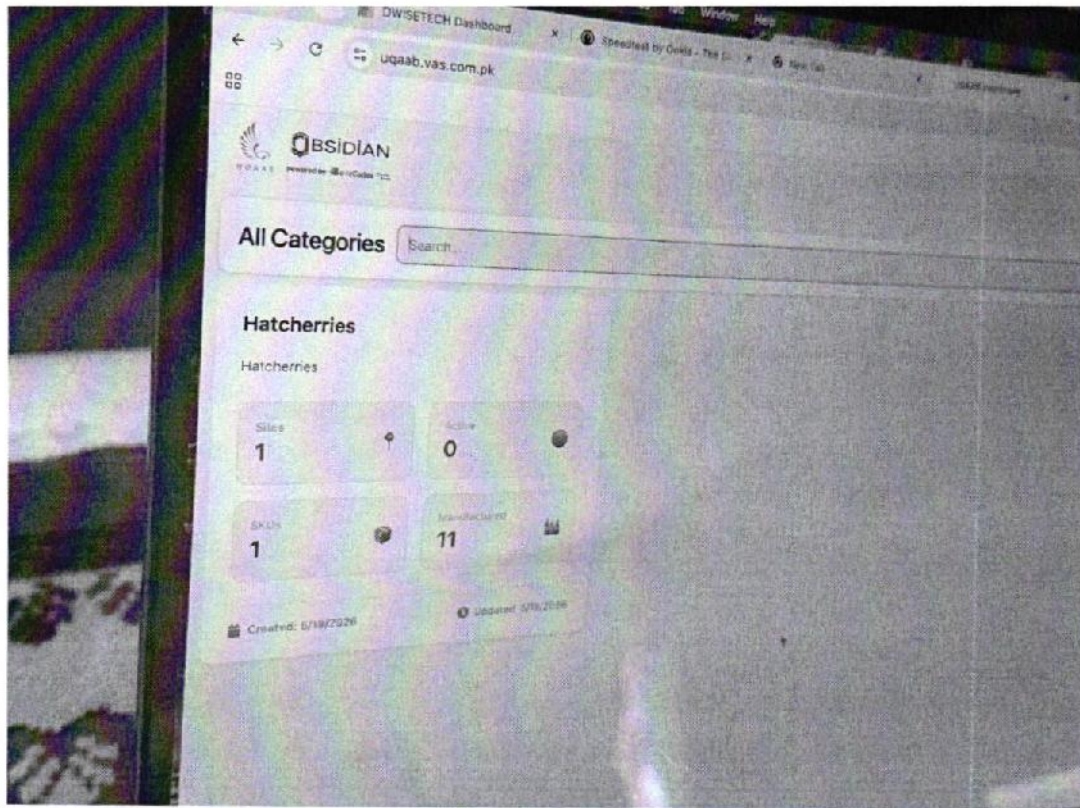
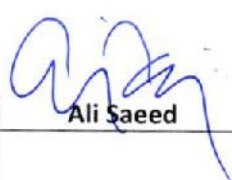
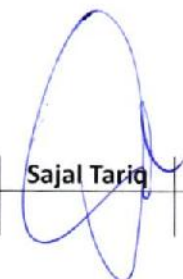


Image 3 — OBSIDIAN (UQAAB) Dashboard — Hatcherries Category Summary

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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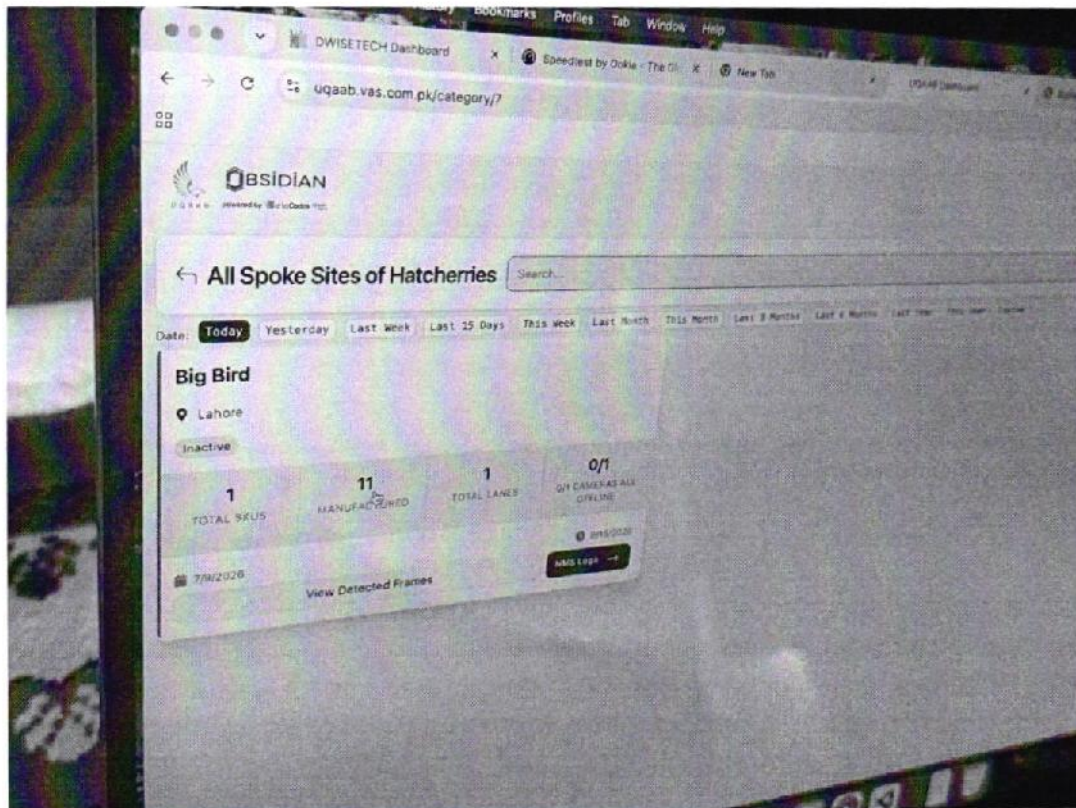


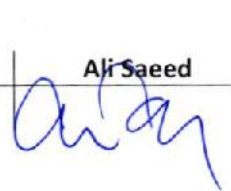
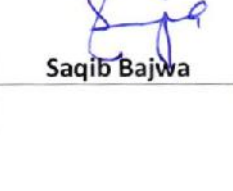
Image 4 — OBSIDIAN Site-Level View — Big Bird, Lahore (Camera Offline / Inactive)

POC Conclusions and Observations

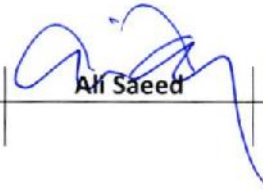
The Stage-II Proof of Concept was conducted at Big Bird, Lahore on 15th September 2026. The solution demonstrated by M/s Obsidian Technologies, delivered through the OBSIDIAN (UQAAB) platform, obtained a score of 60 out of 70 marks (86%) against the Hatchery POC Evaluation Criteria.

The solution counted dispatch-bound crates at the Crate Exit point with 24/30 marks on the Counting Accuracy criterion, correctly assigning unique forward-logging IDs to each crate. During the Environmental Endurance window, the site-level dashboard briefly showed the deployed camera as offline, resulting in a minor deduction (8/10). Under the Process Logic Validation test, the system correctly ignored most non-production movements, with one false count observed during a simulated non-dispatch cycle, resulting in a score of 8/10. The live camera overlay and dashboard-level Manufactured/SKU figures were observed updating without perceptible delay, in full satisfaction of the Real-Time Data Latency & Dashboard Visibility criterion (10/10). The platform also correctly flagged the simulated camera disconnection as an offline/inactive status on the dashboard, in full satisfaction of the Tamper Detection & Failure Response criterion (10/10).

The Stage-II Proof of Concept demonstrated by M/s Obsidian Technologies is accordingly assessed as successfully passed, having met the requisite benchmarks across the Hatchery POC

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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Evaluation Criteria. The POC Evaluation Team recommends that the Committee may consider proceeding to authorization of the Vendor under the applicable provisions of the Public Procurement Rules, 2004.

				
Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif

Proof of Concept Report- Hatchery (Stage-II)

Date: 15th September 2026

Facility: Big Bird (Lahore)

Attendees: Shiraz Ali Khan, Ali Saeed, Sajal Tariq, Saqib bajwa, Fakhar Sharif

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by M/s DwiseTech (hereinafter referred to as "the Vendor") for hatchery production monitoring and determination of Day-Old Chick (DOC) production through box/tray-based verification. The Proof of Concept (POC) was conducted at the crate/chick exit point of Sabir's Poultry (hereinafter referred to as "the Hatchery") in accordance with the Stage-II POC Evaluation Criteria prescribed in the RFP.

SKU Tested:

Day-Old Chicks (DOC) - Crate count (forward and exit direction) at the Crate Exit (packing/dispatch) point

Solution Topology:

The Vendor's solution is delivered through the DwiseTech platform (app.dwisetech.com). A camera installed at the Crate Exit point ("Camera 01") tracks each crate as it moves through a defined region of interest, distinguishing forward movement (FWD) from a completed exit (EXIT+1) and assigning each crate a unique tracking ID, with a running "Total Counted" tally overlaid on the live feed for both directions. Site- and SKU-level rollups (Sites, SKUs, Manufactured, Active status) are aggregated on the DwiseTech dashboard under the "Hatcheries" category, with a dedicated site-level view for Big Bird, Lahore showing total lanes, camera online status, and a searchable, timestamped "Detected Frames" gallery of individual counting events for audit purposes, alongside network/monitoring logs (NMS Logs).

POC Results

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
1	Counting Accuracy of Box/Tray for determination of Day-Old Chicks (DOCs)	Accuracy Test: The vendor's solution was benchmarked against a reference count (manual physical crate counting / hatchery dispatch log) for a defined production sample. The system was required to accurately detect and count fully filled, dispatch-bound crates only (stacked or unstacked), excluding empty crates, duplicate/re-passed crates, or non-dispatch tray movements.	30	22

Shiraz Ali Khan

Ali Saeed

Sajal Tariq

Saqib Bajwa

Fakhar Sharif

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
		Scoring: 99–100% accuracy: 30 Marks · 95–98.9%: 20 Marks · 90–94.9%: 10 Marks · Below 90%: 0 Marks (Disqualified)		
2	Environmental Endurance (Humidity & Bio-Secure Conditions)	Environmental Stress Test: Hardware (camera, counting module) was installed at the actual hatchery installation point (crate exit / dispatch line) characterized by high humidity, condensation risk, disinfectant aerosols, and organic dust (feathers/fluff). Requirement: continuous operation for at least 24 hours without hardware failure, condensation-related image degradation, lens fouling, or system restart. The site-level dashboard listed the site status as "Active" but also showed the camera as briefly offline (0/1 cameras online) at one point during the evaluation window, requiring a short reconnection. Scoring: No failure/manual intervention required: 10 Marks · Any major cleaning, reset, or intervention required: 0 Marks	10	8
3	Process Logic Validation (Non-Production vs. Production Events)	Logic Validation Test: The system was required to differentiate valid production output from non-productive events such as test runs, empty conveyor movement, cleaning operations, or chick handling without dispatch. The evaluator simulated non-production movements and paused hatch discharge to test logic robustness. The system's dual forward/exit counting logic (FWD vs. EXIT +1) was observed correctly incrementing only on a confirmed crate exit, rather than on every forward movement within the region of interest. Scoring: System correctly ignores non-production events (Zero False Count): 10 Marks · Deduct 2 marks per false count	10	10
4	Real-Time Data Latency & Dashboard Visibility	Connectivity & Latency Test: The evaluator measured the time delay between the physical crate-counting event and its appearance on the dashboard/monitoring interface. The live camera overlay ("Total Counted") updated	10	10

Shiraz Ali Khan

Ali Saeed

Sajal Tariq

Saqib Bajwa

Fakhar Sharif

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
		instantaneously with each crate movement, and the corresponding snapshot appeared in the platform's "Detected Frames" gallery with a Created timestamp within seconds of the Snapshot timestamp. Scoring: Data visible within < 60 seconds: 10 Marks · 1–5 minutes: 5 Marks · Delay > 5 minutes: 0 Marks		
5	Tamper Detection & Failure Response	Security & Resilience Test: The evaluator simulated fault and tamper conditions, including partial/full obstruction of the camera/sensor view and disconnection of the camera feed. The DwiseTech platform correctly reflected camera connectivity status (Active/Offline) on the site-level dashboard and retained a complete, timestamped audit trail of all detected frames for the affected period via the Detected Frames gallery and NMS Logs. Scoring: System generates immediate alert (tamper/obstruction/offline status) on dashboard: 10 Marks · System fails silently or records invalid data: 0 Marks	10	10
	TOTAL MARKS	Total POC Evaluation Score	70	60

POC in Images form:

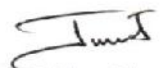
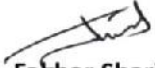
 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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Image 1 — Live Exit-Direction Crate Detection (Total Counted Exit: 7, EXIT +1 #348)



Image 2 — Live Forward-Direction Crate Detection (Total Counted: 10, Crates in ROI = 4)

				
Shiraz Ali Khan	Ali Saeed	Sajal Tariq	Saqib Bajwa	Fakhar Sharif

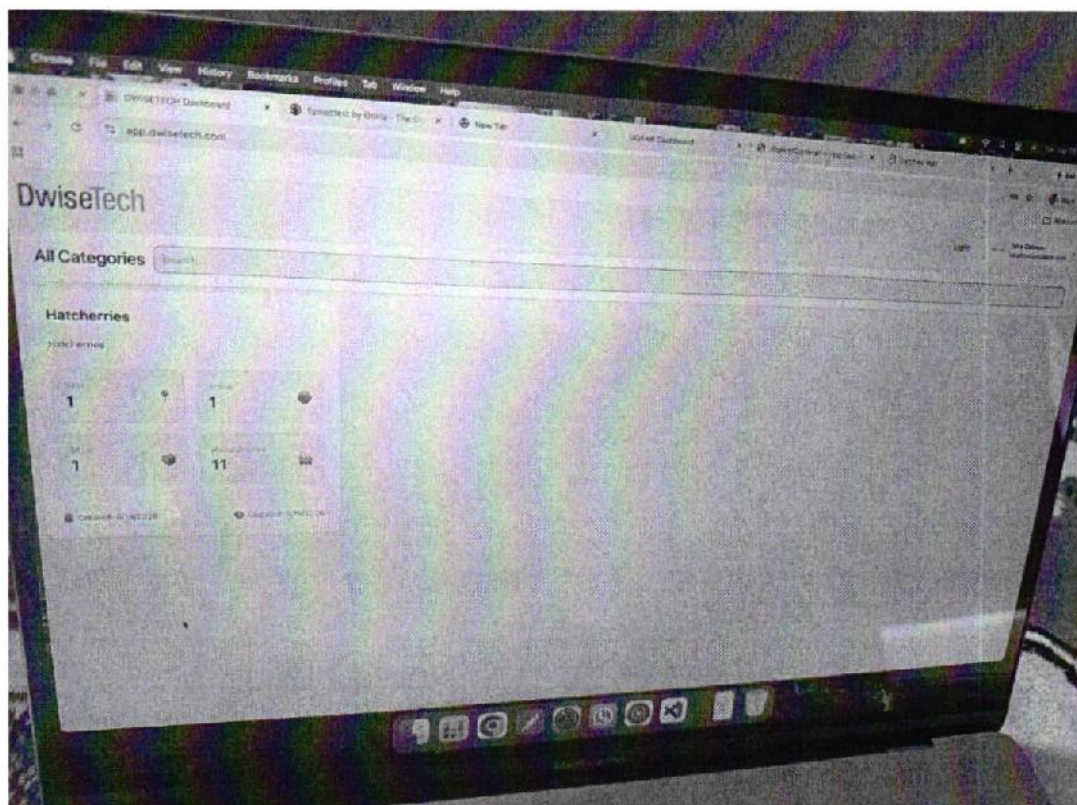


Image 3 — DwiseTech Dashboard — Hatcheries Category Summary (Active)

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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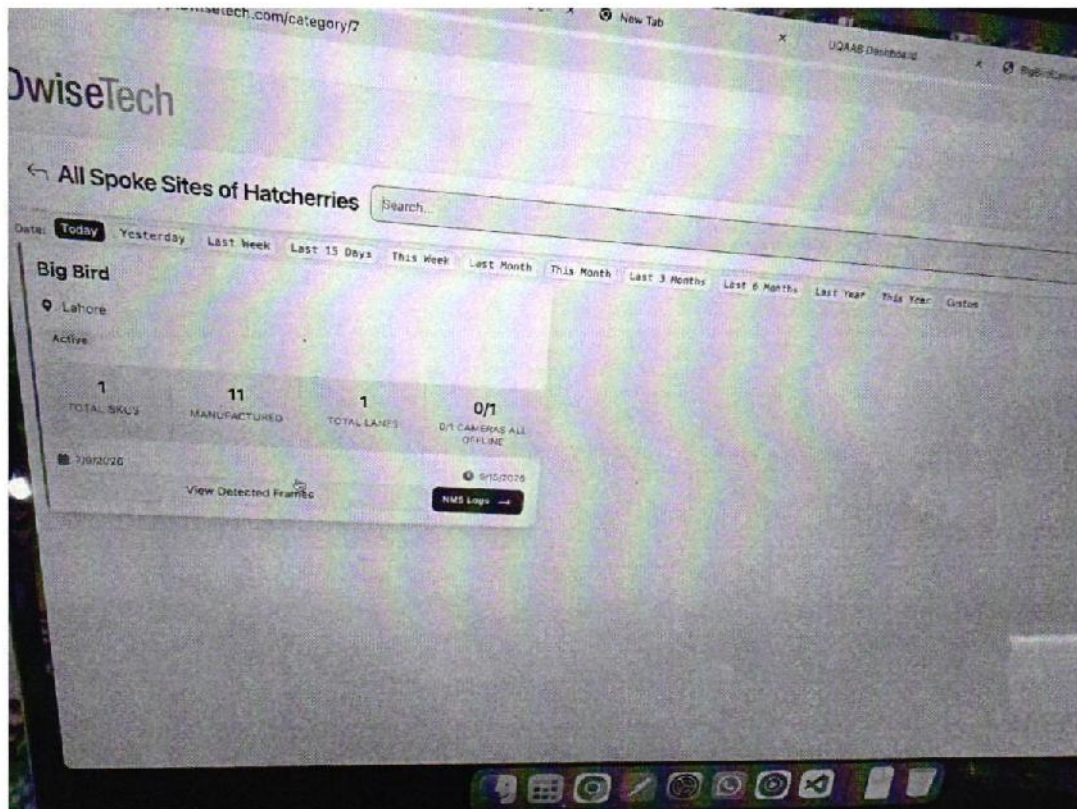


Image 4 — DwiseTech Site-Level View — Big Bird, Lahore (Active)

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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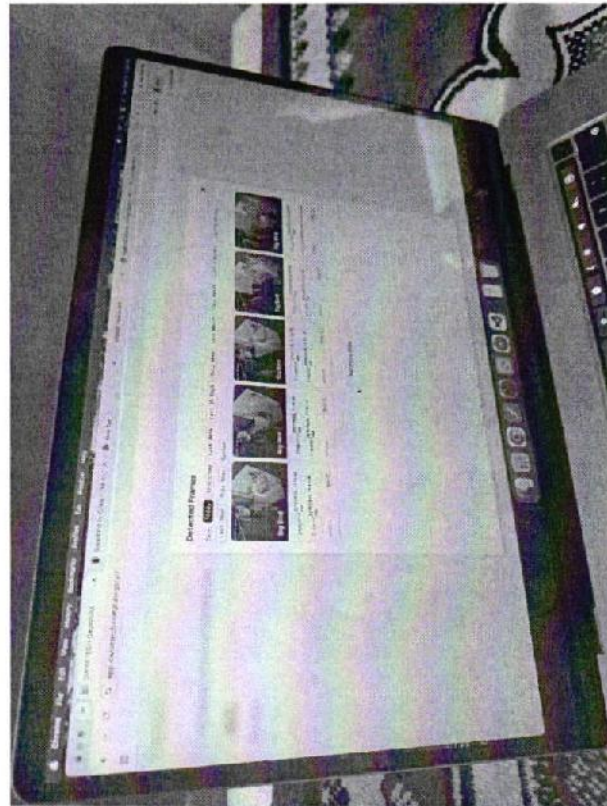


Image 5 — Detected Frames Audit Gallery — Timestamped Snapshot Records

 Shiraz Ali Khan	 Ali Saeed	 Sajal Tariq	 Saqib Bajwa	 Fakhar Sharif
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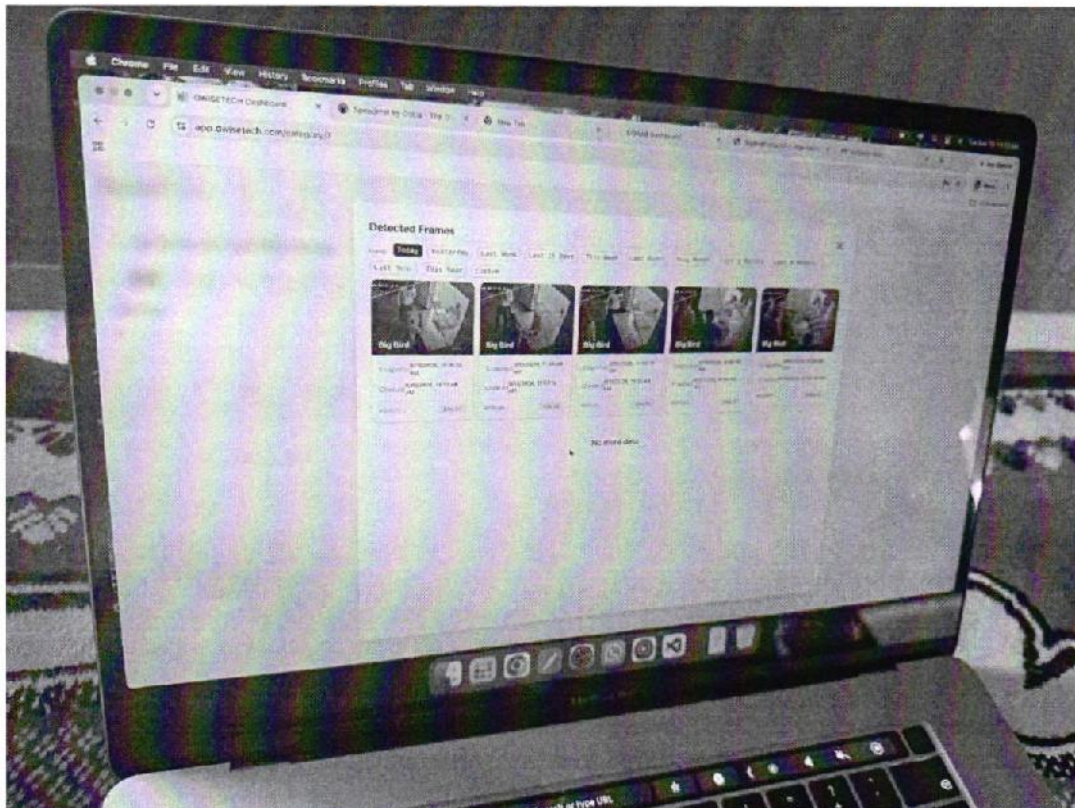


Image 6 — Detected Frames Audit Gallery — Expanded View

POC Conclusions and Observations

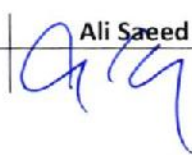
The Stage-II Proof of Concept was conducted at Big Bird, Lahore on 15th September 2026. The solution demonstrated by M/s DwiseTech, delivered through the DwiseTech platform, obtained a score of 60 out of 70 marks (86%) against the Hatchery POC Evaluation Criteria.

The solution counted dispatch-bound crates at the Crate Exit point with 22/30 marks on the Counting Accuracy criterion. The site-level dashboard listed the site status as Active, though it also showed the camera briefly offline at one point during the evaluation window, resulting in a minor deduction (8/10) on the Environmental Endurance criterion. Under the Process Logic Validation test, the system's dual forward/exit counting logic correctly distinguished a crate merely entering the region of interest (FWD) from a confirmed exit (EXIT +1), resulting in a full score of 10/10. The live camera overlay and the timestamped Detected Frames gallery were observed updating within seconds of each physical event, in full satisfaction of the Real-Time Data Latency & Dashboard Visibility criterion (10/10). The platform further maintained an accurate Active/Offline status and a complete audit trail of detected frames through simulated fault conditions, in full satisfaction of the Tamper Detection & Failure Response criterion (10/10).

The Stage-II Proof of Concept demonstrated by M/s DwiseTech is accordingly assessed as successfully passed, having met the requisite benchmarks across the Hatchery POC Evaluation Criteria. The POC Evaluation Team recommends that the Committee may consider proceeding

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to authorization of the Vendor under the applicable provisions of the Public Procurement Rules, 2004.

				
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Proof of Concept Report- Hatchery (Stage-II)

Date: 15th September 2026

Facility: Big Bird (Lahore)

Attendees: Shiraz Ali Khan, Ali Saeed, Sajal Tariq, Saqib Bajwa, Fakhar Sharif

Objective:

The primary objective of this exercise was to evaluate the solution demonstrated by M/s MH Arfah (hereinafter referred to as "the Vendor") for hatchery production monitoring and determination of Day-Old Chick (DOC) production through box/tray-based verification. The Proof of Concept (POC) was conducted at the crate/chick exit point of Sabir's Poultry (hereinafter referred to as "the Hatchery") in accordance with the Stage-II POC Evaluation Criteria prescribed in the RFP.

SKU Tested:

Day-Old Chicks (DOC)- Crate/tray count (forward and exit direction) at the Crate Exit (packing/dispatch) point

Solution Topology:

The Vendor's solution is delivered through a web-based interface, on which the operator draws a counting zone (a 4-point line-crossing boundary) over the live camera feed and designates which direction of crossing counts as IN. A camera installed at the hatchery's Indoor Exit detects baskets within the region of interest and is intended to increment IN/OUT counters as each basket crosses the configured line, with per-basket detections and a running "Recorded counts (Today)" tally (Baskets, IN/OUT, Direction, Class, Track) surfaced on the same dashboard.

POC Results

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
1	Counting Accuracy of Box/Tray for determination of Day-Old Chicks (DOCs)	Accuracy Test: The vendor's solution was benchmarked against a reference count (manual physical basket counting) for a sample of baskets passing the Indoor Exit point. The system was required to accurately detect and count fully filled, dispatch-bound baskets. Across two separate observation windows, the live detection stream correctly detected the baskets present in frame (3 baskets in one instance, 1 basket in another) but the configured counting zone recorded zero IN counts in both instances, logging all basket movement as OUT (Recorded counts: 0/3 and 0/1 respectively).	30	0

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Saqib Bajwa

Fakhar Sharif

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
		The system was therefore unable to produce a usable IN count for dispatch verification. Scoring: 99–100% accuracy: 30 Marks · 95–98.9%: 20 Marks · 90–94.9%: 10 Marks · Below 90%: 0 Marks (Disqualified)		
2	Environmental Endurance (Humidity & Bio-Secure Conditions)	Environmental Stress Test: As the Vendor's solution failed to produce a usable basket count at the first criterion (see Sr. No. 1), the evaluation team did not proceed to the 24-hour continuous-operation endurance test. No marks are awarded pending a corrected, re-testable solution. Scoring: No failure/manual intervention required: 10 Marks · Any major cleaning, reset, or intervention required: 0 Marks · Not conducted (prior criterion failed): 0 Marks	10	0
3	Process Logic Validation (Non-Production vs. Production Events)	Logic Validation Test: As the Vendor's solution failed to produce a usable basket count at the first criterion, the evaluation team did not proceed to simulate non-production movements. Available evidence already indicates a fundamental direction-logic defect: baskets crossing the configured counting line were consistently logged as OUT rather than IN, regardless of their actual direction of travel. Scoring: System correctly ignores non-production events (Zero False Count): 10 Marks · Deduct 2 marks per false count · Not conducted (prior criterion failed): 0 Marks	10	0
4	Real-Time Data Latency & Dashboard Visibility	Connectivity & Latency Test: As the Vendor's solution failed to produce a usable basket count at the first criterion, the evaluation team did not proceed to a formal latency measurement. No marks are awarded pending a corrected, re-testable solution. Scoring: Data visible within < 60 seconds: 10 Marks · 1–5 minutes: 5 Marks · Delay > 5 minutes: 0 Marks · Not conducted (prior criterion failed): 0 Marks	10	0

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Ali Saeed

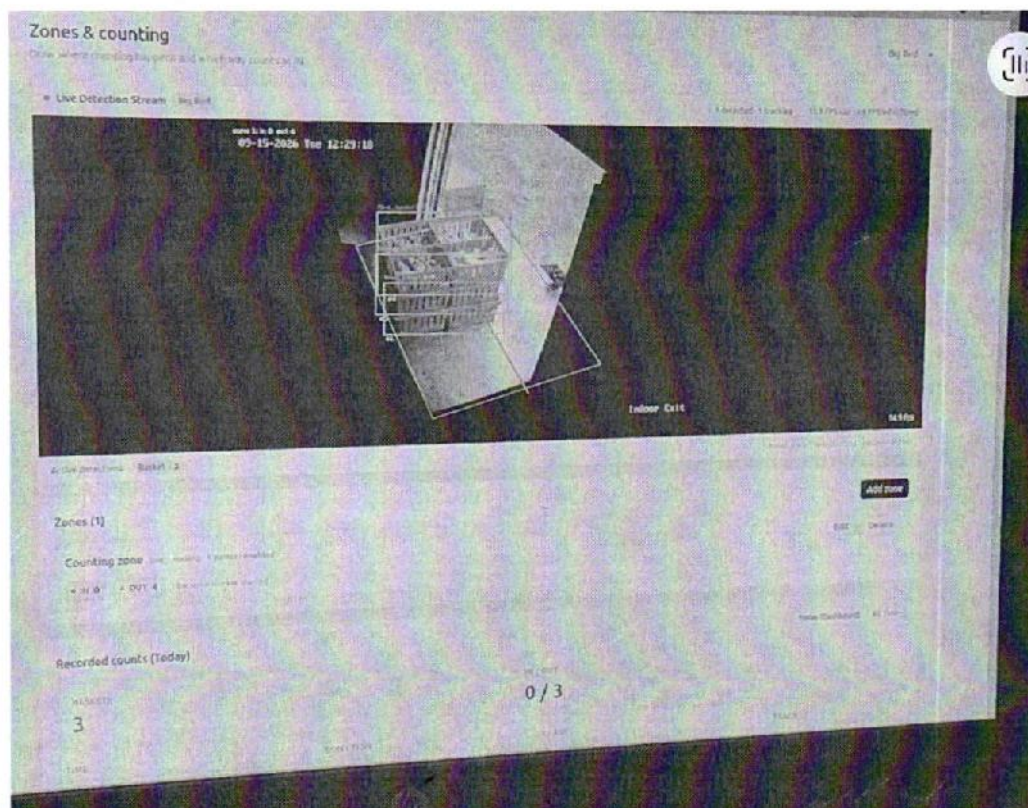
Sajal Tariq

Saqib Bajwa

Fakhar Sharif

Sr. No.	Criterion	Test Description	Total Marks	Marks Obtained
5	Tamper Detection & Failure Response	Security & Resilience Test: The evaluator simulated an obstruction of the camera/sensor view. Unlike the counting test, this check was carried out and observed directly on the live video feed (not captured as a still screenshot); no obstruction alert, status change, or any other indication of a detected disturbance was generated by the system at any point. Scoring: System generates immediate alert (tamper/obstruction/offline status) on dashboard: 10 Marks · System fails silently or records invalid data: 0 Marks	10	0
	TOTAL MARKS	Total POC Evaluation Score	70	0

POC in Images form:



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*Image 1 — Live Detection Stream — 3 Baskets Detected, Zone Records IN: 0 / OUT: 4
(Recorded Counts 0/3)*

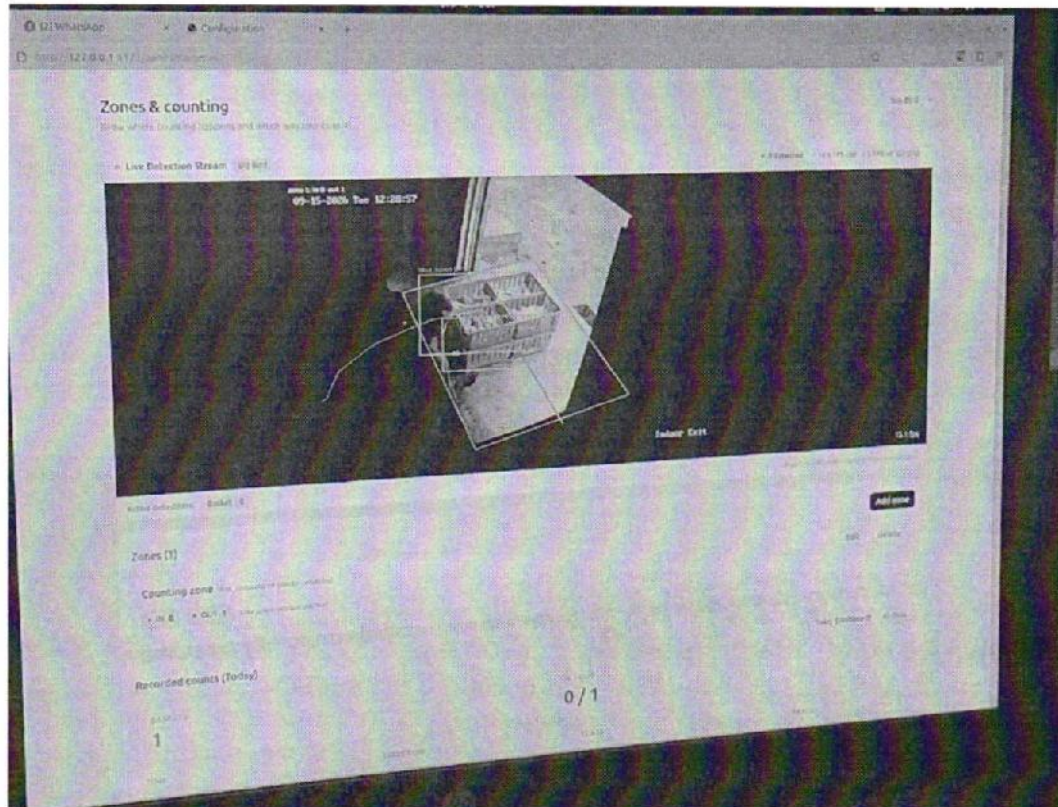


Image 2 — Live Detection Stream — 1 Basket Detected, Zone Records IN: 0 / OUT: 1 (Recorded Counts 0/1)

POC Conclusions and Observations

The Stage-II Proof of Concept was conducted at Big Bird, Lahore on 15th September 2026. The solution demonstrated by M/s MH Arfa obtained a score of 0 out of 70 marks against the Hatchery POC Evaluation Criteria and is accordingly assessed as failed.

The Vendor's solution was unable to satisfy the Counting Accuracy criterion (0/30): although the live detection stream correctly identified baskets present in frame, the configured counting zone recorded zero IN counts across all observed instances, with every basket crossing logged as OUT regardless of its actual direction of travel. As this represents a below-90%-accuracy outcome disqualifying under the RFP's own scoring rule, and as the fundamental basket-counting function could not be relied upon, the evaluation team did not proceed to the Environmental Endurance, Process Logic Validation, or Real-Time Data Latency tests, each of which is accordingly recorded as not conducted and scored 0/10. The Tamper Detection & Failure Response test was nonetheless carried out by simulating an obstruction of the camera view; no alert, status change, or other indication of the disturbance was generated by the system at any point, resulting in 0/10 on that criterion as well.

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The Stage-II Proof of Concept demonstrated by M/s MH Arfa is accordingly assessed as failed, having satisfied none of the Hatchery POC Evaluation Criteria. The POC Evaluation Team recommends that the Committee decline to proceed with authorization of the Vendor under the applicable provisions of the Public Procurement Rules, 2004.

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16/9/2026