



Workshop / Training in TRAI on “Audit of Digital Addressable Systems”

Broadcaster’s perspective

06-Aug-25



Objective

To facilitate comprehensive knowledge sharing and capacity building through the TRAI-organized workshop on “Audit of Digital Addressable Systems,” aimed at all empaneled auditors. The workshop provides a platform for expert insights, including a dedicated presentation on “DAS Audits – Broadcaster’s Perspective” by IBDF experts, fostering enhanced audit effectiveness and stakeholder collaboration in the evolving DAS ecosystem.





Key observations/ findings

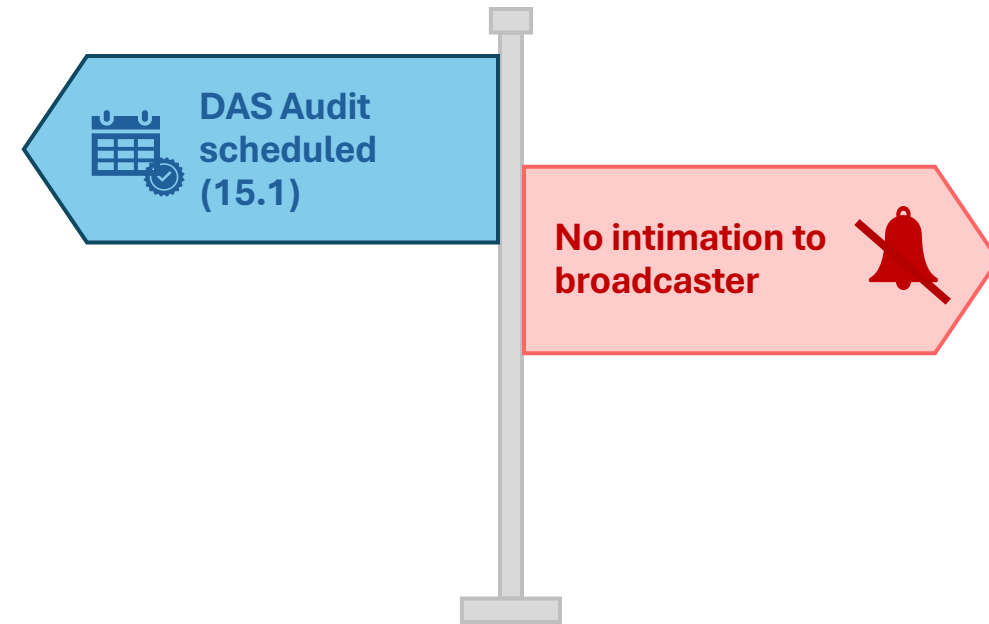
Issues identified by Broadcasters in DAS
Audit exercise and reporting



Lack of Prior intimation Before DAS Audits

DAS audits are conducted without prior intimation to the broadcaster, leading to coordination and transparency gaps

- Absence of advance notification creates challenges in stakeholder coordination and readiness for the necessary information sharing.
- Ambiguity over complete walkthrough of All Headend locations with system verifications.
- Discrepant Audit Reports.
- Inconclusive Audit Reports marked as compliant.
- Ground sample inadequacies



Excessive Delay in Audit Report Submission

Audit reports are taking too long to be submitted after audit completion, causing bottlenecks in resolution and compliance actions.

Significant delays between completion of audit and report delivery disrupt operational planning and regulatory compliance.



Actual
average
submission

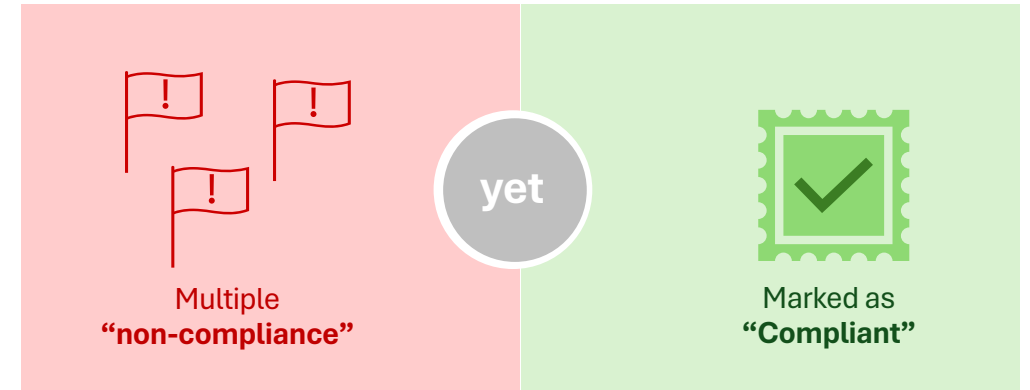
Expected
submission
deadline



Inaccurate Compliance Status Despite Non-Compliances

Even when multiple non-compliances are found, final audit reports sometimes state **“Compliant,”** which undermines the integrity of audits.

Audit findings are not aligned with the evidence of non-compliances—potential regulatory and operational risks



Import information is missing across the DAS audit reports

- As per the audit manual (pages 84–86), subscriber counts for all pay channels are required to be extracted in the prescribed format for a minimum of 12 weeks within a calendar year.
- This vital information is missing across the DAS audit reports.

Subscriber Count of Channel 1

As on XX.XX.XXXX (any of the randomly picked date from MSR)

Count as on XX.XX.XXXX	Count of VC/ STB									
	As per CAS 1	As per CAS 2	-----	As per CAS N	As per SMS	Present in SMS not in CAS 1	Present in SMS not in CAS 2	----- -	Present in SMS not in CAS N	Present in CAS not in SMS
A-la-carte Subscriptions										
Broadcaster's Package 1 Subscriptions										
Broadcaster's Package 2 Subscriptions										

Broadcaster's Package N Subscriptions										
DPO's Package 1 Subscriptions										
DPO's Package 2 Subscriptions										

[

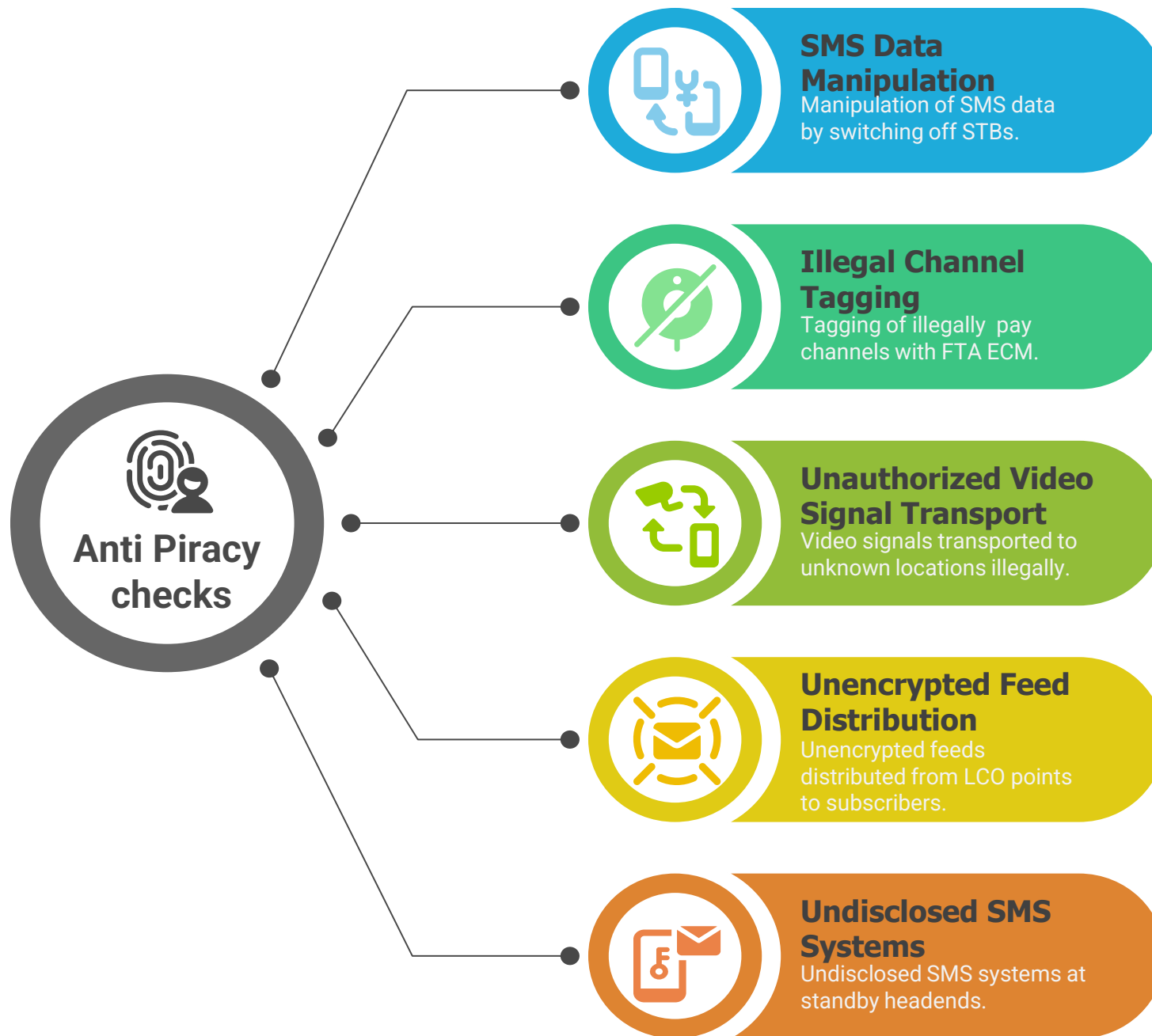
Section will cover reports for at least 12 weeks i.e. 12 dates for all the PAY Channels

]

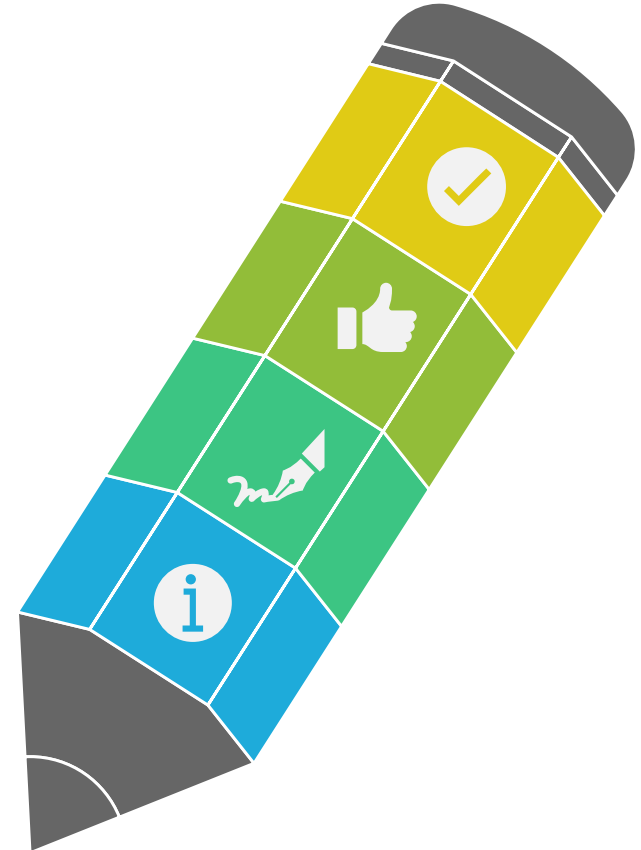
Other Key concerns in DAS Audit data and Process integrity

- On-site physical inspections and system verifications at Sub headends are not consistently performed.
- Some auditors extract data before conducting simulation tests, compromising accuracy.
- Data queries run on CAS & SMS systems often lack validation by auditors.
- Compliance testing is incomplete, excluding certain STB models.
- Historical data extraction is delegated to CAS/SMS vendors without proper oversight or validation.
- CAS and SMS reconciliations are limited to aggregate numbers only, lacking detailed verification.
- Availability of unedited CAS and SMS data for the past two years is often not verified; certifications rely solely on vendor declarations.
- Discrepancies between CAS/SMS reports provided to broadcasters and actual audit findings go unreported.
- Some auditors fail to provide monthly SMS reports detailing state-wise active and de-active STB counts during the audit period.





Recommendations



Key Recommendations for Comprehensive DAS Audit Compliance

- ✓ Conduct thorough, documented walk-throughs and technical validations at all main and sub head-ends
- ✓ Joint & simultaneous audits of main & sub-Head-ends
- ✓ Mandate submission of package composition details for the entire audit period.
- ✓ Ensure at least one week from every month is included when selecting the 20% sample weeks for the full audit period (Jan–Dec).
- ✓ Compare ground sample entitlements with system entitlements as of the recording and audit dates, provide findings
- ✓ Provide documentary evidence to substantiate compliance with Schedule III & IX / X requirements.
- ✓ Capture TS recordings at each headend and in the field for every DPO location.
- ✓ Maintain and present block schematic diagrams of all headends—including CAS and SMS systems—clearly indicating locations and showing integration mechanisms authorized by CAS/SMS vendors.
- ✓ Collect and furnish all certificates, screenshots etc. required as prescribed in the audit manual.
- ✓ Facilitate auditor support to DPOs for timely resolution of broadcasters' queries.
- ✓ Simultaneously issue audit reports to DPOs and broadcasters upon completion.

Critical Audit Protocols for DAS Integrity



Auditors must review multiplex (MUX) configurations, examine historical logs, and verify real-time status.



It is essential to confirm that access criteria for each broadcaster's channel are unique and not replicated for other channels by DPOs.



Auditors should require monthly MUX, PSI, and SI server configuration/logs from DPOs, as these are vital in uncovering potential underreporting.



Ensure all product IDs and bouquet IDs defined in CAS exactly match those in SMS, supporting accurate channel activation.



In cases of CAS or SMS server crashes, auditors should engage qualified IT specialists to investigate, determine potential broadcaster losses, and confirm the presence of backup servers as mandated by Schedule III, IX & X. Associated compliance evidence—such as logs, emails, and reconfiguration reports—should be rigorously reviewed.



Auditors must obtain complete inventory details of CAS from DPOs, including lists of all imported, active, temporarily suspended, deactivated, and blacklisted STBs/cards, ensuring this inventory is included in the audit report.

Strengthening Technical Audits & Accountability in DAS Audits

DAS Audit Team Requirements



The audit team must include certified IT professionals with expertise in digital addressable TV distribution.



Team size and composition should align with the DPO's network scale.



Auditors should verify the presence of CAS and backup servers as mandated by Schedule III, IX & X.



Verify that the DPO's Network Name displays correctly in the transport stream (TS).



Major discrepancies observed during the audit must be promptly reported to TRAI.



Recommend that TRAI impose strict financial penalties on DPOs that erase historical data, as this action causes significant and irreparable loss to both broadcasters and the government.

Technical Audit of New Headend

For new headends without an active subscriber base, auditors should issue provisional certificates valid for six months. A revalidation audit should occur six months after the DPO's commercial launch. Final certification should only be issued if the headend meets all Schedule III/IX & X compliance requirements.

The image features a white background with four decorative geometric shapes in the corners. The top-left and bottom-right corners contain overlapping squares in shades of light blue and medium blue. The top-right and bottom-left corners contain overlapping triangles in the same color scheme. In the center, the words "Thank you" are written in a blue, cursive script font, with "Thank" on the top line and "you" on the bottom line.

Thank
you