MTV Channels Pvt Ltd.

DIGITAL TRANSFORMATION STRATEGY

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MTV Engineering and Technology Development Report
Planning Period: 2026–2032
Department: MTV Engineering - Transmission

1. INTRODUCTION

Television broadcasting in Sri Lanka is transforming from analog to digital technology. As MTV we must prepare for this change while maintaining reliable broadcasting services and controlling operational costs.

As transmission services will be handled by DBNO, MTV's Engineering Department will focus on MCR/TX (Master Control Room / Transmission Room) operations, program production, media and playout systems, technical quality control, IT infrastructure, and reliable program signal delivery to DBNO.

The final Analog Switch-Off (ASO) date remains subject to official confirmation. Therefore, We should plan for the possibility that analog broadcasting may continue until 2032 or beyond. This is a contingency planning assumption, not a confirmed shutdown date.

We require better engineering workflows, trained personnel, preventive maintenance, accurate technical records, and effective coordination between departments and service providers.

The main objective is to modernize engineering operations without compromising the reliability of existing analog services.

2, OBJECTIVES

The transformation program aims to:

- Modernize MCR/TX , production, media, and playout facilities.
- Establish a reliable program signal handover process with DBNO.
- Simplify and digitize daily engineering workflows.
- Strengthen preventive maintenance and fault management for analog operations.
- Develop engineering staff with both analog and digital skills.
- Maintain analog services until the officially authorized ASO.
- Introduce phased, planned, cost-effective equipment purchasing.
- Reduce equipment failures, operational costs, and program interruptions.

3. ENGINEERING WORKFLOW AND OPERATIONAL IMPROVEMENTS

3.1 A Standard Workflow

As MTV, we must ensure program signal quality up to the agreed handover point and should be followed a standard workflow for all productions.

DBNO will be responsible for transmission activities within its agreed technical and contractual scope.

The handover process should include:

- Checking video, audio, synchronization, signal format, and continuity.
- Delivering the approved program signal through the agreed interface.
- Monitoring the signal at MTV's output and handover point.
- Obtaining confirmation that DBNO has received the signal correctly.
- Reporting and escalating faults immediately.
- Formal Disposal measures for the old analog Equipment

A written technical agreement should define signal specifications, handover points, monitoring responsibilities, backup arrangements, and fault escalation procedures.

A centralized digital fault log should record each fault, its priority, the responsible engineer, corrective action, and restoration time. Critical faults affecting program output must be escalated immediately.

Preventive maintenance should should be scheduled to minimize disruption to live program and recordings.

3.2 Technical Documentation and Digital Tools

We should maintain a centralized digital repository containing equipment inventories, signal-flow diagrams, network diagrams, operating procedures, maintenance records, system configurations, and DBNO interface specifications.

Digital fault reporting, maintenance scheduling, production planning, engineering logbooks, and monitoring tools should be introduced progressively, starting with the areas that need the most improvement.

The standard daily workflow should be:

Planning → Preparation → Technical Verification → Production → Quality Control → Signal Handover to DBNO → Monitoring → Reporting

Daily briefings and shift handovers should cover program schedules, equipment availability, outstanding faults, planned maintenance, and operational risks.

4. DIGITAL SWITCHOVER AND ANALOGUE SWITCH-OFF

4. DSO and ASO Transition Plan

Digital Switchover (DSO) refers to the transition towards digital terrestrial television broadcasting. Analog Switch-Off (ASO) is the officially authorized termination of analog terrestrial broadcasting.

We must prepare its production and program delivery systems for digital broadcasting while maintaining the existing analog service arrangements until the authorized ASO date.

The national schedule, technical requirements, and MTV's specific responsibilities must be confirmed with DBNO and the relevant authorities. Published targets should be treated as planning references until officially confirmed.

4.1 Proposed Transition Phases

Phase 1 – Assessment and Planning

- On existing analog equipment and signal paths.
- Confirm MTV and DBNO responsibilities.
- Assess digital system compatibility and requirements.
- Prepare budgets, risk assessments, and a migration plan.

Phase 2 – Infrastructure Preparation

- Upgrade MCR/TX output and playout / linking systems where necessary.
- Establish and test the digital signal handover to DBNO.
- Train engineering personnel in digital workflows.
- Maintain analog equipment and existing backup arrangements.

Phase 3 – Digital Testing and Commissioning

- Conduct end-to-end signal tests with DBNO.
- Verify audio, video, synchronization, continuity, and stability.
- Document test results and resolve outstanding faults.
- Monitor digital performance while maintaining analog services as required.

Phase 4 – Authorized ASO

- Obtain official confirmation of the applicable ASO date.
- Confirm readiness with DBNO and relevant authorities.
- Implement the approved transition schedule.
- Decommission analog equipment only after authorization and confirmation that it is no longer required.

4.2 Uncertainty of ASO and Planning up to 2032

The final ASO date is uncertain and may be affected by infrastructure deployment, digital coverage, regulatory decisions, receiver availability, and other implementation challenges.

For planning purposes, We should be prepared for analog broadcasting to continue until 2032 or beyond. This does not mean that ASO has officially been scheduled for 2032.

The following precautions are recommended:

- Budget for additional years of analog maintenance.
- Identify aging equipment and difficult-to-source spare parts.
- Assess equipment condition and remaining service life regularly.

- Preserve technical manuals, circuit diagrams, settings, and repair records.
- Confirm analog transmission responsibilities with DBNO or the relevant operator in writing.
- Continue digital preparation regardless of uncertainty over ASO.
- Review the transition plan quarterly and whenever official announcements are made.

We should not discontinue analog operations simply because digital equipment has been installed or tested. The final transition must follow official instructions, regulatory requirements, and confirmation of digital service readiness.

5. ANALOG EQUIPMENT AND ENGINEERING WORKFORCE

5. Maintaining Analogue Broadcasting Until ASO

Existing analog systems remain essential until the authorized shutdown. Neglecting aging equipment or removing components prematurely could cause service interruptions and increase costs.

We should maintain a complete inventory of relevant equipment, assess its condition regularly, and implement planned maintenance based on operational risk.

Key precautions include:

- Conducting scheduled inspections and preventive maintenance.
- Monitoring picture quality, sound quality, signal levels, and service interruptions.
- Maintaining suitable spare parts for critical or difficult-to-replace components.
- Testing standby equipment and approved recovery procedures.
- Preserving equipment settings, manuals, calibration records, and repair histories.
- Allowing only authorized and suitably qualified personnel to carry out adjustments or repairs.
- Following appropriate electrical and high-voltage safety procedures.
- Avoiding unnecessary modifications, removal, or disposal of equipment before formal approval.

Where DBNO or another provider owns or operates transmission equipment, We must coordinate maintenance and decommissioning with the responsible organization.

6. Importance of a Skilled Engineering Workforce

The success of digital transformation depends on skilled engineering personnel as much as on new technology. We need engineers who understand existing analog systems and can also operate and maintain digital broadcasting infrastructure.

Training should cover:

- Digital broadcasting and program signal delivery.
- Audio and video processing and quality control.
- IP-based broadcasting and network fundamentals.
- Media servers, playout systems, storage, and backups.
- Equipment troubleshooting and fault management.
- Cybersecurity and safe IT operations.

- Coordination with DBNO and other technical service providers.

Experienced analog engineers should transfer their knowledge to younger staff through supervised maintenance, practical training, and documentation of existing systems.

Standard operating procedures should cover routine work, emergencies, maintenance, and system recovery.

This information will support troubleshooting, staff training, future reference, and a smoother transition to digital broadcasting.

7. PHASED PURCHASING AND IMPLEMENTATION

7. Equipment Purchasing Strategy

Equipment purchasing should be carefully planned and carried out in stages. We should avoid large investments in systems that may become unnecessary before the end of their useful life, while ensuring that essential maintenance and safety requirements are never neglected.

Essential Requirements

Prioritize equipment needed to maintain reliable operations, including critical spare parts, essential MCR/TX repairs, monitoring instruments, backup components, and maintenance tools.

Digital Readiness

Purchase or upgrade essential MCR/TX output, linking, playout, media storage, signal monitoring, and contribution equipment required for compatibility with DBNO's digital delivery arrangements.

Workflow and IT Improvements

Introduce suitable digital fault-management systems, maintenance software, centralized documentation, network improvements, and cybersecurity measures.

Integration and Optimization

Purchase additional equipment after technical testing, budget review, and confirmation of operational requirements. Where practical, choose systems that support current operations and future digital expansion.

Before approving major purchases, management should consider:

- Operational necessity and reliability.
- Compatibility with existing and planned systems.
- Total cost of ownership, including maintenance and licensing.
- Availability of spare parts and technical support.
- Expected service life and potential obsolescence.
- DBNO specifications and the anticipated digital transition.
- Whether repair, refurbishment, rental, or replacement offers better value.

Purchases should follow technical evaluation, competitive quotations where applicable, budget approval, and acceptance testing. Equipment should not be purchased solely because it is new; it must provide a clear operational or financial benefit.

8. Implementation Plan

Phase	Timeline	Main activities
1	0–3 months	Engineering audit, equipment inventory, workflow review, DBNO interface documentation
2	3–6 months	Digital fault logs, maintenance schedules, operating procedures, staff skills assessment
3	6–12 months	Production scheduling, digital documentation, monitoring improvements, signal handover testing
4	12–18 months	System integration, performance evaluation, and optimization
Ongoing	Through 2032 or until ASO	Analogue maintenance, staff development, digital readiness, and transition reviews

The implementation schedule should be adjusted according to funding, procurement lead times, DBNO readiness, and official DSO/ASO requirements.

9. PERFORMANCE MONITORING AND CONCLUSION

9. Performance Monitoring

Engineering management should review performance monthly using measurable indicators, including:

- MCR/TX equipment availability.
- Number of technical incidents affecting program.
- Average fault response and restoration times.
- Percentage of scheduled preventive maintenance completed.
- Number of signal handover failures.
- Percentage of programs passing technical quality control.
- Number of recurring faults resolved permanently.
- Compliance with documentation and shift handover procedures.
- Staff training and competency coverage.
- Condition and serviceability of critical analog equipment.

Targets should be established after collecting baseline data during the initial engineering assessment.

10. Conclusion and Recommendations

The digital transformation should combine technology modernization with improvements to engineering workflows, maintenance, technical documentation, and staff capabilities.

The immediate priorities are to improve program quality control, establish a reliable signal handover process with DBNO, introduce digital fault reporting, strengthen preventive maintenance, and begin purchasing essential digital-compatible equipment in phases.

At the same time, we must maintain existing analog service arrangements until the officially authorized ASO. The possibility of a delay until 2032 or beyond should be reflected in maintenance budgets, spare-parts planning, staffing, and equipment replacement decisions.

A skilled engineering workforce, careful handling of analog equipment, preservation of technical knowledge, and clear responsibilities between us and DBNO are essential to maintaining service continuity.

Management should support the program through phased funding, practical training, clear accountability, and regular performance reviews.

Final Recommendation: As MTV, we should proceed with digital transformation while protecting the reliability of its existing analog services. Investment should be phased, engineering skills should be strengthened, and both analog maintenance and digital readiness should continue until the authorized transition date is confirmed and the digital service is accepted for operation.

Thank You.