

Practical AI Adoption for Telecom Teams

FA-0815 · 2 hours

AI for Leaders & Business · Agentic & Generative AI

Introduction

A beginner-friendly telecom workshop for managers and technical teams exploring AI, machine learning and generative AI. Discuss network operations, marketing, sales, customer support and finance through selected prepared demonstrations and illustrative scenarios.

The two-hour session develops awareness and pilot ideas rather than building production models or guaranteeing better revenue, reliability or customer experience. Demonstrations use synthetic or appropriately approved data; model outputs and business benefits require evaluation.

Learning outcomes

- Distinguish AI, machine learning and generative AI in plain language.
- Identify representative opportunities across five telecom functions.
- Explain what selected dashboard, chatbot and content-generation demonstrations show and what they do not prove.
- Recognise privacy, fairness, reliability and human-oversight considerations.
- Outline a small pilot with owners, information requirements and measurable evaluation criteria.

Prerequisites

No prior AI or programming experience is required. For remote participation or selected interactive demonstrations, use a computer/browser and reliable access to the designated resources.

Training outline

1. Opening and objectives — 10 minutes

Identify operational questions, participant familiarity and the distinction between a learning demonstration and a deployed solution.

2. AI fundamentals in telecom — 15 minutes

- AI, machine learning and generative AI: capabilities and limits.
- Training from examples, pattern recognition and model evaluation; systems do not necessarily learn from each interaction.
- Traditional rules versus learned models, language-model output and possible network-data applications.
- A short familiarity poll and simple examples, without mathematical detail.

3. Departmental use cases — 50 minutes

Network operations and engineering — 10 minutes

- Predictive maintenance and anomaly detection from metrics/logs.
- Network planning, load/capacity optimisation and configuration recommendations.
- Quality-of-service and coverage analytics linked to customer indicators.
- Illustrative congestion/alert visualisation; automatic network changes and digital-twin predictions require validated models and operational controls.

Marketing and customer insights — 10 minutes

- Segmentation, personalisation and campaign/A-B-test analysis.
- Lifetime-value, cross-sell and uptake modelling as uncertain estimates.
- Prepared content variants for different audiences, followed by human review.

Sales and retention — 10 minutes

- Churn-risk scoring and potential retention actions.
- Next-best-offer and cross-sell recommendations.
- Sales-funnel analysis and forecasts; evaluate whether an intervention actually helps.
- Illustrative dashboard discussion, not a proven model for a particular operator.

Customer service and support — 10 minutes

- Chatbot/self-service workflows and escalation to people.
- Agent assistance using selected knowledge, draft responses and call summaries.
- Post-interaction analytics and sentiment as imperfect signals, not automatic judgement of a customer or employee.
- Selected prepared chatbot or role-play demonstration.

Finance and fraud — 10 minutes

- Fraud/anomaly indicators requiring investigation rather than automatic guilt determinations.
- Billing reconciliation, revenue-assurance and payment-risk analysis.
- Financial/subscriber/revenue forecasting and scenario planning.
- Illustrative normal/unusual record patterns; compare detection errors and operational costs.

4. Generative AI opportunities and selected demonstration — 15 minutes

- Draft marketing/customer communications, localisation and technical-report summaries.
- Knowledge-grounded support, coding/query assistance, test/documentation drafts and workflow ideas.
- Image/design concepts and synthetic-data/simulation uses; generated data is not automatically representative or private.
- Select one or two prepared exercises, such as drafting an outage message and simplifying a report. Review factual details, tone and assumptions.
- Introduce assistant, research and agent capabilities; tool availability depends on current accounts, plans and controls.

5. Responsible AI — 10 minutes

- Fairness and bias evaluation, privacy/security, transparency, accountability and human benefit.
- Appropriate handling of customer, location, payment and confidential data, including applicable Malaysian data-protection and telecom obligations.
- Source checking, human review, escalation and limits of knowledge grounding; RAG does not eliminate hallucinations.
- Review permissions, model/service configuration and data flows; cloud or on-premises location alone is not a privacy/compliance guarantee.
- Discuss a simple fairness or information-handling scenario using Malaysia's AIGE principles as guidance, not legal certification.

6. Tools and next steps — 10 minutes

Compare a simple deterministic script/workflow with AI where appropriate. Define a small pilot: problem, owner, approved data, permissions, human review, evaluation metrics and a decision on whether to expand.

Consider cross-functional coordination, further training and an incremental roadmap. Measure outcomes such as service quality, response times or churn changes against a baseline rather than assuming ROI.

7. Questions and closing — 10 minutes

Review key concepts, discuss pilot ideas and identify further learning and documentation.

Tool landscape for further exploration

- ChatGPT for drafting, explanation and selected research/agent capabilities; Operator functionality is now integrated into ChatGPT agent.
- Microsoft 365 Copilot and GitHub Copilot for selected workplace or coding-assistance scenarios, with review and suitable access.
- Google Gemini (formerly Bard) and Microsoft Copilot as conversational/research assistant examples.
- Amazon Bedrock and SageMaker-family services, model hubs such as Hugging Face, and contact-centre AI platforms as possible technical evaluation paths.
- Choose tools by task, supported features, licences, model terms, security and data requirements; this is an overview, not a promise to demonstrate or configure every platform.