

Understanding LLMjacking

An AI Security Threat



What is LLMjacking?

LLMjacking is the unauthorised hijacking of Large Language Model (LLM) resources, where attackers exploit vulnerabilities to steal computational power — the core asset behind modern AI systems. This misuse can take several forms, all of which result in excessive or unauthorised consumption of compute, including:

- Running unauthorised AI workloads using stolen access
- Training or fine-tuning large models for commercial or malicious use
- Extracting proprietary training data or model weights through compute-heavy probing
- Manipulating model outputs to serve malicious content — particularly when such misuse leads to sustained or abnormal resource usage

Key Risk Indicators

Your organisation may be vulnerable if you:

- Use cloud-based AI/ML services (OpenAI, Anthropic, Google AI, etc.)
- Deploy self-hosted LLMs without proper access controls
- Share API keys across teams or applications
- Lack monitoring for abnormal API usage

Recommended Protection Strategies

While each organisation may use AI differently, the following are key strategies specifically aimed at reducing the risk of LLMjacking:

Access Control & Authentication

- Implement strict API key rotation policies (30-90 days)

- Use separate keys for development, testing, and production
- Restrict remote administrative access to allow listed IP addresses where possible
- Implement usage alerts and spending caps

Monitoring & Detection

- Set up real-time alerts for potentially malicious usage spikes
- Monitor for rapidly increasing query patterns or volumes
- Log all API calls with user attribution

Technical Safeguards

- Audit applications for hardcoded credentials
- Implement and audit prompt injection defences
- Regular security audits of AI integration

Incident Response Planning

- Define clear escalation procedures for suspected hijacking
- Maintain ability to quickly revoke compromised credentials
- Document AI system dependencies



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