

Authorization-Grounded Workflow Attacks on Tool-Using Agents (When Approval Becomes Execution)

PRIMARY

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Assessment. Primary. Independent corroboration from the day after, approached from the authorization side rather than the filesystem side. Used for context, not for the edition's headline numbers.

Claims drawn from this source. CLAIM-2026-10-19-12

Abstract (verbatim from the work)

Tool-using language-model agents increasingly rely on local services for document access, approval management, and enterprise workflow execution. This paper studies an authorization-grounded workflow attack in the OpenClaw Agent Security Attack Competition, a controlled benchmark derived from SeClaw-style security task synthesis. Rather than using explicit policy-override instructions, the attack guides the agent through a locally coherent approval workflow: a protected document request is denied, the agent requests a normal approval token from the local approval service, and the returned token is supplied to the document service through `authorized_by`. Official submission traces show this pattern succeeding on three Enterprise OA document targets. We also conducted 23 controlled local validation experiments in the official OpenClaw execution environment: the original configuration reached the approval-token transition in 9/9 reruns and completed the exact target operation in 8/9 reruns, while single-component variants remained successful on the three document targets. The results provide concrete case evidence of an authorization-context gap: token possession can be treated as sufficient authorization even when requester identity, approver authority, resource scope, action type, destination or recipient, and business purpose are not jointly enforced. We present the attack pattern, controlled trace analysis, and defensive implications for context-bound tokens, service-side policy binding, agent-side authorization checks, and trace-aware benchmark design.

Authors: Chenggong Shi; Hongmei Mou. arXiv:2610.23077v1, 16 Oct 2026.

Note on scale. 23 controlled local validations in one competition environment is a case study, not a population estimate. Cited in this edition only as independent corroboration that the authorization context, rather than the tool contract, is where the gap sits.