Arcade

URL Elicitation deep dive

Third-party OAuth solved (and more!)

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URL Elicitation gives MCP servers a safe way to cross trust boundaries.

Some interactions are too sensitive to be chat messages.

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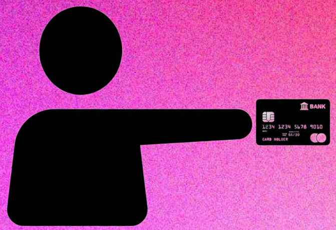
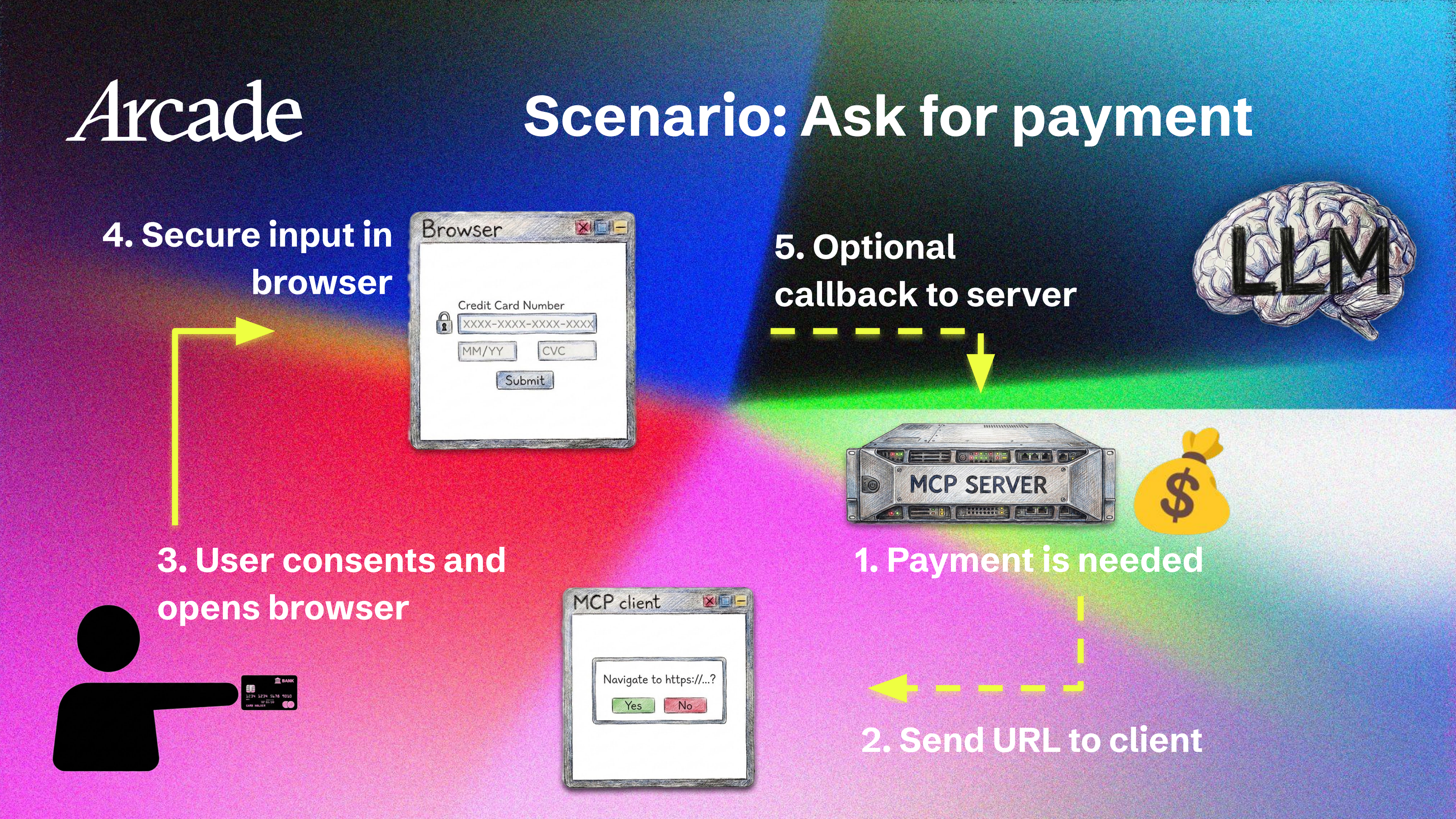
Scenario: Ask for payment

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Scenario: Ask for payment
4. Secure input in browser
Browser
Credit Card Number
XXXX-XXXX-XXXX-XXXX
MM/YY
CVC
Submit
5. Optional callback to server
LLM
MCP SERVER
1. Payment is needed
3. User consents and opens browser
MCP client
Navigate to https://...?
Yes
No
2. Send URL to client

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URL Elicitation for sensitive input

✅ Server may send a URL to the client at any time, or in response to an action like a tool call

✅ Client must get consent from end-user to open browser

✅ User interaction is **out of band**, never exposed to the client or LLM

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What about external OAuth?

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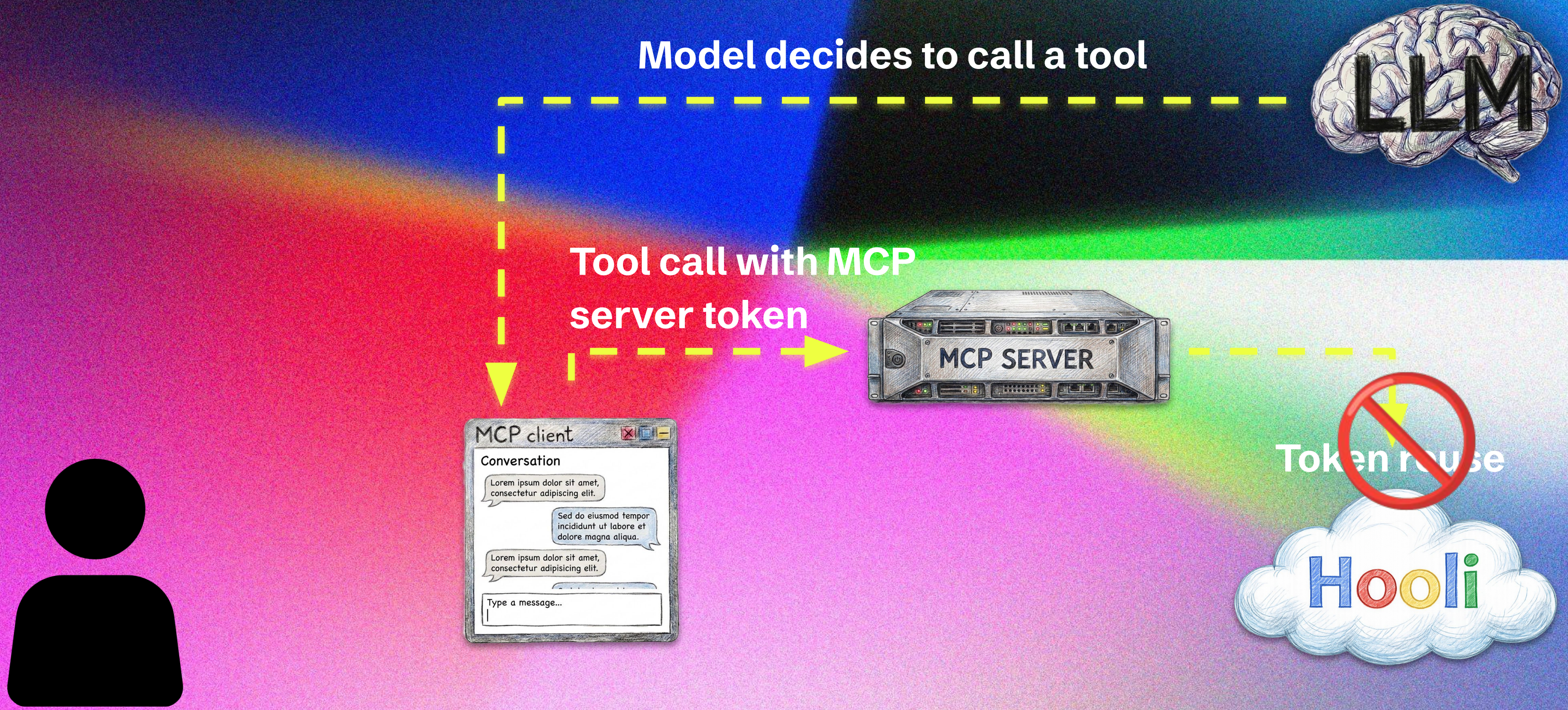
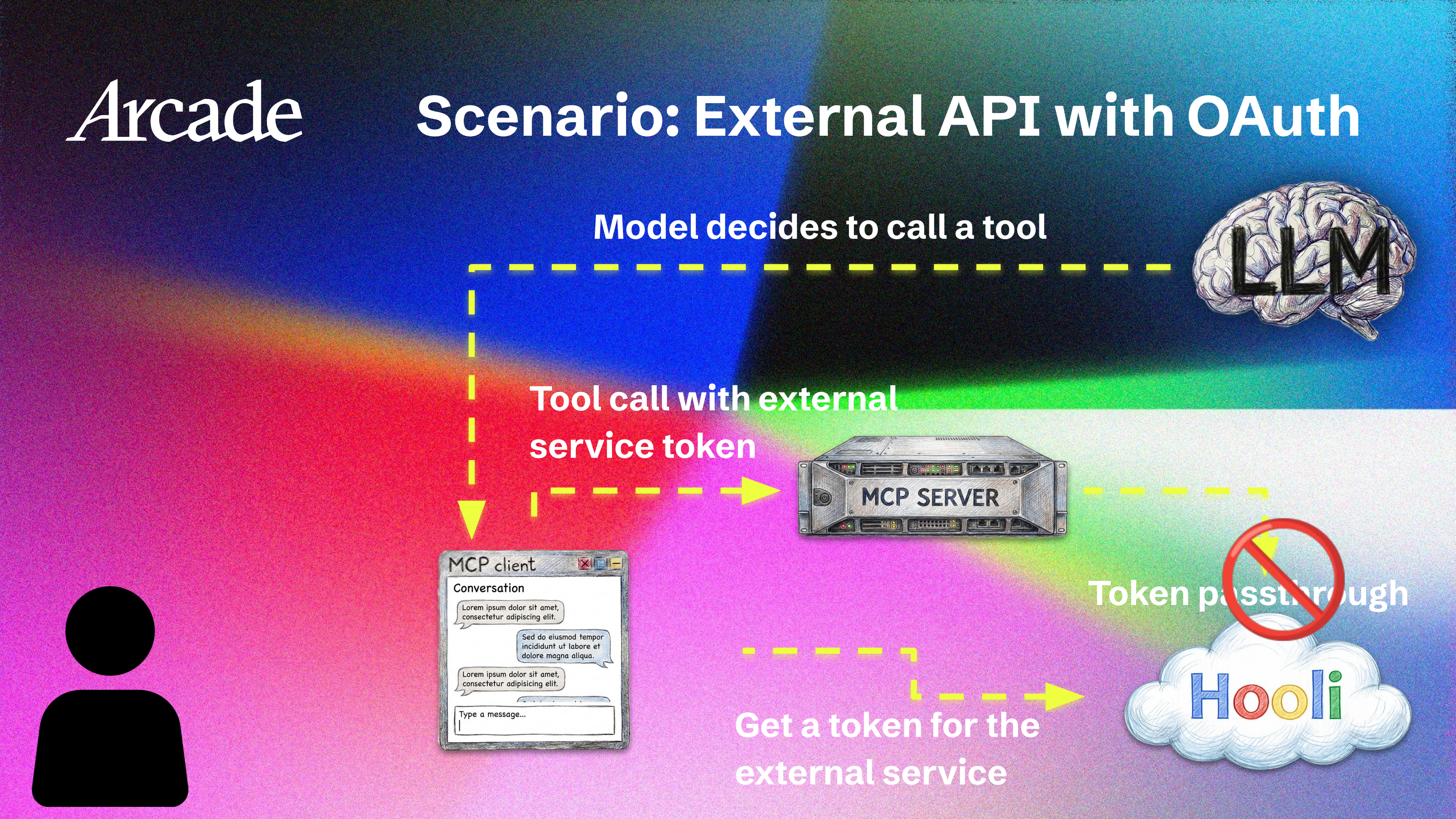
Scenario: External API with OAuth

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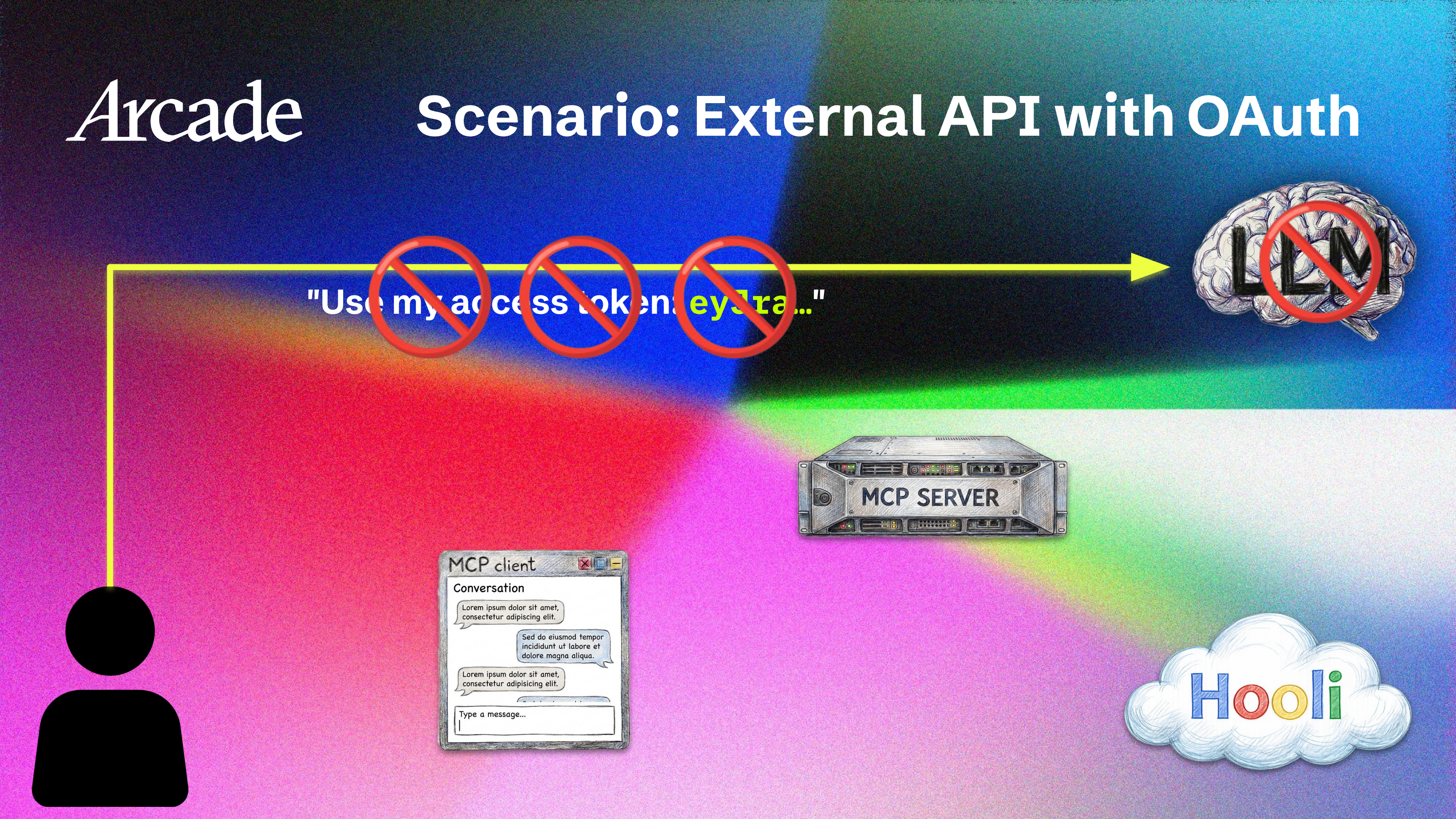
Scenario: External API with OAuth
Model decides to call a tool
LLM
Tool call with external service token
MCP SERVER
MCP client
Conversation
Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Type a message...
Token passthrough
Hooli
Get a token for the external service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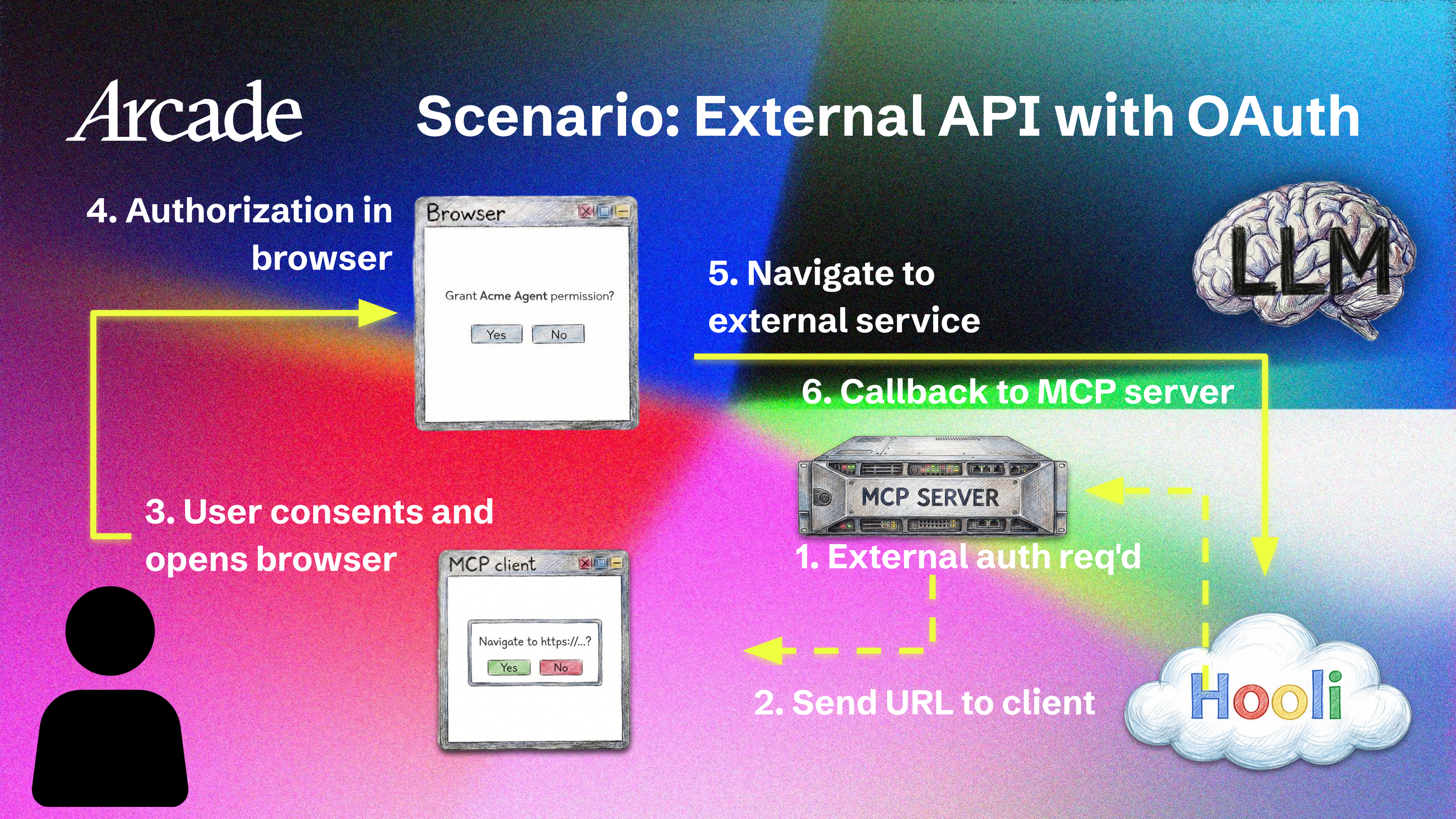
Scenario: External API with OAuth
"Use my access token: eyJra..."
LLM
MCP SERVER
MCP client
Conversation
Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Type a message...
Hooli

Two trust boundaries

MCP client <> MCP server

MCP server <> external service

The MCP server is not a magical tunnel!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Scenario: External API with OAuth
4. Authorization in browser
Browser
Grant Acme Agent permission?
Yes
No
5. Navigate to external service
LLM
6. Callback to MCP server
MCP SERVER
3. User consents and opens browser
MCP client
Navigate to https://...?
Yes
No
1. External auth req'd
2. Send URL to client
Hooli

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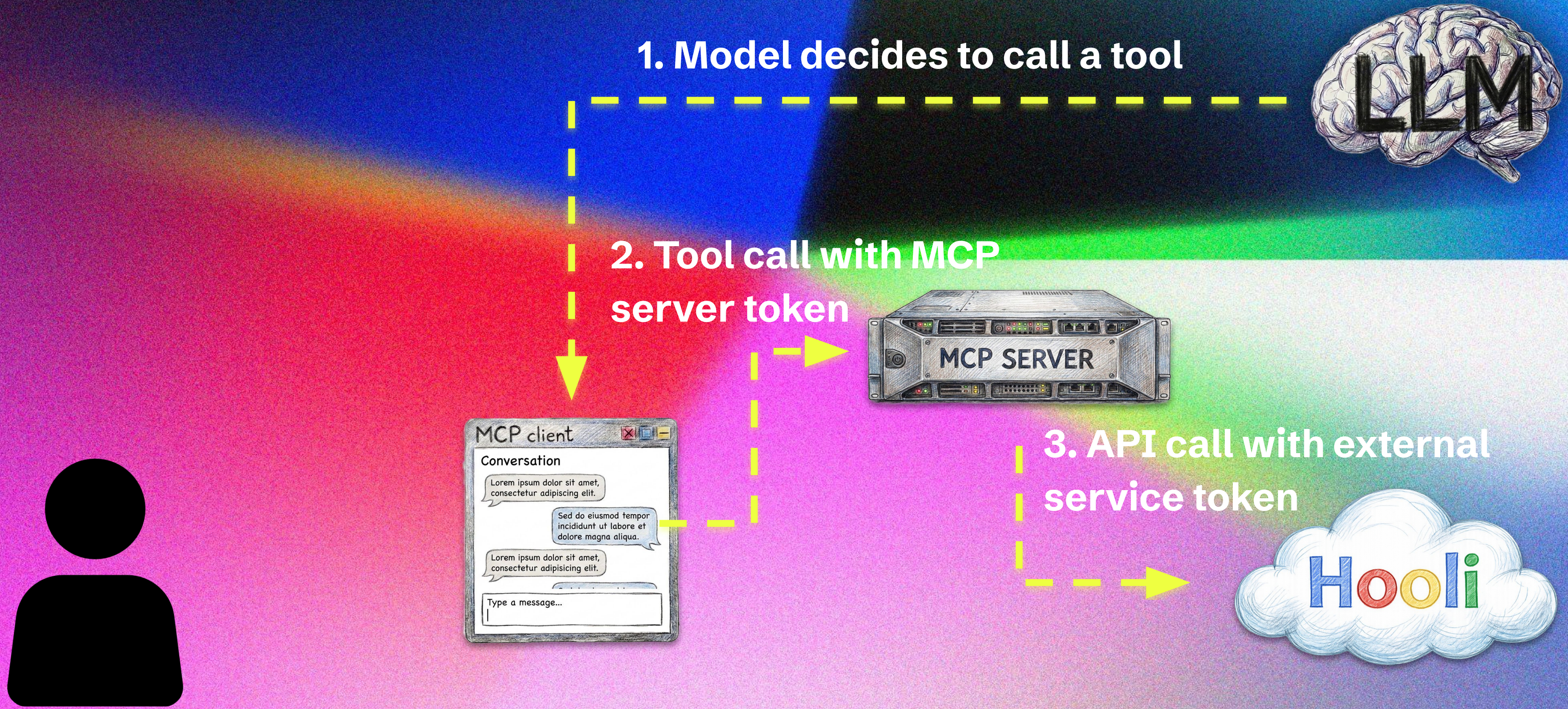
Scenario: External API with OAuth



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URL Elicitation for external auth

✅ Plugs into the existing world of browser-based OAuth

✅ Correct trust boundary: MCP client has **only one** token, for the MCP server

✅ User interaction is **out of band**, never exposed to the client or LLM

Key takeaways

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- URL Elicitation gives MCP servers a way to trigger user interaction (a URL)
- User interaction occurs **out of band** of the client, LLM, and chat context
- Useful for payments and sensitive inputs like API keys
- Useful for preserving the **trust boundary** between the MCP server and an external OAuth API

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Thank you

Questions or comments?

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