

# The New Challenge

- From human-centered APIs to machine-centered affordances
- Why API design is entering a new phase
- Setting the stage for the five key shifts

### A Changing Landscape

- APIs originally designed for human developers
- Documentation, portals, and GUIs supported human intuition
- Now: APIs must support agents, bots, and orchestration engines

#### The Problem with "Human First"

- Machines can't browse documentationor guess intent
- HTTP verbs show how, not why
- Trial-and-error doesn't scale at machine speed

#### What Machines Need

- Clear intent (goals, not just operations)
- Machine-readable context (ownership, constraints, purpose)
- Predictability in interactions
- Signals for discovery across ecosystems

## Consequences of Not Adapting

- APIs become opaque to non-human consumers
- Agents struggle or fail to complete tasks
- Workarounds increase fragility and cost
- Risk of being bypassed in machine-driven workflows

## The Five Shifts (Preview)

- From interfaces to intentions
- Make context machine-readable
- Standardize interactions (not just endpoints)
- Enable discovery through ecosystem signals
- Observe, adapt, iterate

### Human vs Machine Consumption

- Humans: rely on UI, text, exploration
- Machines: require explicit, structured cues
- Example: "Submit Application" (intent) vs "POST /applications" (mechanics)

## Why Now?

- Explosion of LLMs and AI agents
- Growth of autonomous orchestration engines
- Machine-to-machine integration is accelerating
- Advantage goes to those Al-ready first

#### The Mindset Shift

- Think like a systems architect, not a UI designer
- Focus on intentions and affordances, not just endpoints
- Machines are active collaborators, not passive consumers

### Framing the Challenge

- APIs must serve both humans and machines
- Al-readiness = clarity, context, and discoverability
- The journey begins with rethinking assumptions
- This unit frames the problem; next units explain the solutions

