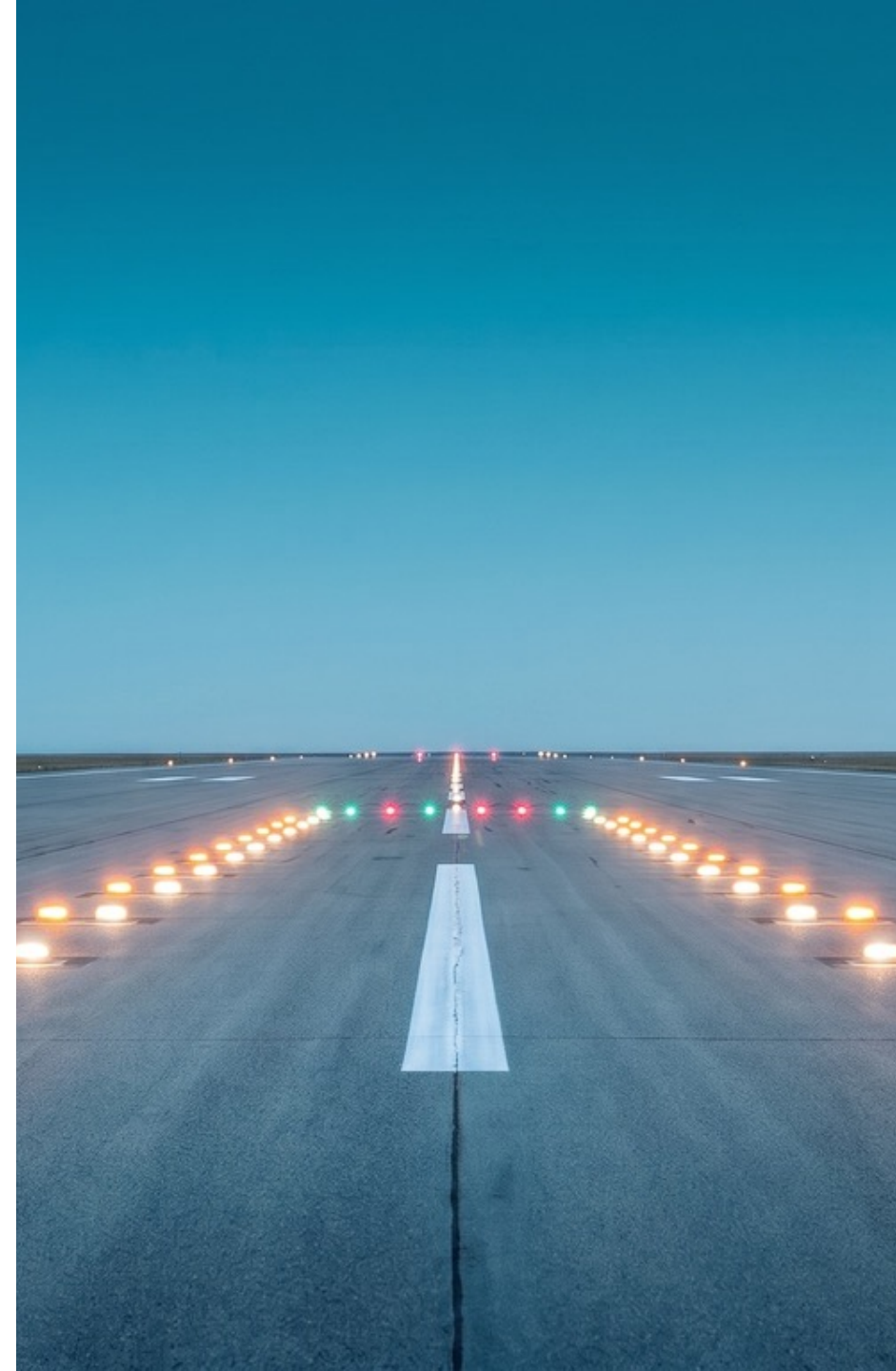


Rapid Prototyping With AI Agents Ends the Quarter-Long Build

From a quarter-long backlog queue to an 8-day prototype cycle in five weeks

Dr. Tim Nedyalkov | Chief AI Officer & Cybersecurity Executive
tim@cyberkeynote.com | October 2026



The ideas were ready. The engineering queue was not.

A fintech lender serving individuals and small businesses: consumer credit, SME lending, and a digital product line that competes on how fast a new offering reaches customers. No shortage of ideas. A shortage of engineering slots.

Every new capability competed for a place in next quarter's backlog, and most ideas stalled in the queue before anyone saw them work.

ENGAGEMENT

5 weeks

IDEA TO PROTOTYPE

a quarter →

✓ **8 days**

ACCESS PROVISIONING

7 days →

✓ **under 5 min**

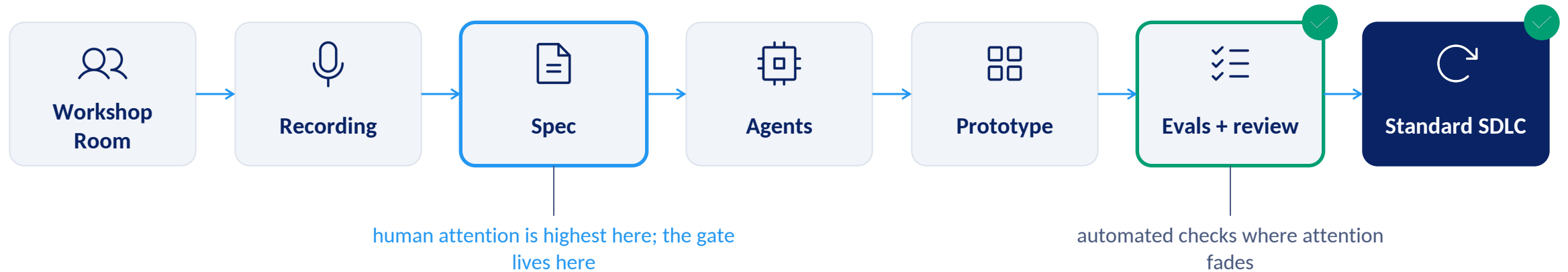
CLAIMS TRIAGE

21 days →

✓ **under 10 min**

The backlog was not full of engineering work. It was full of translation work.

One working session becomes working software.



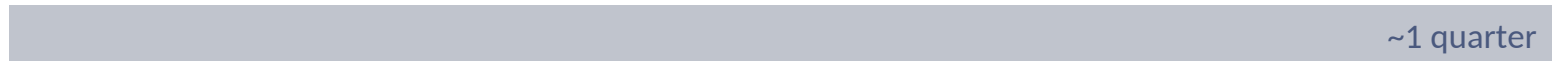
The build that carried the story: access provisioning

- ✓ Templates and role matrix signed once, upfront
- ✓ The agent matches requests to pre-approved templates, never invents
- ✓ Exceptions escalate to a human, everything logged
- ✓ 7-day SLA → under 5 minutes

The prototype cycle compressed. The eval bar held.



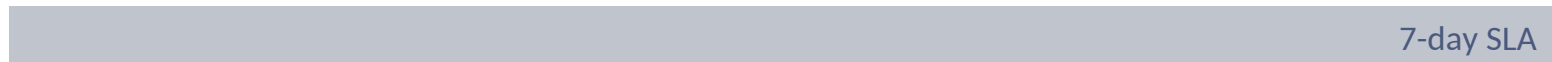
IDEA TO WORKING PROTOTYPE



≈11x faster



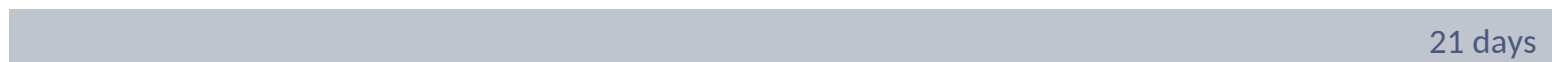
ACCESS PROVISIONING



≈2,000x faster



CLAIMS DOCUMENT TRIAGE



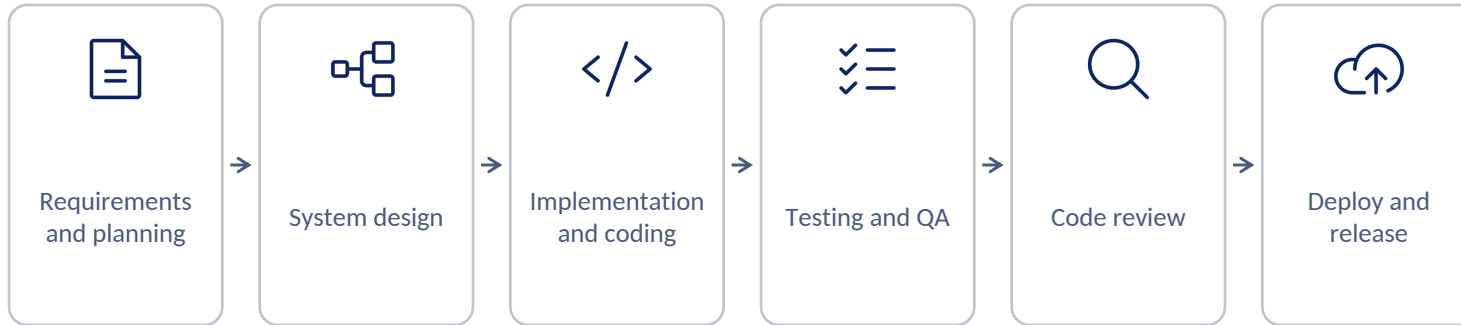
≈3,000x faster

After-bars not to scale; chips carry the ratio.

We did not get faster engineers. We got a shorter distance between a decision and working software.

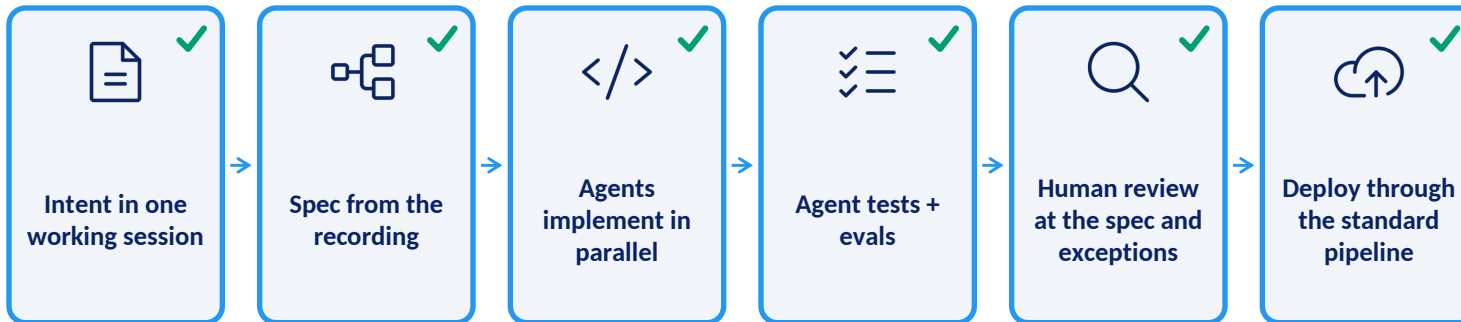
The market found the same recipe: months of build, done in days.

TRADITIONAL CYCLE • WEEKS TO MONTHS



Same stages. The time between them compresses.

AGENTIC CYCLE • HOURS TO DAYS



BlackRock: one recorded meeting becomes a prototype. Months become days.



Randomized trial: **4,867** developers, **26 percent** more completed tasks.^[1]



Roughly **9 in 10** organizations use AI in development;



8 in 10 report productivity gains.^[2]

[1] The Effects of Generative AI on High-Skilled Work - NBER, 2025. [2] State of AI-Assisted Software Development - DORA, 2025.

Speed is engineered, not automatic.

Two trials, one lesson



Speed is engineered, not automatic.

The wiring: the reason the speed holds in production.



Sandboxed execution



Least-privilege agent identity



Secrets isolation



Security tests on every commit



Peer review in small batches

[3] Measuring the Impact of Early-2025 AI - METR, 2025.

The spec becomes the contract. The eval pack becomes the currency.

Regulated firms hold the advantage.

The control apparatus they already own, permissioned APIs, audit trails, pipeline gates, is exactly what makes AI agent speed safe to use.

1 

✓ First-draft principle

Every document and prototype starts as an AI draft, heavy human review follows.

2 

✓ One scoped pilot

A cross-functional team, one real capability, spec-first.

3 

✓ Sanctioned agent path

Sandbox, approved tools, least-privilege identity.

4 

✓ Evals before scale

The spec gate where attention is high, automated checks where it is not.

5 

✓ Report two numbers

Idea-to-prototype time, and quality held. To the board.

Rapid prototyping was one pattern. The mandate covers them all.

A fractional Chief AI Officer, embedded in your leadership team: governance, decision rights, spend, evidence, and the board report, owned end to end.

| In your leadership team in one week or less

| First results by day 30, first board report delivered

| Four artifacts: decision rights, controls, evidence, board reporting

| Outcomes like this case: idea to working software in 8 days

CHIEF AI OFFICER AS A SERVICE



Dr. Tim Nedyalkov

Chief AI Officer & Cybersecurity Executive

Book a free 30-minute consultation

✉ tim@cyberkeynote.com

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