AWS Community Day Nepal 2026

AI-DLC

Reimagining the Software Development Lifecycle with AI

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Bangladesh at a Glance: Map & Strategic Insights

Location

Bangladesh is strategically positioned in South Asia, bordered by India and Myanmar, with access to the **Bay of Bengal** making it a key player in regional trade and connectivity.

Area and Population

Bangladesh spans approximately **147570 Sq. Kilometers**, supporting a population of over 170 million people.

Capital

Dhaka, the vibrant capital city, serves as the nation's key economic and cultural center.

Our People & Hospitality

Hospitality

Bangladeshis are known for their warm nature and genuine welcoming spirit

Resilience

Over 80% of Bangladeshis show Extraordinary strength in facing life's challenges

Young Vigor

60% of Bangladeshis are young and full of drive to shape tomorrow’s world

The Cultural Beauty of Bangladesh

Bengali Language & Literature

Bangla, over 1,000 years old, sparked a historic movement in 1952 and gave rise to Nobel laureates and a legacy of timeless literature

Bengali New Year (Pohela Boishakh)

Celebrated on 1st Boishakh, Pohela Boishakh marks the Bengali New Year,
rooted in the 16th-century Mughal calendar reform by Emperor Akbar.

Folk Music and Handicrafts

Baul songs, listed by UNESCO, reflect spiritual folk tradition,
while crafts like Nakshi Kantha trace back over 500 years.

Bangladesh: Natural Beauty

Sundarbans

Home to the Royal Bengal Tiger.

The world's largest mangrove forest.

Cox’s Bazar

The world's longest unbroken sea beach

A popular tourist destination.

Tea Garden

Lush green tea gardens of Sylhet

Produce world-renowned premium blends.

Bangladeshi Foods Realm of Taste and Palate

Hilsha Fish

National fish, a magnet of flavor

Pitha

Sweet and culinary heritage

Biriyani

Aromatic and delicious

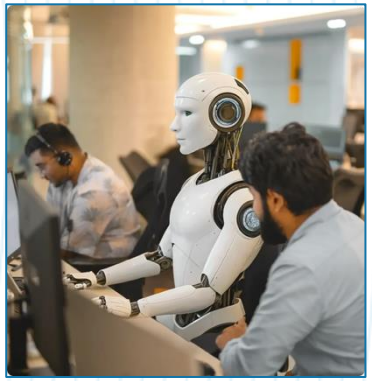
Key Industries of **Bangladesh**

AGRICULTURE

- Employs ~40% of the national workforce
- Contributes around 12% of GDP
- Key crops: rice, jute, vegetables, fruits, and tea
- Strong focus on modernization and agri-tech adoption

IT SECTOR

- 15%+ annual growth
- 650,000+ talents& expanding ITES
- Powered by young, skilled talent
- Targeting $5B in IT exports by 2025



PHARMACEUTICALS

- Rapid growth and export potential
- Strong domestic market presence
- Rising investment in R&D and innovation
- Follows global standards like WHO-GMP

GARMENTS

- Contributes 80%+ of Bangladesh's exports
- 2nd-largest apparel exporter globally
- Generates $40B+ annually
- Employs 4M+ people, mostly women

THE BRAIN STATION 23 NETWORK

900+
Professionals

36+
Countries Reached

20+
Years of Experience

BRAIN STATION 23
The global hub of TOP BRAINS

Since our inception in 2006, we have grown into a prominent global IT & software services provider, driving innovation and delivering tailored to organizations worldwide

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Three months ago,

a healthcare client of ours asked us

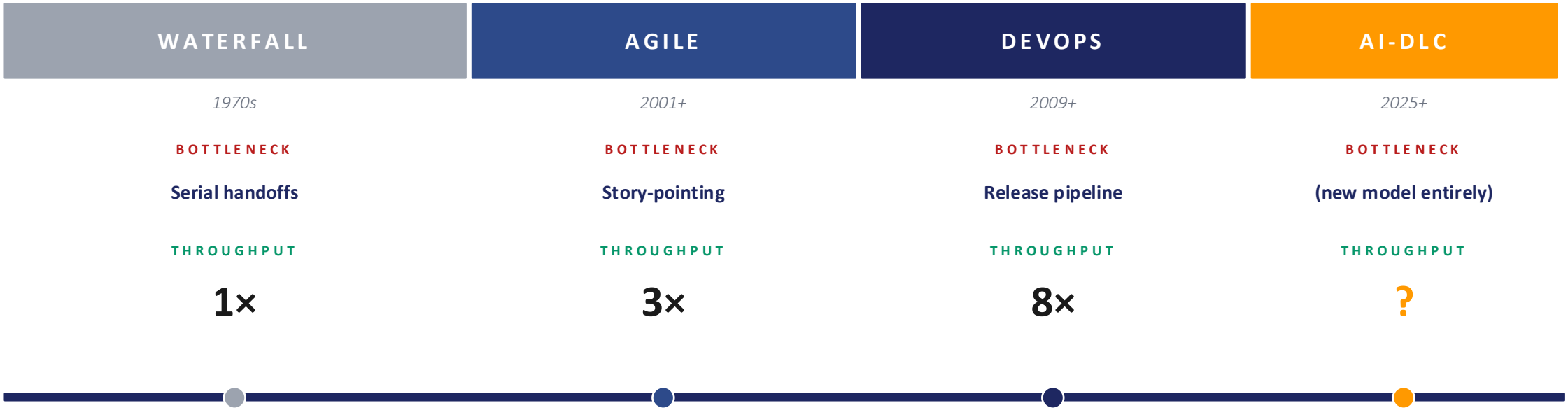
to build a feature that on paper takes two days.

3 WEEKS	Compliance review before line one of code.
6 WEEKS	Code review with compliance checking every PR.
MONTH 3	Feature ships. Doctors had given up and built a WhatsApp group.

[A real BS23 scene — anonymized. Replace with your own if you prefer.]

Every methodology fixed throughput. None fixed the bottleneck.

18 years. Three methodology shifts. The bottleneck didn't move — it just got more invisible.



Each new methodology accelerated work that wasn't the bottleneck.

AI-DLC moves the bottleneck — by making policy enforcement part of the agent, not a separate process layer.

AI-DLC is a layer, not a tool

Open source from AWS Labs. MIT-0. Markdown rules. Drop into any repo, any agent.

OUTCOME	**Business value** Faster shipping. Better compliance. Happier customers.
WORKFLOW	**Developer experience** How an engineer's day actually looks. Standups. Reviews. Demos.
METHODOLOGY	**AI-DLC** Adaptive workflow steering rules. Three phases. Human gates. Extensions.
AGENT	**AI coding agents** Kiro, Q Developer, Cursor, Cline, Claude Code, GitHub Copilot.
FOUNDATION	**Foundation model + AWS services** Bedrock. Claude. Other LLMs. Lambda. DynamoDB. S3. Cognito.
INFRA	**Cloud infrastructure** Compute. Storage. Networking. Identity.

This is where

AI-DLC sits.

Above your tools. Below your team.

AI-DLC isn't competing with Kiro or Q Developer. It's the methodology that runs on top of them.

AI-DLC : The Shift from Manual Complexity to Pro-smart Approach

AI-DLC = Human-in-the-Loop, reimagined from first principles

Dimension	Vibe Coding	Fully Automated AI	Human-in-the-Loop (AI-DLC)
Definition	Developer prompts AI freely, iterating without structure. Fast but unpredictable.	AI autonomously plans, codes, tests, and deploys end-to-end. Minimal human involvement.	AI executes with human oversight at critical gates. Balances speed & quality.
Human Role	Prompter	Observer	Validator & Decision-Maker
AI Role	Code assistant	Autonomous builder	Central collaborator
Context Handling	Prompt-level only	Inferred by AI	Full context-driven pipeline
Governance	None	Minimal	Gated checkpoints
Testing	Manual / afterthought	AI-generated (unverified)	Automated TDD side-by-side
Developer Control	High (but unstructured)	Low (AI-autonomous)	Full control at every gate
Quality	Variable	Unpredictable	High & consistent
Process Flow	Linear / ad-hoc	One-shot pipeline	Continuous loop
Best For	Prototypes, exploration	Simple, low-risk tasks	Enterprise production

AI-DLC : From Execution to Governance

DELIVERY FRAMEWORK

Inception

In this phase, requirements are clearly defined and workflows are planned to guide execution. AI helps break down business intent into structured tasks, while humans validate the scope and ensure the direction aligns with goals.

Construction

Here, the functional design is created, and AI generates code while simultaneously supporting testing and validation. Development happens in rapid, iterative cycles, allowing continuous refinement and faster progress.

Operations

In this phase, deployment is automated and systems are continuously monitored for performance and reliability. Feedback is collected in real time, enabling ongoing improvements and adaptive system optimization.

CONTROL LAYER

Process Control

Developers approve every AI-generated plan before execution, ensuring full control. Progress is gated, with no phase advancing without human sign-off, and developers fully understand all AI-generated code.

Quality Control

AI generates tests alongside code, which developers validate together. Automated quality checks run at every iteration, & all artifacts are continuously reviewed, refined & approved.

Governance Control

A full audit trail is maintained for all decisions, artifacts, and approvals. The system supports extensions for security, compliance, and accessibility, while the architect retains authority over all architectural decisions.

AI-DLC : Unified Development & Testing

AI Development

- AI generates functional code from intent
- Code follows domain model & architecture
- Iterative refinement within each bolt
- Developer reviews every generated line

AI Testing

- AI generates tests alongside every code unit
- Tests validate business logic & edge cases
- Continuous test execution within bolts
- Developer validates test coverage & correctness

AI-DLC redefines development by making code and testing a single, simultaneous process. AI generates both in real time, embedding quality from the start, while developers retain full control and validation. This eliminates late-stage defects, accelerates delivery, and ensures every release is production-ready by design.

The Strategic Role of TQM in Modern Enterprises

Total Quality Management is a strategic, organization-wide approach to continuously elevating product, service, and process quality, driven by enterprise-wide accountability and aligned execution ultimately delivering superior customer outcomes, operational excellence, and sustained long-term value.

Customer-Centric Quality
Define quality from end-user perspective. Own feedback loops and CSAT/NPS integration.

Process Design & Standards
Establish coding standards, review practices, CI/CD quality gates, and release criteria.

Quality Metrics & Reporting
Track defect density, escape rate, MTTR, deployment frequency, and technical debt.

Cross-Team Alignment
Break silos between Dev, QA, DevOps, and Bridge. Drive shift-left quality practices.

Continuous Improvement
Lead blameless post-mortems, sponsor and retrospectives improvement initiatives.

Risk & Compliance
Identify quality risks early architectural fragility, testing gaps, vendor dependencies.

Training & Capability
Coach teams on testing practices, root cause analysis, Six Sigma, and quality culture.

Vendor Quality Oversight
Manage third-party API quality, open-source reliability, SLAs, and external dependency health.

QC VS QA VS TQM

Understanding where TQM fits and why it's more than testing

Quality Control
Product

FOCUS
Detect defects

APPROACH
Reactive

OWNED BY
QA Engineers

KEY QUESTION
Does this build work?

ACTIVITIES
Testing, bug finding, verifying builds

Quality Assurance
Process

FOCUS
Prevent defects

APPROACH
Proactive

OWNED BY
QA team + DevOps

KEY QUESTION
Are our processes sound?

ACTIVITIES
CI/CD, test strategy, audits, standards

Total Quality Mgmt
Organization

FOCUS
Embed quality in culture

APPROACH
Strategic

OWNED BY
TBA (TQM) + Leadership

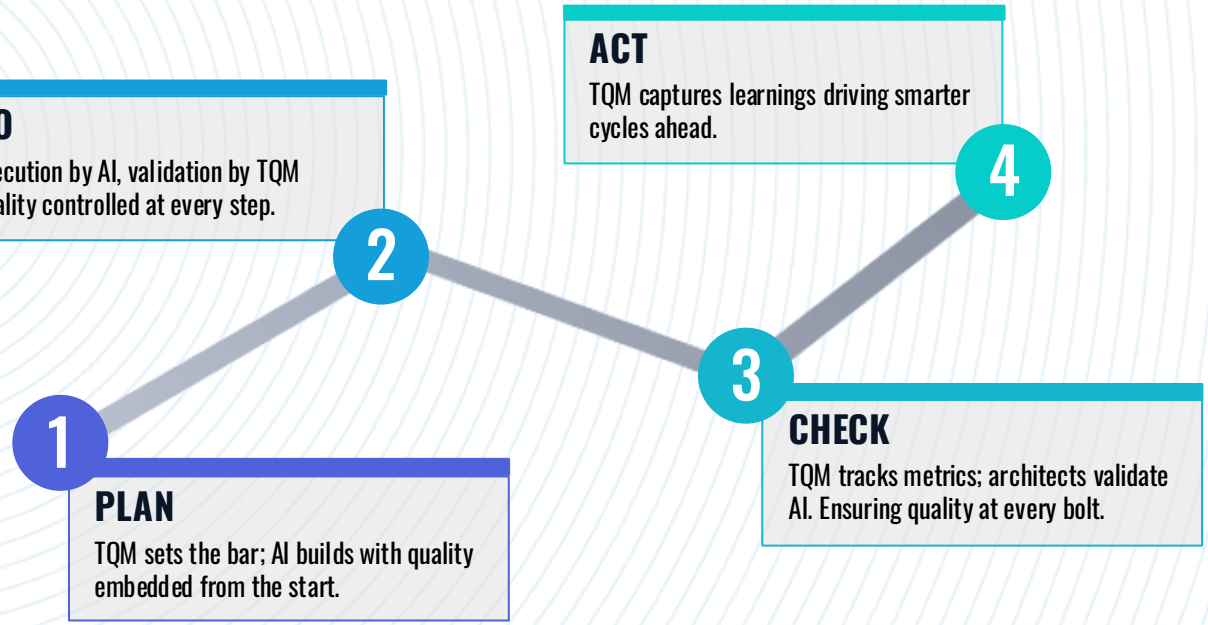
KEY QUESTION
Is the org aligned to quality?

ACTIVITIES
Culture, metrics, cross-team, customer focus

TQM role (works across all three layers — QC/QA

AI-DLC with TQM **SYNERGY**

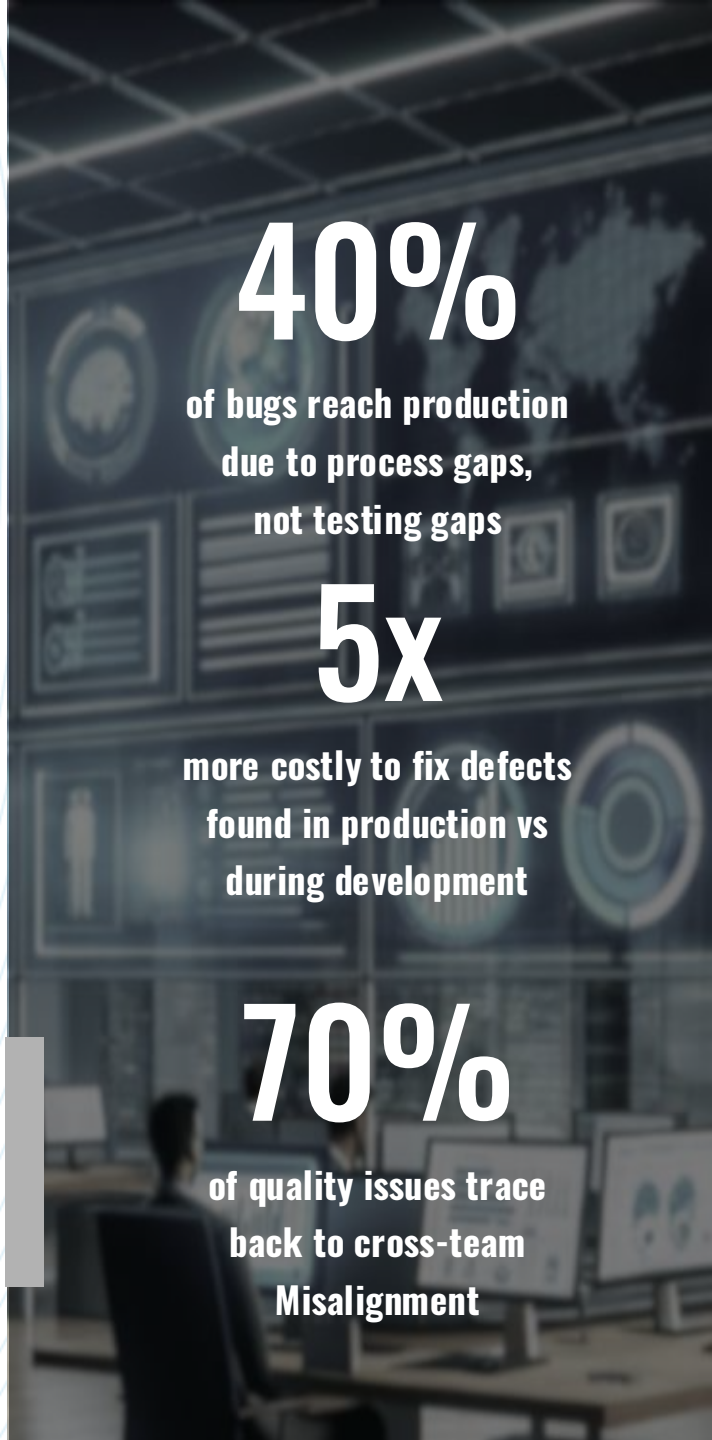
TQM's TQM maps directly to AI-DLC phases. A unified quality + delivery engine



A continuous improvement cycle. Not a one-time effort !

THE SHIFT IS INEVITABLE

- ✓ Software complexity is growing. Testing alone can't scale to meet quality demands
- ✓ Customers expect quality in every interaction, not just bug-free code
- ✓ DevOps and agile have blurred traditional boundaries where quality must be embedded everywhere
- ✓ Data-driven organizations outperform. TQM provides the framework for quality metrics



How you start

Using AI-DLC, ...

That's it. Type the phrase in chat. AI-DLC takes over.

Agent-agnostic by design

Same methodology. Same artifacts. Same enforcement. Pick your agent.

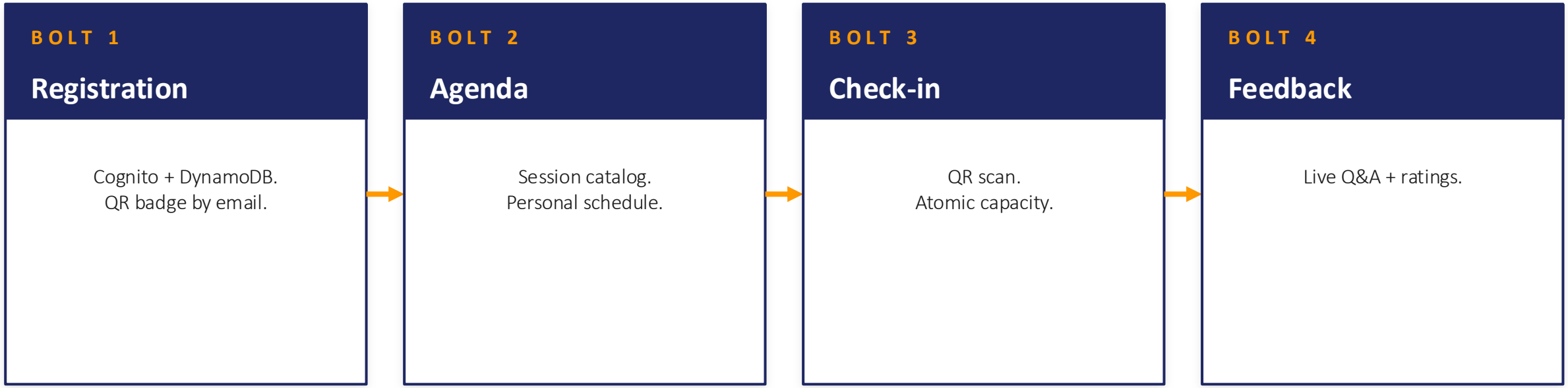
Kiro	Q Developer	Cursor	Cline	Claude Code	GitHub Copilot

Today's demo: Kiro

The 'bolt' — AI-DLC's unit of work

Not a story. Not a ticket. A bolt is what you can ship and demo. Independently. With explicit dependencies.

For the demo you're about to see — Community Day Hub — Inception decomposes into four bolts:



Each bolt independently shippable. Each gate human-approved.

How extensions enforce policy — the stack

Five layers. Markdown at the top. Blocking enforcement at the bottom.

1 — User intent
Engineer types 'Using AI-DLC, ...' in chat

2 — Opt-in filter
Extension's .opt-in.md presents a question

3 — Rule loading
If yes: .md rules become agent context

4 — Verification
Every stage: agent checks code against rules

5 — Enforcement
Pass → continue. Fail → block stage until resolved.

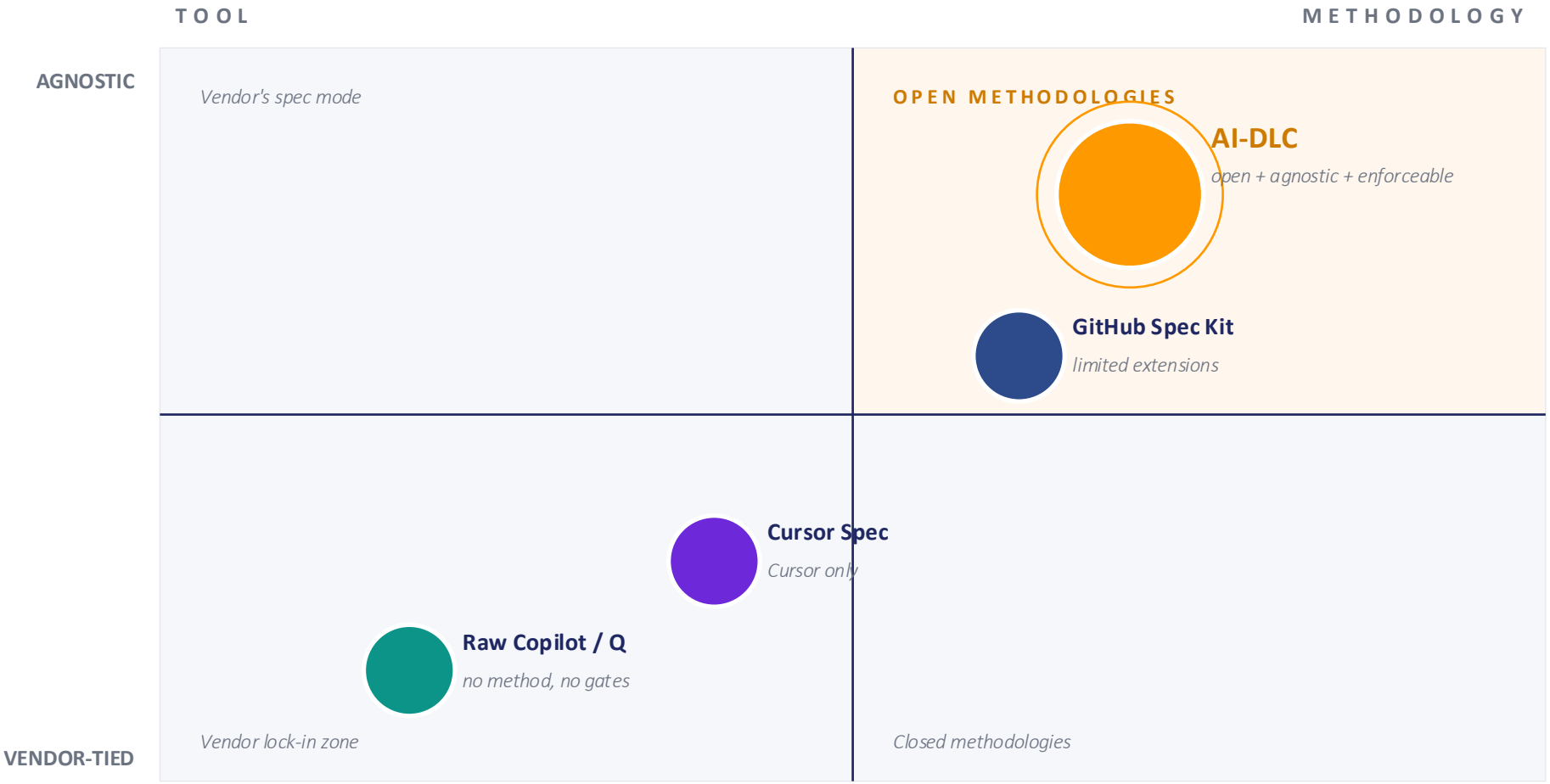
Anatomy of a rule (security-baseline.md)

```
## Rule SEC-03
   Encrypt data at rest with CMK

Rule:
  All DynamoDB tables must use a
  customer-managed KMS key.

Verification:
  Inspect CDK Table resources.
  encryption MUST be
  CUSTOMER_MANAGED.

Severity:
  BLOCKING
```

Two files. One mechanism. Severity: BLOCKING means the agent literally cannot continue.

Where AI-DLC sits in the market

Two axes that matter: methodology vs tool, and agnostic vs vendor-tied.



WHY THE EDGE

AI-DLC sits alone in the top-right quadrant.

Only methodology that's also fully agnostic AND open source AND enforceable.

Everyone else picks two of three.

→ *The picture is the argument. Don't read the quadrants — point to where each tool sits and let the geometry do the work.*

What AI-DLC can't do yet — the honest horizon

Things move from right to left as the methodology matures. Some things will never reach 'today'.

TODAY

Live with these

- Operations phase marked 'future' — no IaC gen yet
- Observability extensions don't ship out-of-box
- Cross-bolt refactor is shallow
- Mermaid diagrams sometimes drift
- Extension authoring is just markdown

6–12 MONTHS

Coming, per AWS roadmap

- Operations phase rules (deployment + monitoring)
- Multi-agent orchestration patterns
- Better convergence between models
- Extension marketplace / registry
- VS Code-native authoring UX

BEYOND METHOD

No method solves these

- Architectural taste — knowing what's good
- Customer empathy — knowing what to build
- Negotiation with stakeholders
- When to deprecate a product
- Hiring. Reading a room. Saying no.

Time → methodology matures, more capability moves from right to left.

Community Day Hub — the platform every event reinvents

EVERY COMMUNITY DAY, TODAY

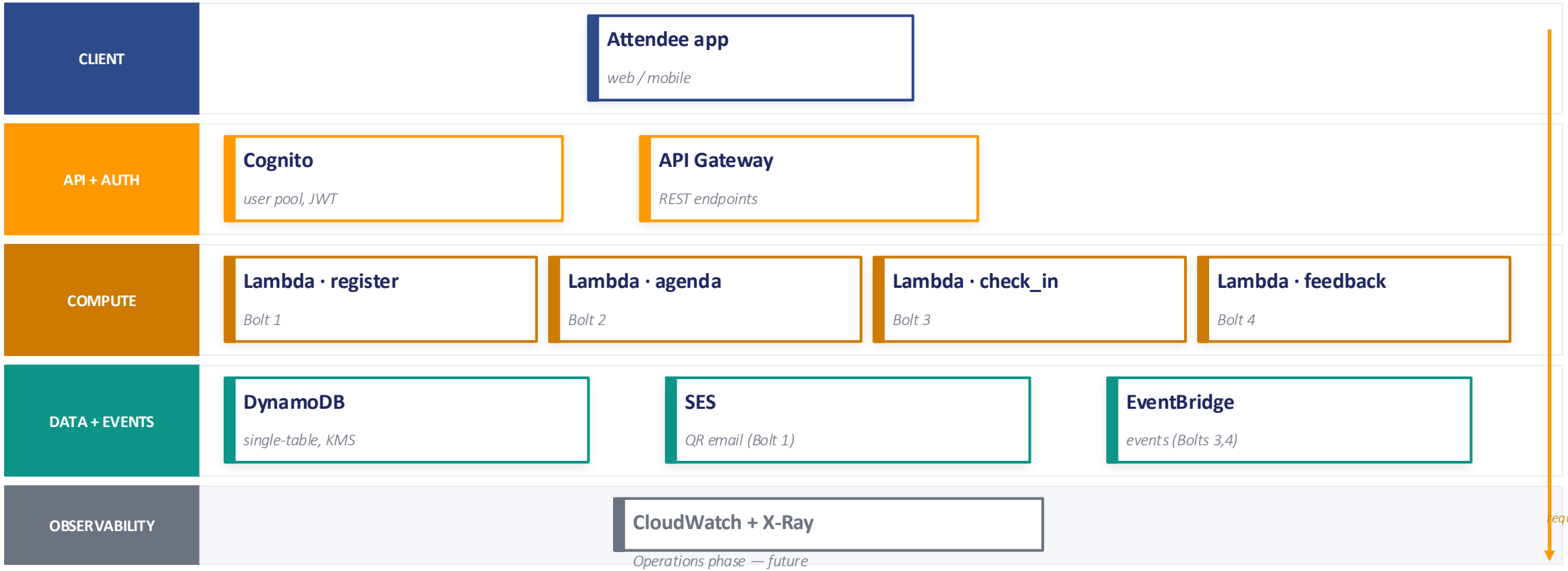
- Paper lists. A queue at 8:45am.
- Speakers shifted. Wrong room.
- Sessions overflow. No fair queue.
- Q&A is whoever shouts loudest.
- Feedback emailed 3 days late.

COMMUNITY DAY HUB, MVP

- Self-serve registration + QR badge
- Personal agenda, conflict warnings
- Atomic capacity at door check-in
- Live in-app Q&A with upvotes
- 1-tap rating after each session

Community Day Hub — service layers

Five logical tiers. Each tier is one re:Invent-familiar band. Services live in the band that fits.



The security extension blocked Bolt 1

aidlc-docs/extensions/security-baseline-verification.md

 # Security Baseline — Verification Report

Stage: Construction → Bolt 1 (Registration)
Status: BLOCKED

✗ Rule PII-01: Attendee email must NEVER be written to logs
    Verification: logger.info(f'registered {email}') detected at line 47
    → Stage cannot proceed until resolved

✓ Rule PII-02: DynamoDB encrypted with KMS CMK
✓ Rule PII-03: QR tokens are signed JWTs with 24h TTL
✓ Rule PII-04: Audit log entry per registration
✓ Rule PII-05: GDPR delete endpoint (stub) defined

Your security team's policy. Markdown. Enforced by the agent — not a code review three weeks later.

Generated code → working API → email in your inbox

src/bolts/registration/handler.py

```python
@require_no_pii_in_logs
@audit_log(event='attendee.registered')
def register(event, context):
    body = parse_body(event)
    user = cognito.create_user(body['email'])

    qr_token = sign_jwt(
        sub=user.id,
        ttl=timedelta(hours=24))

    table.put_item(Item={   # KMS CMK
        'attendee_id': user.id,
        'full_name': body['full_name'],
        'email': body['email']})

    ses.send_qr_badge(user.id, qr_token)
    return ok(attendee_id=user.id)
```

[Asset C — 30 sec]

```
$ curl -X POST .../register \
    -d '{"email":"..."}'

{"attendee_id": "att_8f3...",
 "qr_token": "[redacted]",
 "email_status": "queued"}
```

Inbox • AWS Community Day

Subject: Your Community Day badge

Hello Mizanur,

Your QR badge is attached. Please present at session entry.

badge_att_8f3.pdf

Industry extensions — shared spine, vertical-specific rules

The methodology is identical. Only the rules change. Each vertical inherits a shared spine.

RULE CATEGORY	COMMON SPINE	BANKING	HEALTHCARE	TELECOM	GOVERNMENT
PII handling	✓ baseline rule	→ AML KYC overlay	→ HIPAA PHI overlay	→ Subscriber data	→ Citizen data
Encryption at rest	✓ KMS CMK required	✓ inherited	✓ inherited	✓ inherited	✓ inherited + FIPS
Audit logging	✓ per-event log	→ 7-year retention	→ access + purpose	→ regulator API	→ FOIA-ready
Data residency	—	→ jurisdiction-aware	→ patient locality	→ in-country only	→ classification-tagged
Consent / waiver	—	—	→ patient consent record	—	→ cross-border waivers
Domain-specific	—	→ sanctions screening	→ de-identification	→ CDR retention	→ accessibility (WCAG)

→ Common spine = write once. Each vertical = small overlay. Your platform team ships the spine; verticals own their overlays.

How a team actually adopts this

CRAWL	**AI-assisted coding with discipline** Prompt hygiene. Paired review with whatever agent you have today.	**This week**
WALK	**AI-led bolts with human gates** First team adopts the security extension. Standups around bolts.	**This quarter**
RUN	**Multi-agent orchestration** Across the lifecycle. Team composition redesigned around review.	**2–3 quarters**

Start with one team. One product. One bolt. Don't try to roll out across the org.

What doesn't change

Architectural judgment

Knowing what good looks like.

Customer empathy

Understanding the user, not the spec.

Security ownership

The buck stops with you, not the agent.

Taste

What to build. What not to. When to stop.

AI-DLC compresses the typing. If your senior engineers are weak, the agent's output will be weak too.

AI-DLC is not

replacing developers.

It's replacing the parts of the job

that were never the point.

Thank you. Questions?

Resources

AI-DLC GitHub
github.com/awslabs/aidlc-workflows

AI-DLC Method Definition Paper
prod.d13rzhkk8cj2z0.amplifyapp.com

AWS DevOps Blog — AI-DLC
aws.amazon.com/blogs/devops/

Kiro IDE
kiro.dev