Microsoft

Microsoft FDE

Forward Deployed Engineering (FDE)



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Agenda

1. Executive summary
2. Market trends
3. Microsoft FDE overview
4. Microsoft FDE delivery approach
5. Why Microsoft?
6. Preparing for FDE

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Microsoft FDE

Foward Deployed Engineering

Executive summary

Forward Deployed Engineering embody Satya Nadella's vision of learning in production—embedding engineering capability directly with customers to rapidly deploy, learn, and feed real-world insights back into product and platform innovation.

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Forward Deployed Engineering(FDE)

Your IP. Our experts. Rapid innovation.



Full stack engineers

Work with experts in Microsoft's AI and IQ platforms



Control your data & IP

Secure and protect improvements of your IP and the data that drives it



Feedback into product

Direct Microsoft Product feedback that aligns to your prioritized scenarios

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What is FDE?

FDE is

- **Embeds elite engineering crews** directly with customers to deliver transformative, measurable business outcomes.
- Uses the Azure platform, proven production accelerators, and **AI-assisted Hypervelocity Engineering** to deploy mission-critical solutions in weeks—not months.
- **Delivers 3–5× faster** deployment velocity by combining deep engineering expertise with platform leverage and reusable assets.
- **Scales from single use-case pilots** to multi-crew, enterprise-wide transformations depending on complexity and ambition.
- **Capable of building and shipping production code:** to customer solutions, shared reusable offerings, and—when needed—core Microsoft products.
- **Engaged when customers face complex, multi-product scenarios** or when outcomes require capabilities beyond current product or services limits.
- **Builds customer capability** and independence through hands-on delivery, enabling sustained success after the engagement ends.

Is not

- **Not a scale motion or staff augmentation** model: FDE is intentionally selective, reserved for the highest-impact, mission-critical opportunities.
- **Not a long, phased** transformation program: FDE is not designed for multi-quarter planning cycles before value; it is built for weeks-to-impact delivery.
- **Not platform-agnostic:** FDE is not for customers who are not ready to commit to Azure/Microsoft platform choices and engineering patterns.
- **Not compatible** with slow governance: FDE is not for environments that can't support rapid decisions, tight feedback loops, and frequent iteration.
- **Not for "out-of-the-box"** scenarios: If the need can be met with standard Microsoft product and services capabilities or typical partner delivery, FDE is not the right tool.
- **Not traditional consulting** or advisory: FDE does not produce strategy decks or recommendations. Crews ship production-grade software, contribute code, and own measurable business outcomes.
- **Not a long-term outsourcing** model FDE: Success is defined by customer self-sufficiency and internal capability building, not by prolonged Microsoft dependency or ongoing operational ownership.

FDE = Engineering + Delivery + Trust + Product Code Impact

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FDE value proposition

Forward Deployed Engineering transforms complex enterprise challenges into production AI solutions in weeks instead of months,

by embedding small, elite teams who leverage the world's most comprehensive cloud platform, proven production starting points,

and AI powered Hypervelocity Engineering

delivering breakthrough business outcomes while building your team's capabilities to sustain and scale independently.

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FDE: Principles, offers, & delivery model

What is FDE

Designed for customers who have complex and well-known AI business problems where there is not a fixed or standard solution.

Value we bring to customers

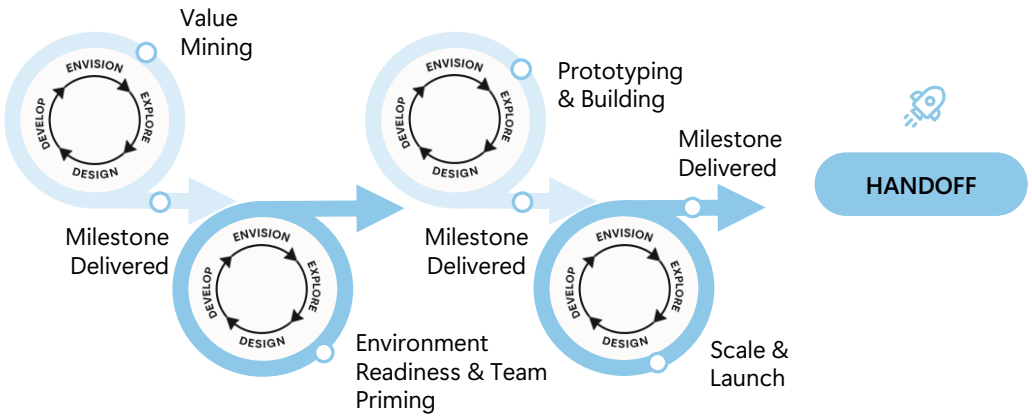
1. AI Full stack engineers
2. ROI focused
3. Rapid Deployment
4. Customer Centricity
5. AI Foward

What we offer

	Standard	Advanced
Customer	Partner with Microsoft to deploy one production ready solution	Partner with Microsoft to deploy many production ready solutions
Microsoft	Light up **one** production solution	Light up **many** solutions
Customer Investment	Medium	High
Time	3 months	1 year

Built on Microsoft's proven delivery model

Built on the successes of ISE and Hyper Velocity Engineering, Forward Deployed Engineering uses iterative sprints to rapidly move from use case definition to prototype to deployed solution within weeks.



*** Note:** Price is directional and may change during scoping and region.

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Why now? The build model is changing

AI is transforming software from static applications into learning systems. Enterprises are moving toward **mass-customized software**—solutions continuously shaped by data, context, and real-world use.

What`s changing

- Software is shifting from standardized features to **outcome-driven, customer-specific solutions**—"single-customer SaaS" rather than one-size-fits-all platforms.
- This shift is enabled by **agentic systems, Hypervelocity Engineering,** and development in real customer environments, not detached labs.

What this demands

- **Learning in production** through rapid deployment, tight feedback loops, and continuous iteration inside real enterprise contexts.
- **Embedded engineering** capability to safely build, adapt, and ship customized solutions at speed—beyond traditional consulting or staff augmentation.

The era of mass-customized software

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The era of mass-customized software

Market trends & signals

"We are moving from building applications to building factories of intelligence — where software continuously reasons, learns, and produces outcomes."
- Satya Nadella

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A transition to mass-customized software

Enterprises are transitioning to mass-customized software

Classical enterprise software model

Packaged enterprise software with a standardized feature set: "One size fits all"

+

System integration

Tailor to individual customer environments and contexts

Hypervelocity Engineering

Create software at rapidly increasing speed—and perhaps most importantly—significantly higher quality

Agentic systems

Agents are the new apps, Copilot is the new platform

Forward Deployed Engineering

Inversion of product development cycle through development with customers in their environments

Mass-customized software

"Single customer SaaS"
Unique solutions that converge packaged software and integration in one, enabling us to address deep industry and functional problems

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Source: Luke Parker

Hypervelocity Engineering & FDE

FDE enables us to deploy pro code, production solutions in days or weeks rather than weeks or months

What does FDE look like?



Tight multidisciplinary teams with deep domain expertise



Design thinking methods that create business value



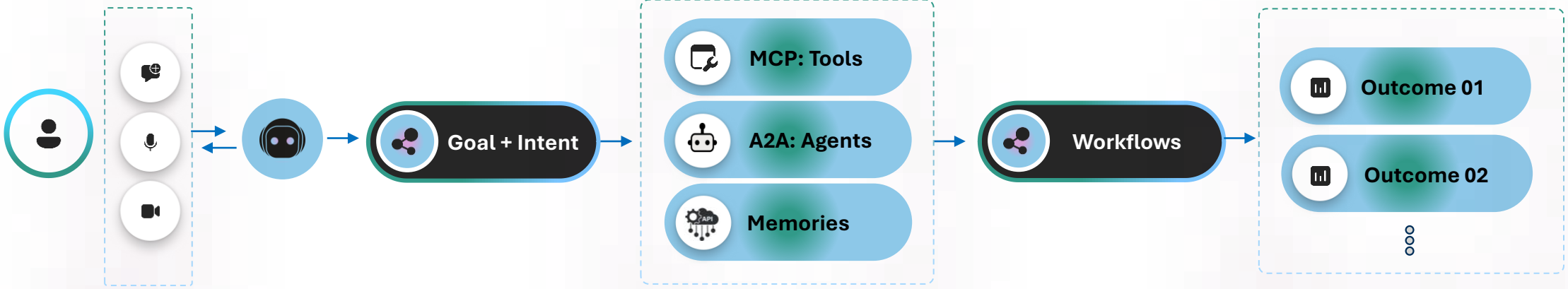
Proven, mission-critical, production starting points



AI agents and tools across the full lifecycle

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Agentic systems for deep customization



Assist → Automate function-calling capabilities

- Translate fuzzy human language into precise computer actions
- Experiment with new UIs

Chat → Goal-directed discovery and adaptation

- Autonomous sequences of function calls
- Coding and code evaluation enable deeper and more complex tasks
- Non-deterministic MCP and A2A selections

Efficiency → Growth complex problem spaces

- Planning and thinking with reasoning models
- Context engineering for better performance with opt-in memories

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Overview

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What is FDE?

Forward Deployed Engineering (FDE) embeds elite engineers with customers to unlock high-value, agentic solutions faster—differentiated by Hypervelocity Engineering, transparency, and the completeness of the Microsoft platform.

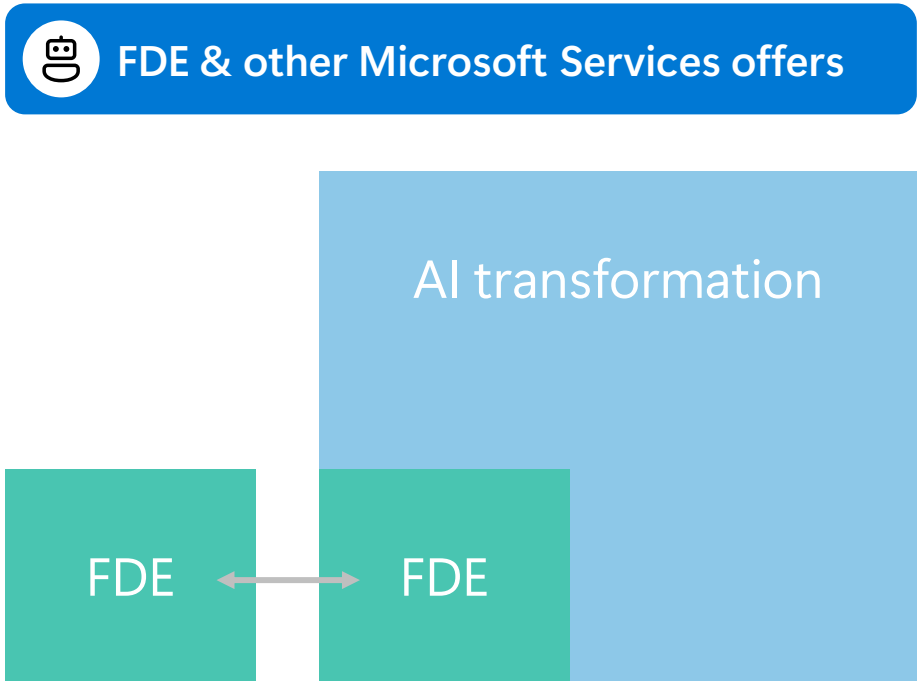
Why FDE?

Embedding elite engineering talent directly with customer teams is proven to unlock real business value faster than in traditional consulting delivery where we are less integrated with the customer's business.

Competitive differentiation

We differentiate from other competitor FDE teams through:

- Hypervelocity Engineering
- Elite engineering talent, rather than junior talent
- Deep integration with Copilot and Microsoft products in a transparent and collaborative way
- Use of open Azure tooling for custom development
- Meeting the customer where they are



FDE can work independently, or as a part of a wider Microsoft enterprise AI transformation program

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Source : Luke Parker

What makes a great FDE engagement?

AI-enabled engineers working on complex use cases



Elite engineering talent

Business value obsessed. Focus on products not demos

Executive presence, learn it all mindset, and generous sharer of knowledge

Agentic AI across the SDLC: envisioning, requirements, scope, backlog, features, code, documentation, security, deployment

Leverages accelerators and high quality, high context development environments



High impact / mission critical use cases

Novel and complex agentic use cases that require customized software to enable horizontal and vertical platform integration

Strategic business imperative with C-level sponsor(s), access, and funding – we can pick up the phone to a C-level sponsor and unblock

Industry defining and frontier in nature – yields patterns and insights to drive further product improvement and further reduce customer costs and reliance on FDE

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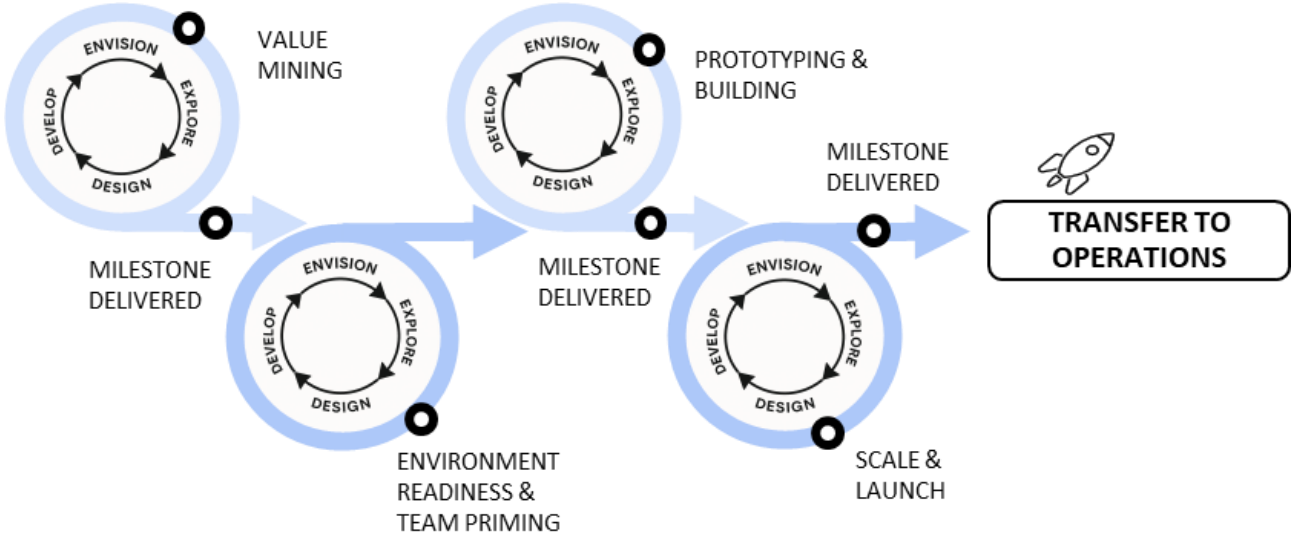
What's the value for you?

Value for you

1. **Problem sculpting:** Identify & frame high-value AI problems through hands-on customer assessment
2. **AI full stack engineers:** Top-tier, multidisciplinary teams with deep domain expertise embedded with customers for rapid execution
3. **Solution-first, full stack delivery:** End-to-end solutions leveraging Microsoft's Azure to M365 stack
4. **Evaluation-led approach:** Define key metrics from the outset. Deliver measurable outcomes within weeks
5. **Rapid iteration:** Move fast, ship solutions, refine through continuous feedback

Rapid value realization

Leveraging Microsoft's proven FDE Blueprint and Hypervelocity Engineering practices, our teams co-create with you through rapid, iterative sprints—moving from use-case definition to prototype to deployed, production-grade AI solutions in just weeks.



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What customers can expect from Microsoft FDE



Production ready

Production-ready solutions on Azure, built to Engineering Fundamentals standards.



Reusable

Jointly developed code, APIs, connectors, and accelerators are provided to customers for enterprise-wide use.



Responsible

AI solutions undergo mandatory Responsible AI and security reviews, with findings delivered to inform customer strategy.



Evidenced

Development occurs in shared customer repositories with common backlogs, keeping all code, pipelines, and documentation in the customer's environment

Indicative deliverables

- Architectures
- Documented success metrics
- MVP
- Learnings & outcomes summary
- Scale-up recommendations

- Azure infrastructure
- Infrastructure as Code
- Inner source recommandations
- Reusable playbooks / blueprints

- Security, compliance, and governance alignment documentation
- Observability and monitoring of solutions and environments

- Documented business outcomes & governance frameworks
- Use case portfolio
- Deliverables mapped to measurable business KPIs
- Outcome and impact monitoring
- AI-enabled technical documentation

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FDE Spotlight: Global Oil & Gas Customer

Ingredients for success

We've been partnering with the customer for 2+ years, evolving from initial AI minimum viable experiments (MVE) to a multi-workstream program with a $1B value target by 2030. In early 2025, Microsoft presented a live demo to the customers Board of Directors, leading to the CEO personally requesting Microsoft's help with their Enterprise AI transformation—a direct ask to Satya Nadella.

Key Takeaway: Milestone 0 Minimum Viable Experiment (MVE) investment + C-level relationship.

FDE as a differentiator

Co-creating working solutions alongside the customer to enable their teams and delivery partners to further enhance and scale resonated very well with the customer and allowed Microsoft to develop a deep partnership and understanding of the customers business challenges and opportunities.

Key Takeaway: Co-creation, not doing it for them.

Vertical: Well Health Monitoring

What

Building an agent-powered Well Health Monitoring system for IOC operators. Addresses cognitive overload from excessive alerts, uses MCP + agents to surface insights without requiring data migration.

Why

Reusable pattern (MCP + agent + context) deployable across any IOC/business unit.

How

Scheduled agent jobs analyze ~1500 wells daily using MCP servers connecting to ADX/Databricks → generate health reports stored in Cosmos DB → operators review via web app + chat with AI agent.

Horizontal: Facilities of the Future

What

Multiple workstreams focused on horizontally integrating the customers business units.

Why

Value chain efficiency, adopting common patterns across the business, gaining more insight from data

How

Intelligent Assets / Leak Detection, Connected Worker, Drone-in-a-Box (DiB), Cybersecurity for OT

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FDE Spotlight: Confidential Customer

Ingredients for success

We've been partnering with this customer for 2+ years, evolving from initial AI minimum viable experiments (MVE) to a multi-workstream engagement focused on supporting the design, development, manufacture, and test of a new international product worth several $Bn over the next 30 to 40 years. This is the third customer funded FDE engagement with this customer with a current footprint of 20 Microsoft FDEs. We have regular contact with the customer's board and are considered a key partner in their product development program.

Key Takeaway: Milestone 0 Minimum Viable Experiment (MVE) investments + C-level relationship.

FDE as a differentiator

Co-creating working solutions alongside this customer made them realize that they couldn't succeed without FDE. Their product, and how they'd take it to market required a radical transformation involving novel and complex customized software. No ISV solutions exist today that could meet their need, and System Integrators would be unable to work across the Microsoft Platform and partner ecosystem in the same way that we can.

Key Takeaway: Co-creation, not doing it for them. Novel and complex customized software requirements.

Vertical: Engineering Design Collaboration

What

Enable multi-party collaboration within digital enclaves.

Why

Requirement to bring together different businesses, business units, and domain expertise to design, simulate, and model complex engineering components in a way that protects individual IP and limits accidental data leakage.

How

Development of secure digital enclaves within Azure that can be provisioned and deprovisioned for task-based collaboration.

Horizontal: Digital Engineering

What

Development of custom agents and workflows that stitch together multiple ISV solutions into a coherent value chain.

Why

Transform traditional waterfall development of physical engineering products and components into more of a 'software like' DevOps cycle where departmental siloes are flattened through agentic platforms.

How

ISV partnerships, deep collaboration on Microsoft product roadmaps, and board-level buy-in to transform the industry with Microsoft as their digital partner.

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You are a great fit for FDE If...

You are the right customer type
an enterprise healthcare organization.

You have a mission-critical problem
with clear, measurable business outcomes, not an exploratory or “nice-to-have” use case.

Your challenge cannot be solved
with existing Microsoft products, services, or typical partner delivery models.

You are committed to the Microsoft technology stack
including Azure and Microsoft engineering patterns, to maximize platform leverage.

You can operate at hypervelocity
rapid decisions, tight feedback loops, and frequent iteration are part of your operating culture.

You have a clearly accountable business owner
who is actively engaged through production deployment (IT alone is not the unlock).

You can co-build with Microsoft
dedicating developers, data scientists, and product owners to work side-by-side with FDE crews.

You are ready to make a meaningful financial investment
to achieve accelerated, outcome-driven delivery.

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Leverage the right offer for you

	Standard 3 months	Advanced 1 year
	Foward Deployed Engineering code with you to build production ready AI solutions for one use case.	**Foward Deployed Engineering implement an AI operating model, built on Microsoft tools and platforms, resulting in production AI solutions.**
Deliverables	• **Deployed models**: Production ready models able to handle actual traffic and requests • **Integrated apps**: AI features built into your existing systems and codebases • **Automated workflows**: Pipelines that run automatically—data processing, model execution, and output generation	• **Control tower**: Manages intake, prioritization, performance tracking, Responsible AI compliance, and telemetry • **Use case intake process**: Evaluates requests for feasibility and business impact, creating a prioritized pipeline • **Production AI applications**: Working systems deployed to production environments
How it Works	• **Side-by-side coding**: Microsoft FDE and your engineers write code together in the same repos, do code reviews together, and solve problems in real-time • **One Microsoft**: Everything runs on Microsoft cloud services—Azure OpenAI, Azure ML, Fabric IQ, GitHub, Power Platform, Work IQ, Agentic 365, storage, compute, etc.	• **Embedded FDE**: Microsoft FDEs embedded within your business units or teams • **Hypervelocity Engineering**: Microsoft's proprietary delivery methodology that accelerates build cycles and ensures consistency. • **Microsoft stack**: Built entirely on Azure, Fabric, GitHub, and Power Platform. (Work IQ, Fabric IQ, Foundry IQ, Agent 365)
Output	A working AI solution ready for production, that you know how to maintain and build upon.	Internal FDE working inside your business units, to consistently deliver AI solutions, building capability where the work happens.

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Delivery approach

"The real leverage in software comes from reuse, platforms, and the ability to scale innovation repeatedly"
- Satya Nadella, Hit Refresh

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Core FDE value levers

Platform-powered velocity

Microsoft's integrated technology stack eliminates weeks of integration work Highvelocity Engineering with proven production starting points and AI-assisted development accelerates delivery 3-5x compared to traditional approaches.

Expert-led, AI-amplified delivery

Small, cross-functional crews bring deep expertise across data engineering, AI/ML, application development, and business strategy—backed by 559,889 person-days of validated delivery experience across 691 customer engagements.

Proven production starting points

Microsoft brings battle-tested accelerators, templates, and reference architectures validated across Fortune 500 deployments in manufacturing, financial services, automotive, Consumer Goods and more.

Ecosystem leverage & flexibility

Microsoft's 400,000+ partner ecosystem enables customers to scale delivery through trusted system integrators while maintaining quality through FDE Crews.

Enterprise trust & existing bootprint

With 95%+ of Fortune 500 companies already running Microsoft platforms, customers leverage existing agreements, security frameworks, compliance certifications. Solutions integrate seamlessly with Microsoft 365, Dynamics 365, and Azure workloads.

Customer benefits

Working prototypes in days, production deployments in weeks, leveraging existing Microsoft investments and skills.	Elite expertise without overhead of large consulting teams; capability building, not just delivery.	De-risked implementations with proven patterns; weeks of development compressed into configuration.	Multiple paths to value; flexible funding options reduce financial risk; scale through partners; no vendor lock-in to single delivery model.	Faster approvals; unified governance; leverage existing skills and investments.

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Microsoft FDE approach

Empower customers and partners to achieve more through long term, high-impact co-innovation and co-engineering product development



AI full stack engineers

Lean, multidisciplinary teams with deep domain expertise embedded with customers



ROI focused

Tackling problems that meaningfully impact profit and loss



Rapid deployment

Delivering tangible value at pace—ideally within days



Customer centricity

Build as if we are part of the customer's team, combining Microsoft AI and open-source solutions



AI foward

Engineering for the future, guiding customers to new possibilities

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Why Microsoft? (differentiators)



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Why Microsoft Services?

Partner with us to unlock and accelerate your AI-powered transformation

Competitive edge in the era of AI

Close ties to Microsoft R&D and Product Engineering groups, AI-powered innovation, and industry thought leadership.

Reduced risk business & technical

A single point of accountability, owning and orchestrating all aspects of an engagement across Microsoft and our proven partner ecosystem to deliver on time and within budget.

Faster time to value

Microsoft FDE

Microsoft

Unparalleled Microsoft Cloud expertise & IP

Top Cloud and AI experts leveraging innovative IP and a robust ecosystem to deliver bleeding-edge solutions across the Microsoft stack. As Customer Zero, we innovate, enable, and lead first.

Secured enterprise

An elite team of world-renowned security architects and engineers who set the gold standard in the industry.

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Preparing for your FDE engagement

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How to get the most from your Microsoft FDE engagement*

Engagement & partnership

- **Agree to engagement** model with shared accountability.
- **Align on clear business outcomes** and success metrics before project start.
- **Commit to co-investment**—financial or resource—to support joint delivery.

Collaboration & team integration

- **Provide dedicated domain experts** to work daily with Microsoft's embedded FDE.
- **Enable real-time collaboration** with Microsoft engineers, architects, and product teams.
- **Support agile decision-making** and feedback loops throughout the engagement.

Solution delivery & scope

- **Expect a production-ready AI solution**—not just a prototype or PoC.
- **Receive deployed models**, integrated applications, data pipelines, and user interfaces.
- **Map all deliverables** to measurable business KPIs.

Data, access & readiness

- **Grant timely access** to relevant systems, data sources, and environments.
- **Align on security**, compliance, and governance requirements from day one.
- **Prepare internal infrastructure** for deployment and testing.

Post-deployment support & adoption

- **Participate in user training** and early adoption activities.
- **Collaborate on solution handover** and operational readiness.
- **Expect Microsoft to remain engaged** through go-live and initial value realization.

** Customer engagement criteria.*

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Thank you

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