AI BASICS // CHOOSING A PLATFORM

AWS: the builder's AI platform

Skip the jargon overload of Lambda, EC2 and Bedrock. AWS makes sense once you see the foundation, the AI layer and one good story.

> **Travis's short version:** AWS is the cloud version of everything businesses used to run on physical servers, with two AI paths on top: ready-made models with Bedrock and custom models with SageMaker. You don't just use AI on AWS, you engineer it.

First, the platform it's built on

AWS is basically the cloud version of everything businesses use to run on physical servers, except it's scalable, flexible and you never have to touch the hardware. You don't buy and maintain servers. You tell AWS what you need and it runs, stores and scales it for you. At its core, AWS is built on three pillars:

Foundation	What it does	On AWS
Compute	Your horsepower. It runs applications, automates processes and does AI training.	**EC2**: you manage the server environment yourself, which gives you a lot more processing power for bigger tasks. **Lambda**: serverless, only runs when you need it. From small workloads to training an AI model, AWS scales automatically.
Storage	Where your data lives: documents, logs, backups, everything.	**S3**: think of it as an infinite cloud warehouse. It's also tiered, so data you need instantly sits apart from archives and from data that can be buried right down in the Antarctic.
Database and analytics	Where your data is structured, queried and understood.	**RDS** for relational data. **DynamoDB** for lightning-fast NoSQL. **Redshift** for analytics at scale.

AI is nothing without good data, and this is the foundation for any business that wants to leverage AI successfully in the future.

What AWS adds on top: the AI layer

This is where AWS goes from storage and servers to smart systems and automation. There are three big components:

1. **Bedrock.** Pre-trained AI models, or out-of-the-box solutions. Great for chatbots, summarisation, search and content generation. No training needed: you plug them in and let them do their thing.
2. **SageMaker.** Your own custom AI, which you train yourself. Use it when you need proprietary knowledge, industry logic and tailored behaviour. It fine-tunes models using your own data.
3. **Lambda, the orchestrator.** The missing piece that turns AI into a working system, not just a model. It receives the request, understands intent and decides what happens next: it picks the models, applies guardrails and formats the output to handle the workflow logic. Think of it as the director coordinating the entire show.

Think of Bedrock as the smart defaults, and SageMaker as the secret sauce that delivers highly personalised, industry-specific solutions to your customers.

Seeing it in action: an anniversary dinner

Imagine you and your partner walk into a restaurant for your anniversary dinner and check in with your reservation. Now connect the dots between that dining experience and an AWS workflow.

Restaurant	AWS	What it does
The waiter	Amazon Lex	Hears intent from the customer: the specials, food and drink orders and any special dietary requirements. Passes the requests forward to the head chef.
The head chef	Lambda	Decides whether it's a simple dish to send to Bedrock or a custom dish for SageMaker. Also decides whether to call a database, for example to handle dietary requirements so nobody has an allergic reaction.
The line chef	Bedrock	Fast, and trained in the common dishes. They already know all those recipes.
The specialist chef	SageMaker	Handles the custom dishes with your secret ingredients, meaning the data you've trained the model on, plus premium orders and dietary restrictions.
The final check at the pass	Lambda again	Checks the safety and presentation, and makes sure the output upholds the rules and standards of the restaurant: safe, accurate, compliant and polished.

Then the meal is served, a hyper-personalised experience. They don't see the kitchen, they see the results. AWS isn't magic: it's a modular kitchen for building AI systems. You choose the chefs and design the workflows.

Strengths and trade-offs

Where it shines

Maximum flexibility and scalability, from the cloud infrastructure underneath. Both plug-and-play and fully custom AI paths, with Bedrock and SageMaker. Perfect for tailored intelligence.

The trade-off

More moving parts than packaged solutions like Salesforce. It takes a lot of architectural thinking: setting up the workflows, getting the data in place and putting the guardrails in. That means a far higher learning curve, but the payoff is definitely there.

The bottom line

That's the power of AWS: **you don't just use AI, you engineer it**. From Bedrock models to custom SageMaker pipelines, you design the logic and the workflows, and AWS scales them almost like it's nothing.

Want to talk this through for your business?

Book a free 15-minute call. We'll look at your situation and give you a straight answer, with no jargon and no sales pitch.

Let's Chat

Opens the request form on our website. Free, no obligation.