

EVIDEN



Lessons learned from building a custom RAG chatbot in the enterprise environment of ČSOB

7. 11. 2025



Dominik Macko

ML Engineer

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DataSentics

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ČSOB in nutshell



General Information

Wholly-owned **subsidiary of KBC Group NV**
(domiciled in Belgium)

Leading universal bank on the Czech market

The product portfolio of **ČSOB Group**:

- standard banking services (for Retail, SME and Corporate),
- financing housing needs (mortgages and building savings loans),
- insurance products,
- pension funds,
- collective investment products and asset management,
- specialized services (leasing and factoring),
- services related to trading equities on financial markets.

In figures

• ČSOB group Employees:	8.125
• ČSOB group's clients:	4.290 mil.
• ČSOB branches (bank):	198
• Outlets of the Czech Post:	approx. 2.000
• Balance sheet total:	1.920 mld. Kč
• Long-term rating:	A1/A+ (Moody's/S&P)

Source: <https://www.csob.cz/csob/about-the-csob-group> (figures as of 31 December 2024)



Significant market innovator

AI technology enthusiast



Chatbot (Kate AI Assistant) for employees

Why?

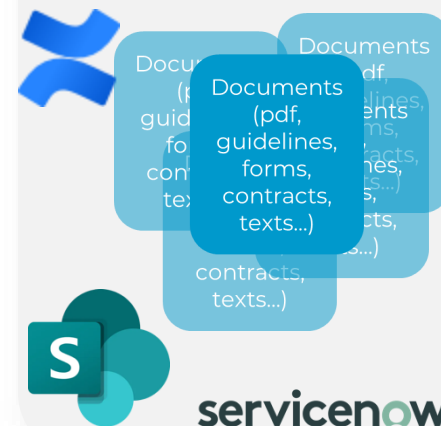


ČSOB
employee



"What are the terms
of a mortgage?"

Data sources



Multiple data
sources



Data continuously
changes



Diverse data
formats





Chatbot (Kate AI Assistant) for employees

Why?



ČSOB
employee



"What are the terms
of a mortgage?"

Which data source has terms
of mortgage document?

Data sources



Multiple data
sources



Data continuously
changes



Diverse data
formats





Chatbot (Kate AI Assistant) for employees

Why?



Which data source has terms
of mortgage document?

Search in Confluence

"What are the terms
of a mortgage?"



Multiple data
sources



Data continuously
changes



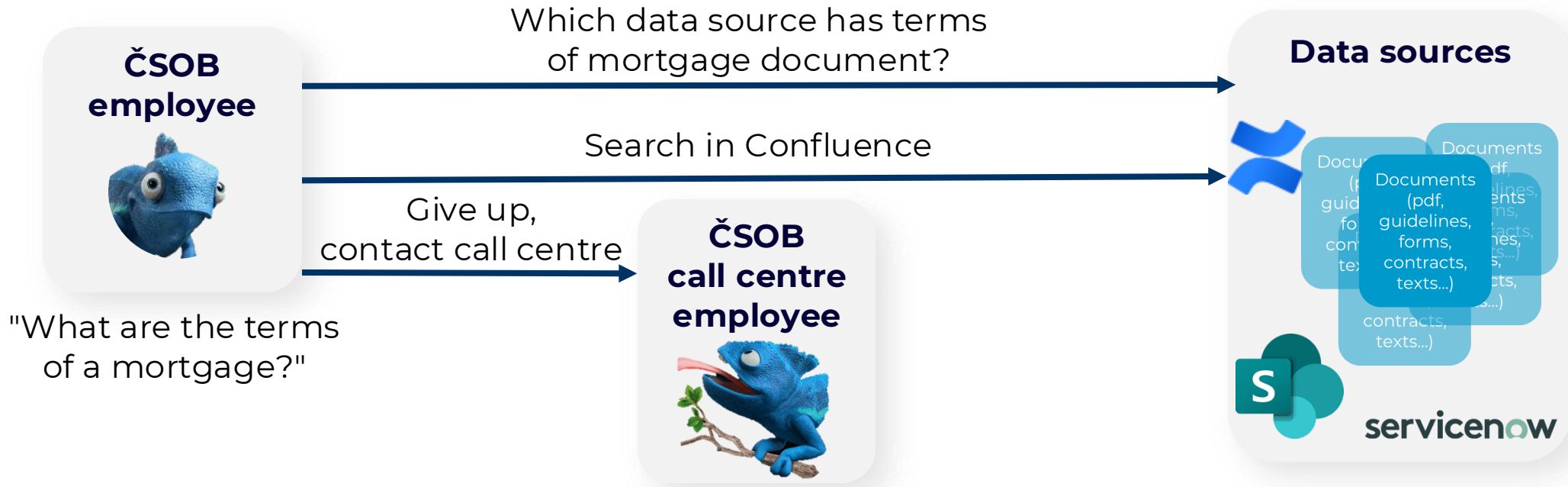
Diverse data
formats





Chatbot (Kate AI Assistant) for employees

Why?



Multiple data sources



Data continuously changes



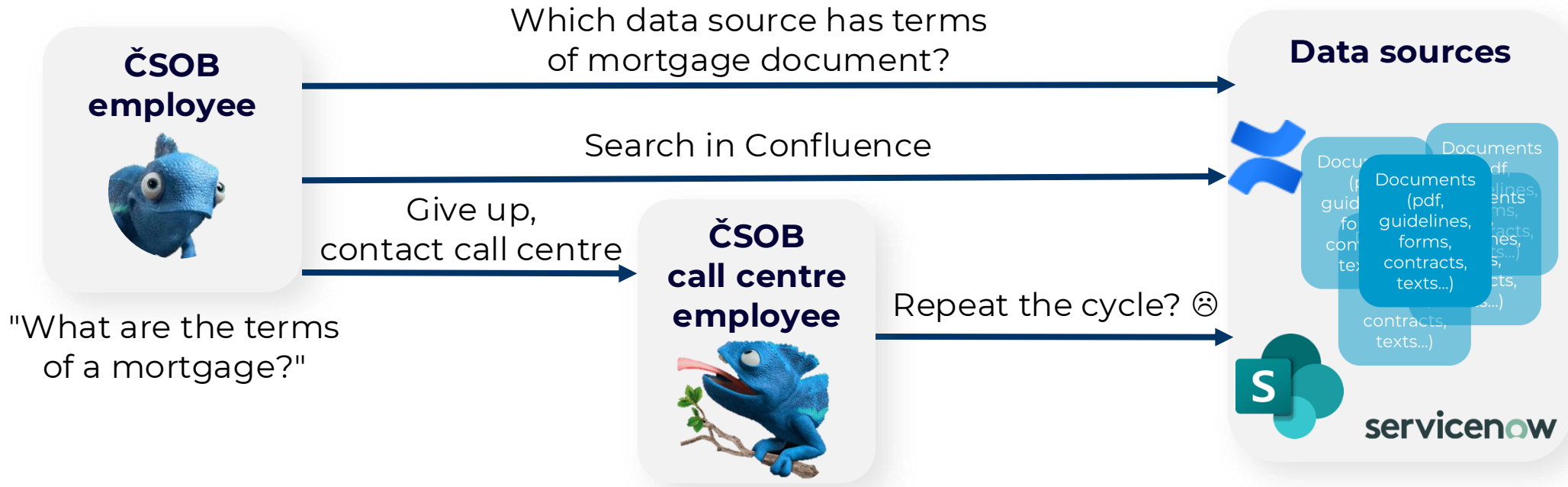
Diverse data formats





Chatbot (Kate AI Assistant) for employees

Why?



Multiple data sources



Data continuously changes



Diverse data formats





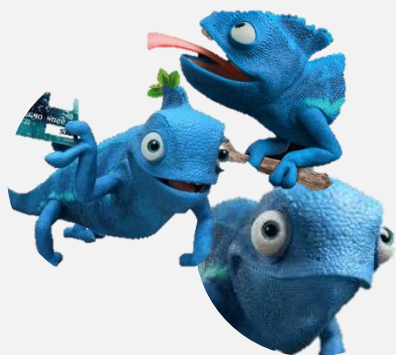
Chatbot (Kate AI Assistant) for employees

Why?

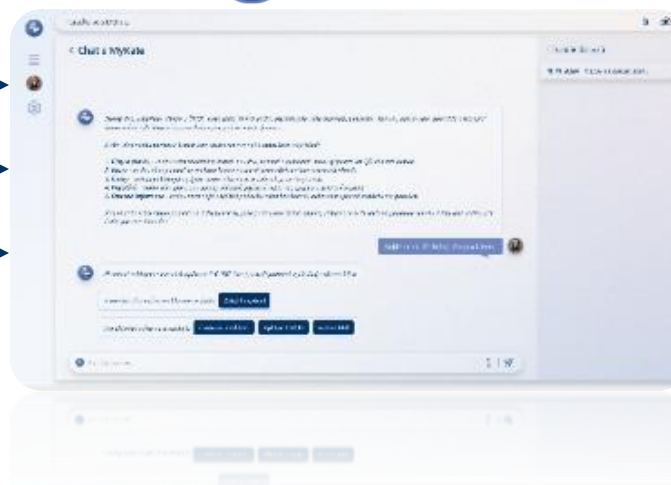


Kate

ČSOB employees



"What are the terms of a mortgage?"



Kate finds mortgage documents

Knowledge bases

Documents (pdf, guidelines, forms, contracts, texts...)

✓ Faster/more productive employees/processes





Chatbot (Kate AI Assistant) for employees

Why custom?



Buy (out of box solution)

Solution examples



ChatGPT



Microsoft 365
Copilot

- + Easy to set up and use
- Limited customization and integration
- Security/compliance constraints (external servers)

VS

Build (custom solution)

Example building blocks



cohere

- + Highly customizable
- + Can be moved at your wish out of cloud
- Requires more work to set up

Initial investments:

Low (quick wins)

High (need for implementation)



DataSentics
an Eviden business

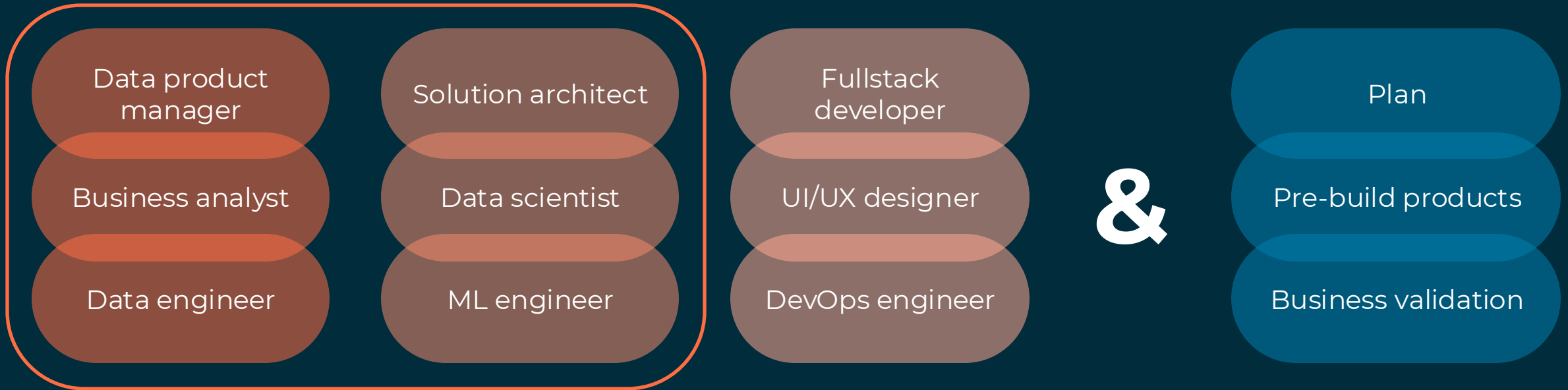


Chatbot (Kate AI Assistant) for employees

Why DataSentics?



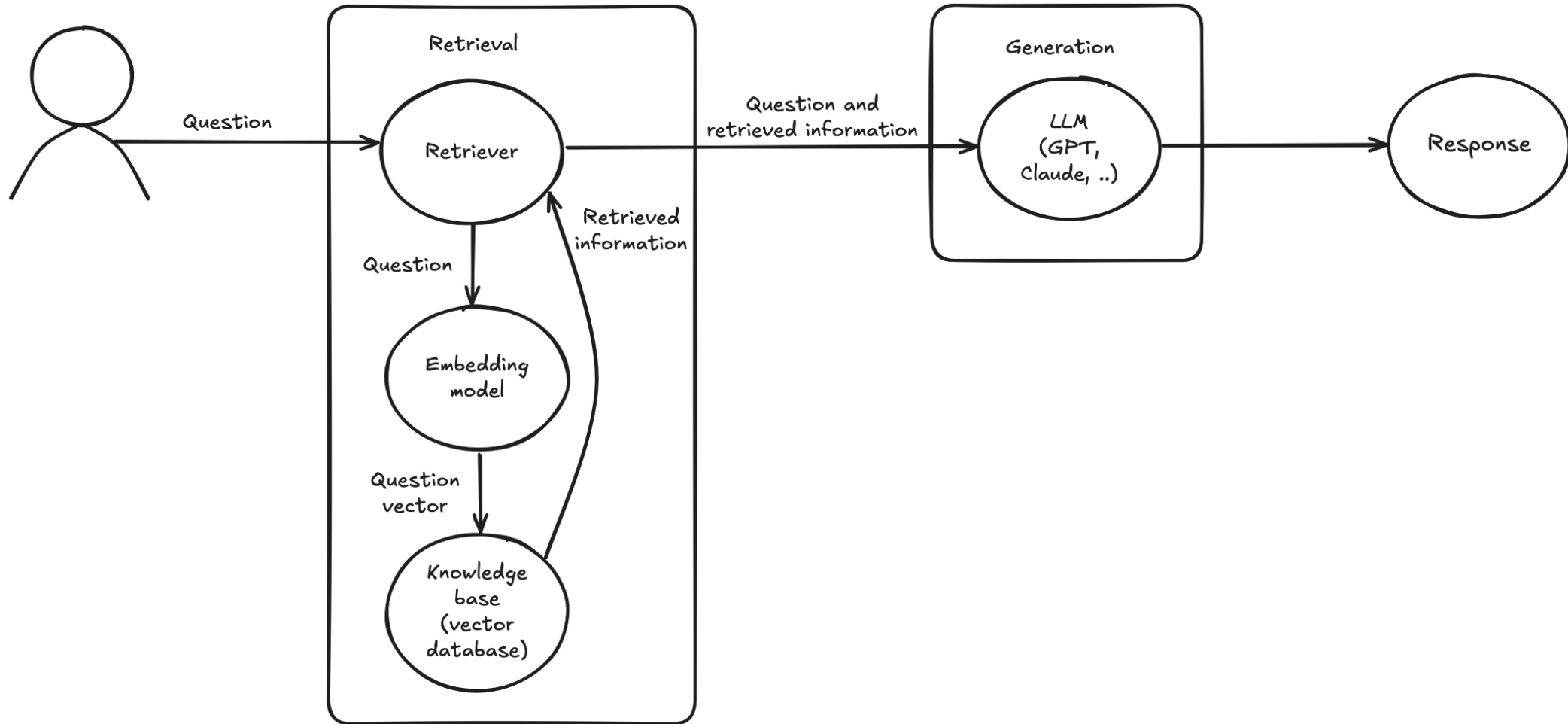
Cross-functional team:





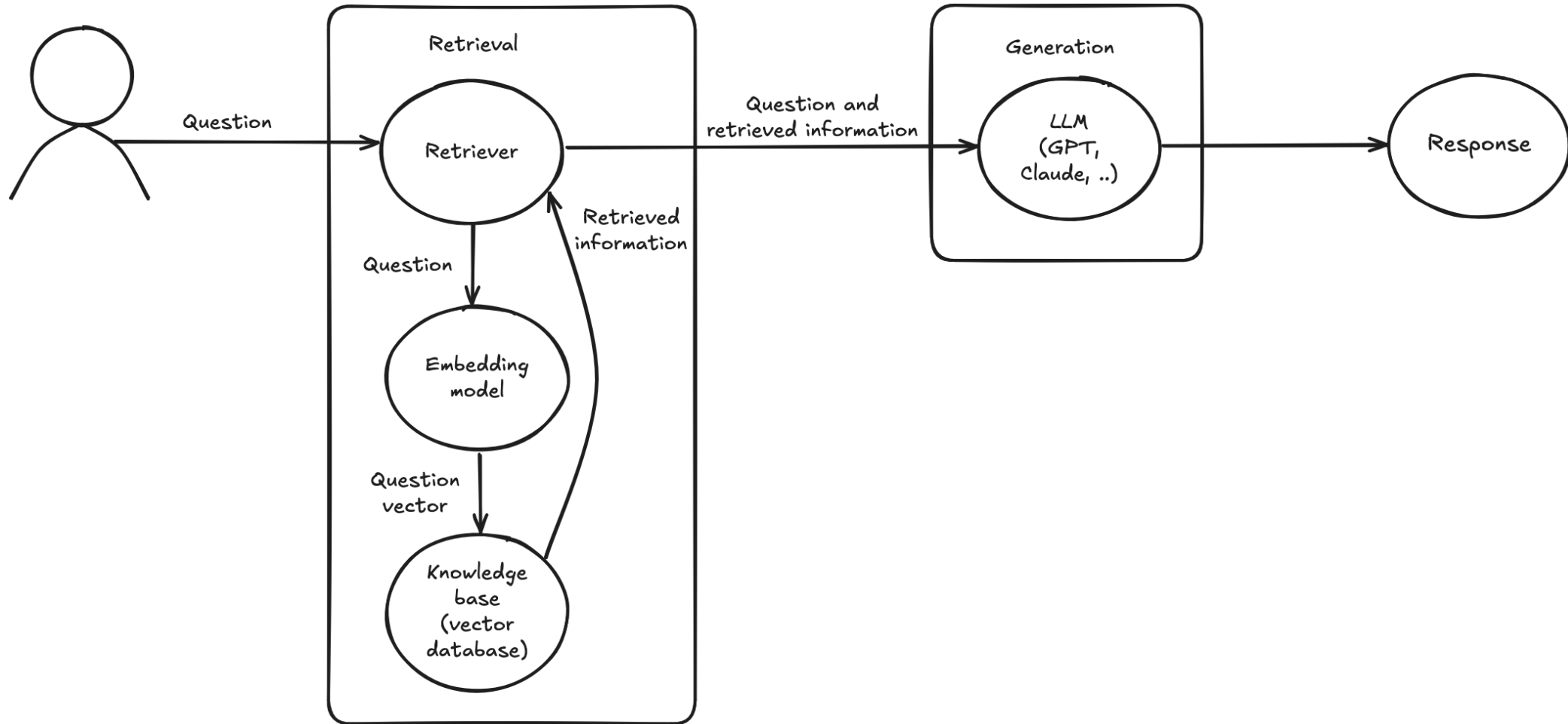
How to build the chatbot?

Retrieval Augmented Generation (RAG)





Easy right?





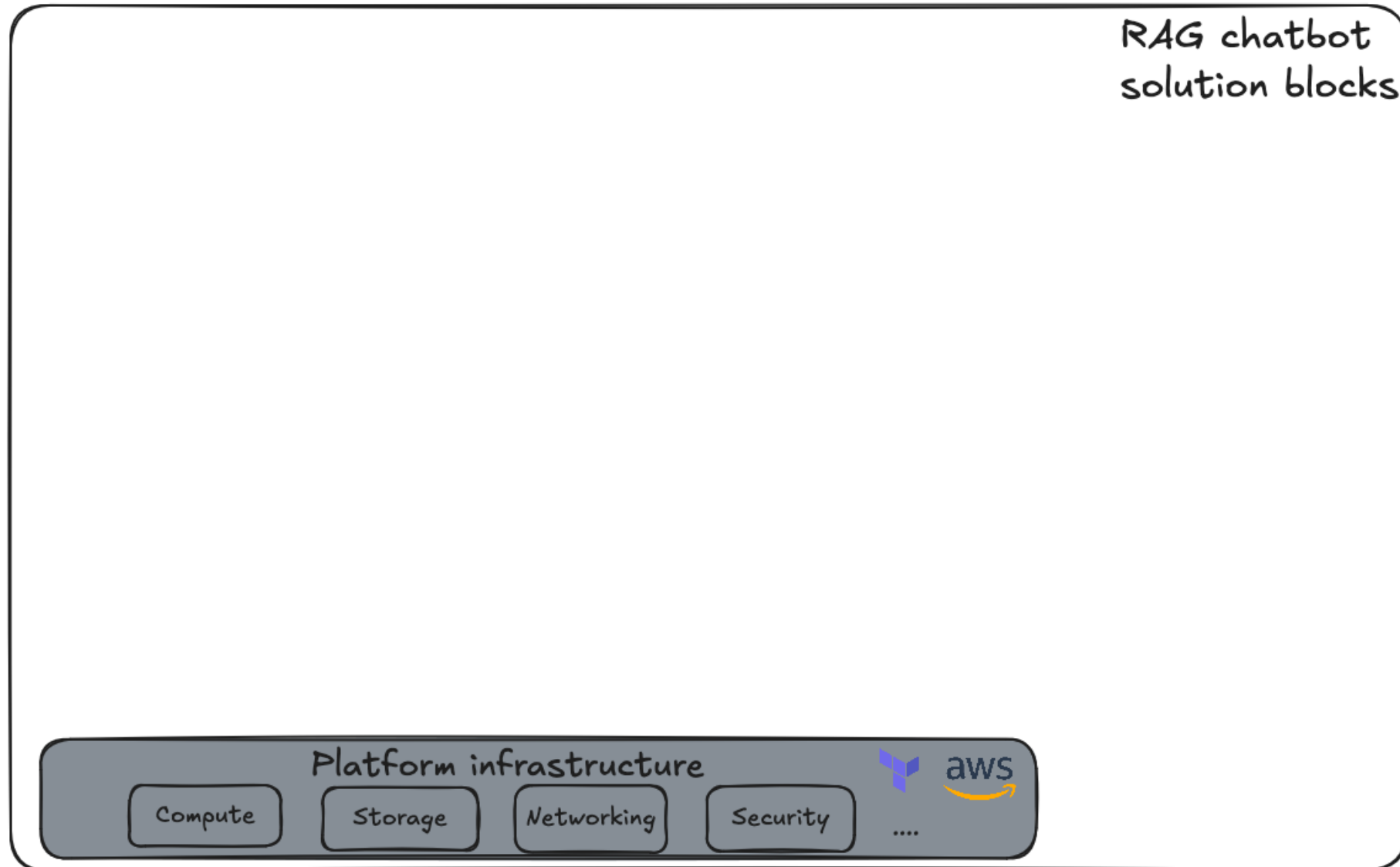
Building the solution

RAG chatbot
solution blocks



Building the solution

Platform infrastructure





Building the solution

Platform infrastructure

RAG chatbot
solution blocks

In **heavily** regulated enterprise you need to absolve many extra steps (whitelisting, exceptions for data use, ...).

Platform infrastructure

Compute

Storage

Networking

Security



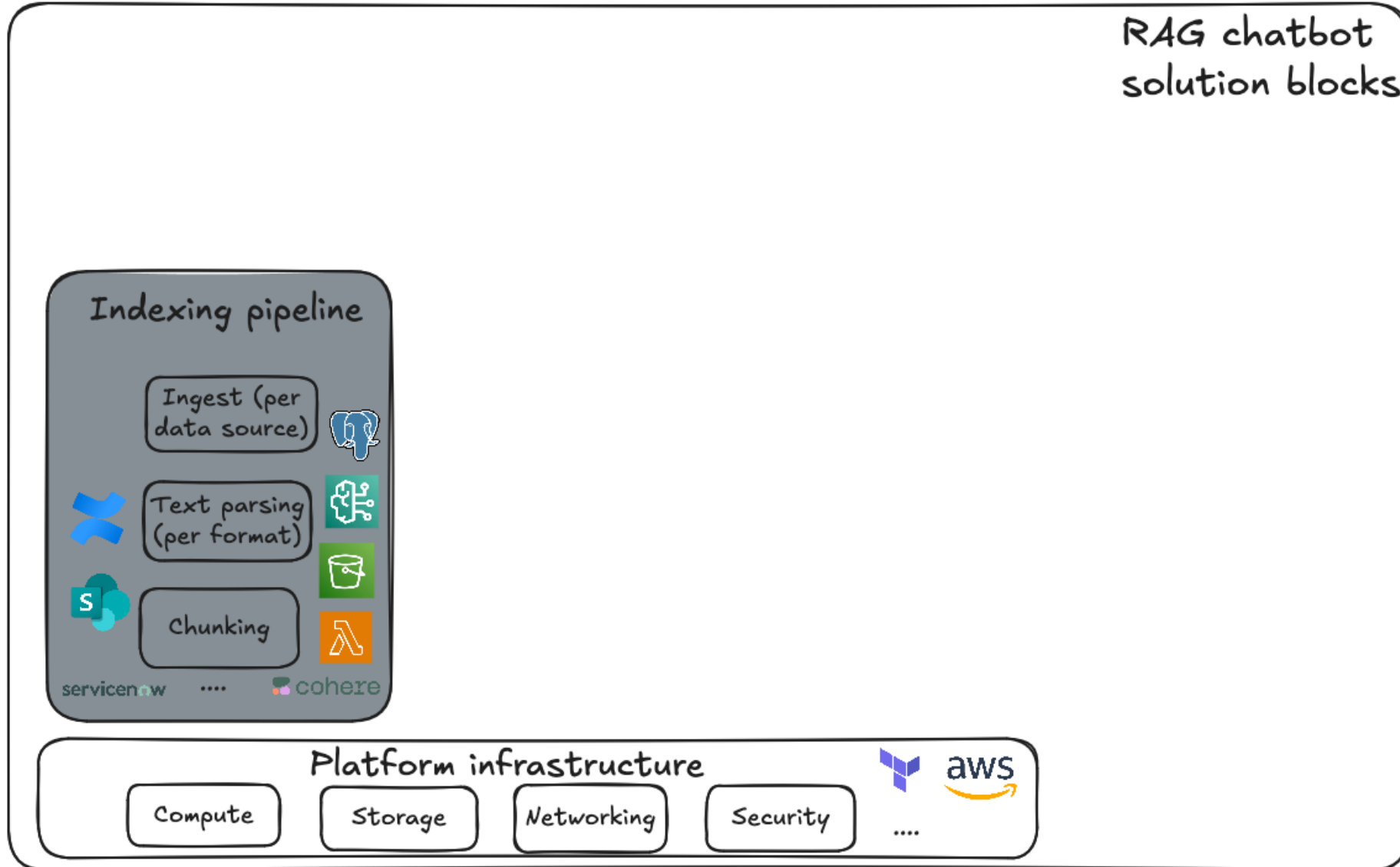
....



Building the solution

Indexing pipeline

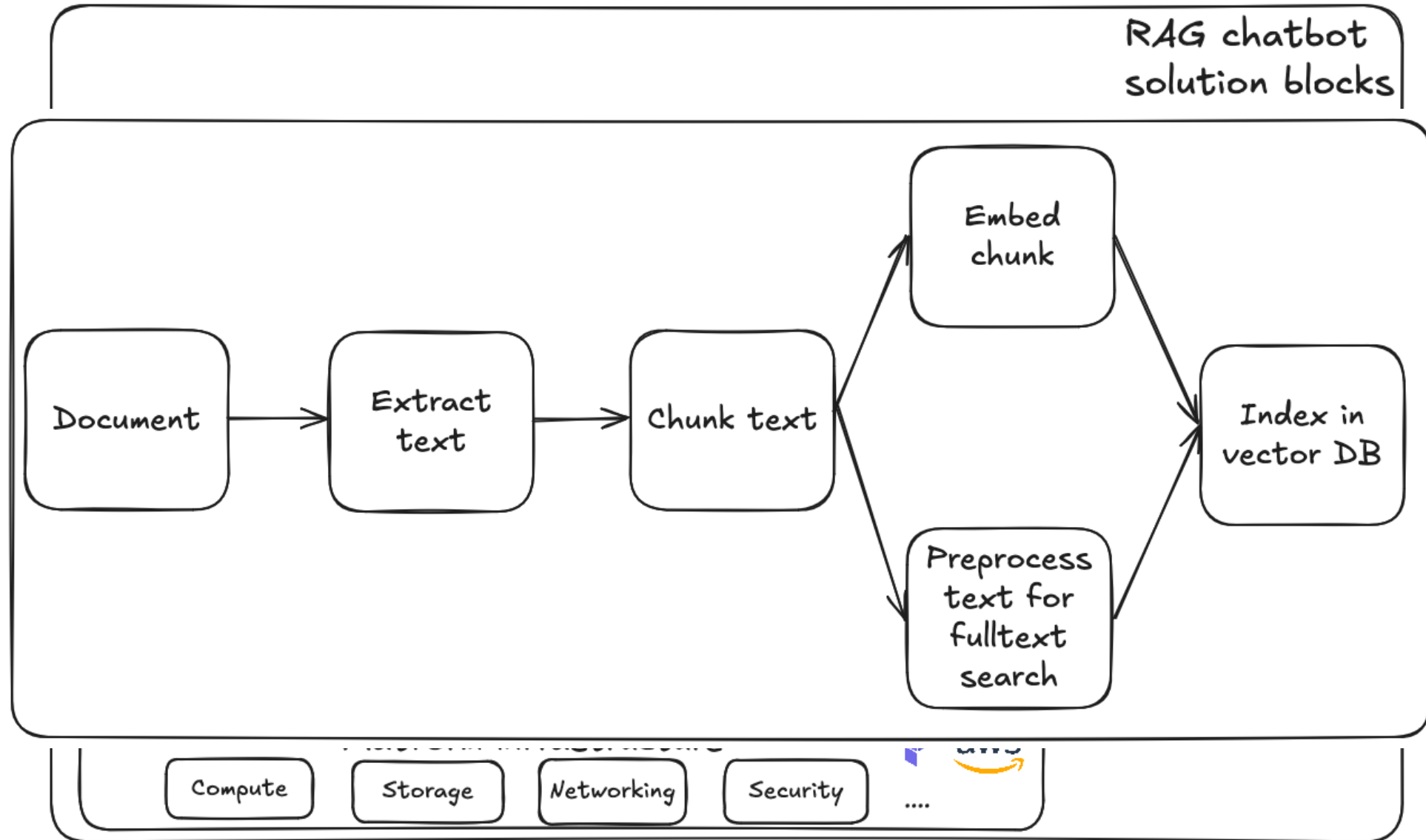
RAG chatbot
solution blocks





Building the solution

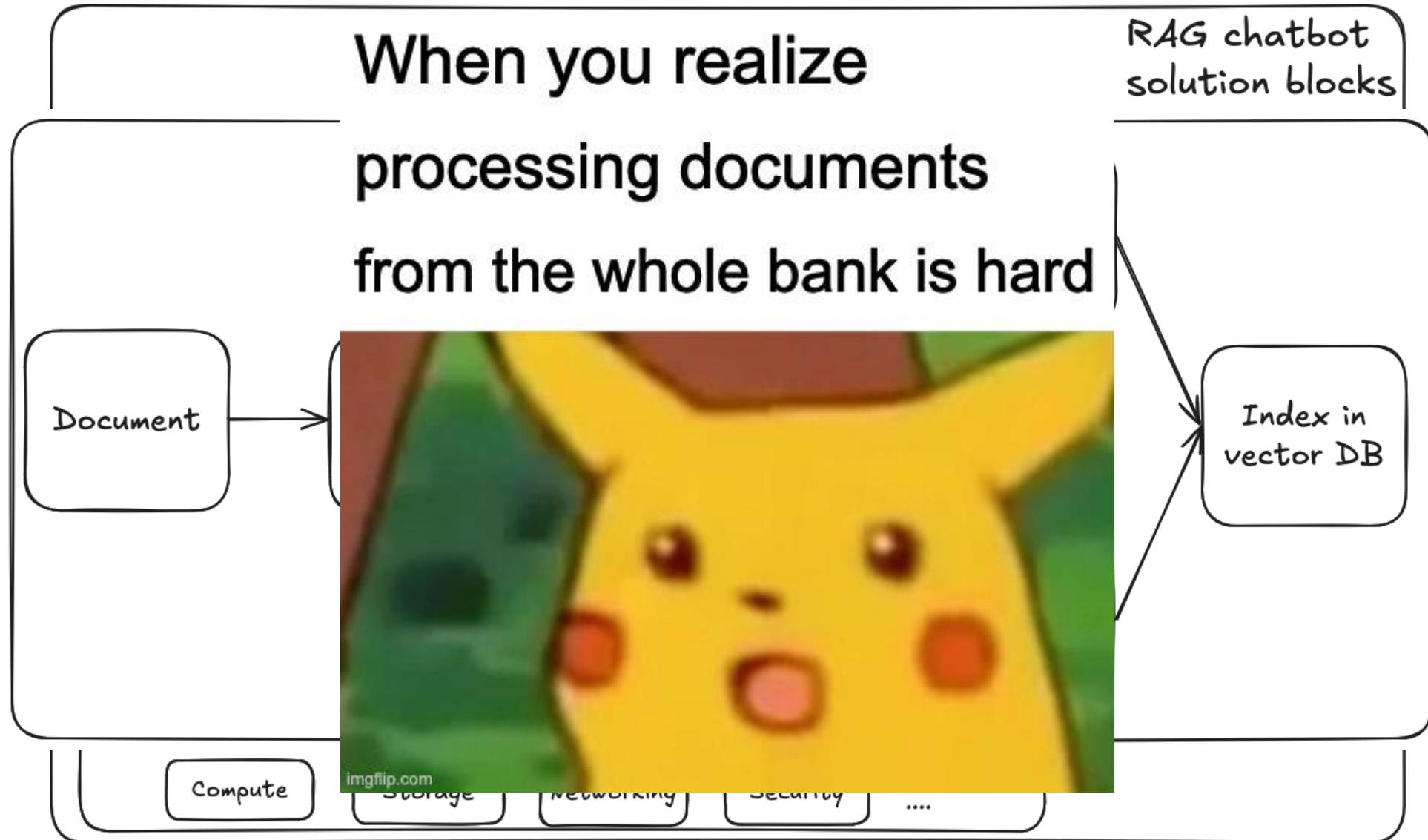
Indexing pipeline





Building the solution

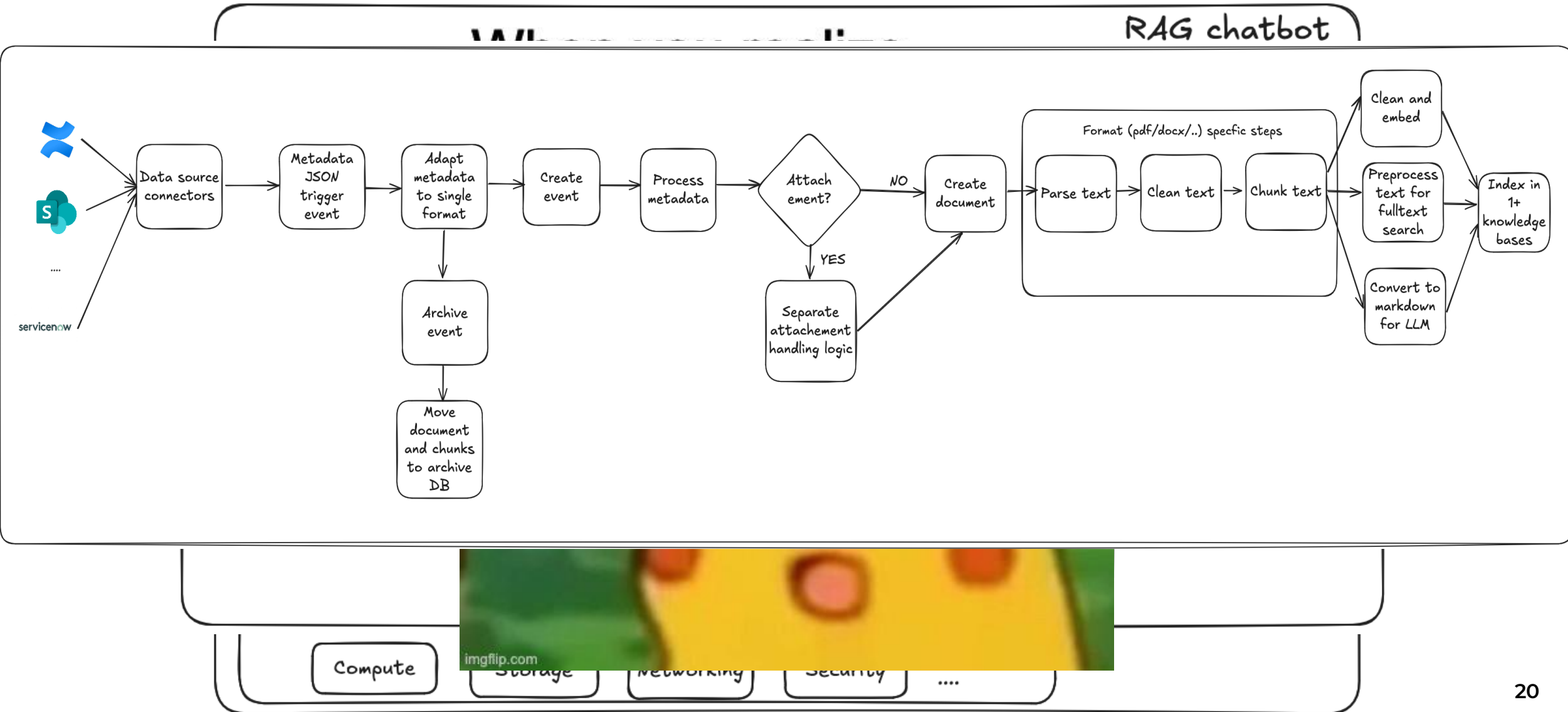
Indexing pipeline





Building the solution

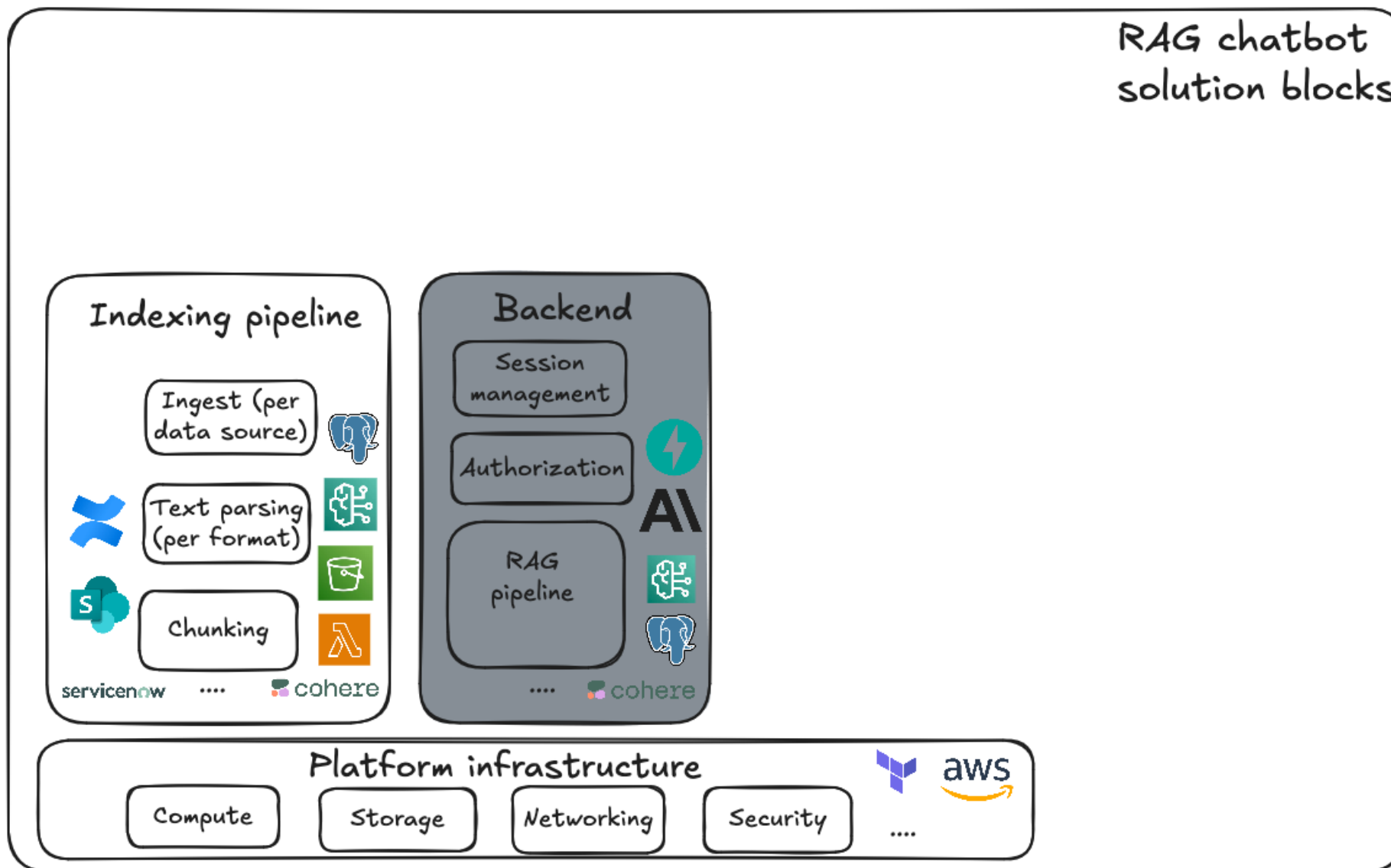
Indexing pipeline





Building the solution

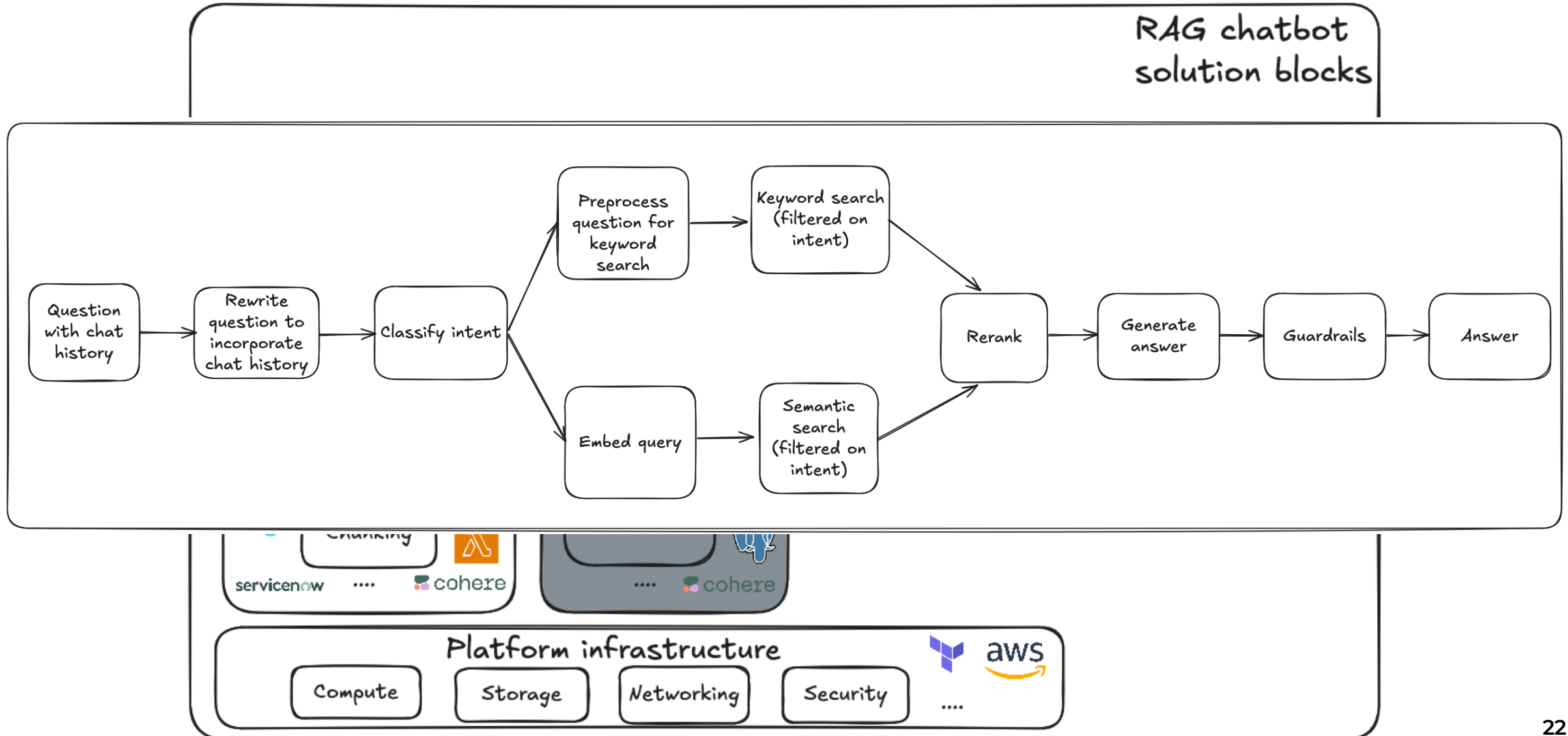
Backend





Building the solution

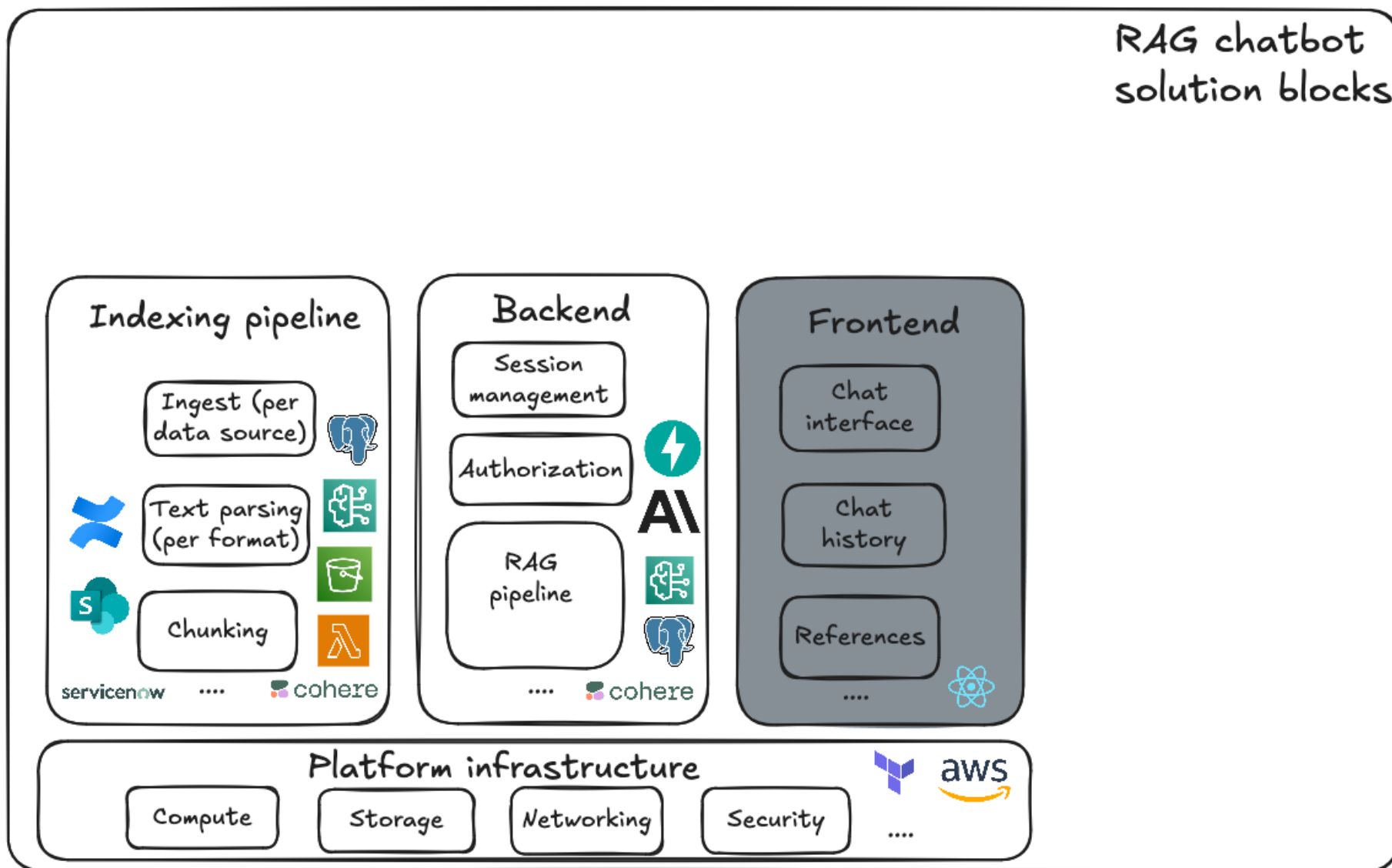
Backend





Building the solution

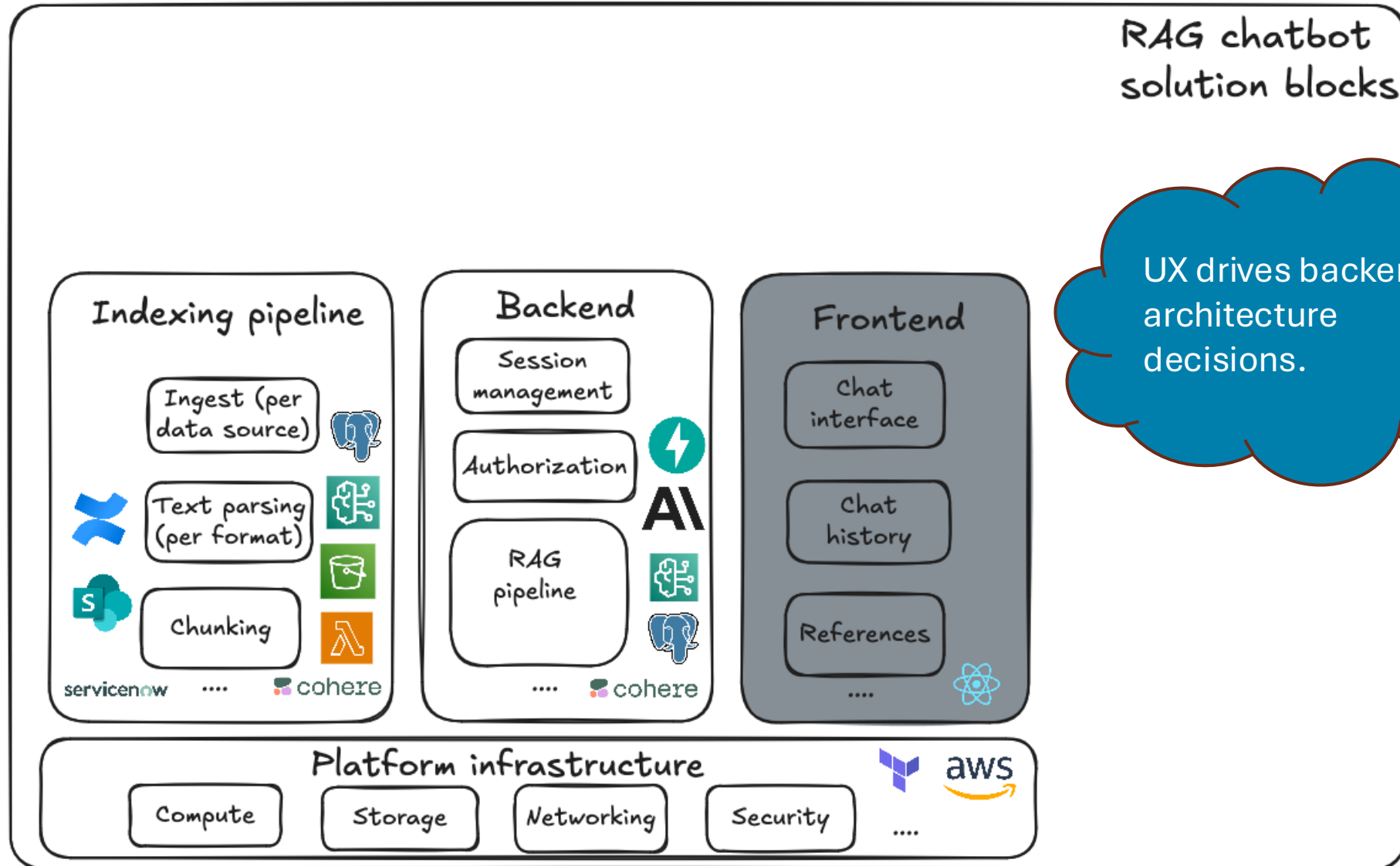
Frontend





Building the solution

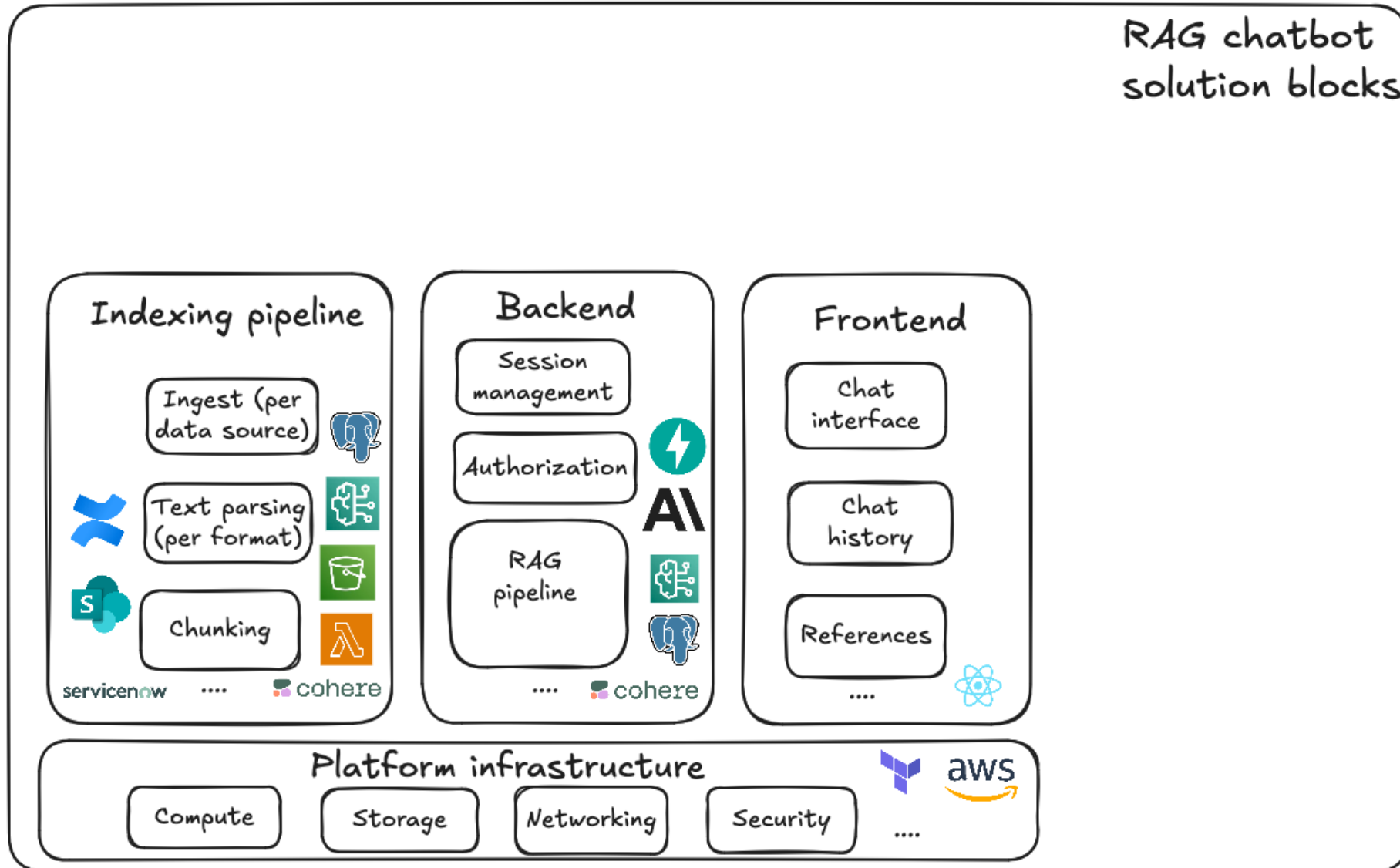
Frontend





Minimum Lovable Product (MLP)

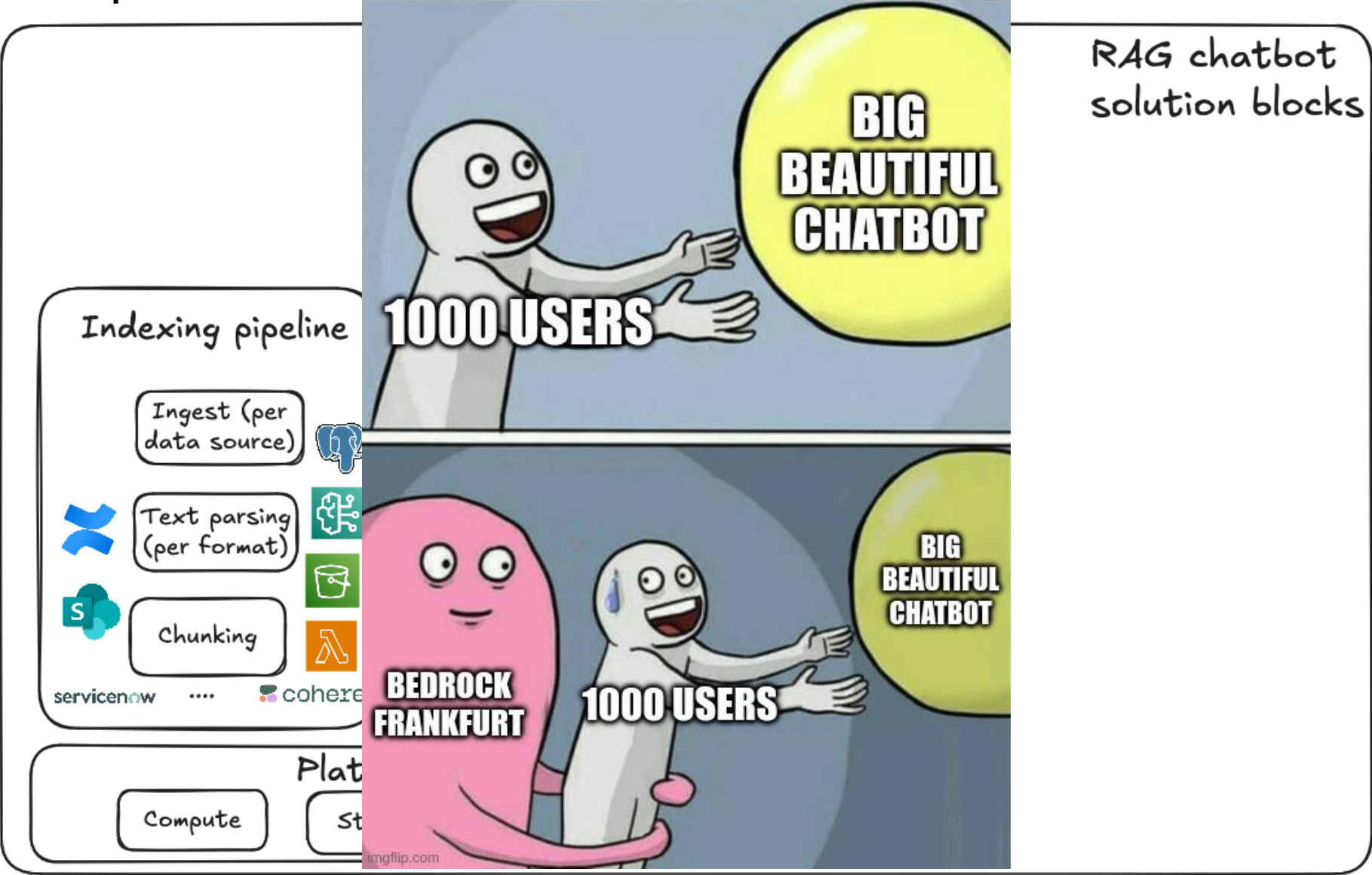
Extended pilot





Minimum Lovable Product (MLP)

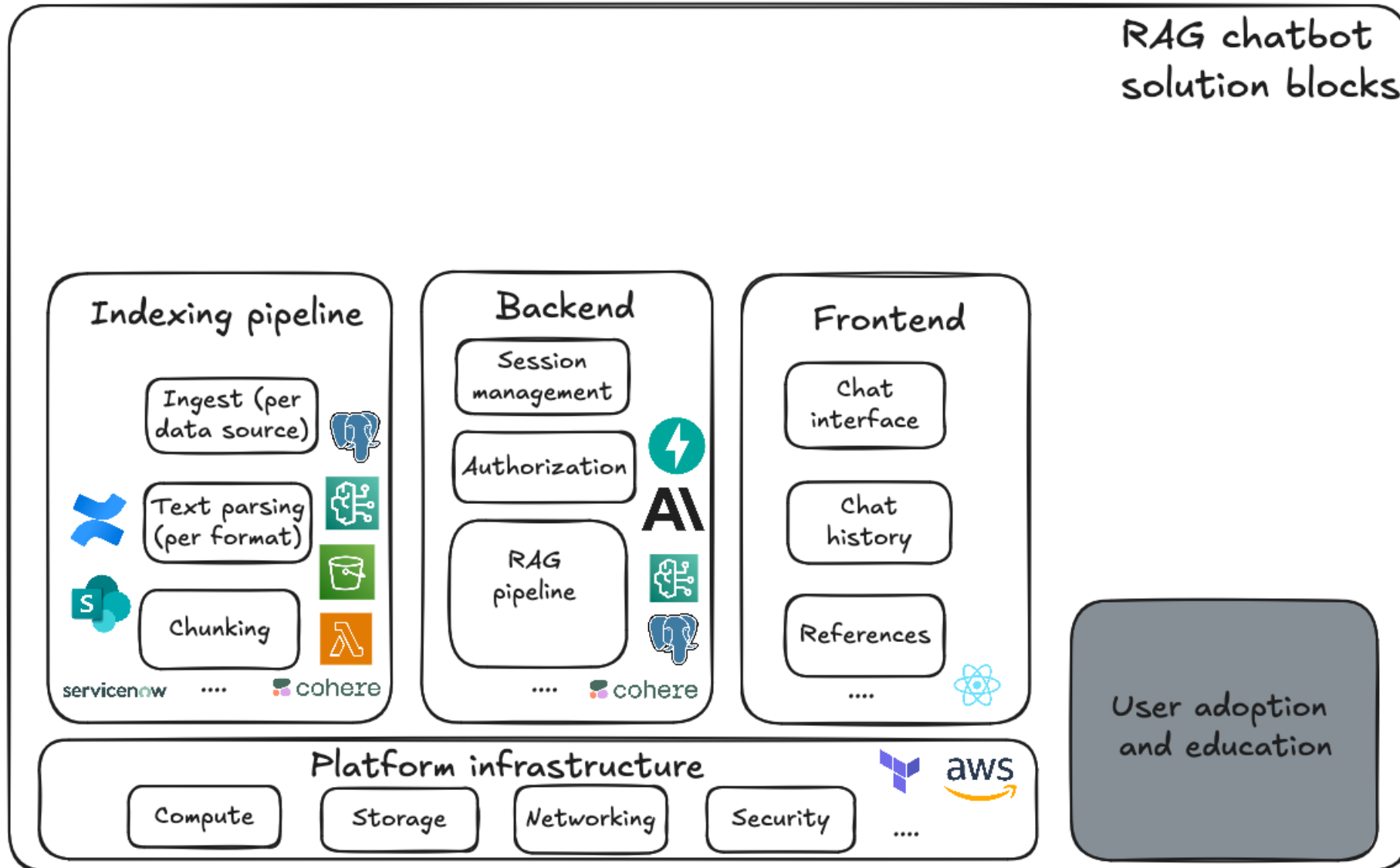
Extended pilot





Minimum Lovable Product (MLP)

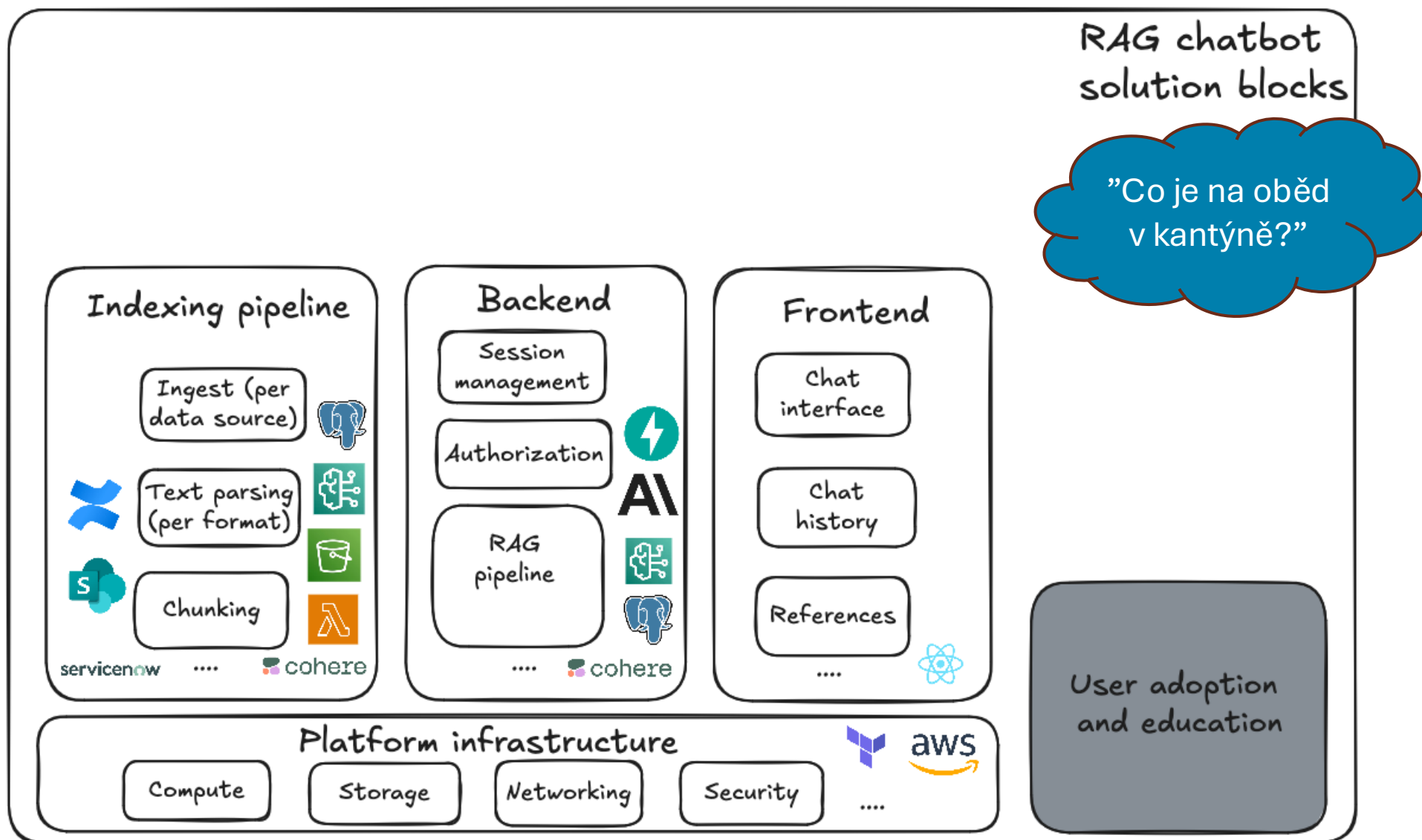
User adoption (education)





Minimum Lovable Product (MLP)

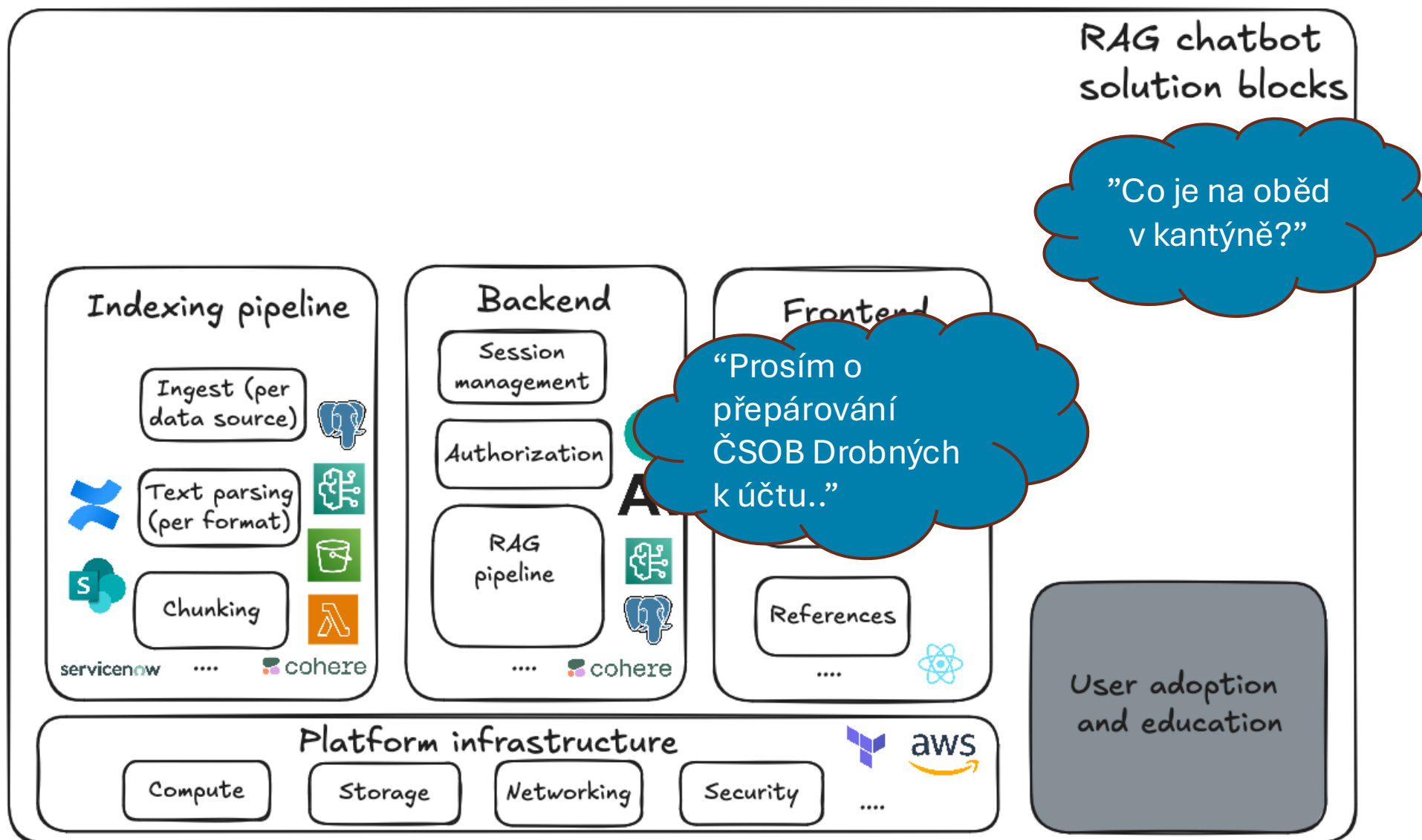
User adoption (education)





Minimum Lovable Product (MLP)

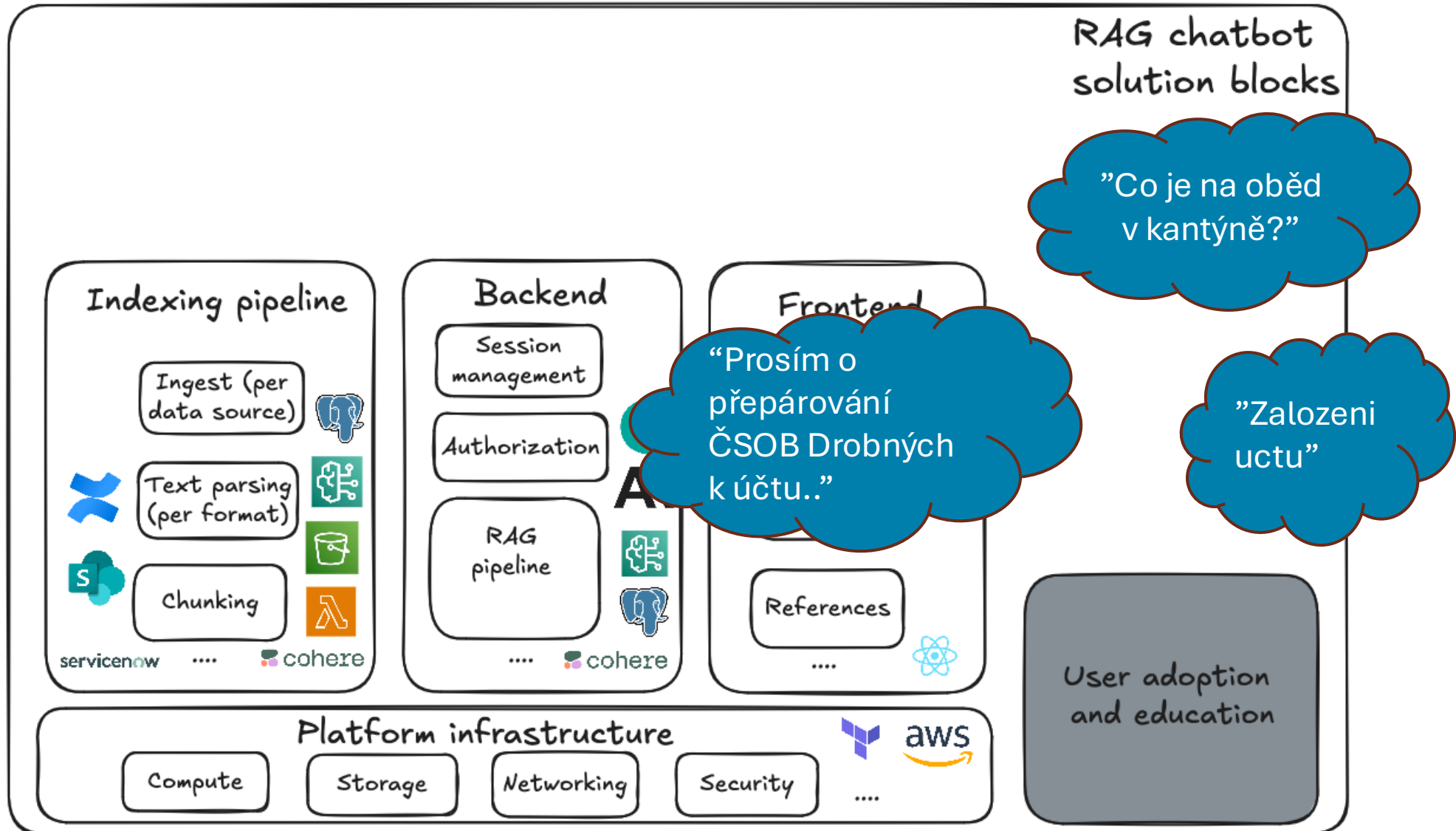
User adoption (education)





Minimum Lovable Product (MLP)

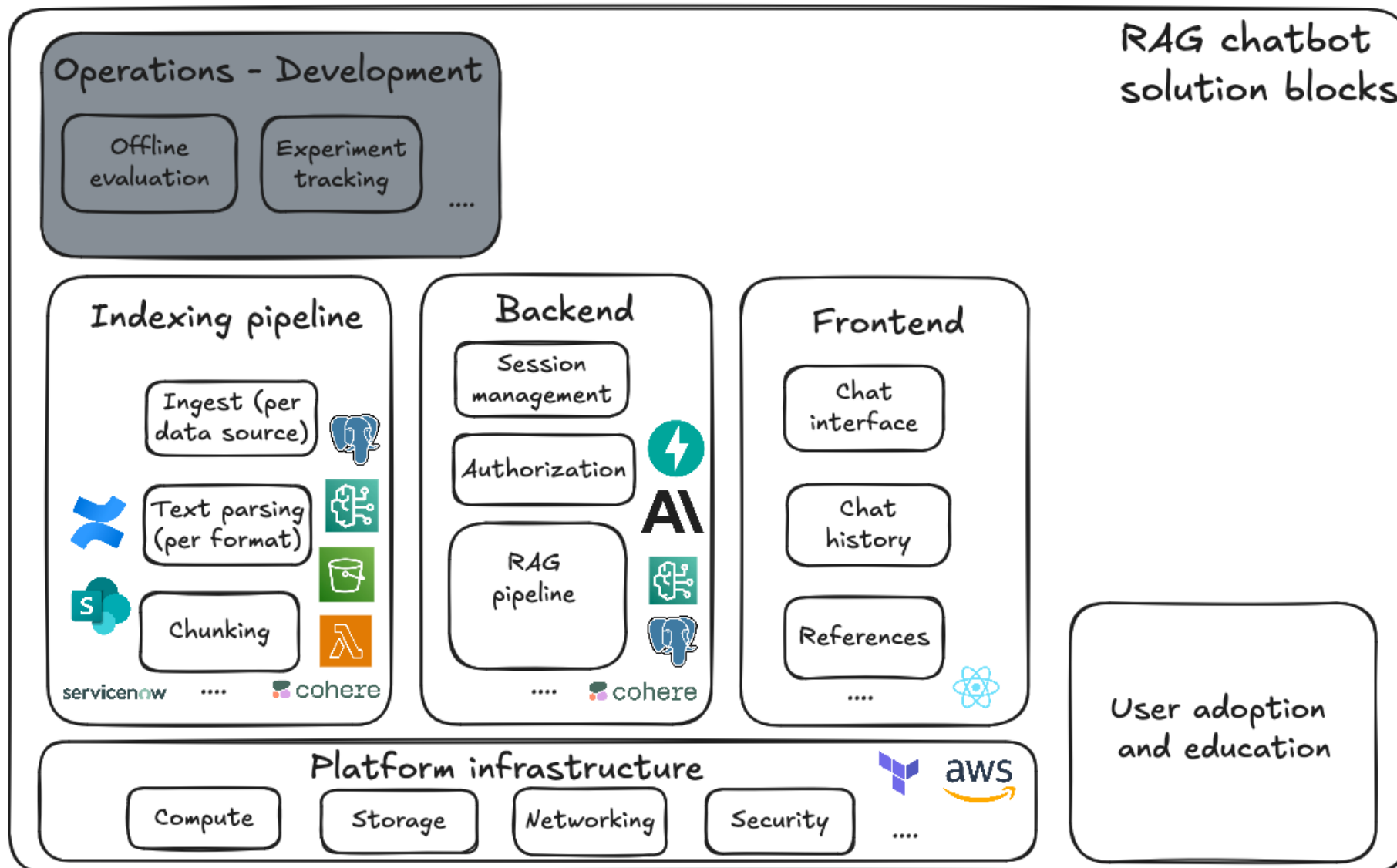
User adoption (education)





Minimum Lovable Product (MLP)

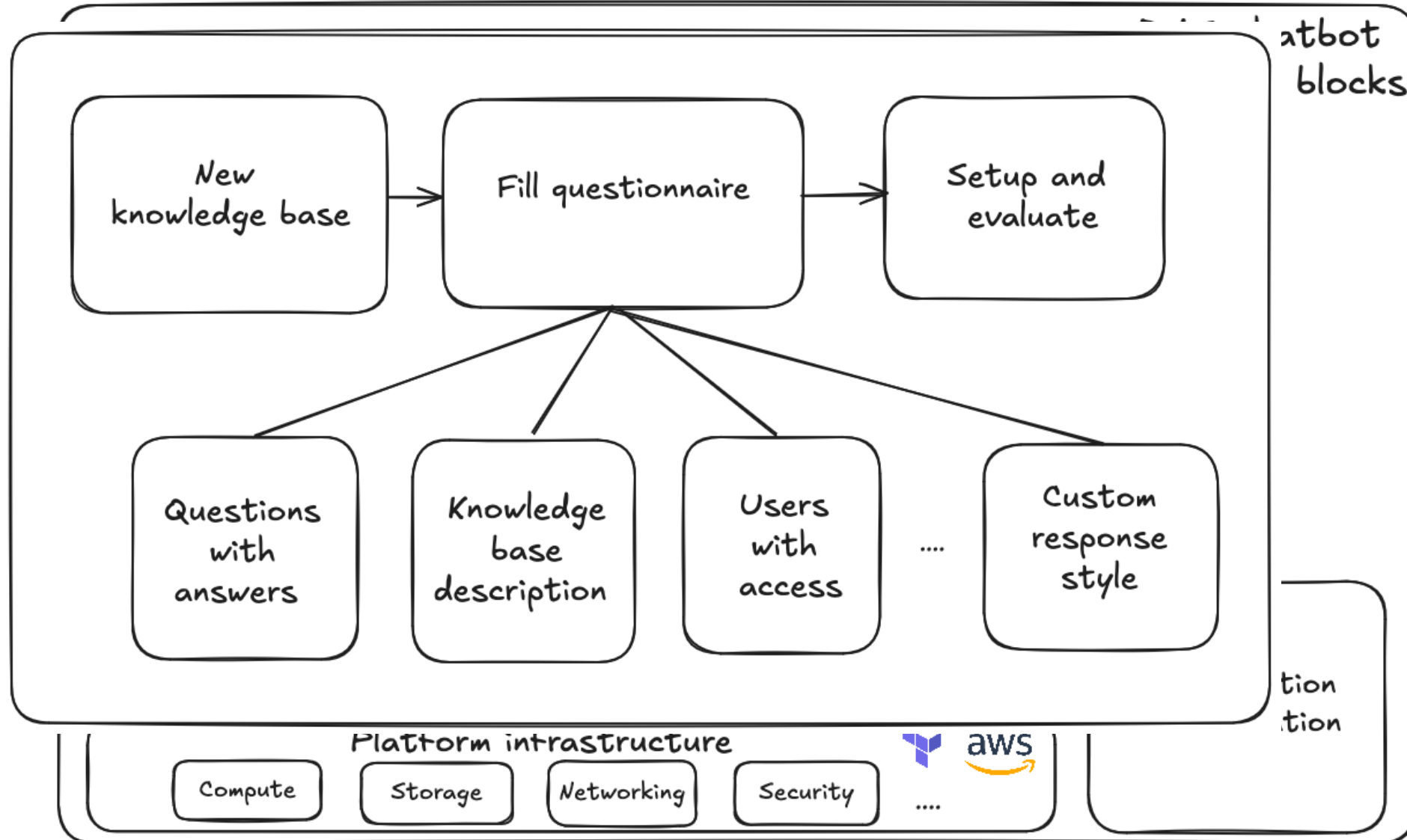
Operations





Minimum Lovable Product (MLP)

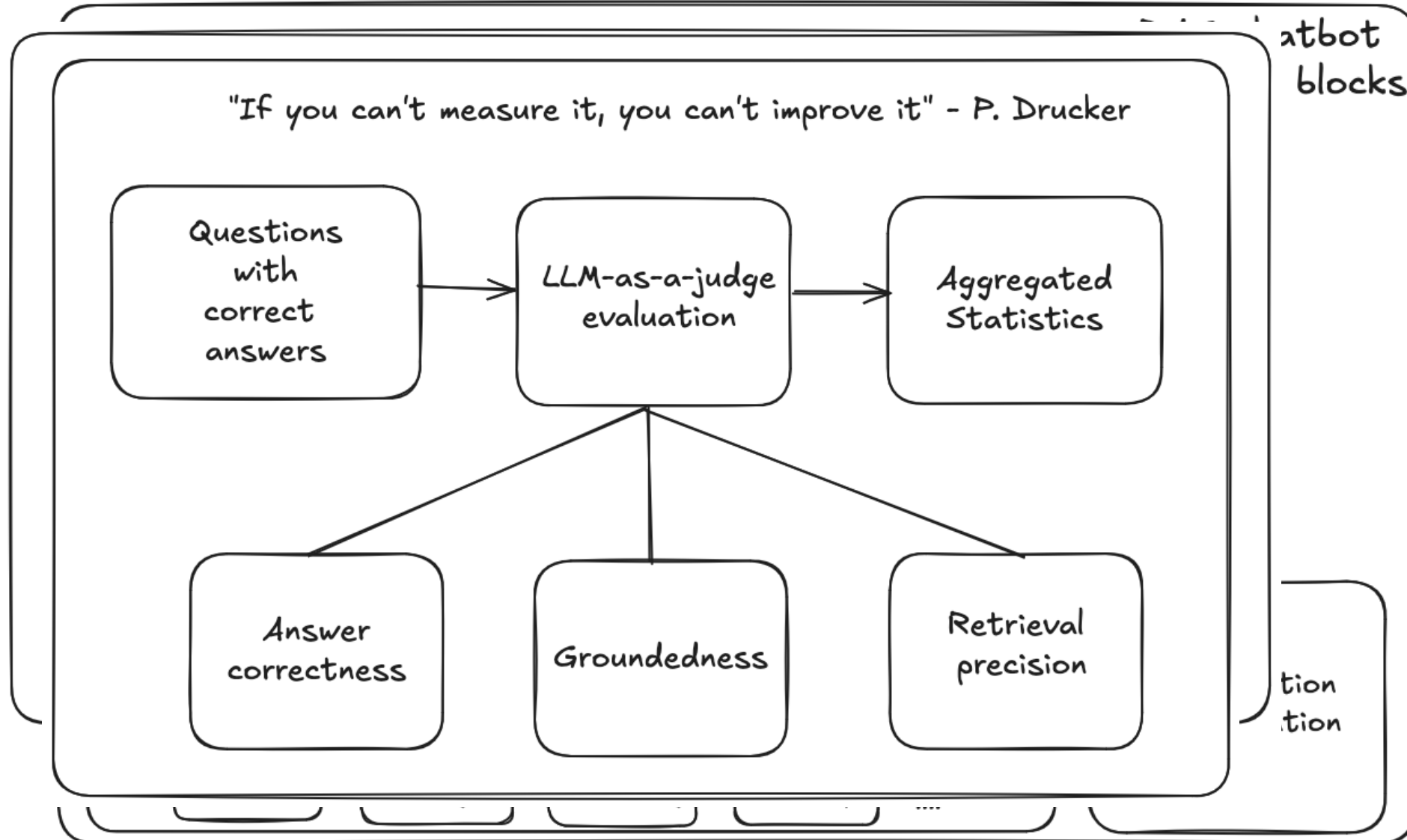
Operations





Minimum Lovable Product (MLP)

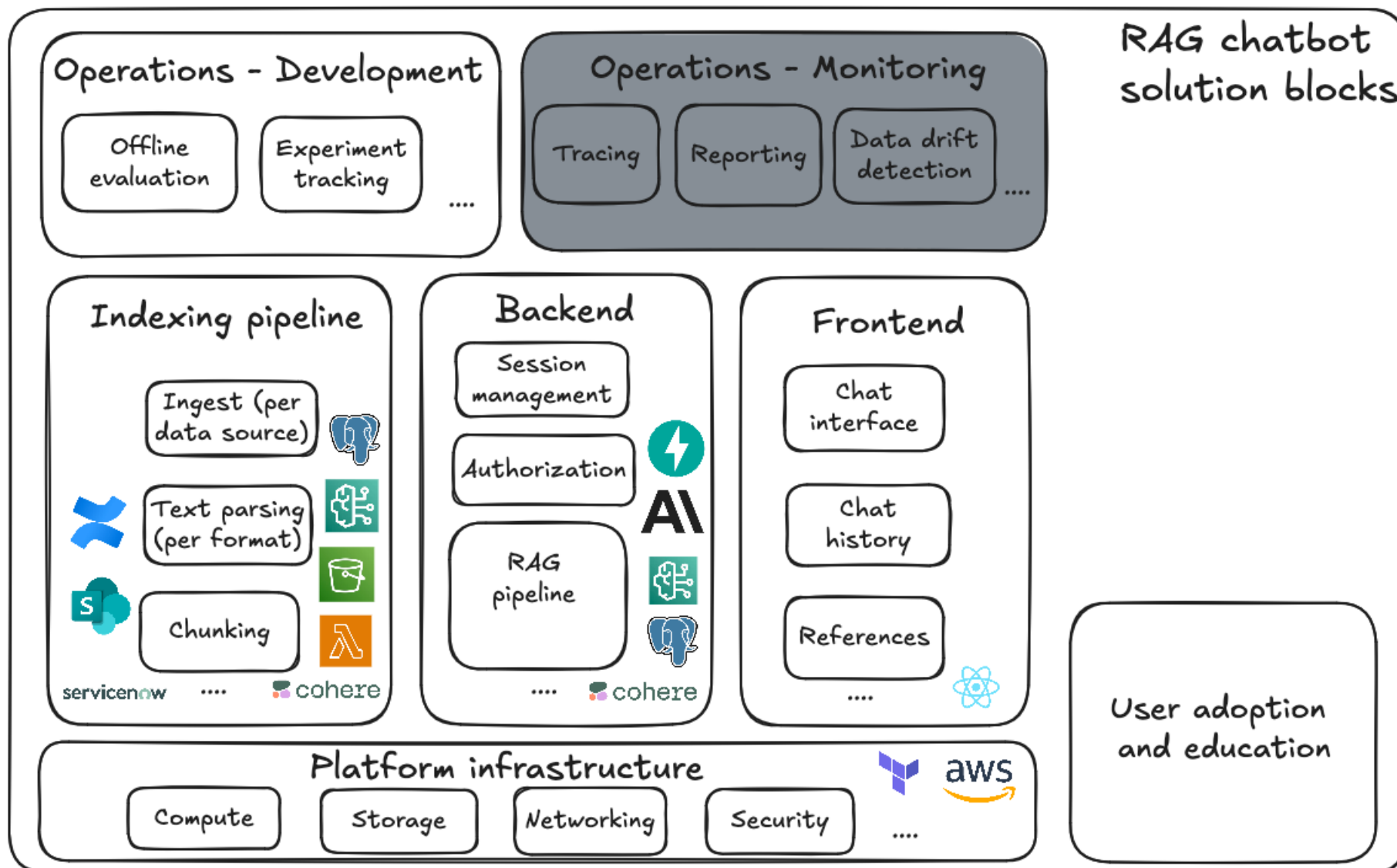
Operations





Minimum Lovable Product (MLP)

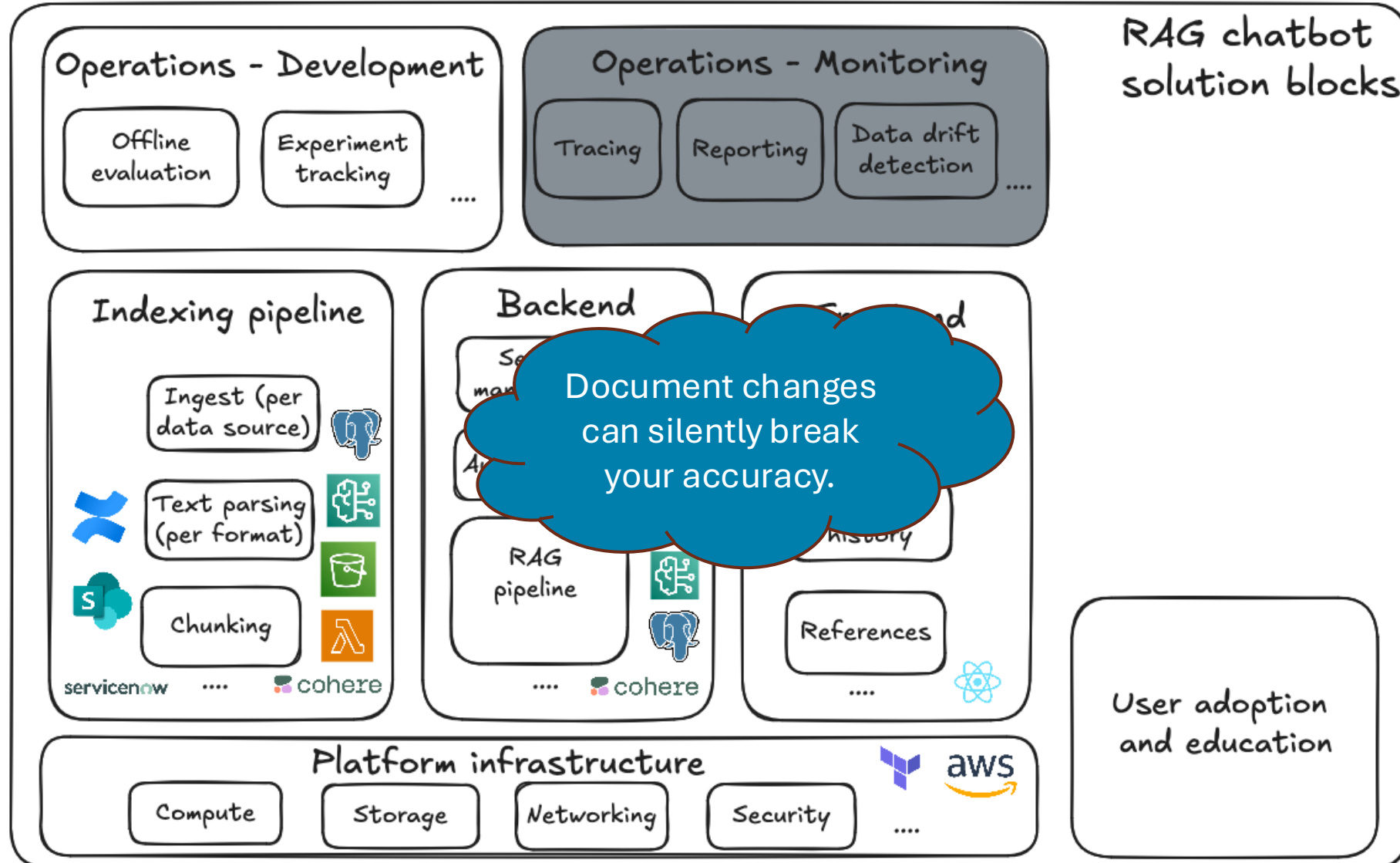
Operations





Minimum Lovable Product (MLP)

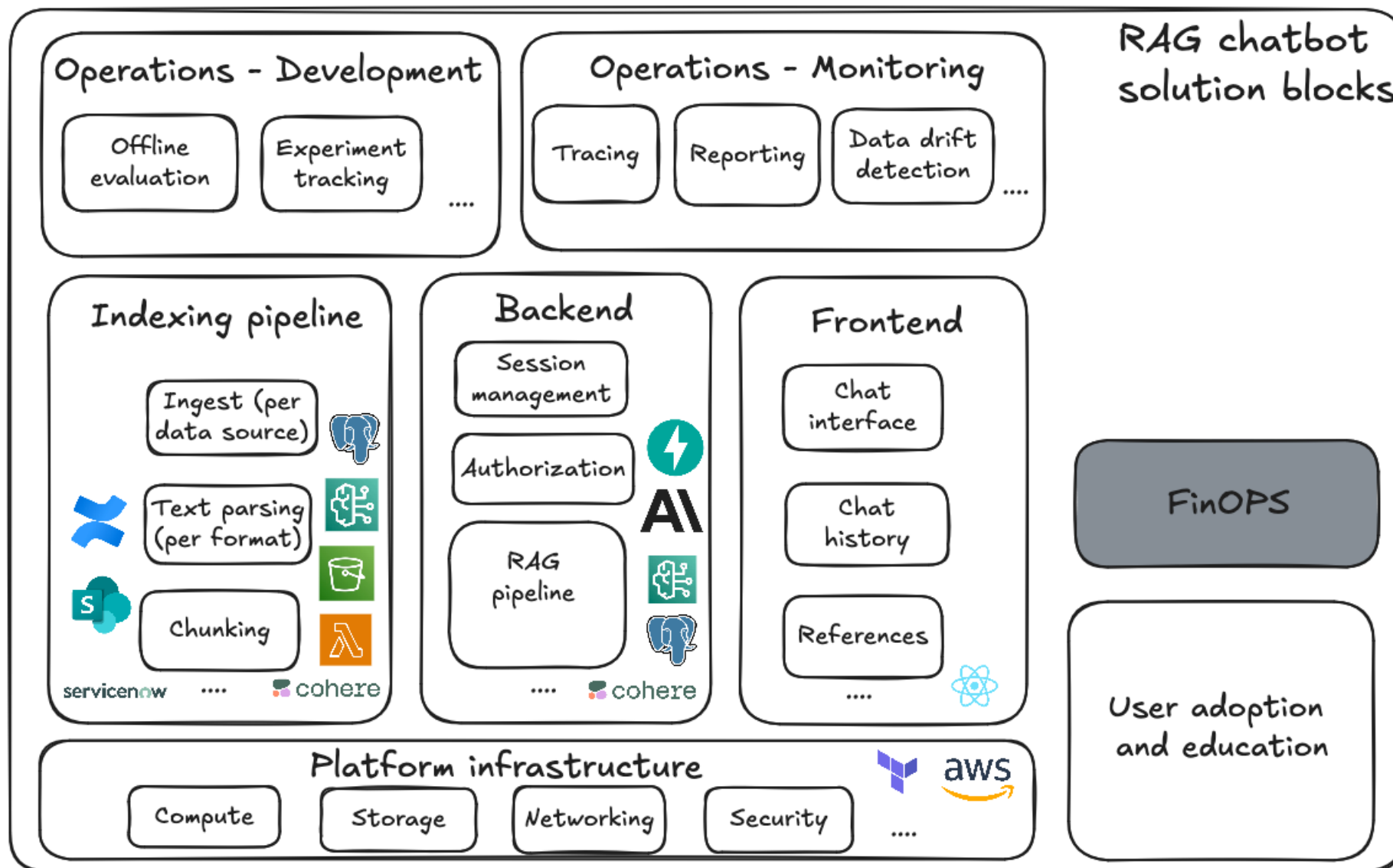
Operations





Minimum Lovable Product (MLP)

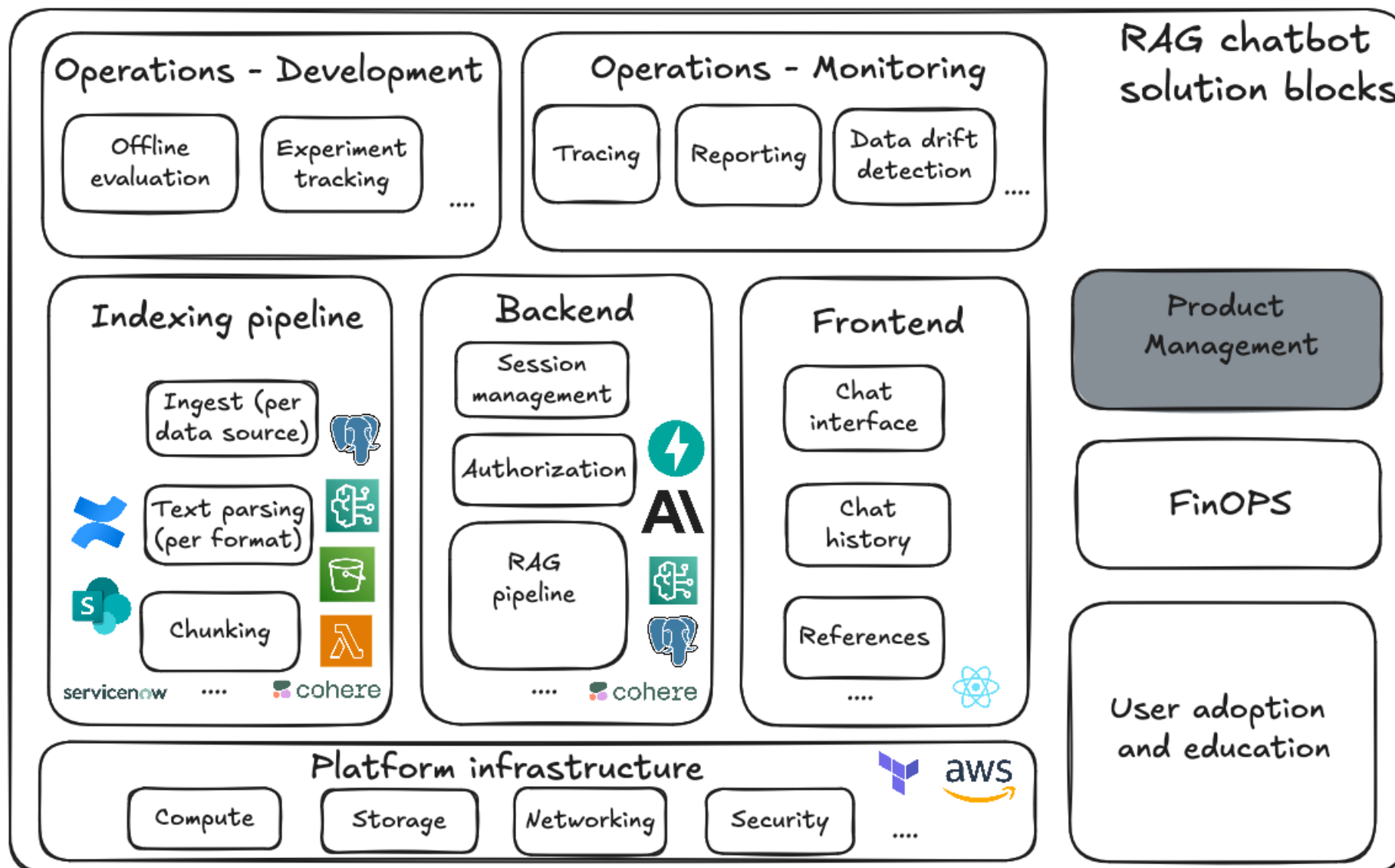
FinOps





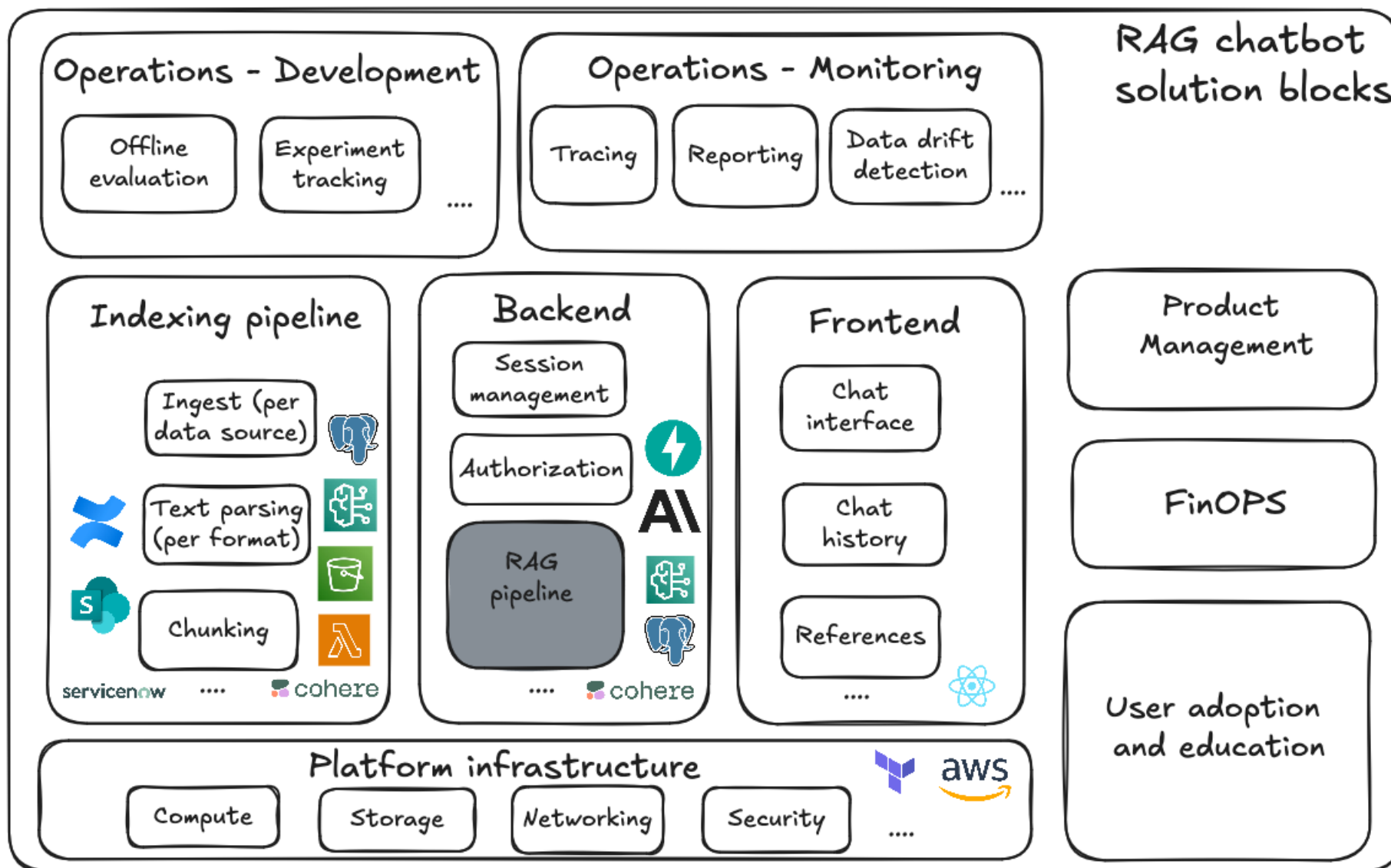
Minimum Lovable Product (MLP)

Product Management





Minimum Lovable Product (MLP)





Does it work?





Does it work?

Statistics



Results of the satisfaction survey from Q3 2025



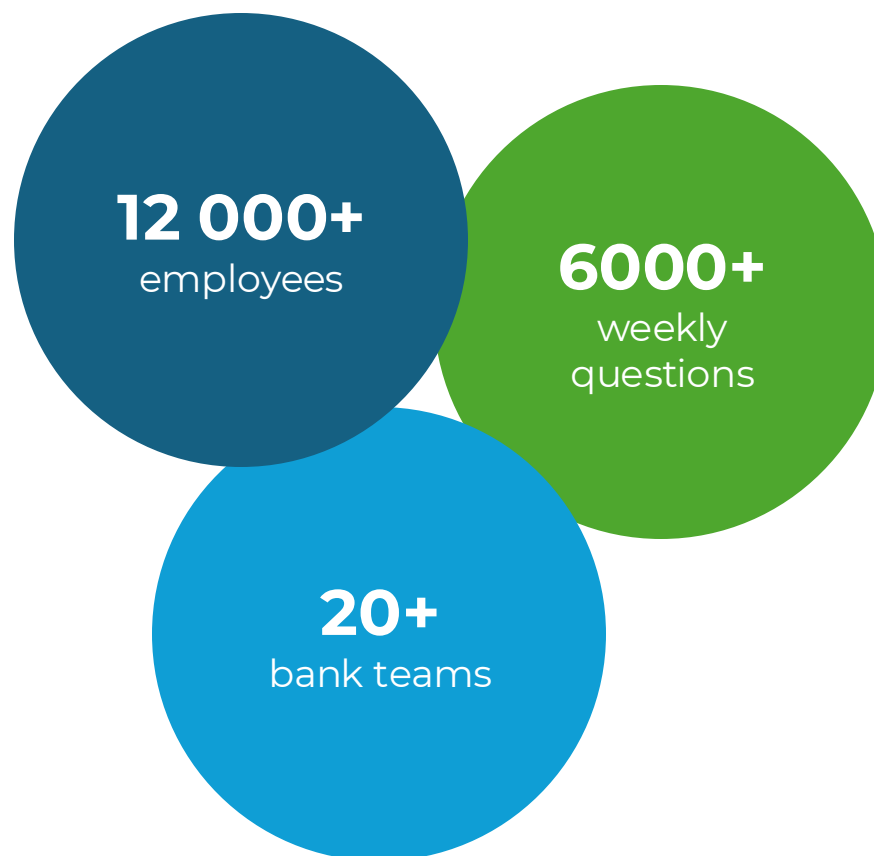
„Jsem v bance 30 let a mohu zodpovědně říci, že Kate AI asistentka je prvním pomocníkem pracovníkům na přepážkách, který skutečně funguje. Díky.“





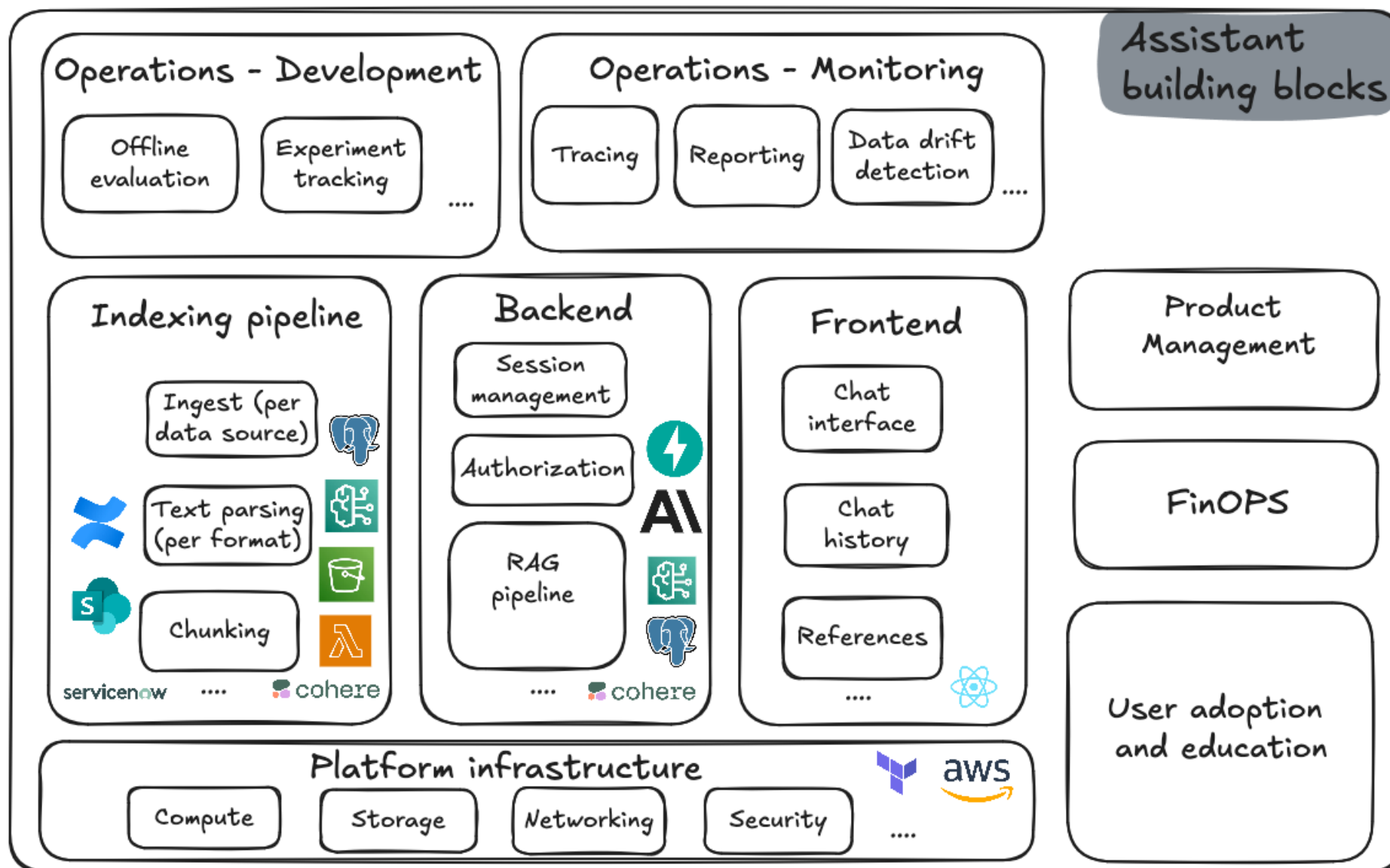
Does it work?

Outlook for the next year





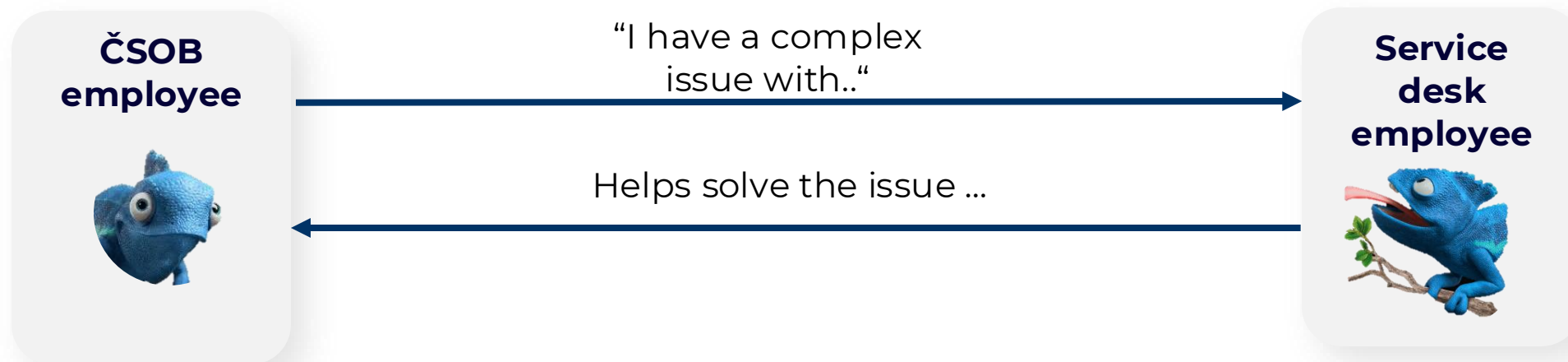
From RAG to assistants





From RAG to assistants

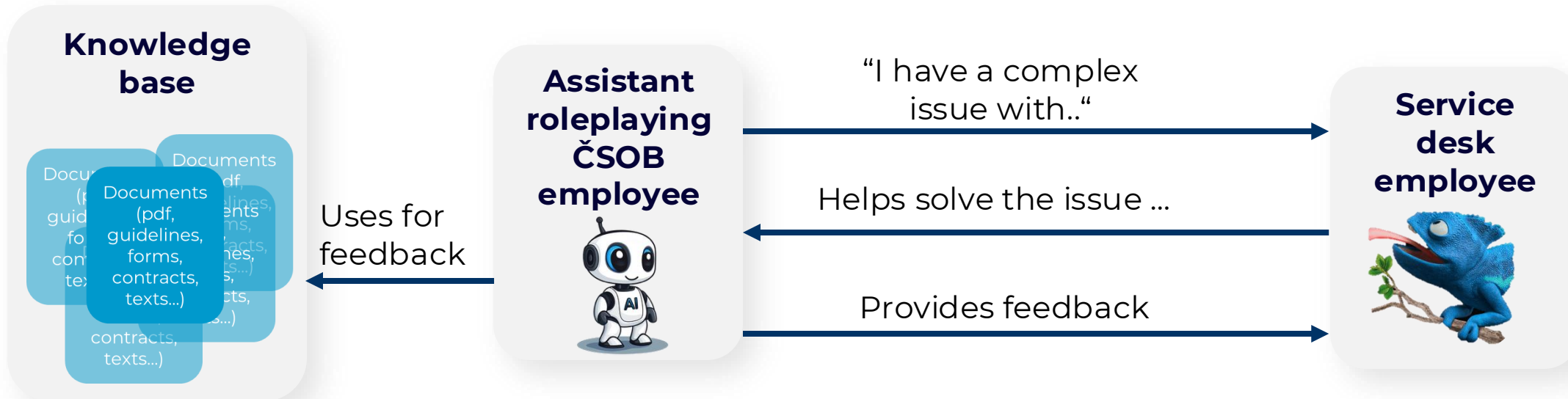
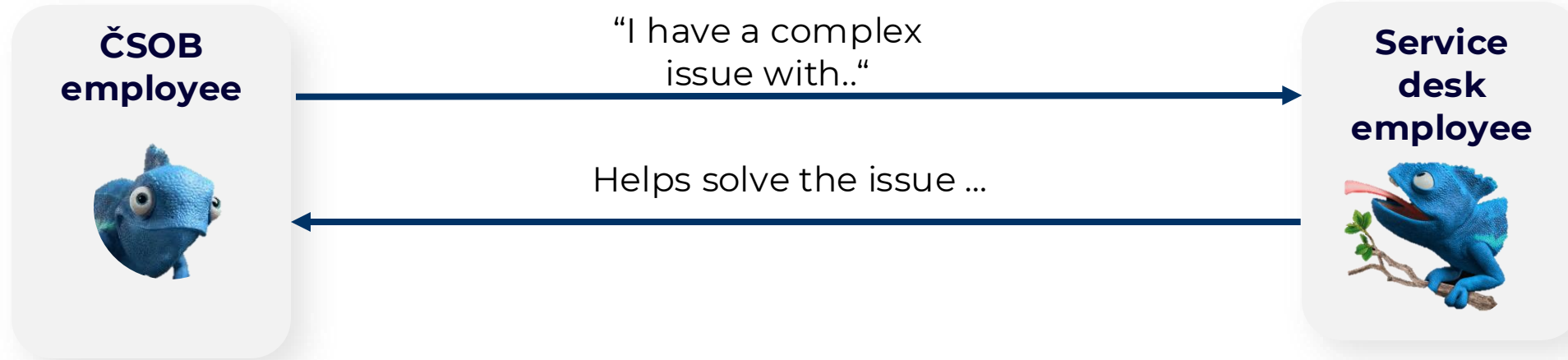
LLM Trainer Example





From RAG to assistants

LLM Trainer Example





Thanks for your attention!



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Email: dominik.macko@datasentics.com



We are hiring!