Cloud Providers — Sentiment Analysis

Minimal white slides • Model + Survey

Model

RoBERTa for Sentiment (fine-tuned)

- Base encoder: RoBERTa (BPE tokenizer, robust contextual embeddings)

- Task: 3-class sentiment (Positive / Negative / Neutral)

- Data: Mentions of cloud providers labeled by area (cost, performance, scalability, security, support, general)

- Fine-tuning:
  - CLS output → dropout → linear head (3 logits)
  - Weighted cross-entropy to handle class imbalance
  - Early stopping on macro-F1; stratified train/val/test

- Inference: softmax; optional confidence threshold for "neutral"

Notes:

- Domain fine-tuning > zero-shot; captures negation and long-range context

Rules ("reinforced grammar") vs. RoBERTa

- Rules baseline:
  - Phrase lists + intensifiers/diminishers
  - Negation scope ("not good", "hardly useful")
  - Domain lexicon (cost/perf/security)
- Trade-offs:
  - Rules → transparent, fast; brittle on paraphrase/sarcasm/context
  - RoBERTa → better generalization; needs labeled data
- Practical blend:
  - Use rules for high-precision seeds/guardrails
  - Use RoBERTa as primary classifier; rules for QA/error analysis

Results (counts by provider & area)

Provider	Area	Total	Positive	Negative	Neutral
AWS	cost	424	148	233	43
AWS	general	477	201	219	57
AWS	performance	108	44	46	18
AWS	scalability	98	43	43	12
AWS	security	370	196	151	23
AWS	support	232	112	106	14
Azure	cost	85	33	37	15
Azure	general	281	116	134	31
Azure	performance	21	6	12	3
Azure	scalability	32	17	14	1
Azure	security	91	38	46	7
Azure	support	93	41	43	9
Google Cloud	cost	45	25	16	4
Google Cloud	general	238	127	94	17

Survey

Where teams run models

- On-premise preferred for:
  - Red tape / compliance
  - Ease of use / control
  - Security requirements
- Cloud preferred for:
  - Larger compute or larger models
  - Typical flow: prototype on-prem $\rightarrow$ deploy/scale in cloud

What matters most in the cloud

- Flexible access to raw compute power — 65%

- Transparent pricing — 65%

- Support docs — 61%

- Preference: flexible compute over prebuilt libraries

- In some roles, ease of setup/integration ≈ cost in importance

Main issues

- High or unpredictable cost

- Integration difficulties

- Lack of support

Open-ended themes:

- Integrating across environments/platforms

- Aligning local dev with cloud runtime parity

- Many use AWS/Azure to match client requests/infrastructure

Conclusions

- Pricing sentiment skews negative on AWS and Azure; GCP more positive on cost/support

- Practitioners favor easy setup/integration; minimize operational complexity

- Cost and ease of integration are co-primary drivers of provider choice

Thank you