Microservices Analytics - A Network Based Approach

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Microservices - A paradigm shift

5 years ago: Monolithic
Slow to iterate/change
Hard to scale
Low fault-tolerance

Today: Microservices
Rapid iteration (DevOps)
Highly scalable
High fault-tolerance
Application Analytics Challenge

• **Complexity**
  Internal code complexity → Simple instances, Complex interactions

  Dynamic interaction analysis more relevant than code analysis

• **Framework Diversity**
  1-2 frameworks → Plethora of frameworks (Python, Java, Go, NodeJS)

  Framework agnostic solution needed

• **Scale**
  1,000s instances (VMs) → 100,000s instances (containers)

  Metrics transfer and storage is challenging

• **Lifetime**
  Hours (VMs) → Minutes (Containers) → Seconds (Lambdas)

  Short-lived instances need to be tracked in real-time
Network as Analytics Fulcrum

• **Complexity**
  Dynamically recreated service interactions as foundation for analytics

• **Framework Diversity**
  Network-based approach is framework agnostic

• **Scale**
  Stream processing without archiving is a scalable approach

• **Lifetime**
  Interactions are streamed in real-time for analysis
Netsil Architecture

- Data never leaves your cloud
- Plug-and-play solution, no code instrumentation
- Visually pin-point service level issues
Early Adopters

Feedback:

“Easiest tool we have ever installed.”

“We did not have to wait 15 mins to get failure notifications after a deploy.”

“It removed our need to manually document API dependencies”

“We could see hot-keys in DynamoDB! That helped us quickly see which key was being looked up that resulted in a 400 bad request.”
Thank you!

Questions?

Contact us for early access: info@netsil.com