The Business Impact of Observability

Prepared for Chronosphere
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"With our previous observability platform, observability cost was often the same or higher compared to what we were paying for the monitored resources," says a platform engineer at a European car manufacturer.

Overpaying Due to Lack of Granularity: Cloud native apps often consume infrastructure on a temporary basis, often only for minutes. If the observability platform vendor charges for longer increments, observability cost can quickly exceed the cost of the resource.

Unpredictable Monthly Bills Due to Complexity: There are many factors that can influence observability cost. These factors can differ by cloud and observability platform. Data ingestions, query complexity, data retention, number and level of users, features subscribed to, number and type of API calls, data export, multi-cloud and hybrid cloud integrations, overage fees, and premium support plans are some of these factors.

Continuous Risk of Cost Escalation Due to Lack of Controls: Misconfiguring a Kubernetes cluster to log and poll telemetry data at a detailed level and in very short intervals can lead to negative surprises when the monthly observability bill arrives. Combine this with a lack of data retention policies; detailed monitoring for Amazon EC2, RDS, and other public cloud services; a large number of custom metrics, and the detailed logging of serverless invocations, and you may receive a bill that you will have to explain to your boss.

Vendor Lock-In Increases Long-Term Costs: Being tied to a specific observability platform due to contractual obligations or technical dependencies can make it difficult to switch to a more cost-effective solution, leading to higher long-term costs.

Hidden Costs in "Free" or "Freemium" Plans: Some observability platforms offer free or freemium plans that seem cost-effective initially, but come with limitations that can result in substantial costs when exceeded.

Inefficient Use of Premium Features: Subscribing to premium features that are underutilized can contribute to unnecessary costs. Teams may enable these features without fully understanding their utility or cost implications.

Costs of Compliance and Data Security: Ensuring compliance with industry regulations and data security standards can add extra layers of complexity and cost to your observability strategy.

Geographical Data Storage Costs: Storing data in multiple geographical locations for compliance or latency reasons can increase storage costs significantly.

Real-Time Monitoring and Alerting Costs: Setting up numerous real-time alerts and monitors can seem like a good idea for immediate issue detection, but can add to the overall cost.

Skill Gap and Training Costs: The need for specialized skills to manage and optimize the observability platform can lead to additional costs in training and possibly hiring specialized personnel.

EMA Perspective

The pitfalls of overpaying stem from a lack of granularity since cloud native apps temporarily utilize infrastructure, yet observability platforms may charge for longer durations. The complexity of various factors, such as data ingestions, query complexity, and multi-cloud integrations, contribute to unpredictable monthly bills. Furthermore, the risk of cost escalation is prevalent due to potential misconfigurations, like overly detailed logging in Kubernetes clusters or insufficient data retention policies. Vendor lock-in scenarios pose a threat to cost-effectiveness in the long run, limiting the transition to more budget-friendly solutions. "Free" or "Freemium" plans, though initially appealing, may conceal costs that manifest when usage limits are surpassed. Similarly, the underutilization of subscribed premium features, compliance and data security costs, geographical data storage costs, real-time monitoring, and the necessity for specialized skills and training further inflate the overall expenditure. These myriad factors elucidate the necessity for a well-strategized, granular approach toward managing observability platforms to avoid a financial quagmire.