



Cost and Usage Report + Cost Explorer

Now, we have discussed a whole host of services and how they can be used to spin up complex architectures and create a variety of novel applications but it is also worth remembering that there is no such thing as a free lunch, and it is not very hard to imagine companies utilizing AWS racking up (sometimes unnecessarily) huge bills on cloud infrastructure. Well, AWS also graciously provides us with services for financial management, allowing us to better understand the costs associated with our infrastructure. In this section, we will be very briefly discussing two of those services: **Cost and Usage Report (CUR)** and **Cost Explorer**.

Both services are quite different in nature and serve both different use cases and potentially even different user bases. Cost and Usage Report provides us with the most comprehensive set of cost and usage data available for a user, organized as a detailed billing report. Said billing reports can be then published to a S3 bucket of our choosing.

Cost and Usage Report allows us to create reports that break down our costs by by the hour, day, or month, by product or product resource, or by tags that we define ourselves as a Comma-Separated Values (CSV) file, and can be viewed in any spreadsheet software of our choice.

AWS Cost Explorer on the other hand is a more technically limited service, in the sense that it cannot provide us with the same level of granular detail about the costs being incurred by the different resources used in AWS, has a 24 hour lag

when displaying monthly data, and cannot give us in-depth hourly data beyond the last 14 days, a capability that CUR can easily meet.

However, Cost Explorer is a more accessible service, relying on visualizations to present the cost and usage data in a more easily readable and understandable format usually in the form of graphs, charts and tables. Said visualizations can after all be understood by anyone with basic statistical literacy regardless of their technical familiarity with AWS, especially when forecasting and creating graphs of forecasted future costs, a feature made available to us by AWS Cost Explorer.

A table comparing the two services has been made available for the ease of the reader below:

	AWS Cost and Usage Report	AWS Cost Explorer
Description	A comprehensive, spreadsheet-like report of your billing data for a Payer AWS account	Highly visual cost graphs and tables showing a relatively high-level view of your costs and usage data for a specific Payer account in AWS
Unique functionality	Details historical cost and usage data and sends it to an Amazon S3 bucket for further analysis and longer retention	Not only offers historical records but also creates forecasts and savings recommendations
Data fields	Multiple line items. Also supports Cost Categories and Cost Allocation Tags	Up to 18 filters and groupings
Format	CSV and Parquet	CSV
Cost data duration	Hourly, daily, and monthly	Hourly (up to 14 days), daily, and monthly
Pricing	Free, but standard Amazon S3 charges apply	Free, although querying cost and usage data via the Cost Explorer API costs \$0.01 per paginated request