

# Improve Digital Inventory Forecasting With Advanced Analytics



## Business Impact

"I can't say enough about the forecasting accuracy. And SAS® tells us what the baseline price should be, what the minimum price should be – and what the ideal price is, as well as any risk that should be associated with the forecast."

Jaime Vining, Vice President for Yield and Operations, Discovery Communications

## Challenges

- **Overwhelming amounts of data paralyze decisions.** Detailed data from ad servers and data management platforms is necessary to gain meaningful insight, but most companies need help incorporating large complex data sets into their daily operations.
- **Sales strategies are becoming increasingly complex.** Overlapping audience targets, new device platforms and programmatic selling have complicated the process of quantifying, pricing and selling digital inventory.
- **Inaccurate and volatile forecasts increase exposure of the digital publisher.** Underpredicting digital inventory may lead to lost revenue. Over-predicting digital inventory may lead to customer service and liability issues.

## The Issue

The evolution and growth of digital and streaming platforms have been astounding. Companies that provide a service or publish compelling content have an opportunity to monetize through advertising. A common challenge in digital and streaming advertising is quantifying the size of the future audience. Advertisers want assurance that their advertisements will be seen, and publishers want to be efficient in making commitments while driving revenue. Accurate audience predictions support better pricing decisions and inventory control.

Media companies need the ability to quickly respond to an advertiser's request to reach a highly specific target audience. This requires a solution that can intelligently analyze vast amounts of historical ad server data, predict future impressions of a target audience and determine which impressions are available to sell. This solution needs to handle any combination of target criteria (such as age, income, geography or content preferences) in addition to the unique seasonality of digital and streaming viewership. Audience behaviors can be highly volatile due to special news or sporting events, and/or the release of exciting, new content. Any solution would have to account for the fluctuations of daily impressions to best estimate inventory.

## Our Approach

Media companies have complex digital sales processes and data. SAS offers a scalable, open and flexible platform engineered to deal with that complexity. With SAS, you can:

- **Retrieve a minimum of two years of historical data.** SAS goes beyond sampling data to better understand seasonality and intermittent demand. Use of comprehensive data sets lays a solid foundation for accurate forecasting.
- **Generate capacity forecasts using ad server hierarchy for products and line items.** SAS also incorporates special events (season premieres, sweepstakes, etc.) to improve forecasting accuracy. The platform calculates predictions for one year ahead, taking into account user-defined overrides.
- **Use machine learning to simulate ad server delivery of line items for calculation of campaign delivery pacing.** When line items compete for the same impressions, SAS intelligently predicts delivery.
- **Support any impression-based advertising sales, including display, on demand and livestream.** SAS accounts for the nuances of programming and commercial pods to create useful and accurate availability forecasts.

### Accurate forecasts when you need them

Providing a new level of forecasting accuracy helps inventory and pricing teams better manage their business and drive revenue. Use SAS to:

- **Build forecasting models at scale.** The SAS high-performance forecasting engine can quickly build thousands of forecast models to predict the capacity for all ad products and line items.
- **Generate highly accurate results.** Thanks to a deep platform, SAS offers a large library of time series forecasting, machine learning and artificial intelligence algorithms to generate highly accurate results.
- **Handle data of any size from any data source.** The ability of SAS to handle large volumes of data gives our customers a competitive advantage when building analytically driven solutions.

### A large US-based media company

#### Situation

The media firm needed more accurate forecasts for digital products and media planning. Current forecasts didn't account for seasonality or special events and were too volatile with no explanation of why. The ad sales team was spending far too much time overriding forecasts, which was a highly cumbersome and manual process. It also needed the ability to quickly generate accurate forecasts for any custom targeting or new ad products to respond to RFPs. However, its existing tools provided highly inaccurate numbers. Also, the company didn't have the ability to flag forecast problems to the media planner and lacked guards and alerts in the process to prevent overselling or under-selling inventory.

#### Solution and results

SAS advanced analytics helped the company:

- Create accurate forecasts to support optimal pricing and planning.
- Calculate avails for myriad targets and ad products.
- Spend far less time overriding forecasts and making manual adjustments.
- Pace line items for effective campaign management and delivery.

- What if you could predict with confidence your capacity and avails for any ad product or targeting criteria?
- What if you could accurately predict well in advance which campaigns will underdeliver?

With SAS, you can.

### SAS Facts

SAS supports a diverse spectrum of customers in the telecom, media and technology (TMT) industry, including telecommunication companies, media and entertainment providers, network vendors and OTT players.

SAS serves over 700 TMT companies in 80 countries, and more than 75% of TMT companies on the Fortune 500 rely on SAS.