

RFQ Response Form

RFQ for Data Visualization and Information Design Partners

APPLICANT INFORMATION

Applicant Name: Blast Analytics & Marketing

Authorized Representative Name & Title: Charles Davis – VP, Solutions

Address: 6020 W. Oaks Blvd. Rocklin, CA 95765

Telephone: (916) 724-6706

Email: cdavis@blastam.com

Website: www.blastam.com

Legal Status: For-Profit Corp. Nonprofit Corp. Sole Proprietor Partnership

Date Incorporated: August 3, 2001

APPLICATION INFORMATION

Date Submitted November 14, 2017

Check the components for which you are seeking to be qualified:

- Simple Design
- Complex Development

Rate Requested (provide rate for proposed component(s); include additional information if needed to clarify your response): Our blended rate is \$200/hr, but that can change based on the specific needs of each project.

REQUIRED CONTACTS

	Name	Phone	Email
Chief Executive Officer	Kayden Kelly	(916) 724-6701	kkelly@blastam.com
Contract Processing Contact	Click here to enter text.	Enter number.	Click here to enter text.
Chief Information Officer	Click here to enter text.	Enter number.	Click here to enter text.
Chief Financial Officer	Click here to enter text.	Enter number.	Click here to enter text.
Administrative Contact	Click here to enter text.	Enter number.	Click here to enter text.

BOARD INFORMATION

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Provide a list of your board members as an attachment or in the space below.

Blast is a corporation with three principle partners. There is no Board. The three partners are as follows:

Kayden Kelly – Founder and CEO (916-724-6701, kkelly@blastam.com)

Charles Davis – VP, Solutions (916-725-6706, cdavis@blastam.com)

Joe Christopher – VP, Analytics (916-724-6715, jchristopher@blastam.com)

Board Chairperson Name & Title: N/A – please see explanation above

Board Chairperson Address: N/A – please see explanation above

Board Chairperson Telephone: N/A – please see explanation above

Board Chairperson Email: N/A – please see explanation above

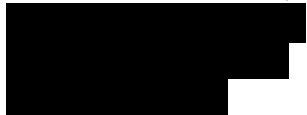
REFERENCES

Provide the name, affiliation and contact information [include email address and telephone number] for three references who are able to address relevant experience with your organization.

Please do not use employees of the Allegheny County Department of Human Services as references.

PicMonkey

Contact Info: Celeste Siperd



Telestream

Contact Info: Lynn Elliot



Civil Beat

Contact Info: Heidi Pliszka



CERTIFICATION

Please check the following before submitting your Application, as applicable:

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I have read the standard County terms and conditions for County contracts and the requirements for DHS Cyber Security, EEOC/Non-Discrimination and HIPAA.

By submitting this proposal, I certify and represent to the County that all submitted materials are true and accurate, and that I have not offered, conferred or agreed to confer any pecuniary benefit or other thing of value for the receipt of special treatment, advantaged information, recipient's decision, opinion, recommendation, vote or any other exercise of discretion concerning this RFP.

ATTACHMENTS

Please submit the following attachments with your Response Form. These can be found at <http://www.allegHENYcounty.us/dhs/solicitations>.

- MWDBE documents
- Allegheny County Vendor Creation Form
- 3 years of audited financial reports
- W-9
- Examples of work

REQUIREMENTS

Please respond to the following. The maximum score that an Application can receive is 45 points for Simple Design and 55 points for Complex Development. Your response to this section should not exceed the number of pages listed in the section headings. The first six questions must be answered by all Applicants. Applicants for simple design should also complete section B and complex development Applicants should also complete section C. Applicants for both components must answer all 12 questions.

A. All Applicants must respond to the following six questions (30 points possible). Your response to this section should not exceed six pages.

1. Provide evidence that you are fluent with Tableau and/or a free and open source data visualization solution, including advanced calculations and parameters, data manipulation and dashboard actions. You may discuss your experience, examples, training or anything else that demonstrates that you meet these criteria.

Our team consists of experienced analysts who regularly work with clients to create meaningful dashboards using Tableau.

One example of using advanced calculations and parameters was a recent project where we created a dashboard to track operational metrics for a software company. The client wanted to be able to bin users by the number of days since they used the product, but also wanted this calculation to be able to change with the date parameter on the dashboard. This required a level of detail function to fix the calculation on the individual user id and software license, within the bounds of the "End Date"

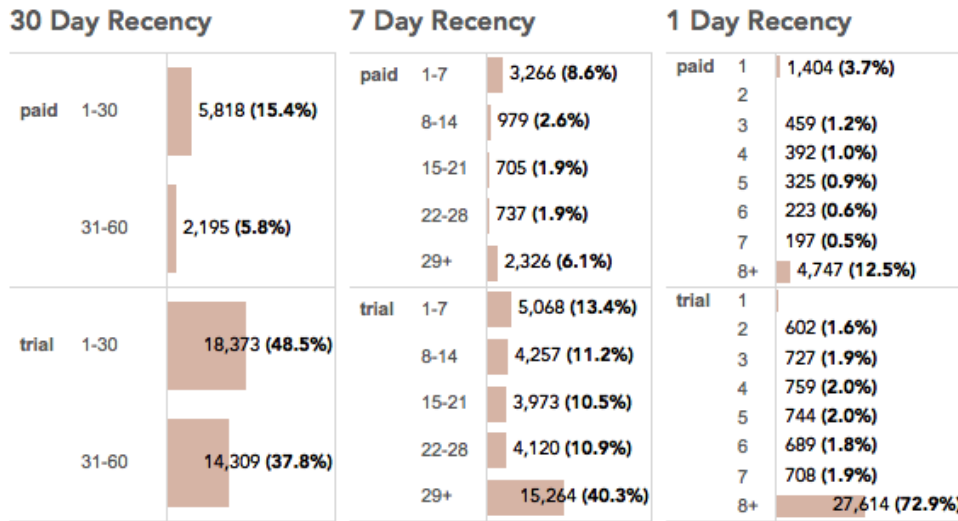
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parameter so that the maximum date function would only be applied within the parameter limits, not on the entire data set.

```
Recency2 [X]
{FIXED [software_license_v2], [Guid] : DATEDIFF('day',MAX([Date]),[End Date])}
```

This allowed us to create the following visualization that adjusted with a date parameter.



As additional evidence of our capabilities, here is case study about data visualization using Tableau for one of our clients. <http://www.blastam.com/civilbeat-case-study>

We are experienced with data manipulation in and outside of Tableau. We are familiar with using data science tools such as R, Python, Excel, and SQL to wrangle data into useful formats. Most recently, we used a custom SQL table within Tableau to calculate monthly statistics from transactional data at a level that was not supported by Tableau calculations.

We are also able to use dashboard actions to provide deeper insights. Examples of this can be found on our sample dashboards here: <https://public.tableau.com/profile/nick.mannon>

2. We seek Applicants who are responsive and able to complete projects in a timely manner. How will you manage your time to ensure responsiveness and timeliness? Provide examples if possible.

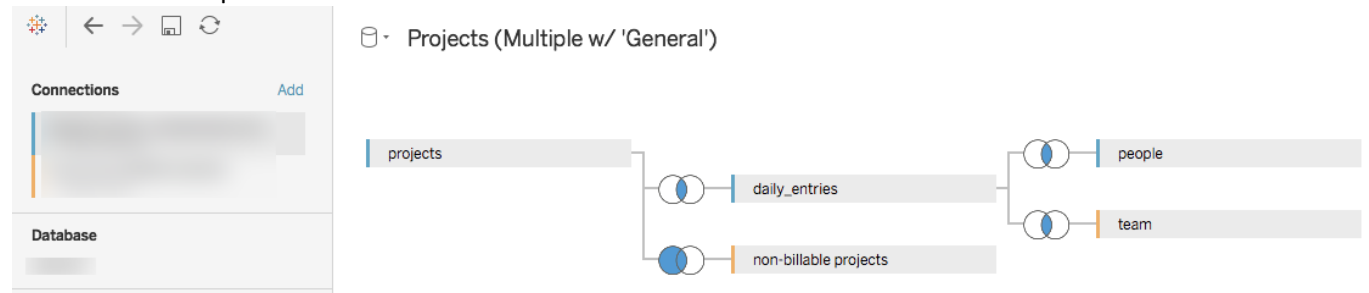
At Blast, we assign a Project Manager to each client engagement to maintain a relationship with the client and ensure progress on all work. We also use Jira from Atlassian to manage our projects. We create an online Jira space for our clients to access their documentation, which allows for real-time collaboration between our two organizations.

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3. Describe an example of when you worked across multiple data sources, using data blending or joins to integrate the data.

Our analytics team was recently asked to generate reports on internal time log data for management. This required joining five different tables from two different data sources. The resulting data table contained time logs connected to team and project data that provided the level of granularity we needed for the reports. Below is a screenshot of the schema.



Because this dashboard is connected to multiple live data sources, we chose to do these joins using Tableau's native features, however we are also able to shape data outside of Tableau using other data science tools and programming languages.

4. Describe your experience with/ability to create dynamic maps, including maps with custom layers that summarize data at geographic levels not provided by Tableau and/or a free and open source data visualization solution (e.g., Census tract, municipality). You may include an example of a map via link or electronic submission. If you do not share an example, please describe the programs and/or steps necessary to prepare data for display in a data visualization solution.

We have experience creating simple and multi-layer maps using Tableau's native mapping features that are able to simply show data at country, state, city, and zip code level. We are able to add custom levels as is required, given that we are provided with the necessary data to do so. The map linked below is a proof of concept: <https://public.tableau.com/profile/nick.mannon#!/vizhome/CensusMapExample-WakeCountyNorthCarolina/Dashboard1>

This map was created using Wake County, North Carolina census data from data.gov and census tract shape data from <https://beta.tableaumapping.bi/map>

5. Discuss your knowledge of basic design principles, including your experience, examples and/or training.

Our data visualization philosophy revolves around creating meaningful dashboards that will provide value to your organization. Data is best understood when it is presented as the answer to a question. Different types of questions require different types of visualizations. We generally view these questions in four different categories: descriptive (what happened?), diagnostic (why did it happen?), predictive (how can we improve?), and prescriptive (how can we take action?). When we determine the question we want to answer, we choose a Key Performance Indicator (KPI) that will serve as the focus of the dashboard. From there, we determine other metrics that influence the KPI that will help us understand

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the answer to our question.

From a visual perspective, the design is flexible but follows the same hierarchy. The main KPI visualization is eye-catching and immediately tells the viewer what they are looking at, and the other metrics are displayed to support the story we are telling. This is done with aesthetically-pleasing colors, titles, and fonts that add context to the visualization.

Examples of full dashboard design can be found in the answers to questions #8 and #12.

6. How will you provide innovative products while staying within the constraints of DHS's standard color/font scheme?

When we begin a data visualization engagement with a client we create a template Tableau dashboard, containing the proper logos, colors, and fonts, to be approved by the client. We use this template as the base for the dashboards.

Specific to Allegheny County, the color palette found in your logo and on the dashboards published on your website provides nice complimentary and contrasting colors that will allow us to show clean and understandable data visualizations.

B. Simple Design Applicants must respond to the following question (15 points possible). Your response to this section should not exceed three pages. If you are not applying for Simple Design, skip this question and move on to section C.

7. Describe your experience and expertise in integrating graphics with reports (online), retaining interactivity within this context. If you have included an example as an attachment, please refer to this example and describe your process.

We include graphics and data visualizations on information pages and blog posts on our company website. These posts are written by members of our analytics team. An example of one of an information page can be found here: <http://www.blastam.com/data-visualization-consulting>

This page is about our data visualization consulting services and contains information and images that demonstrate the benefits of data visualization. The text supports the graphics, providing context to help the reader understand what they are looking at. On the "Spotting Outliers" image, there are text boxes and arrows to show the reader the kinds of questions they can answer with data visualizations.

About half way down that page, you will see clickable image that takes you to an interactive visualization.

When displaying interactive reports online, adding labels and tooltip help readers understand how to interpret the dashboard. In the "Interactive Data Visualization Example", hovering your mouse over points on the graphs shows a tooltip with the information written in the form of a sentence. This helps readers understand what exactly the data on the graph is telling them.

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8. Provide up to two examples of Simple Design data visualization work that you completed independently and completely. You may also provide one additional example of Simple Design work to which you contributed. Your examples must be submitted electronically – links are preferable but other electronic submissions are acceptable. Describe each example, including the topic, purpose, data source and functionality. If submitting an example to which you contributed, please describe your contribution to the work.

Example 1:

https://public.tableau.com/profile/nick.mannon#!/vizhome/DashboardExample_14/DashboardExample

This view shows sales performance metrics from an extracted sample dataset titled “Superstore”. This dashboard was designed to provide a quick look at company performance compared to its goals. The top half of the view shows sales metrics and the bottom half mirrors it with profitability metrics. The “Current Year to Date vs. Budget and Prior Year” graphs track this year's sales, showing a comparison to last year and this year's budgeted goal. The “Sales vs. Goal to Date” charts show product and region breakdowns of sales to date compared to the goal, which is represented as a black line. The customer and product lists on the side give insights into specific customers and products.

Example 2:

<https://public.tableau.com/profile/nick.mannon#!/vizhome/InteractiveVizExample/ProductProfitabilityAnalysis>

The view titled “Interactive Viz Example” is a product profitability analysis. The “Profit Ratio vs. Sales” graph shows the profitability ratios for groups of products by total sales. Analysis lines are placed on 0% Profit Ratio and the median sales to help the reader understand the graph. “Sales and Profit Trend” graphs show profitability over time. The charts on the bottom give added context about specific products and their profitability.

C. Complex Development Applicants must respond to the following three questions (25 points possible). Your response to this section should not exceed five pages. If you are not applying for Complex Development, skip this section.

9. Describe your experience working with a data warehouse.

We have extensive experience in helping clients create data warehouses for use in reporting. We work closely with the client to discuss their reporting needs, what data sources, fields, and transformations/additions (such as calculated fields) are required. After documenting the requirements and reviewing with the client we design the data model showing the tables that will be utilized, the columns within the tables, and the relationships between tables. Next, we review the data architecture with the client to ensure the model is accurate and appropriate naming conventions have been utilized.

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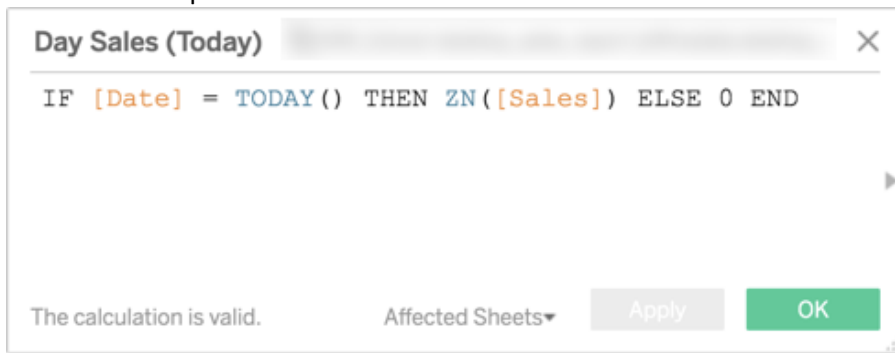
Following the data model review, we begin creating the ETL (Extract Transform and Load) programs needed to get the data out of the source systems (internal databases, databases in the cloud, CSV/TXT files, etc.) and bring it into the data warehouse. In most cases, the raw data is loaded into staging tables and then additional SQL is performed to move and transform the data into the tables required for reporting. The staging tables ensure the raw/unaltered data is always available in case future enhancements or modifications are needed.

We prefer to use open source programming tools, such as Python, to implement the ETL so that: (1) resources that can support and modify the ETL can easily be found; (2) the cost of ETL software is minimized.

The above process can be implemented using Agile methodology, defining specific high priority data to be worked on first to ensure quick access and usage of important reporting data.

10. Explain and give examples of how you are able to create dashboards from live data tables, not just data extracts.

We frequently work with live data for up-to-date reporting. In a recent project, we created a sales report that was connected to a Redshift database. The database updates every hour with new transactions, and the report breaks them down by product type. Using a live database allowed us to create calculated fields based on today's date that provide sales totals showing yesterday, today-so-far and month-to-date totals. The following calculation shows a today's sales up to the last time the database was updated.



The live data and date calculations allow the dashboard to automatically update and show a useful daily sales report with no extra support from us or the client.

11. Provide evidence that you are experienced with performance optimization techniques, allowing for efficient data manipulation that does not slow dashboard function for the end user.

When trying to create efficient dashboards, it is best to start from the ground up. We try to control the size and scope of the dashboard from the planning stages. When we are in a situation where queries are taking noticeably long to run, the methods we use to increase performance depend on the needs of the particular view. Where possible, we try to do our calculations outside of Tableau workbooks to make them as fast as possible, however this is not always the best option, so we work to create dashboards that remain agile while still being able to do some heavy-lifting. We write efficient calculated fields and

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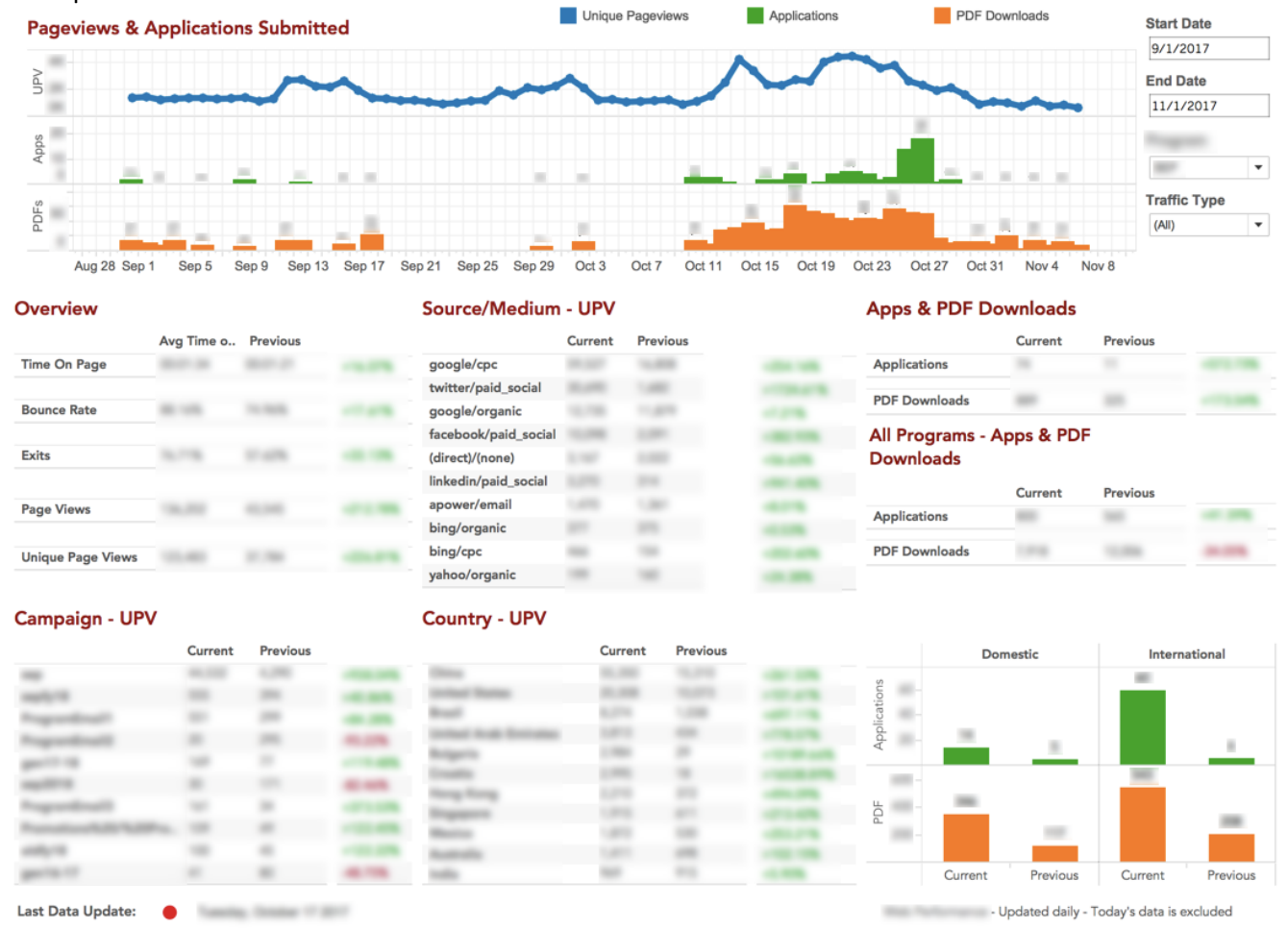
try to control the number of calculations needed to maximize efficiency. On dashboard views, we increase performance and effectiveness by trying to only show the data you want to see, using filters and parameters to deliver the right level of granularity.

Recently, we decreased the load time of an older dashboard by adding filters at the data source level, and creating an extract from the data. When published on Tableau Online, we scheduled extract refreshes to keep the workbook up to date, similar to when it was a live connection to the database.

12. Provide up to two examples of Complex Development data visualization work that you completed independently and completely. You may also provide one additional example of Complex Development work to which you contributed. Your example(s) must be submitted electronically – links are preferable but other electronic submissions are acceptable. Describe each example, including the topic, purpose, data source and functionality. If submitting an example to which you contributed, please describe your contribution to the work.

The following examples are screenshots of dashboards we have created for clients. All client data or identifiable information has been removed or blurred out.

Example 1 - Website Traffic



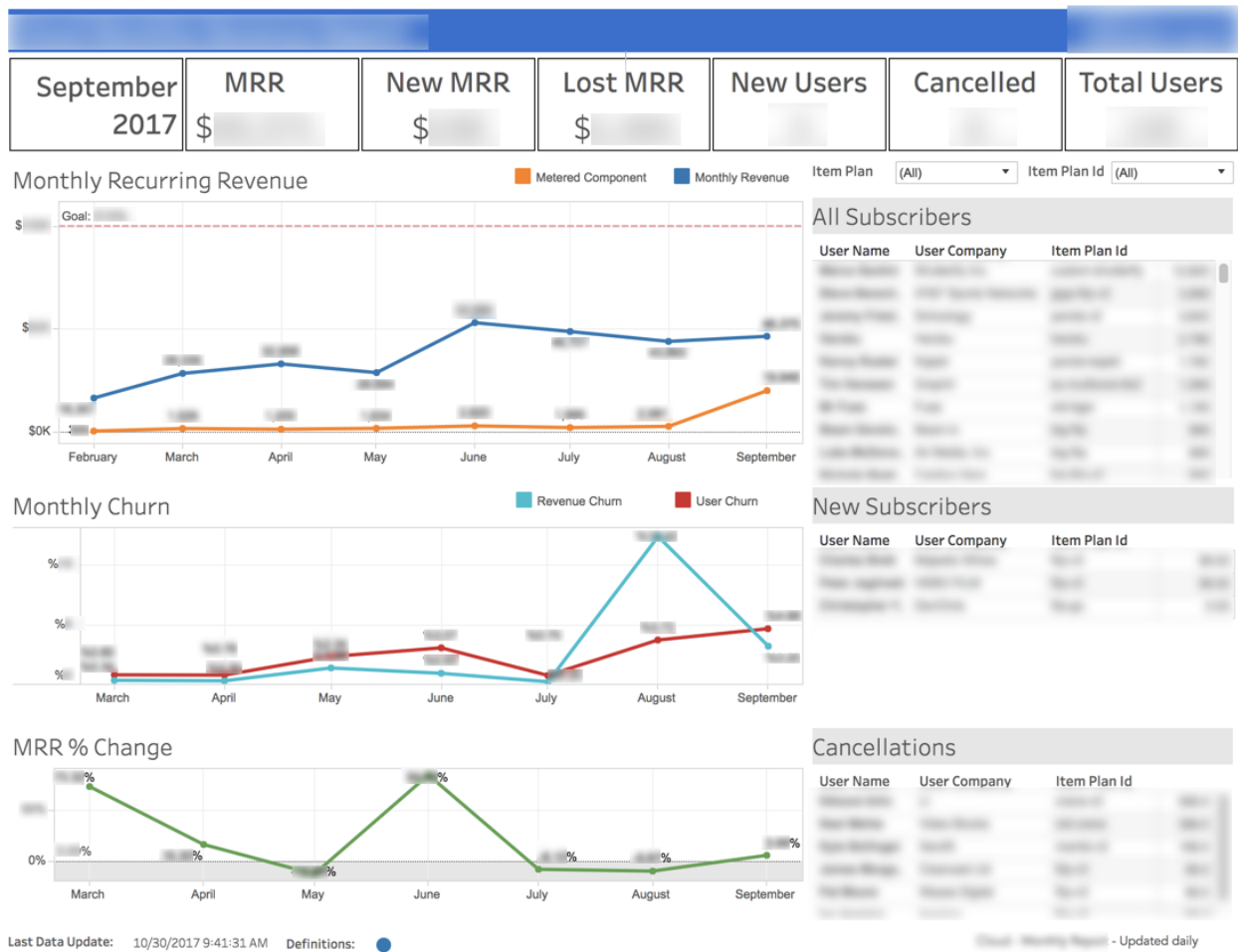
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This dashboard gives an overview of all the traffic on a website. It is designed to track performance metrics over time and give insights into how users are interacting with the website. The dashboard has two date parameters, "Start Date" and "End Date", that filter the displayed data. The graphs show the trends of different events over time. Each tile below shows a different metric about website usage, marketing efforts, or user information. These metrics help the viewer see how their marketing campaigns are affecting website traffic. They are displayed in three columns, showing "Current" and "Previous" measures based on the date parameter, and the percentage change between those two numbers. The percentage change is conditionally formatted to show green for a positive change and red for a negative change.

The underlying data is collected from the website and loaded into a Redshift database. The workbook is hosted on a Tableau Online account that performs an extract refresh once a day. We chose this method because this workbook handles a large amount of data and using an extract decreased the load times.

Example 2 - Monthly Recurring Revenue



This dashboard give a report of monthly revenue and other supporting metrics for a subscription-based company, and is specifically tuned to the goals of the company. The main focus of this dashboard is the

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Monthly Recurring Revenue (MRR), shown in the top graph. All other metrics on this graph relate to the MRR and provide supporting information. The boxes at the top give a quick report of changes in revenue and subscriber counts. The graph below the “Monthly Recurring Revenue” graph shows two types of churn, which is a useful metric for subscription-based company. The spreadsheets show information about individual subscribers.

This dashboard is hosted on a Tableau Online account with a live connection to a Redshift database, but runs a custom SQL script within Tableau to perform some of the monthly calculations. We chose to do it this way because, given the shape of our data, it was more efficient to do the churn calculation with a custom script than it would have been with Tableau’s calculated fields.