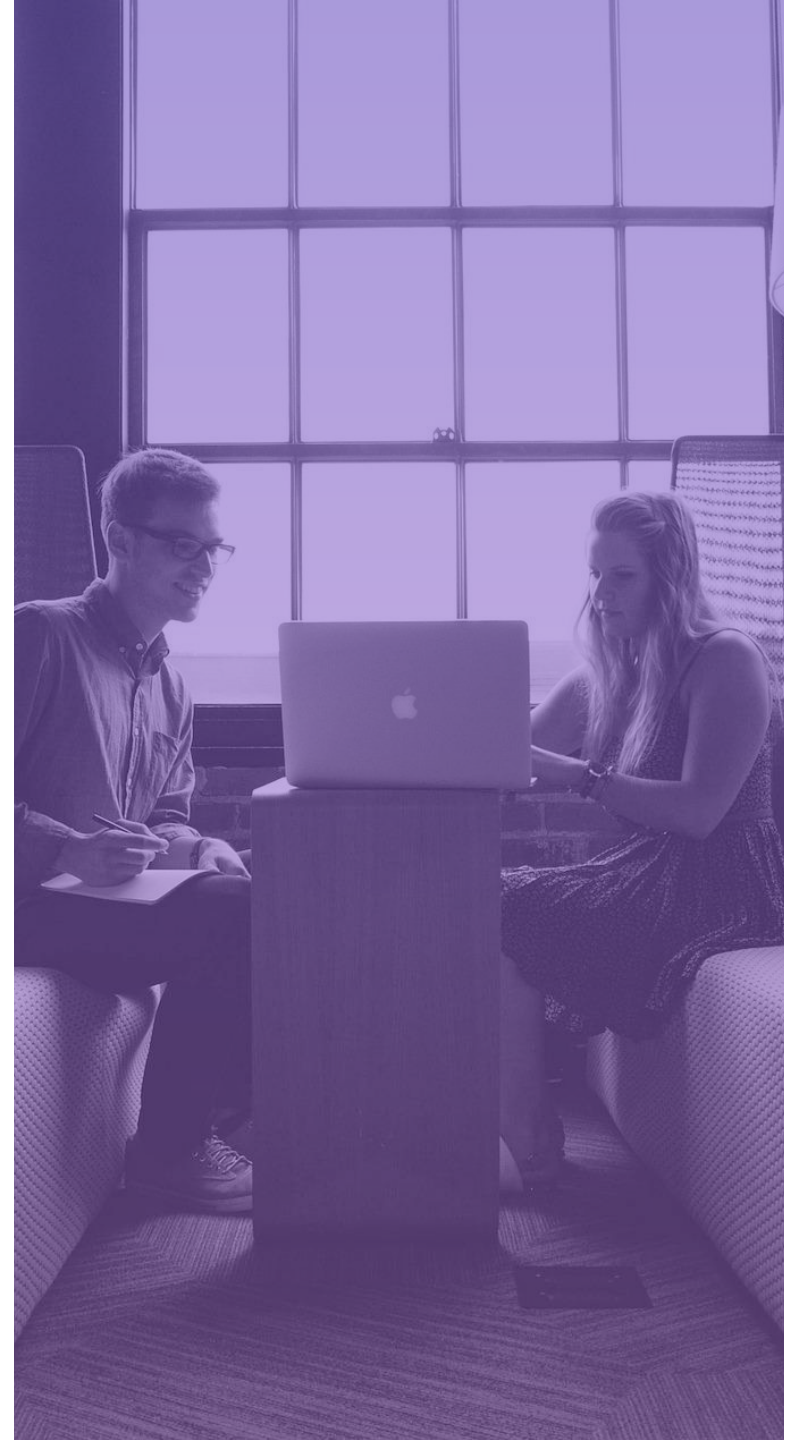


 Whitepaper

A Comparison of Reporting Tools for Elastic Stack - Elastic Reporting and Skedler Reports

Introduction

The purpose of this white paper is to introduce the key concepts of two reporting tools available for the elastic stack, namely **Elastic Reporting** and **Skedler Reports**, and to compare their features. Both these solutions enable elastic stack users to create and share reports of Kibana dashboards and saved searches. However, they are used in different business and technical scenarios. Here we review these scenarios and also discuss the unique value propositions of the two solutions.



The Challenge

Elasticsearch is a distributed search and analytics engine that is open-source, RESTful, free, and extremely fast. You can send tons of new documents to Elasticsearch using the API or other ingestion tools such as Logstash or Beats. Once the documents are indexed, you can search, analyze, and visualize your data using Kibana an open-source analytics and visualization tool. Third party visualization software packages are also available. For example Grafana; a platform for analytics and monitoring.

Elasticsearch's strength in search and analytics is well-known within the tech world. The Elastic core is strengthening with every new release while the Kibana visualizations are getting sophisticated thereby helping users to explore the data.

All these search, analytics and visualization capability lead to one thing: **reporting**.



The Challenge

If you are using Elasticsearch and Kibana (or Grafana) in your organization sooner or later, you encounter the following questions:

- » “Wow, those dashboards look great! Could you please send me something like that every two days?”
- » “Oh, stunning data! What about having an Excel file with the data every morning in my inbox?”
- » “Can you send these dashboards to our customers every week?”
- » “Our boss/CTO/CIO needs a report of the dashboard filtered by the last 5 days in PDF or Excel.”
- » “Can you send the report every day to our Slack channel?”

The list can get lengthy and unwieldy. You may try to re-create the dashboard by yourself (for example using Matplotlib) and generate the report on scheduled time. Of course, this solution wouldn't turn out to be a smart one: what if someone changed the dashboard?

Alternatively, maybe change the notification channel (email, Slack)? Is there a better way to meet the reporting requirements?

The Solution

What you need is a tool that directly integrates with Elasticsearch and Kibana or Grafana and automates report generation for various use cases.

Two different tools can help:

1. Elastic Reporting, from Elastic as a part of Elastic Stack Features (formerly X-Pack)
2. Skedler Reports, a reporting solution from Guidanz Inc.



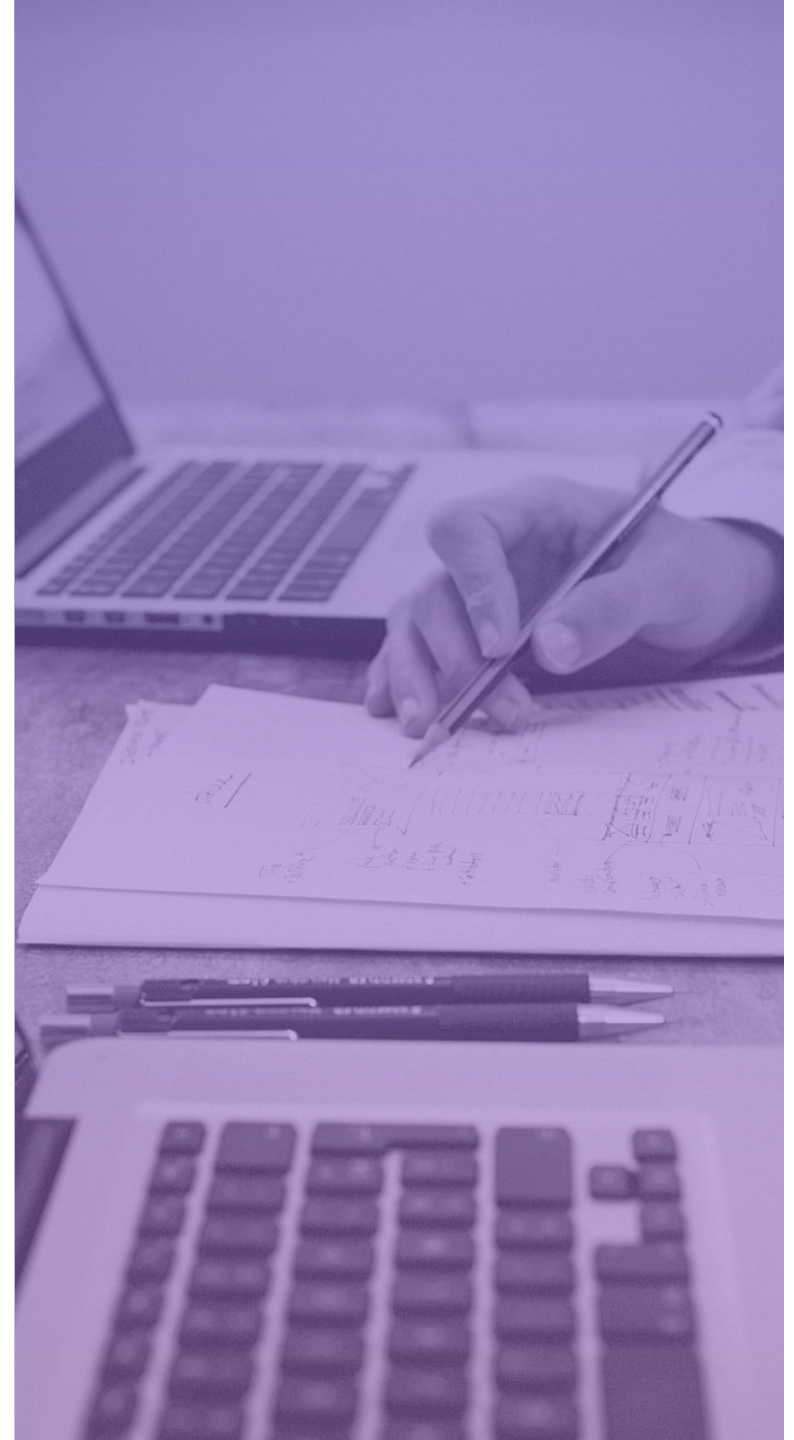
The Solution

Elastic Reporting

Elastic Reporting allows you to generate, schedule and email Reports. You can quickly generate PDF reports of any Kibana dashboard. You can get a report on demand, schedule it for later, trigger it based on specified conditions, and share it with other users.

The reports can either be in PDF format or CSV files. PDF reports are automatically print-optimized with two visualizations per page in portrait layout. It offers basic customization features such as adding your logo to the PDF report. Advanced features such as layout customization, report bursting (personalizing reports and messages with parameter values) are unavailable at this time.

While Elastic Reporting converts light Kibana dashboards into reports quite easily, it has a maximum one minute time limit for generating a report. Therefore, it has difficulty in generating reports from large dashboards with longer load times.

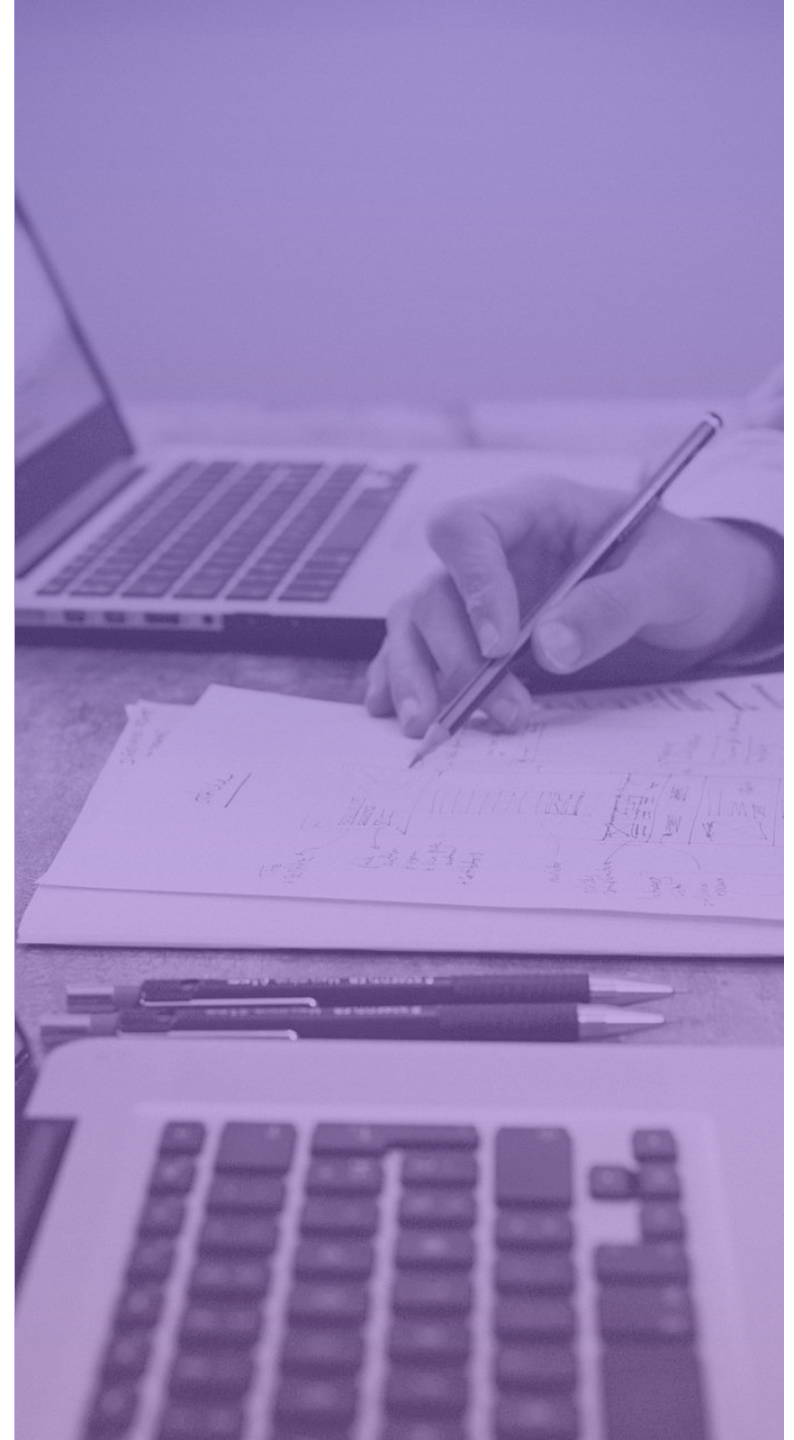


The Solution

Elastic Reporting

To schedule reports and to send notifications, Elastic Alerting/Watcher is required. Using Alerting, you can write scripts to send notifications via email, Slack, Pagerduty, Jira, or webhooks.

The Reporting feature is available as a part of the licensed Elastic Stack Features (formerly called X-Pack) that bundles security, alerting, monitoring, reporting, and graph capabilities into one package. Even though Elastic Reporting is open source, it is not free, and a Gold or Platinum subscription license is required. Since Reporting is not available individually, you need to subscribe to all the features even if you only need reporting and it can cost a pretty penny. If you are using an open source or third-party software for security, alerting, and monitoring, then Elastic Reporting might be a licensing cost overkill.



The Solution

Skedler Reports

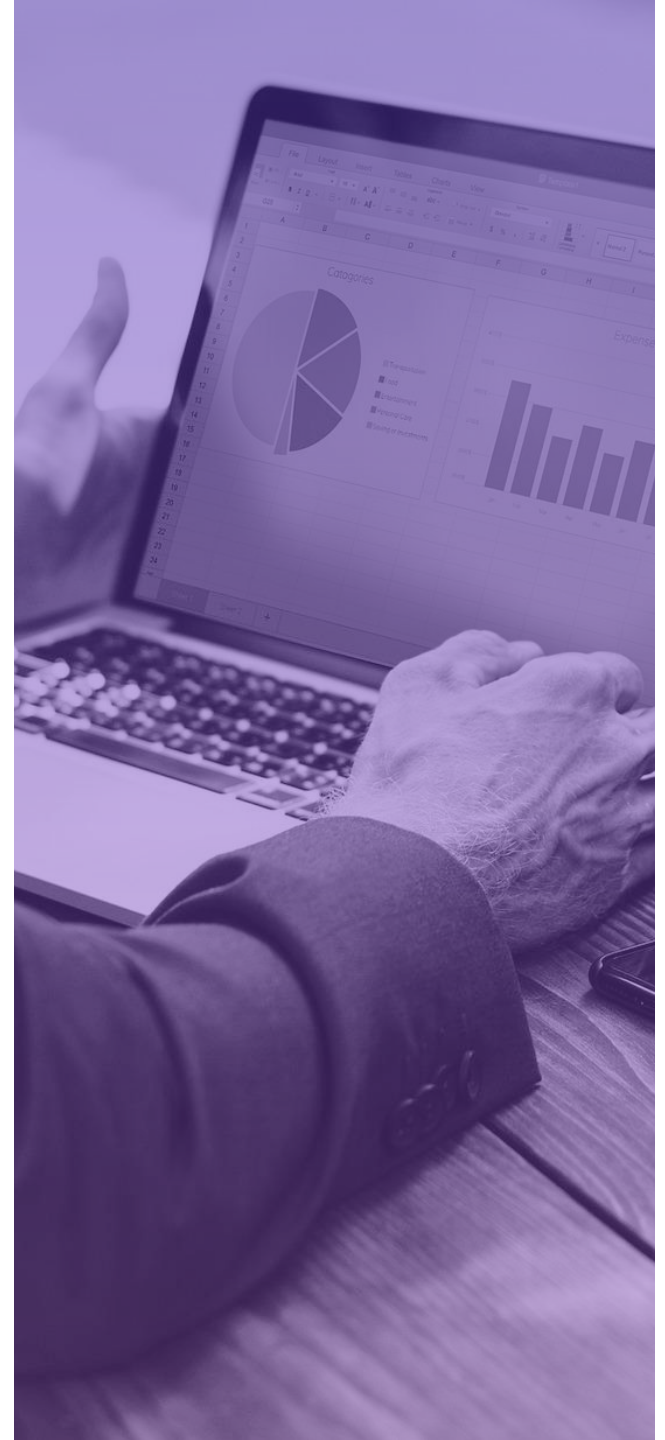
Skedler Reports is the first reporting solution explicitly developed for the Elastic stack. It has been available since mid-2015. It is designed to help you to create, schedule and deliver customized reports from Kibana dashboards, searches, and Grafana dashboards. It is a standalone solution that is independent of the Kibana dashboard.

Skedler Reports generates reports in a variety of formats such as PDF, CSV, and XLS files. You can create visually appealing reports that match your branding by creating templates. A template consists of a custom designed front page, header, and footer for all pages. You can create templates with your logo, images, colors, and text.

Skedler can generate PDF reports in three layouts:

1. Dashboard layout: report layout is same as the Kibana or Grafana dashboard
2. Smart layout: two visualizations per page in portrait mode and one visualization per page in landscape mode
3. Custom layout: you can design the layout of visualizations in the report using a built-in drag and drop editor

Both smart layout and custom layout reports can be printed in various paper sizes and fonts.



The Solution

Skedler Reports

You can also personalize reports to individual or groups of recipients with Skedler. This feature is also known as report bursting. For example, Carsnip, a car search engine in UK, uses Skedler to send personalized daily ad performance reports to its clients who are automotive dealers. These reports are generated from a single dashboard, but personalized on the fly with data specific to clients and sent with individually addressed messages.

Skedler can distribute reports via email or Slack. Email or Slack messages are set-up directly within Skedler Reports and can be personalized with parameter values. Reports are also automatically saved in the server in user-specified folders. You can search and download past reports in Skedler.

Skedler is designed to work with a variety of third party security software such as SearchGuard, Nginx, Elastic Security, and Apache. Skedler is white-label/OEM friendly and is often embedded within third party applications. It also offers a REST api for easy integration.

Users can license Skedler Reports in Standard or Premier Editions and pay only for the reporting features that they need. Skedler licensing is designed for organizations of all sizes including companies which are interested in bundling Skedler with their own solution.



Choosing the Reporting Solution

We have seen two different products that automate report generation. While both Skedler and Elastic Reporting are fine reporting solutions, they offer different levels of capabilities and are appropriate in different use cases.

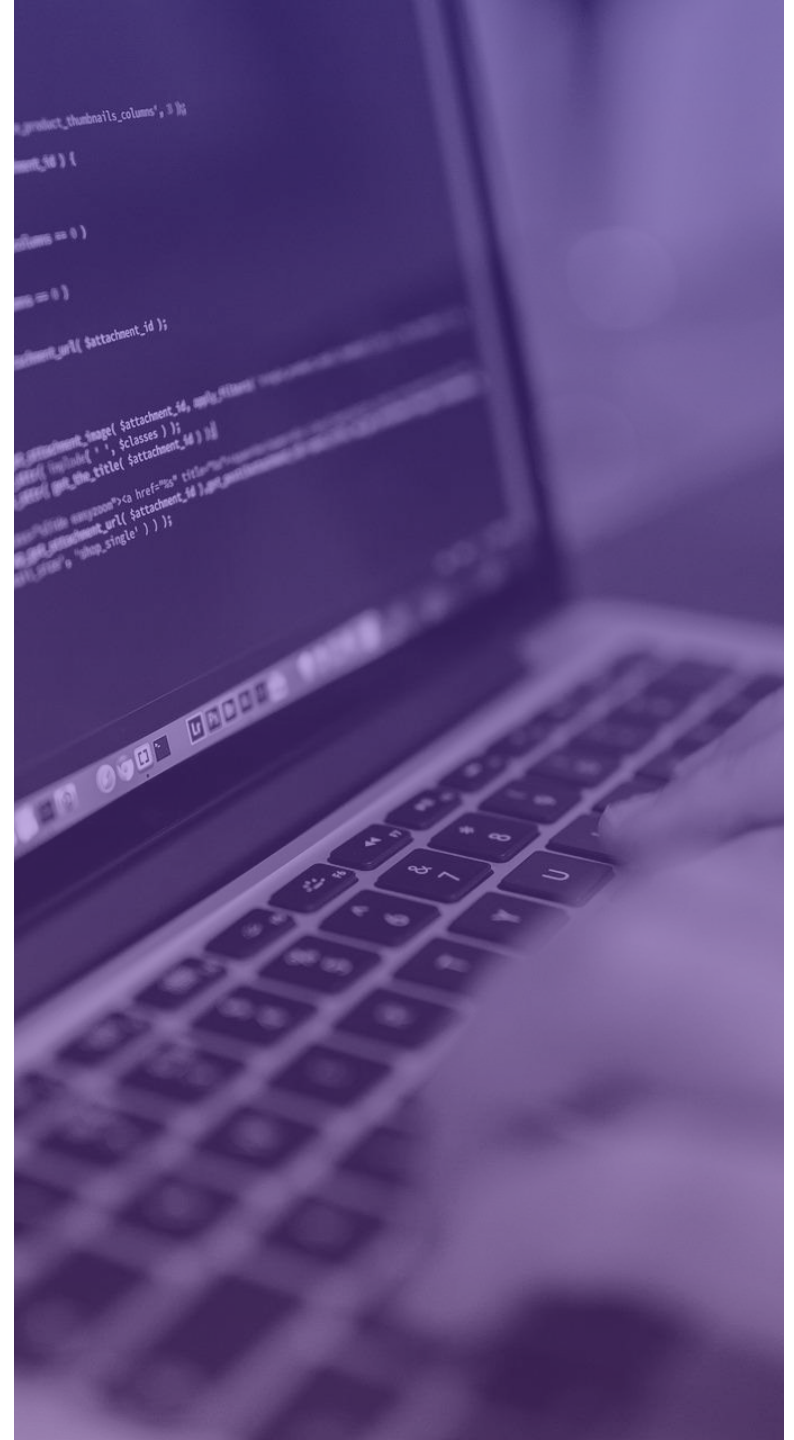
The following table provides a quick summary of the two products:

Feature	Elastic Reporting	Skedler Reports
Report Source	Kibana dashboard, Kibana saved search and raw document (Kibana discover tab)	<ul style="list-style-type: none">• Kibana dashboard, Kibana saved search• Grafana dashboard
Reports Format	CSV and PDF	CSV, PDF and XLS
Customization	<ul style="list-style-type: none">• Logo• Two built-in layout	<ul style="list-style-type: none">• Custom templates using logo, color, text, images, header and footer• Two built-in layouts• Custom layout using report designer
Personalization	Not available	Yes, supports report bursting
On-demand report generation	Yes	Yes
Schedule report generation	Yes, needs Elastic Watcher	Yes, built-in
Notifications	Email, Slack, Pagerduty, Jira, or webhooks, but needs Elastic Watcher	Email, Slack or webhooks
Deploy	Elastic Cluster (X-Pack)	Different machine (no Elastic Cluster)
Require Kibana Access – user level	Yes	No
Installation	See X-Pack Plugin Installation	Multi OS support, Docker and AWS AMI
Free Trial	14 days	21 days
Licensing	Gold or Platinum subscription for X-Pack	Individually licensed

Choosing the Reporting Solution

To choose the right reporting for your business requirements, we suggest the reader think about your resources, business case and context.

Given that Elastic Reporting is bundled and available only as a part of the X-pack, do you need all the features available within it? If the answer is yes, Elastic Reporting might be the right choice for you. However if you are like the majority of the Elastic Stack users who use open-source software for security, alerting, monitoring et al. and need only a reporting tool to integrate with your Elastic Stack application, Skedler Reports might be the right solution for your organization. You can quickly automate report generation using Skedler and focus on other essential activities.



Choosing the Reporting Solution

Another factor to consider is flexibility. Does your business case require reports customization or personalization? If so, Skedler Reports allows you to customize the report and personalize it for report bursting. Besides, if you are using more than one visualization platform, e.g., Kibana and Grafana, Skedler Reports allows you to automate the report generation from both the platforms.

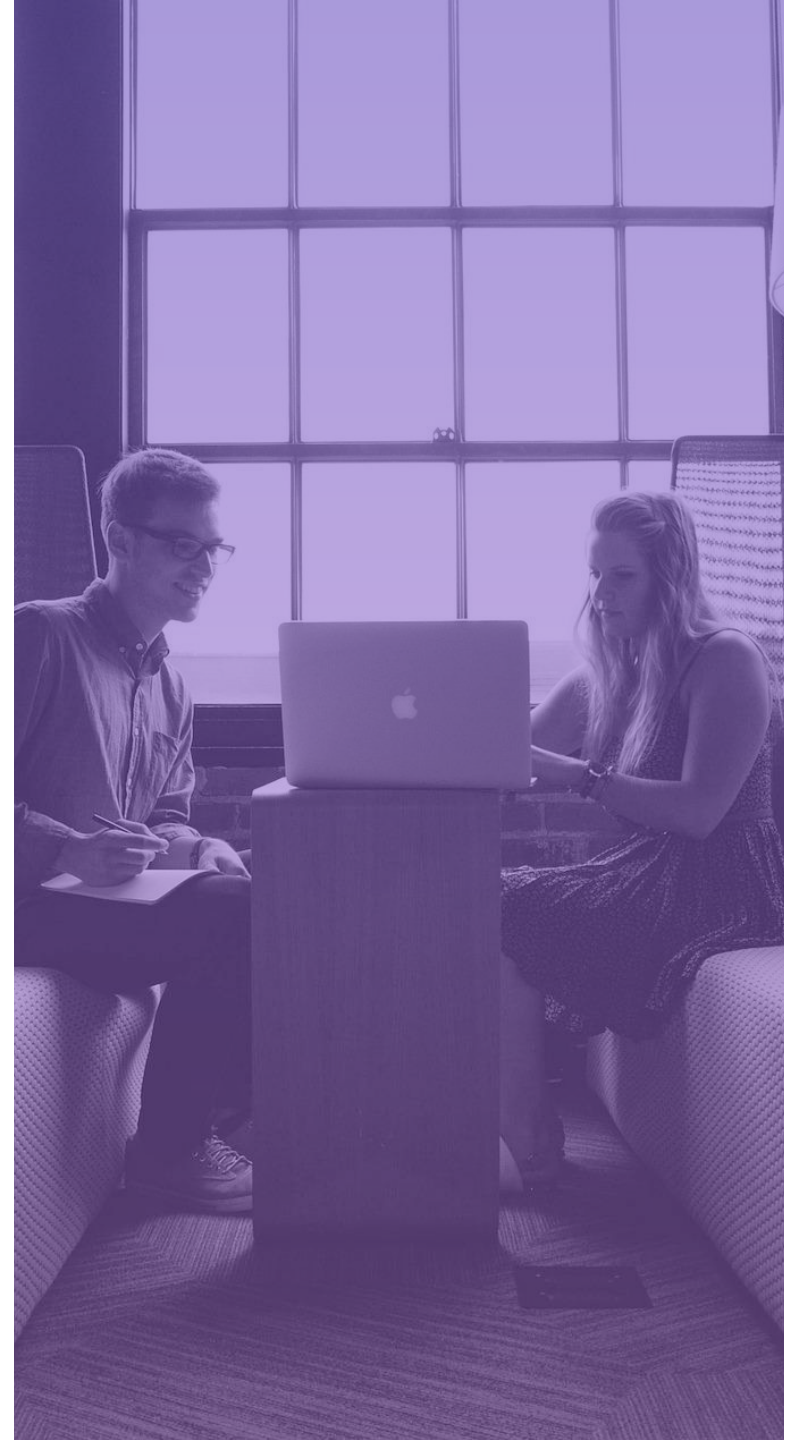
A final point to keep in mind while choosing the right product for you is the cost of the reporting solution. Elastic Reporting requires a minimum of Gold subscription to X-Pack. If budget is not a constraint for your organization or if you already have an X-Pack license, Elastic Reporting would work for you. If you need a cost-effective and flexible solution, Skedler Reports would be a good choice.



Conclusion

Reporting has become a critical requirement as organizations of all sizes use Elastic Stack in a variety of use cases such as log analytics, network analytics, security analytics, and business analytics. The demand for automatic periodic delivery of essential data to user's inbox or Slack is growing.

IT managers, DevOps teams, and Product Managers who are responsible for the automation of report generation should take into consideration the components of their Elastic Stack, the need for report customization, and finally their budgetary constraints if any while choosing the appropriate reporting solution for their elastic stack application. With the correct reporting solution, you can eliminate manual work, deliver critical business information to users on time, and reduce reporting cost.



Elasticsearch, X-pack, Kibana, Logstash, and Beats is a trademark of Elasticsearch BV, registered in the U.S. and other countries.

Grafana is a registered trademark of Coding Instinct AB, in the United States and other countries.

Ready to automate reporting?

Try Skedler for FREE

