



**PROACT**

CASE STUDY

# SkiStar



Using Splunk for automated log management, SkiStar developers are catching the bugs faster

## Summary

### Challenge

SkiStar conducts its inhouse application development according to DevOps principles. Developers work closely with production and stay responsible for their code after deployment. Troubleshooting was typically done by manually analysis of application log files. As this was a complex and time-consuming task, it was an apparent bottleneck for SkiStar's development team.

### Solution

Working with Proact, SkiStar deployed Splunk and has adapted the platform to its IT environment and to support developers and data centre staff. The interface has been customised by building dashboards presenting log data from business applications and operating systems in real time.

**Every winter brings the definitive trial to SkiStar, the company which operates major ski resorts in Sweden and Norway. Alpine skiing continues to be the hub around which the enterprise revolves, but SkiStar also has an expanding set of peripheral businesses – from ski lessons to real estate projects.**

SkiStar manages the majority of its IT inhouse. Much of the company's data centre infrastructure was supplied by, and is supported by Proact. A large portion of business operations runs on systems which SkiStar have developed over the past 25 years. These applications cover a wide range of services, from hotel receptions and ski rentals to the online reservation website.

**"There are obviously no turnkey systems for ski resorts available in the market, which is why we develop many of our business applications inhouse,"** says Peter Larsson, IT manager at SkiStar.

Development is organised using agile methodology and integrated with applications maintenance and operations, in keeping with DevOps tenets. From this follows continuous application updates. SkiStar deploys new code releases practically on a daily basis.



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**Peter Larsson,**  
IT Manager, SkiStar

### **Benefits**

Introducing Splunk for automated log management, application troubleshooting became much quicker, enabling SkiStar's developers to spend more time on actual coding. Log data from IT operations is presented in real-time views for instant analysis. The solution has also enabled the resolution of more difficult problems compared with manual log analysis. As Splunk is a generic platform, enabling analysis of all kinds of machine data, SkiStar potentially has many more ways to leverage the solution.

## **The challenge**

Under a DevOps regime, following up and reviewing each new software release is an essential undertaking. The review procedure gives developers relevant feedback, e.g. regarding response times prior to and following the release, and if bugs targeted for correction in the new release are decidedly gone.

Application log files is the most important source for these insights, and these contain large volumes of often impenetrable data. To extract the desired feedback, SkiStar's developers have been relegated to manually scanning the log files. But as the data centre operating environment grows increasingly complex, this task becomes more difficult and time consuming. For instance, SkiStar runs a cluster of web servers which are connected and load balanced to allow traffic to be redirected between servers. This presents developers not with a single but perhaps ten different devices which require individual troubleshooting. The mere difficulty to overview and identify patterns in the vast volumes of log data could render it practically impossible to obtain the desired answers. SkiStar therefore went searching for tools to help them automate log management and make troubleshooting and software release reviews more efficient.

## **The solution**

SkiStar decided to use Splunk, which has emerged as one of the premier tools for log data analysis – operational data generated by applications and systems. Splunk enables real-time decision support and automated analysis of sprawling, and many times arcane log files.

**“We have designed custom dashboards with graphs displaying our key performance metrics in real time, allowing us to track instances of errors as well as application performance,”** says Peter Larsson.

SkiStar's struggles to compile and analyse log files from multiple systems is now history, as all relevant operational data associated with each application is compiled into a single interface.

The deployment of log analysis was made together with Proact, and their Splunk expert team. SkiStar has a long-lasting working relation with Proact, including delivery of servers, storage, tech support, and as advisors on data centre matters.

**“The background we had as satisfied partners to Proact is one of the reasons we approached them when we were about to implement Splunk,”** says Peter Larsson.

SkiStar leverages Splunk for the primary purpose of analysing log data within IT operations. That's where the needs for the platform first emerged. Aside from business applications, SkiStar also saves log files from operating systems (Windows and Linux) to facilitate study of security-related issues using Splunk.

**“With Splunk, we obtained a tool not just for improving the way we handle particular tasks; we also got an enabler. Certain issues we are regularly facing used to be almost impossible to troubleshoot, as they required unreasonable amounts of manual labour. Thanks to automating the processes, we can now identify the fundamental causes of problems where we had to resort to guesswork before.”**

SkiStar also uses Splunk to identify events that don't necessarily involve software bugs. For instance, log data for a Point of Sale terminal can be studied to identify irregular events, and then by tracing historical logs, learning if and when a similar state has appeared before. Another strength Peter Larsson points out is that Splunk works transparently and runs independently from underlying systems, meaning that any kind of platform or system can provide source data.

**“You can pour data from any system [into Splunk] and it's just as easy to do that from our onsite infrastructure as it is to use the public cloud for input.”**

For SkiStar, DevOps means that developers stay responsible for their code even when it is running in the production environment. Splunk has become an appreciated tool for them, and developers are using it as much by as the IT operations staff does. Raising productivity for troubleshooting means that more time can be spent on writing code.



**We are perfectly satisfied with our solution and with Proact as a partner. I believe that their entire Splunk team has at some point been involved with our environment.”**

**Peter Larsson,**  
IT Manager, SkiStar

#### **Benefits**

##### **Instant analysis**

Log data from IT operations is viewable in real time, for instant analysis.

##### **Quality gains**

Splunk enables resolution of more difficult issues compared with manual log analysis.

##### **Saves time**

Troubleshooting is much quicker with automated log management, and this translates to more time to spend on development work.

##### **Additional use cases**

Splunk is a generic platform capable of analysing any kind of machine data.

## **Generic tool with many use cases**

Peter Larsson describes the many use cases for Splunk as a “**both fascinating and terrifying**” prospect. For despite that SkiStar has chosen a limited approach where Splunk is only used within IT, it is fundamentally a generic tool which can collect, index and analyse all kinds of machine data. This may involve business operations, security monitoring or customer activity.

“I can hardly see any limitations with Splunk as a platform. We can use any kind of data and make any type of queries on selected data, which is tremendously powerful. In application areas other than log data, we are still moving cautiously forward. We need to learn what may be done better using Splunk, as we already employ other platforms, for instance for Business Intelligence,” says Peter Larsson.

SkiStar has sought assistance from Proact’s Splunk experts along similar lines which they do for data centre tasks – for maintenance and upgrades of the platform, and other tasks which the company has elected to outsource.

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## **About SkiStar**

SkiStar is a leading operator of European alpine destinations. The company owns and operates ski resorts at Sälen, Åre, Vemdalen and Hammarbybacken (Stockholm) in Sweden, Hemsedal and Trysil in Norway, and St. Johann in Tirol in Austria. The core business is alpine skiing, with a focus on guests’ overall skiing experience. Additional business areas include accommodation, ski lessons, ski rentals and real estate development. SkiStar has more than 1,300 employees and the company share is traded at Nasdaq Stockholm, Midcap segment. [www.skistar.com](http://www.skistar.com).

## **About Proact**

Proact is Europe’s leading specialist in data and information management with focus on cloud services and data centre solutions. We help our customers to store, connect, protect, secure and drive value through their data whilst increasing agility, productivity and efficiency.

We’ve completed thousands of successful projects around the world, have more than 4,000 customers and currently manage hundreds of petabytes of information in the cloud. We employ over 1,000 people in 15 countries across Europe and North America.

Founded in 1994, our parent company, Proact IT Group AB (publ), was listed on Nasdaq Stockholm in 1999 (under the symbol PACT).

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