

**Business disruptions** in **technology performance** and **availability** would directly impact **customer satisfaction** for online trading. This would affect **sales**, as well as **trade volume**.

## Comdirect Bank

### Company Background

Comdirect Bank brings online trading directly to the German public. The company boasts more than more than 1,300,000 customers and 700,000 custody accounts, making it one of Europe's largest stockbrokers. Comdirect Bank also offers trading services by telephone and provides research and information services to assist self-directed trading clients.

### Business Issue

Business disruptions in technology performance and availability would directly impact customer satisfaction for online trading. This would affect sales, as well as trade volume.

In addition, the existing monitoring solution provided by IBM Tivoli was inefficiently utilized. The Tivoli system was out of date, opening up IT vulnerabilities that could affect customer response times, customer online experiences and other services that rely on the web infrastructure.

### Environment

An estimated 300 servers and network devices manage the online trading website. The web servers are mostly Unix based. There are also a number of Windows servers, managed separately by Microsoft SCOM.

### Cost

**Total GroundWork CapEx Cost = \$62,000 for a 4 year subscription contract**  
**- Per node cost = \$52 per year**

### Problems

Tivoli was viewed as being overly complex and insufficiently flexible for their changing environment.

Tivoli was very good at monitoring Unix machines, but not as good at monitoring the network devices, nor could accommodate monitoring Email servers or Windows-based machines. Comdirect Bank needed to find a solution that would be more reliable, have a console for event monitoring, and didn't restrict adding in additional machines like email servers for monitoring based on the OS.

### Searching for Open Source Alternatives

Comdirect Bank turned to Nagios and found that the monitoring functionality was comparable to Tivoli's. However, the IT team found it difficult to adapt to the Nagios console and user interface. The big drawback to using Nagios was the lack of an event console and the inability to integrate the history log into the dashboard.

GroundWork developed a solution for Comdirect Bank to monitor any web environment changes that may arise, **without limiting the reach and monitoring.**

Performance reports were being managed by Cacti on a separate box. This includes CPU utilization, idle time, bandwidth, etc.

Also, Comdirect Bank began using Microsoft's SCOM for monitoring their Windows environment. However, they were unhappy with using several open source monitoring tools that didn't consolidate into one console.

Comdirect Bank then found GroundWork Monitor – a solution that amalgamates and preserves open source monitoring projects such as Nagios and Cacti, as well as other solutions such as NeDi, RRDTool and others. GroundWork Monitor can also interoperate with proprietary monitoring solutions such as Tivoli and SCOM, as well, to provide a unified, single view of IT operations.

### Solution

To continue to manage expenses, seeking an open source monitoring solution was ideal. GroundWork Monitor Enterprise was selected because of its integration with Nagios, plus its similarities to the IBM Tivoli event console – which Nagios did not offer.

### Current deployment

Now, GroundWork Monitor Enterprise is monitoring the 300 devices that comprise the end user web experience for online transactions. A sister server is running Cacti for performance reports, and can be integrated with GroundWork Monitor at a later time.

### GroundWork value

GroundWork developed a solution for Comdirect Bank to monitor any web environment changes that they may arise, without limiting the reach and monitoring methodologies necessary for ensuring high customer satisfaction. In addition, GroundWork was the only open source solution that enhanced the Nagios engine and monitoring functionality by delivering a console for easier event correlation and management, similar to the IBM Tivoli console to which the staff was accustomed. Unlike Tivoli, GroundWork Monitor handles both the event monitoring and alarm generation, plus provides a status view when a problem occurs. Equivalent Tivoli functionality would have required a customized extension, which would have consumed more resources and required expensive maintenance expenditures.

### The overall value

With GroundWork Monitor, Comdirect Bank was able to provide an optimized level of service to their online trading customers previously provided by Tivoli or Nagios alone.

1.866.899.4342  
info@groundworkopensource.com  
www.groundworkopensource.com  
GroundWork Open Source, Inc.  
139 Townsend Street, Suite 100  
San Francisco, CA 94107

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### About GroundWork Open Source

GroundWork Open Source, Inc. provides open source-based IT infrastructure management solutions. Groundwork's solutions enable IT management to leverage the flexibility and low cost of open source tools to achieve enterprise-level availability, performance and operational efficiency for a fraction of the cost of commercial software.