

## PERFORMANCEGUARD

### SOLUTION BRIEFS

#### CONTAINS FOLLOWING SOLUTION BRIEFS :

- PerformanceGuard Solution Brief
- Autosteps Solution Brief
- Citrix Monitoring Solution Brief
- Office 365 Solution Brief

#### DESCRIPTION

**PerformanceGuard** is our easy-to-use Performance Analytics. Stop wondering what makes your IT systems slow and find the exact applications and processes that steal resources from your end users' computer with PerformanceGuard.

**Autosteps** helps ensure effective operation in a perfect combination of synthetic and real end-user analysis. Autosteps will perform genuine and impartial SLA evaluations and help eliminate blind spots in your Performance Analytics.

**Citrix Monitoring** collects data from the agents installed on your servers. With this data Citrix Monitoring enables IT staff to manage end-user availability and quality, and making it possible to identify bottlenecks within your system.

**Office 365** will make it possible for you to take a closer look at your Office 365 environment and gain insight on whether it is your own infrastructure that creates the problems or the Office 365 environment.



## SOLUTION BRIEF

# PERFORMANCEGUARD



### PERFORMANCEGUARD IS USED FOR:

- Service Desk first call resolution
- Root cause analysis
- Trend identification
- Knowledge source for proactive configuration
- Maximizing utilization of Service Desk resources
- Event drill-down to affected end-users
- End-user Key Performance Indicator (KPI) reporting
- Service Level Agreement building and monitoring

For any enterprise who aims at optimizing end-user productivity by using IT services, CapaSystems provides a software solution which reduces IT downtime for the end-users and thus optimizes productivity by pinpointing performance issues on the fly.

PerformanceGuard will help you identify if, where and when an end-user experiences IT problems by monitoring the actual IT service delivery from the end-user perspective in terms of quality and quantity.

### BENEFITS

- Lower operational costs.
- Increased productivity
- Greater end-user satisfaction
- Optimization of IT by aid of multiple out-of-the-box measurements and reports

### PERFORMANCEGUARD ENABLES YOU TO:

- Determine if, where and when a problem has occurred.
- Monitor real end-user experience.
- Monitor all systems for all users – all the time.
- Focus on business impact via KPI.



## HOW IT WORKS

The PerformanceGuard architecture consists of agents, one on each computer and a number of Frontend Servers receiving data from the agents and acting as data repositories. Data from Front-end Servers are sent to and consolidated on a central PerformanceGuard Backend Server. The view of the end-user experience is provided in real-time.

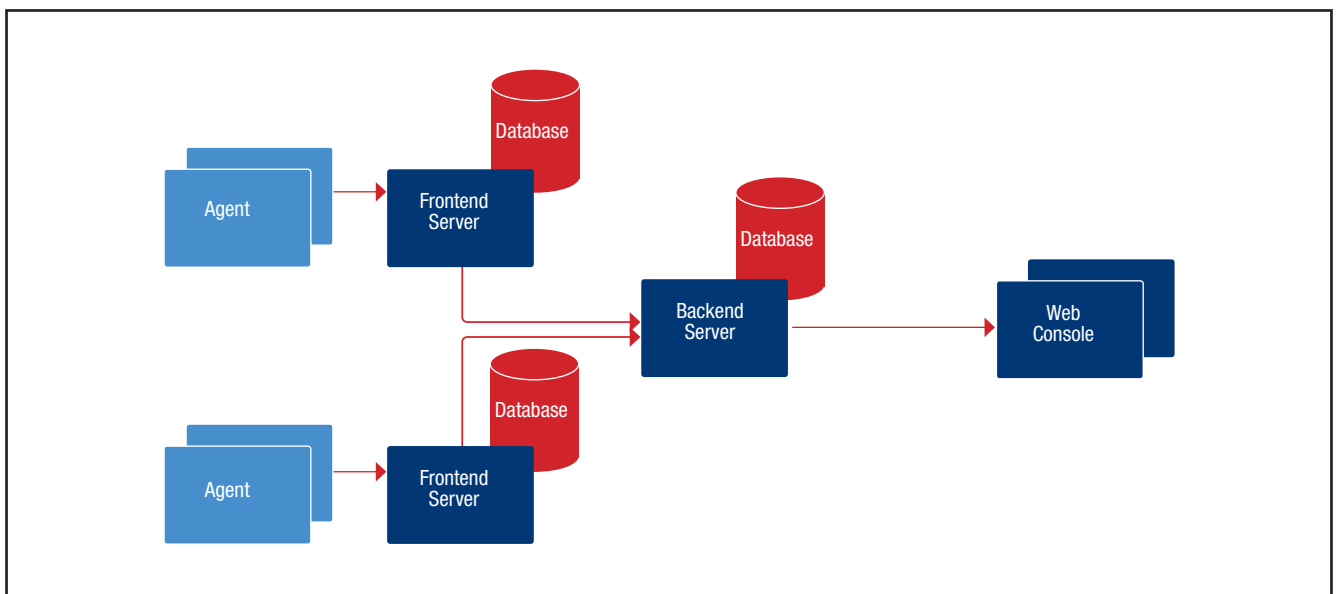
## THE PERFORMANCEGUARD AGENT

The PerformanceGuard agent is installed on each computer, where it passively monitors and collects computer performance data from an end-user perspective. Response times and other performance metrics like network traffic are measured to provide data on the entire IT Infrastructure, including end-user computers, servers and routers. Measurements cover both client/server as well as web-based services.

PerformanceGuard collects the data locally for a predefined period and at regular intervals transmits data to the PerformanceGuard Server. PerformanceGuard offers quality assurance of scheduled changes by comparing the end-user experience before and after the change. The collected data helps you in assessing the Return of Investment (ROI) in the IT Infrastructure.

## LICENSING MODEL

PerformanceGuard is licensed on the basis of the number of end-users computer and devices being monitored. CapaSystems offer both a perpetual license purchase with a yearly service and support fee and a subscription model including service and support.





## PERFORMANCEGUARD IS USED FOR:

	A mid-sized company in the utility sector	An international organization with several overseas subsidiaries	An international transportation and logistics company
Challenge	How to document the actual advantages related to higher productivity and better customer service when upgrading the infrastructure capacity and doing it system-wise.	How to find the root cause for large delays in IT performance and repeatedly unstable business services.	How to ensure that Business Management can transform the overall availability of every IT systems to KPIs showing business impact, when IT performance changes.
Performance-Guard Solution	PerformanceGuard monitors the performance of the IT services from an end-user perspective before and after the infrastructure upgrade which helps to visualize the improvements.	PerformanceGuard monitors the end-user's actual behavior and compares the results with similar historic events and thereby visualize the changes in the communication with the possibilities to eliminate non-relevant symptoms.	PerformanceGuard monitors system performance from the end-user perspective 24/7, on every IT system individually, and thereby makes it possible to document and respond to potential changes.
Customer benefit	Based on the baseline monitored before the infrastructure upgrade it was documented, that most of the IT-services had improved considerable while some of the customer services had no significant improvements and called for change of system functionality instead.	The investigation revealed that some IT-services under specific conditions would use communication by satellite instead of using line based VPN or going through the Internet Cloud. The result was a more reliable and less costly communication between the individual locations.	By using PerformanceGuard to produce data for a weekly report of KPIs, the IT Management was able to follow the business impact of the IT services delivered - prioritized by Business Management. The data was also made part of the monthly business reporting.
Alternatives	The alternative is to measure performance from a back-end perspective and base the evaluation on change in CPU-load, disk I/O and requests. None of these gives the true end-user experience.	The alternative would be to set up sniffers and other network diagnostic tools that could help narrow in the causes for the delays and instability. Unfortunately, this kind of problems are almost impossible to reproduce and there is no indication beforehand that it actually is a network problem.	The alternative would be to set up the computer client with simulations of end-user behavior, i.e. synthetic robots. This method only gives information for a limited number of transactions and only for predefined simulations of end-user behavior. It will not be representative for the majority of the end-users and can be optimized at the cost of real end-users.



## SOLUTION BRIEF

### AUTOSTEPS



**Monitor the performance of business-critical systems from an end user perspective even when they are not working.**

Today's infrastructure is complex and we know from experience that monitoring single components such as servers and network does not provide the full picture when we focus on the end user experience. PerformanceGuard allows you to gain quick insight into HOW or IF the end users are actually affected when your traditional monitoring tools report an issue with the infrastructure. You will even know if end users are affected by a situation that wasn't reported by your other tools. This becomes possible because PerformanceGuard monitors the end user experience WHEN it is being experienced from the same device being used. But what happens when your users go home after work? In this situation you are bound to rely on the information you get from all your traditional tools.

How can you tell whether end users can access for example a restored database if no real end users are accessing the system to let you know?

The end user experience can be measured synthetically 24/7 with PerformanceGuard AutoSteps. You can deploy AutoSteps across your organization's geography to test the performance and availability of your business-critical systems from all user locations. This way you can ensure that your systems are up and running when the end users get back to work. Monitoring your infrastructure with AutoSteps will provide nonbiased scheduled measurements perfectly suited for SLA agreements and KPI reports for C-level management reporting. AutoSteps is a versatile tool for any business who wants reliable data on end user performance all day, every day.



## WHAT IT DOES

AutoSteps provides synthetic measurements by acting as an end user accessing business-critical systems and performing typical end user tasks. The response times and availability of the systems are reported back to PerformanceGuard where the data can be used to assess the overall performance of the system from an end user perspective. It notifies the right people if a system requires attention when it is needed. In the situation where this happens during out of office hours it will allow time to remedy the issue before the end user show up for work.

## SIMPLE CONFIGURATION

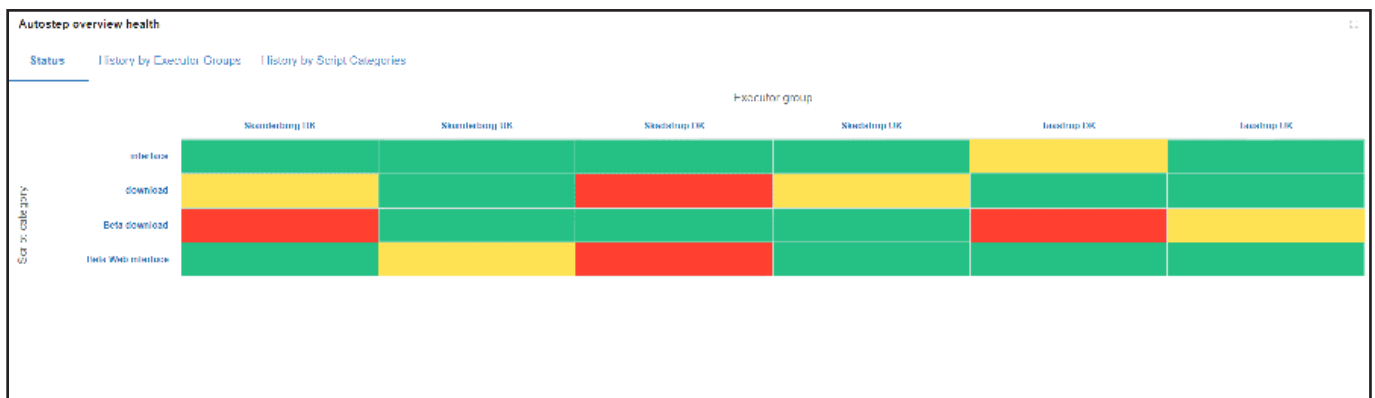
Setting up the synthetic tests are done in a few steps by creating a Job. A Job consists of a Script, an Executor Group and a Schedule. The Script defines the synthetic test and the Executor Group contains the AutoSteps computers that should run the test. The Schedule defines how often the test is performed. There is no manual distribution of scripts with AutoSteps to the computers performing the synthetic tests. This is because AutoSteps handles this automatically when the schedule defines that it is time to perform the test. The scripts are all stored in one place and any adjustment will thus take effect immediately after the change

## EASY SCALING

The described automated features allow for very easy scaling. If an AutoSteps computer has been assigned many tests that run often, it may not have time to complete them all at the scheduled time. To accommodate this, all you have to do is install AutoSteps on a new computer and add this computer to the Executor Group and you are done - the load balancing of the tests is done automatically by AutoSteps.

## AUTOSTEPS AND PERFORMANCEGUARD

AutoSteps is an add-on to the PerformanceGuard installation and is installed on computers where a PerformanceGuard Agent is already installed. In PerformanceGuard, computers with AutoSteps installed, are recognized and are now available for running synthetic measurements. It is recommended that only dedicated computers are used for performing synthetic tests with AutoSteps as the test will most often interact with the user desktop – if the test is running while an end user is working on the computer, the test may be disrupted by the end user and vice versa.





## PERFORMANCEGUARD AUTOSTEPS REQUIREMENTS:

### SERVER:

PerformanceGuard 7.3 or newer

### Computer:

OS Versions supported:

- Windows 7 - 64-bit
- Windows 8/8.1 - 64 bit
- Windows 10 - 64 bit.

### Software required:

- PerformanceGuard Agents 7.3 or newer
- Microsoft .NET 4.6.2 or newer

### User:

AutoSteps requires a user name for running the scripts. This can be a local user on the computer or an Active Directory account. The user must be supplied during installation of AutoSteps.



## SOLUTION BRIEF

# CITRIX MONITORING



PerformanceGuard is a unique and proven software solution for monitoring end-user performance for companies that uses Citrix.

### **AN OFF-THE-SHELF SOLUTION FOR PROACTIVE MANAGEMENT OF CITRIX SYSTEM PERFORMANCE**

The ability to manage end-user availability and quality of service on Citrix enables IT staff to proactively and strategically manage the IT function while making a positive impact on business performance. IT staff have access to consistent and objective measurements of application and network performance, making it easy to identify bottlenecks.

PerformanceGuard Citrix Monitoring delivers availability and application performance data, as well as application usage statistics for each end-user ICA session measured at the Citrix server. Using pre-defined baselines, alerts are triggered by application issues and performance bottlenecks and enables IT staff to quickly identify and proactively resolve these matters within the Citrix environment.

By providing an accurate picture of service quality, PerformanceGuard also enables IT to be compliant with service level agreements (SLA).

PerformanceGuard audits essential aspects of a Citrix-based infrastructure and displays performance data in real-time - without influencing the results in any way. Performance issues related to configuration changes such as software updates and new applications are instantly detected and alerts are dispatched.

PerformanceGuard Citrix Monitoring enables IT staff to create an accurate picture of how each individual user experiences IT system services. PerformanceGuard Citrix Monitoring delivers both a real-time view and a historic perspective of performance data, which can be retrieved and presented in a variety of ways depending on the purpose, or exported to other system management tools.





## WHAT IT DOES

The PerformanceGuard Citrix Monitoring consists of an agent installed on Citrix servers, and a PerformanceGuard server, which collects data from the agents. This data consists of a range of essential counters about the connections between the Citrix servers and the ICA clients, services on the Citrix server itself and quality of service of application back-end servers.

With respect to the connection between the Citrix server and the connected ICA clients, PerformanceGuard Citrix Monitoring provides the following:

- Client Latency - quality of the connection between the server and the clients.
- Client Traffic Amount - load on the ICA connection.
- Citrix Login Time - time required for full desktop login.
- Citrix Session Startup Time - time required to establish an ICA session.
- Citrix Session Duration – total connection time.

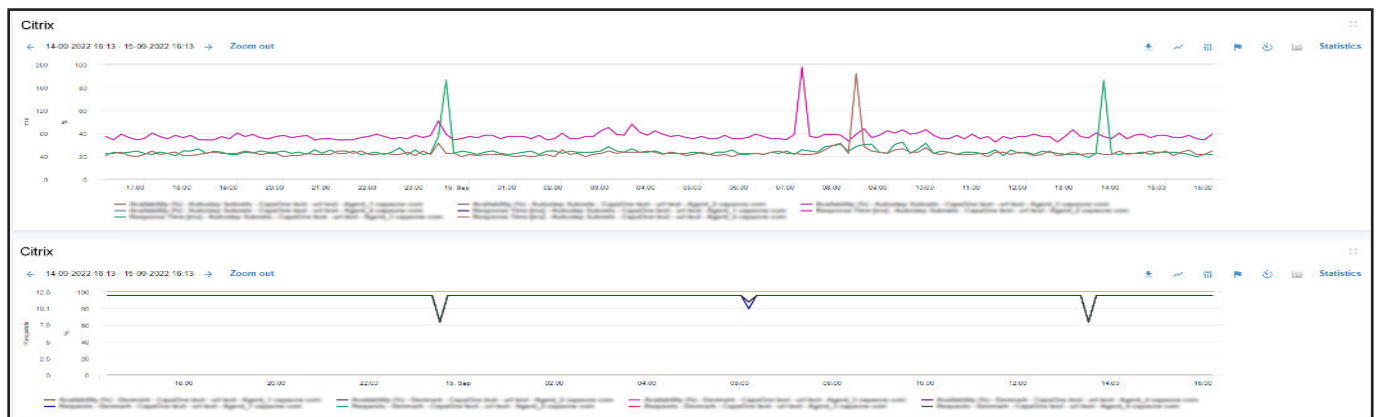
As to the Citrix server itself, the PerformanceGuard Citrix Monitoring measures a wide range of Windows performance counters e.g.:

- CPU Usage
- Memory Usage
- Disk Activity
- Network Traffic T

These measurements are conducted both for the entire server and for individual processes. Monitoring of application performance between the Citrix Server and an application server, the PerformanceGuard Citrix Monitoring offers a wide selection of counters e.g.:

- Response Time - how long the Citrix Server and the user must wait for a response from any given application server.
- Data Load - the amount of data transmitted between the Citrix Server and the application server

The administration and maintenance of the PerformanceGuard Citrix Monitoring is handled the same way as other configuration modifications of the PerformanceGuard system. The PerformanceGuard Citrix Monitoring licensing is part of the standard PerformanceGuard licensing - however, for each Citrix Server it requires one license for the server itself plus one license for each concurrent ICA session on the server.



## SOLUTION BRIEF

### OFFICE 365



#### Get an understanding of the performance of your Office 365

Many consider Office 365 to be a business-critical Cloud service with a quality that often defies proper observation or measurement.

This is why CapaSystems has introduced a new service, **PerformanceGuard – Office 365**, which makes it possible to analyse performance and get an idea of where exactly the problem is in the response time chain. Is it in the infrastructure or perhaps the Citrix server farm? Or is it indeed in your Office 365 in the Cloud? And, if so, which service is acting up?

PerformanceGuard – Office 365 provides a detailed insight into how users are affected by performance challenges, whether from the inside or outside, and where in the world data is obtained from and saved.

#### HOW DOES THE SERVICE WORK

Corresponding applications are automatically created in PerformanceGuard based on Microsoft's publicly available information about location of data centres and associated services.

The four main groups in Office 365:

- Common
- Exchange
- Skype
- SharePoint

For each main group that Office 365 is divided into an application is created for each data centre that the clients have communicated with. In other words, no time-consuming maintenance of applications in PerformanceGuard

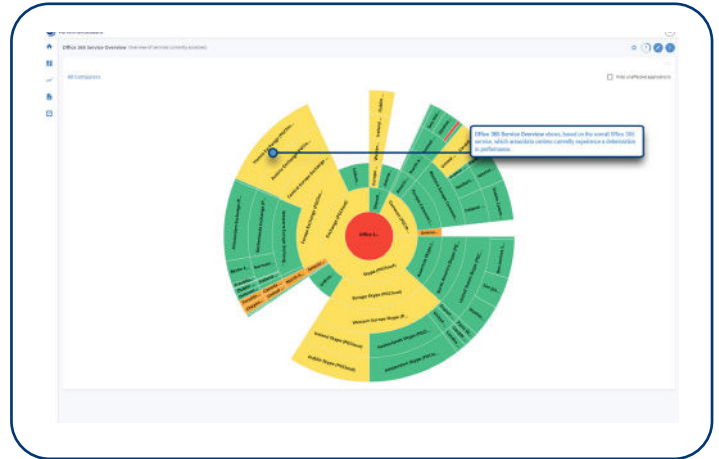


## AUTOMATISK SETUP OF DASHBOARDS

To permit the analysis of data collected about the use of Office 365, automatic dashboards are set up directly in your on-premise installation of PerformanceGuard.

- **Office 365 Service Traffic** shows the volume of sent and received traffic and provides an insight into availability and response times. It gives an idea of how many clients are facing performance challenges and if this can possibly be associated with a higher volume of traffic.
- **Office 365 Service and Location events** shows, based on the location of the clients, the status of each Office 365 service that is accessed. This dashboard gives an idea if certain locations suffer from poorer performance than others and if there is communication with the nearest data centres.
- **Office 365 Service Overview** shows, based on the overall Office 365 service, which areas/data centres currently experience a deterioration in performance.

All dashboards feature drill-down functionality all the way down to each individual client and its respective performance information: in relation to Office 365, other applications as well as resource information. Therefore, this creates optimal conditions for finding the cause of the problem.



## PERFORMANCEGUARD OFFICE 365

### SERVER:

PerformanceGuard 8.1 or newer

### Computer:

OS Versions supported:

- Windows 7 - 64-bit
- Windows 8/8.1 - 64 bit
- Windows 10 - 64 bit.

### Software required:

- PerformanceGuard Agents 7.3 or newer

**PerformanceGuard - Office 365** is a service provided via CapaOne. To integrate PerformanceGuard – Office 365, you need to have a valid subscription to PerformanceGuard.

