



Test & Computer Services Ltd

Rapid Diagnosis of SAN Problems

SAN Monitoring and Trend Recognition

Identification of Performance Bottlenecks

Consolidation of SAN Tools

Visualisation and Verification of SAN Architecture

Automatic, Audit Proof SAN Documentation

Detect Mis-Configurations

Efficient use of Resources

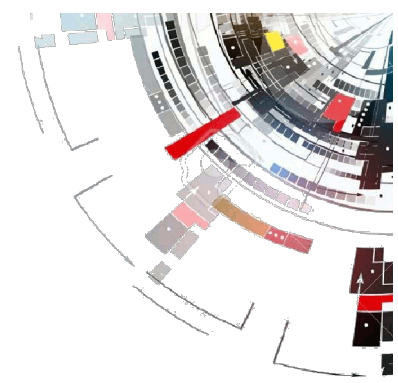
Enforcing Corporate Standards

Multivendor SAN Expertise

GCH Test & Computer Services Limited

www.gch-services.com
Tel. +44 1628 55 99 80
sales@gch-services.com

SAN Resource Monitoring

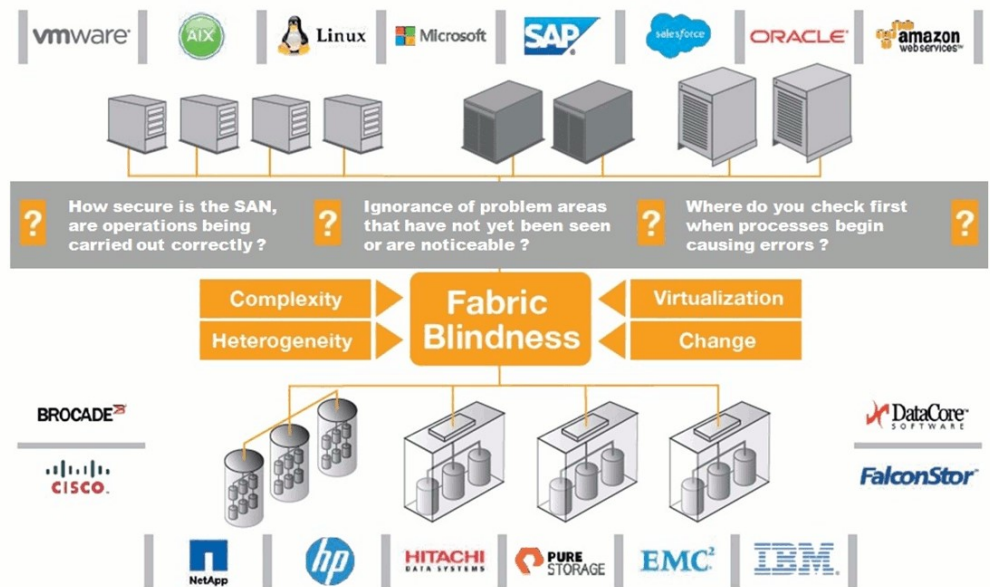


Overview

Why SAN Resource Monitoring?

The SAN cloud seems impenetrable to many. Few administrators are aware of how data is transported through the SAN or the affect of configuration changes.

It is becoming more difficult for SAN administrators to track events in a fast growing environment. Fault tolerant applications require an uninterrupted environment. In order to manage this environment successfully and deal with issues in a timely manner, you need real-time accurate details of your infrastructure, at a glance.



SAN RM is an auditable software solution that automates the inventory of Fibre Channel environments. The various tabular views give the user quick access to all the configuration information of the fabric, including all the changes that have been performed.

The zoning or routing information is visualised as physical, logical and virtual end-to-end connections. In addition, error and utilisation metrics are collected as well as switch ports and SFP metrics.

All measurements and information is collected and stored in a time correlated database for fault analysis.



Test & Computer Services Ltd

Automatic Documentation of the SAN Infrastructure

Auditable acquisition of all asset changes

Unique visualization of topology and zoning

End to End Connection Illustration

High Scalability through Remote Poller

Detection and Display of all Important Metrics

Historic Representation of all Changes

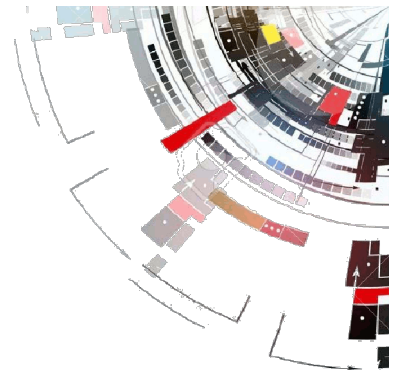
Complete Browser Based GUI

Automatic Rule Based Alerting

GCH Test & Computer Services Limited

**www.gch-services.com
Tel. +44 1628 55 99 80
sales@gch-services.com**

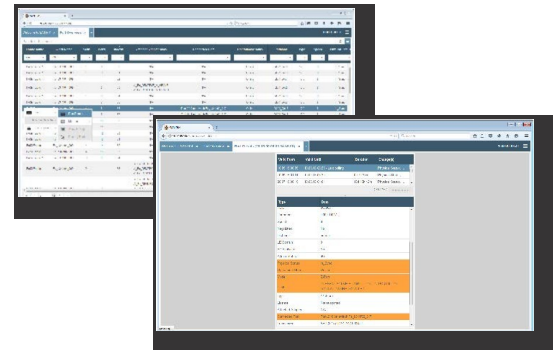
SAN Resource Monitoring



SAN Resource Monitoring (SAN RM) is software for automated asset recording and visualization of the physical, logical and virtual connections of your FC environment. SAN RM provides fast and easy access to all the major parameters of your infrastructure, such as:

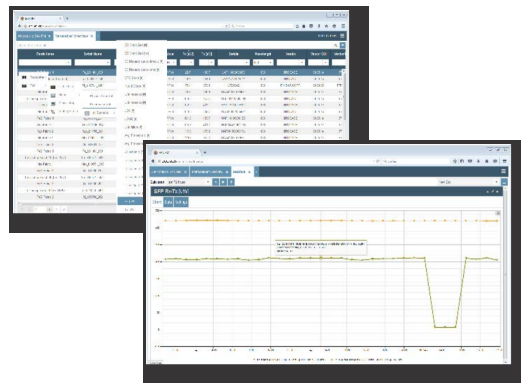
Overview and Detail Views—Including the quick overview history.

Get an overview of your fabric components. You can see all the important metrics whether they are for the entire switch, a single port or its associated HBA. The detail view shows you the entire 'life story' for a device or single component.



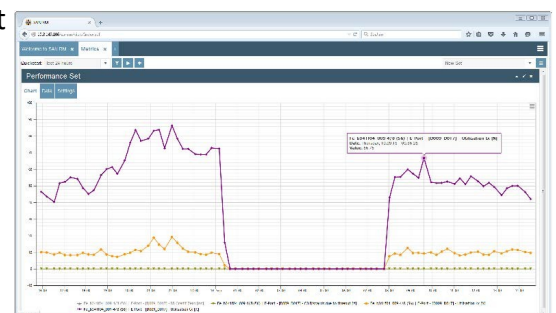
Transceiver View and Metrics—The powerful view.

An SFP is an optical-to-electrical converter and, as such, is subject to degradation over time. It is essential that these components are continuously monitored over time. The Transceiver View shows the current status along with the performance history of the SFP so you can see the device degradation over time and replace the SFP before performance becomes a problem.



Performance Metrics—More than just a load.

High utilisation simply means that a lot of data flows over a connection. It doesn't tell you how quickly it went from Initiator to Target. This also applies to too low utilisation. Automatically counting metrics such as Buffer-to-Buffer Credits and C3-Discards can indicate performance bottlenecks by confirming if frames are being delayed, or worse, dropped.





Test & Computer Services Ltd

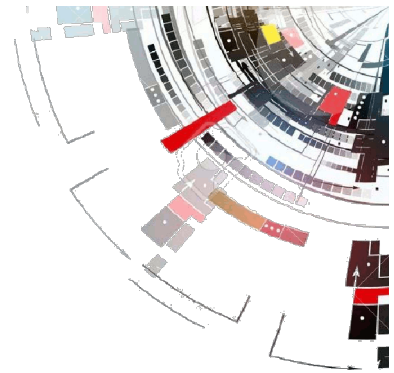
DVV GmbH – Thomas Warthun
‘Through the use of SAN RM the time required for documentation is reduced to a minimum and, as SAN Administrators, gives us more time to concentrate on the really important things like design and proactive error analysis. The information collected can be easily viewed and graphically displayed with the map function. This new perspective on the infrastructure means analysis and troubleshooting is simplified enormously. Each zone, configuration and hardware change is recorded in the Change Log providing complete documentation at any given time. This process was previously time consuming and cumbersome but with SAN RM it is now auditable at the click of a button.

Continental KV a.G. – Peter König
‘SAN RM is a very important tool to allow us to monitor the SAN. Colleagues are very enthusiastic about the graphical routing display of the SAN RM tools. The software comes without complicated CLI commands to query the switches to obtain the required data’

GCH Test & Computer Services Limited

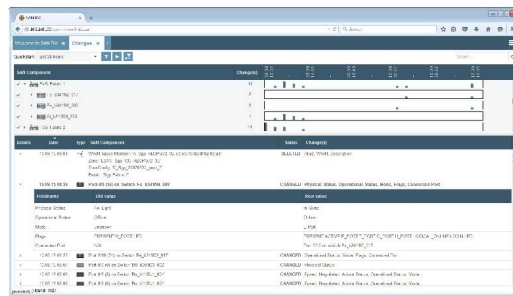
www.gch-services.com
Tel. +44 1628 55 99 80
sales@gch-services.com

SAN Resource Monitoring



Need to make configuration changes to your switches? – Just carry out the changes and do not worry about the documentation. SAN RM automatically stores all changes made to your FC environment – whether they are intentional or not.

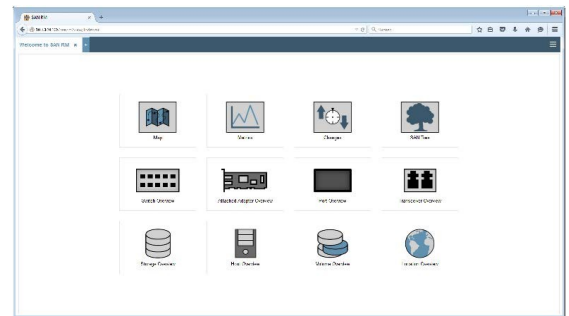
Change View – What happened when ?



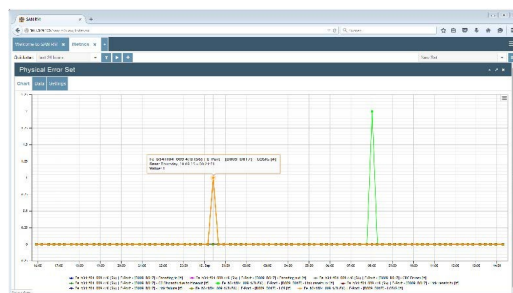
The Change View displays all the changes in a time ordered view. The view can be customized and filtered so that you can see the exact information that is important to you. This simplifies time event correlation and duration for any changes and fault isolation is shortened significantly.

Asset Monitoring – Simple, Understandable and Auditable.

The web-based GUI provides fast access to all the relevant data from your fabric. Use the Quick Start tiles to access the most commonly used views. These include specific component information such as Switch, Port, Transceiver and Adapter views as well as logical views of the topology or the correlation of changes or switch metrics.



Error Metrics—Proactive fault detection



Many problems go undetected until the application performance degrades to the point that users start complaining or the application fails completely. Continual analysis of key metrics such as Encoding, CRC and Synchronisation errors alert the SAN Administrator of the need for corrective action before the SAN performance is compromised.



Test & Computer Services Ltd

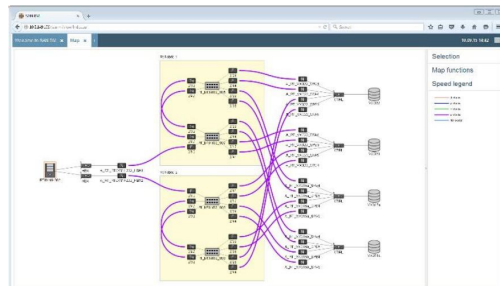
*Gruner + Jahr GmbH & Co KG – Benjamin Schikora
'SAN RM is important for us as a monitoring and documentation tool, in order to monitor our SAN. We are particularly excited that any relevant information can be accessed from SAN RM by pressing the relevant button. The joining of different metric combinations for various applications and resources, showing issues in screen images, makes it much easier to find errors.'*

*HUK-COBURG VV a.G. – Christian Grieshammer
'With SAN RM we have a simple and current documentation solution for our SAN environment. With this documentation it is easy to keep track of behavioral changes over time. The possibility to easily view errors in SAN RM allows us to be faster and more efficient in troubleshooting issues.'*

Among other things, the results of planned actions such as remodeling, reboot etc. can be determined. Evaluations and visualization with the graphic representations of SAN RM makes management much easier.'

SAN Resource Monitoring

Identify your most important ports based on WWPN, FCID or Aliases. Are your servers connected redundantly and is your zoning configured correctly? – The SAN RM map is worth a thousand words.

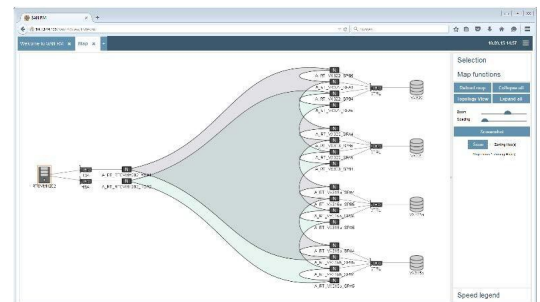


Topology Map – What does my fabric really look like?

View all the physical, logical and virtual connections for all your fabrics in an interactive presentation. Clearly identify port connections and their path through the fabric. The Topology Map will confirm servers are connected redundantly to ensure failover strategies are correct.

Zoning Map – Who communicates with whom?

If the physical connections are made but the server cannot see the drives then Zoning may be the issue. The Zoning map shows the defined zones detailing who can communicate with whom. Visualise the communication partners / groups in a simple and understandable way.



What have you changed recently? Support your statements with clear facts and not the testimony of others. SAN RM shows the actual state of your fabrics at any time.

Locate problems on the SAN by checking the entire communication chain. What side effects have occurred? – SAN RM provides a clear picture.

If you think the SAN RM software will be useful to you then why not arrange to see it running in your SAN environment?

Contact GCH for a free demo installation!

SAN RM is delivered as a pre-configured virtual machine, we only need a few details from you.

GCH Test & Computer Services Limited

www.gch-services.com
Tel. +44 1628 55 99 80
sales@gch-services.com