perfSONAR - Implantação #251
Estudo e implantação do PerfSONAR

12 Apr 2011 20:12 - Rogério Iope

Status:	Nova	**Start date:**	12 Apr 2011
Priority:	Normal	**Due date:**	
Assignee:	Marcio Costa	**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:		**Spent time:**	0.00 hour

Description

Investir esforços no aprendizado do PerfSONAR, uma ferramenta de monitoramento e visualização do desempenho de redes. A ideia é instalar essa ferramenta nos servidores na Unesp/BF, no CCE/USP, no NAP do Brasil e no NAP of Americas, para começar a dominar a ferramenta. Um bom começo seria instalar o Live-CD suportado pelo OSG (vide trecho do OSG DOE Report abaixo).

O PerfSONAR é desenvolvido por um consórcio formado pela Internet2, ESNet, GÉANT2 e RNP. A rede européia GÉANT criou um 'flavor' próprio, o PerfSONAR MDM (Multi-Domain Monitoring), que acho que pode ser útil, p. ex., para o monitoramento ANSP - AMPATH. Seguem alguns links.

http://www.perfsonar.net/

http://www.geant.net/service/perfsonar/

https://forge.geant.net/forge/display/perfsonar/Home

Alguns screenshots mostrando o acesso através da User Interface:

https://forge.geant.net/forge/display/perfsonar/Screenshots

Mailing list para usuários:

https://lists.internet2.edu/sympa/info/perfsonar-user

History

#1 - 12 Apr 2011 20:18 - Rogério Iope

O trecho abaixo, extraído do OSG DOE Report Dec-2010 (pp. 79-80), reforça a importância que o PerfSONAR está adquirindo dentro do OSG.

"In the past year, Internet2 has worked with OSG software developers to update the advanced network diagnostic tools already included in the VDT software package. These client applications allow VDT users to verify the network performance between end site locations and perf-SONAR-based servers deployed on the Internet2 and ESnet backbones by allowing on-demand diagnostic tests to be run. The tools enable OSG site administrators and end users to test any individual compute or storage element in the OSG environment thereby reducing the time it takes to diagnose performance problems. They allow site administrators
to more quickly determine if a performance problem is due to network specific problems, host configuration issues, or application behavior.

In addition to deploying client tools via the VDT, Internet2 staff, working with partners in the US and internationally, have continued to support and enhance a simple live-CD distribution mechanism for the server side of these tools (perfSONAR-Performance-Toolkit). This bootable CD allows an OSG site-admin to quickly stand up a perfSONAR-based server to support the OSG users. These perfSONAR hosts automatically register their existence in a distributed global database, making it easy to find new servers as they become available.

These servers provide two important functions for the OSG site-administrators. First they provide an end point for the client

tools deployed via the VDT package. OSG users and site-administrators can run on-demand tests to begin troubleshooting performance problems. The second function they perform is to host regularly scheduled tests between peer sites. This allows a site to continuously monitor the network performance between itself and the peer sites of interest.

The US-ATLAS community has deployed perfSONAR hosts and is currently using them to monitor network performance between the Tier-1 and Tier-2 sites. Internet2 attends weekly USATLAS calls to provide ongoing support of these deployments, and has come out with regular bug fixes. Finally, on-demand testing and regular monitoring can be performed to both peer sites and the Internet2 or ESNet backbone network using either the client tools, or the perfSO-NAR servers. Internet2 will continue to interact with the OSG admin community to learn ways to improve this distribution mechanism.

Another key task for Internet2 is to provide training on the installation and use of these tools and services. In the past year Internet2 has participated in several OSG site-admin workshops, the annual OSG all-hands meeting, and interacted directly with the LHC community to determine how the tools are being used and what improvements are required. Internet2 has provided hands-on training in the use of the client tools, including the command syntax and interpreting the test results. Internet2 has also provided training in the setup and configuration of the perfSONAR server, allowing site-administrators to quickly bring up their server. Finally, Internet2 staff has participated in several troubleshooting exercises; this includes running tests, interpreting the test results and guiding the OSG site-admin through the troubleshooting process."

#2 - 13 Apr 2011 11:53 - Marcio Costa

Coloquei um manual sobre o PerfSONAR MDM no DropBox em:

NCC / Marcio / Manuais / Perfsonar/ perfSONAR-MDM-3.1_Admin_Guide_1.5.pdf

PerfSONAR MDM é uma distribuição Linux (baseada em Debian ou CentOS) com todas as ferramentas do PerfSONAR já inclusas.

Eu baixei essa distro e a tenho rodando em uma VM no meu Desktop.

#3 - 23 Apr 2011 20:08 - Rogério Iope

- Project changed from SPRACE to perfSONAR