

原 开源网络监控管理系统：OpenNMS

2013年12月25日 00:21:38 阅读数：12109

OpenNMS是一个开源的企业级基于Java/XML的分布式网络和系统监控管理平台。OpenNMS是管理网络的绝好工具，它能够显示网络中各中终端和服务器的状态和配置，为方便地管理网络提供有效的信息。

之前研究过一段时间的网络监控系统，接触到了OpenNMS，在此简单记录一下它的使用方法。



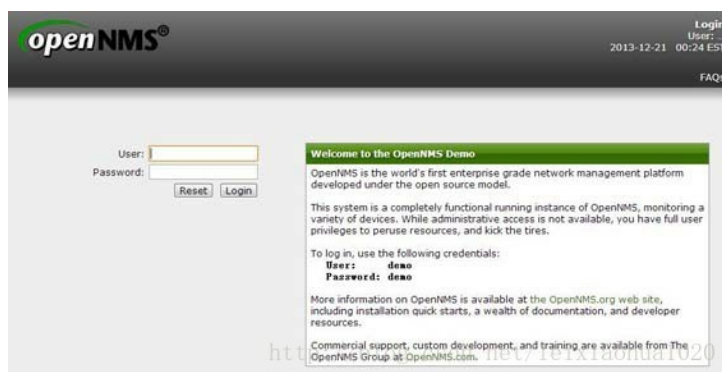
OpenNMS网站首页（<http://www.opennms.org/>）如图所示。出于方便考虑，就不搭建该系统了，直接试试Demo系统。

该项目是开源的，如果需要的话，可以下载源代码进行二次开发，或者下载程序自己进行部署。

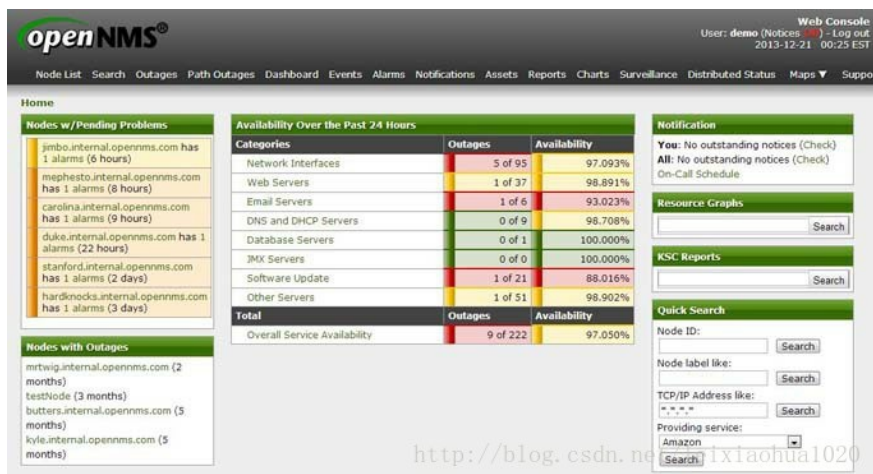


点击网站首页右上方的“Live Demo”，进入OpenNMS的Demo系统的的登陆界面（<http://demo.opennms.org/>）。

默认的用户名：demo。密码：demo。



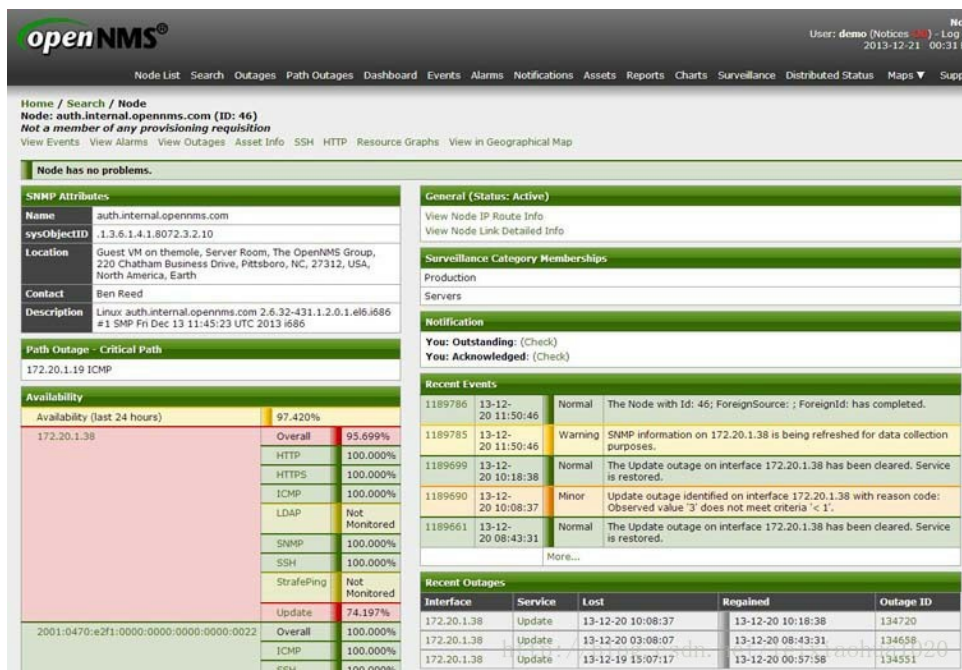
登入系统后的首页。



单击菜单栏的第一项“Node List”，列出所有节点的列表。



单击一个节点，可以查看该节点的详细信息。包括了该节点的各种状态。



单击菜单栏的第二项“Search”，可以查找节点信息（可以通过各种条件进行查找）。

openNMS® Element Search
User: demo (Notices) - Log out
2013-12-21 00:53 EST

Node List Search Outages Path Outages Dashboard Events Alarms Notifications Assets Reports Charts Surveillance Distributed Status Maps Support

Home / Search

Search for Nodes

Name containing:

TCP/IP Address like:

#Alias contains

Providing service:

MAC Address like:

Foreign Source name like:

All nodes
All nodes and their interfaces

Search Asset Information

Category:

Field:

Containing text:

All nodes with asset info

Search Options

Searching by name is a case-insensitive, inclusive search. For example, searching on serv would find any of serv, Service, Reserved, WSERV, User/Server, etc. The underscore character acts as a single character wildcard. The percent character acts as a multiple character wildcard.

Searching by TCP/IP address uses a very flexible search format, allowing you to separate the four octets (fields) of a TCP/IP address into specific searches. An asterisk (*) in place of any octet matches any value for that octet. Ranges are indicated by two numbers separated by a dash (-), and commas are used for list demarcation.

For example, the following search fields are all valid and would each create the same result set--all TCP/IP addresses from 192.168.0.0 through 192.168.255.255:

- 192.168.*.*
- 192.168.0-255.0-255
- 192.168.0,1,2,3-255.*

A search for #Alias, #Name, or #Descr "contains" will find nodes with interfaces that match the given search string. This is a case-insensitive inclusive search similar to the "name" search described above. If the search modifier is "equals" rather than "contains" an exact match must be found.

To search by Service, click the down arrow and select the service you would like to search for.

Searching by MAC Address allows you to find interfaces with hardware (MAC) addresses matching the search string. This is a case-insensitive partial string match. For example, you can find all interfaces with a specified manufacturer's code by entering the first 6 characters of the mac address. Octet separators (dash or colon) are optional.

Searching for assets allows you to search for all assets which have been associated with a particular category, as well as to select a specific asset field (with all available fields listed in the drop-down list box) and search for text which matches its current value. The latter search is very similar to the text search for node names described above.

Also note that you can quickly search for all nodes which have asset information assigned by clicking the [List all nodes with asset info link](#).

单击菜单栏中的“Dashboard”（仪表盘），可以查看整体的信息。

openNMS® Dashboard
User: demo (Notices) - Log out
2013-12-21 00:54 EST

Node List Search Outages Path Outages Dashboard Events Alarms Notifications Assets Reports Charts Surveillance Distributed Status Maps Support

Home

Surveillance View: default

Show all nodes

	PROD	TEST	DEV
Routers	2 of 9	0 of 0	0 of 0
Switches	0 of 1	0 of 0	0 of 0
Servers	3 of 21	0 of 0	0 of 0

Alarms 1 to 5 of 17

Node	Description	Count	First Time	Last Time
mrmakay.internal.opennms.com	FTP outage identified on interface 98.101.157.50 with reason code: did not connect to host with timeout: 3000ms retry: 1 of 1.	3	Fri Dec 20 05:33:45 GMT+800 2013	Fri Dec 20 22:32:54 GMT+800 2013
hardknocks.internal.opennms.com	SNMP data collection on interface 172.20.1.208 failed with Timeout retrieving SnmpCollectors for 172.20.1.208 for /172.20.1.208: SnmpCollectors for 172.20.1.208: snmpTimeoutError for: /172.20.1.208.	1	Wed Dec 18 14:50:14 GMT+800 2013	Wed Dec 18 14:50:14 GMT+800 2013
mrhat.internal.opennms.com	SNMP data collection on interface 169.254.29.233 failed with Timeout retrieving SnmpCollectors for 169.254.29.233 for /169.254.29.233: SnmpCollectors for 169.254.29.233: snmpTimeoutError for: /169.254.29.233.	4	Sat Dec 07 06:52:53 GMT+800 2013	Wed Dec 18 04:13:39 GMT+800 2013
kevin.internal.opennms.com	Update outage identified on interface 172.20.1.32 with reason code: Observed value '1' does not meet criteria < '1'.	6	Sat Dec 14 07:13:22 GMT+800 2013	Sat Dec 21 02:48:46 GMT+800 2013
mrtwig.internal.opennms.com	SNMP data collection on interface 172.20.1.8 failed with Timeout retrieving SnmpCollectors for 172.20.1.8 for /172.20.1.8: SnmpCollectors for 172.20.1.8: snmpTimeoutError for: /172.20.1.8.	2	Wed Dec 18 00:49:20 GMT+800 2013	Wed Dec 18 04:13:38 GMT+800 2013

Notifications 1 to 0 of 0

Node	Service	Message	Sent Time	Responder	Response Time
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Node Status 1 to 5 of 26

Node	Current Outages	24 Hour Availability
auth.internal.opennms.com	0 of 10	97.438%
barbrady.internal.opennms.com	0 of 8	95.585%
biggaval.internal.opennms.com	0 of 3	100.000%
butters.internal.opennms.com	1 of 4	75.000%
cartman.internal.opennms.com	0 of 20	99.777%

Resource Graphs << >>

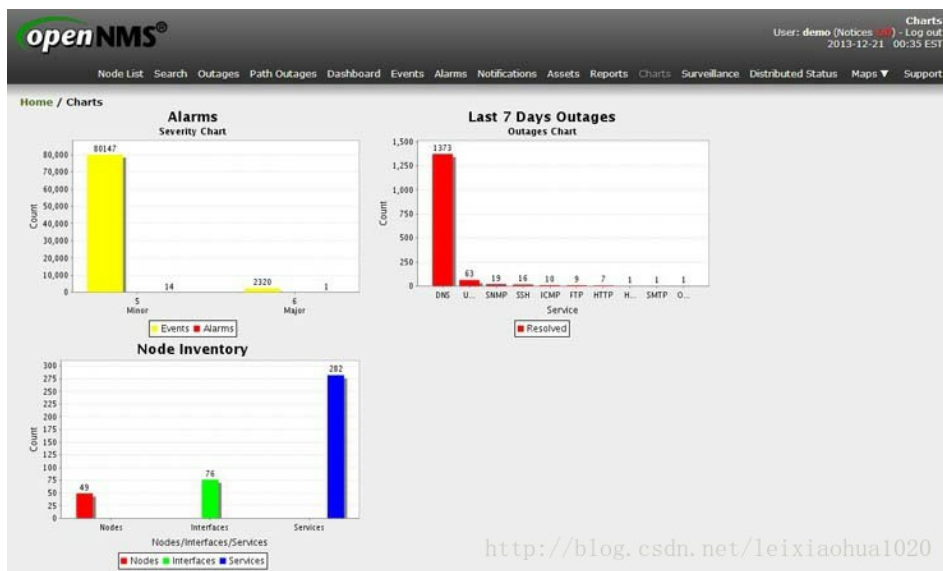
Node: auth.internal.opennms.com

SNMP Node Data: Node-level Performance Data

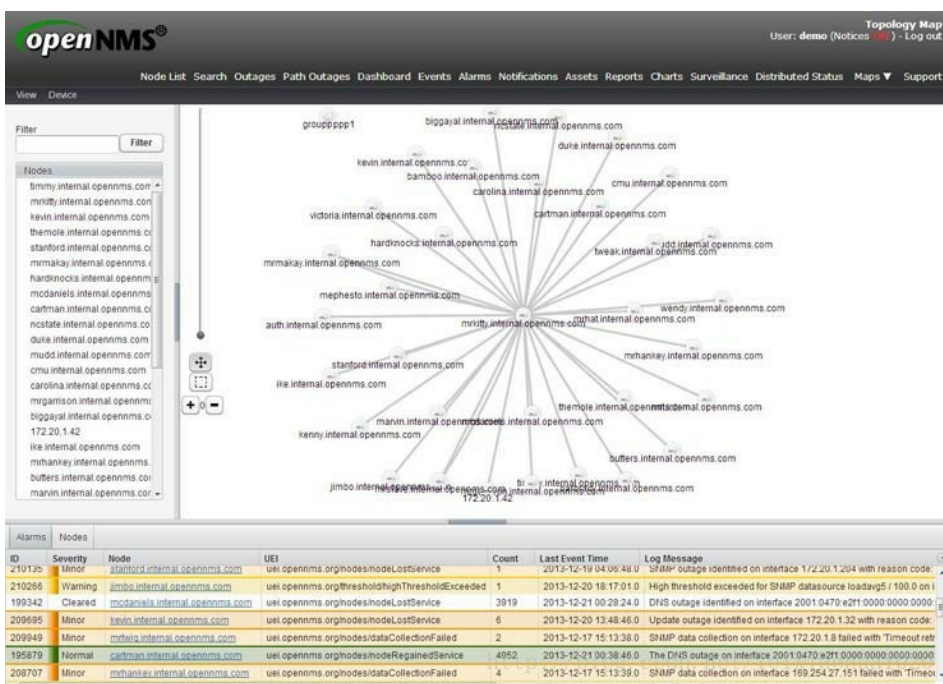
netsnmp.memStatsNoShared

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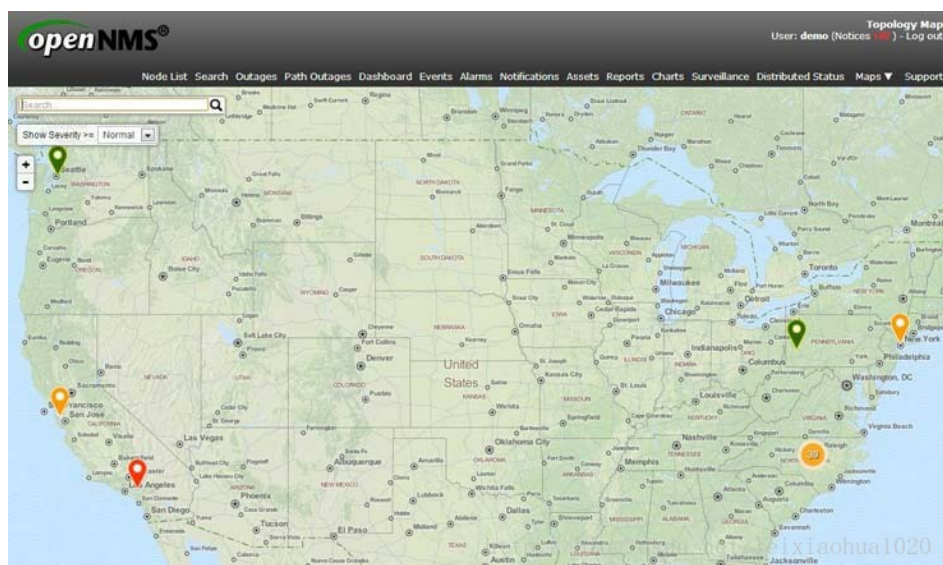
单击菜单栏中的“Chart”，可以以图表的形式查看各种统计信息。



单击菜单栏中的“Maps”->“Topology”，可以查看网络的拓扑结构。



单击菜单栏中的“Maps”->“Geographical”，可以查看服务器物理地址所在。



项目首页：<http://www.opennms.org/>

Demo页面：<http://demo.opennms.org/>

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