

Welcome to the
Toshiba Network

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This product represents a revolution in the field of network monitoring and its Unique proposition of functionality, simplicity and price make it, arguably, the best value solution on the market.

The product is very demonstrable and the user friendly GUI makes it one of the easiest products to use. In fact, many suggest that it is the best GUI on the market.



This slide show endeavours to make 4 key points

1. The benefits of the appliance based approach
2. Robust functionality
2. Flexible and comprehensive alerting options
3. Ease of system configuration

Inside, you will find 2 x 30Gb drives, which store the system software and hold your network statistics and data. Importantly, the drives mirror each other for resilience and facilities are supplied to allow you to back-up data and configuration information on your desk top PC.

In its base configuration, the Toshiba Network Monitor accommodates up to 250 nodes comfortably.

lorer.

and support of the proposition for, in the event of a fault, either the hardware or the disc is swapped. A simple and non intrusive remedy.

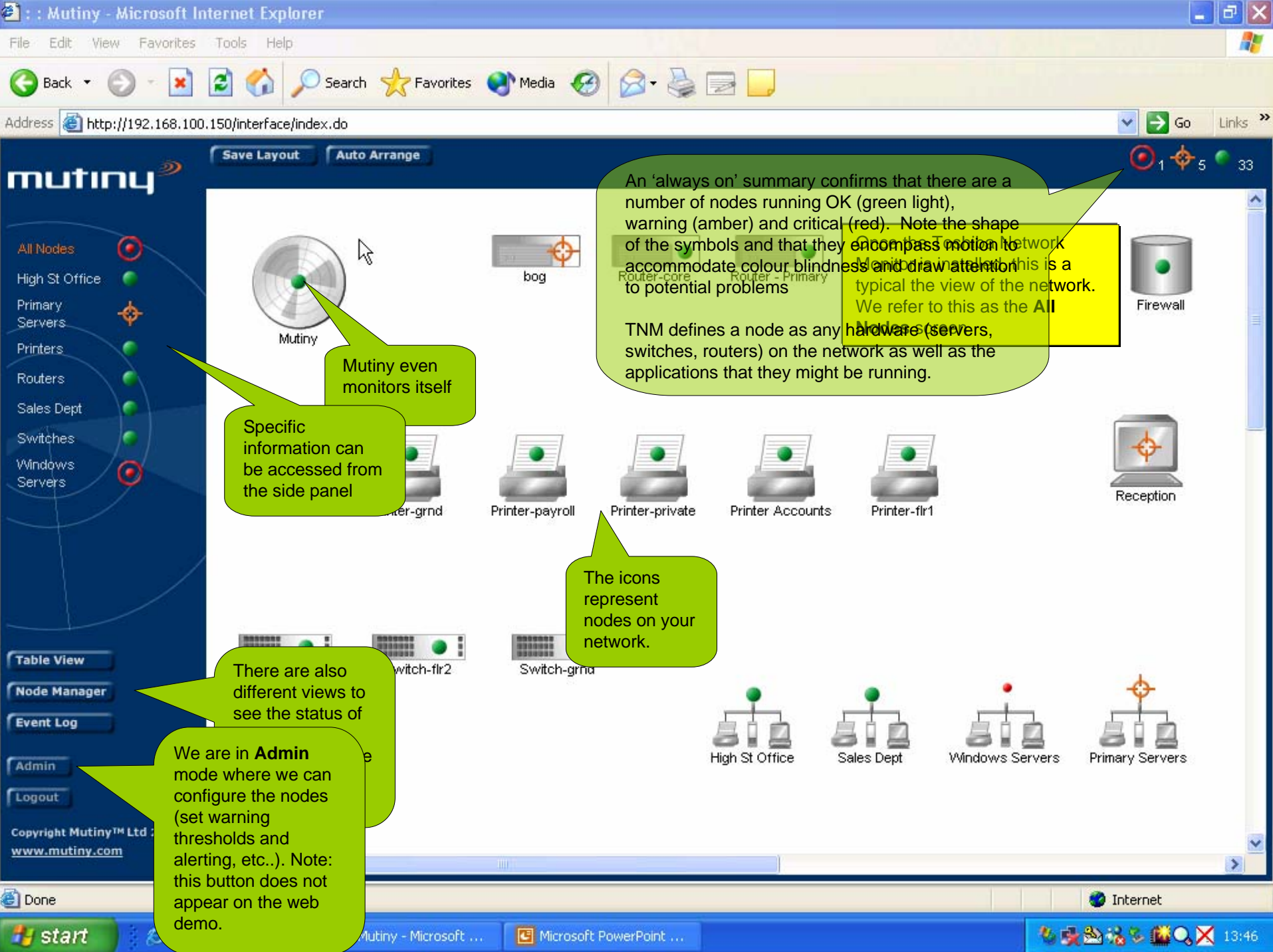
TNM's strength lies in its ability to monitor your **servers** and the **applications** they run in addition to your **routers** and **switches**. It's job is to enable you to maintain the 'services' that your corporate network is there to provide

The product is the brain child of ex-HP OpenView management systems; the Toshiba Network Monitor continues to rely heavily on that experience; the Toshiba Network Monitor contains the 'most used' features of network management systems – it is about providing you with the information that you need, not to you NOT every piece of information that your network has

Lets have a closer look at the Toshiba Network Monitor.

The product is pretty straightforward. On the front panel sits the on/off button, the only moving part!





Save Layout Auto Arrange

- All Nodes
- High St Office
- Primary Servers
- Printers
- Routers
- Sales Dept
- Switches
- Windows Servers



Mutiny even monitors itself

Specific information can be accessed from the side panel

An 'always on' summary confirms that there are a number of nodes running OK (green light), warning (amber) and critical (red). Note the shape of the symbols and that they encompass motion to accommodate colour blindness and draw attention to potential problems. On the Topbar Network Monitor in detail this is a typical the view of the network. We refer to this as the All Nodes view.

The icons represent nodes on your network.

There are also different views to see the status of

We are in Admin mode where we can configure the nodes (set warning thresholds and alerting, etc..). Note: this button does not appear on the web demo.

- Table View
- Node Manager
- Event Log
- Admin
- Logout

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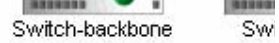
USEFUL SELLING POINT
The system can poll at any interval you set, from 30 seconds, say to 10 minutes.



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2 6 32

- All Nodes
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Status: Mutiny

Node Name Mutiny
 IP Address
 DNS Name
 sysName

Node Name Mutiny
 IP Address 127.0.0.1
 DNS Name localhost.localdomain
 sysName fergie.mcc...

CPU Load Status
 CPU Load Factor 4.1
 Last Status Change 17:00 30 January 2003

Monitor CPU Load On Off
 Critical Threshold 6.0
 Warning Threshold 5.0

CPU Load Events
 OK Warning Critical

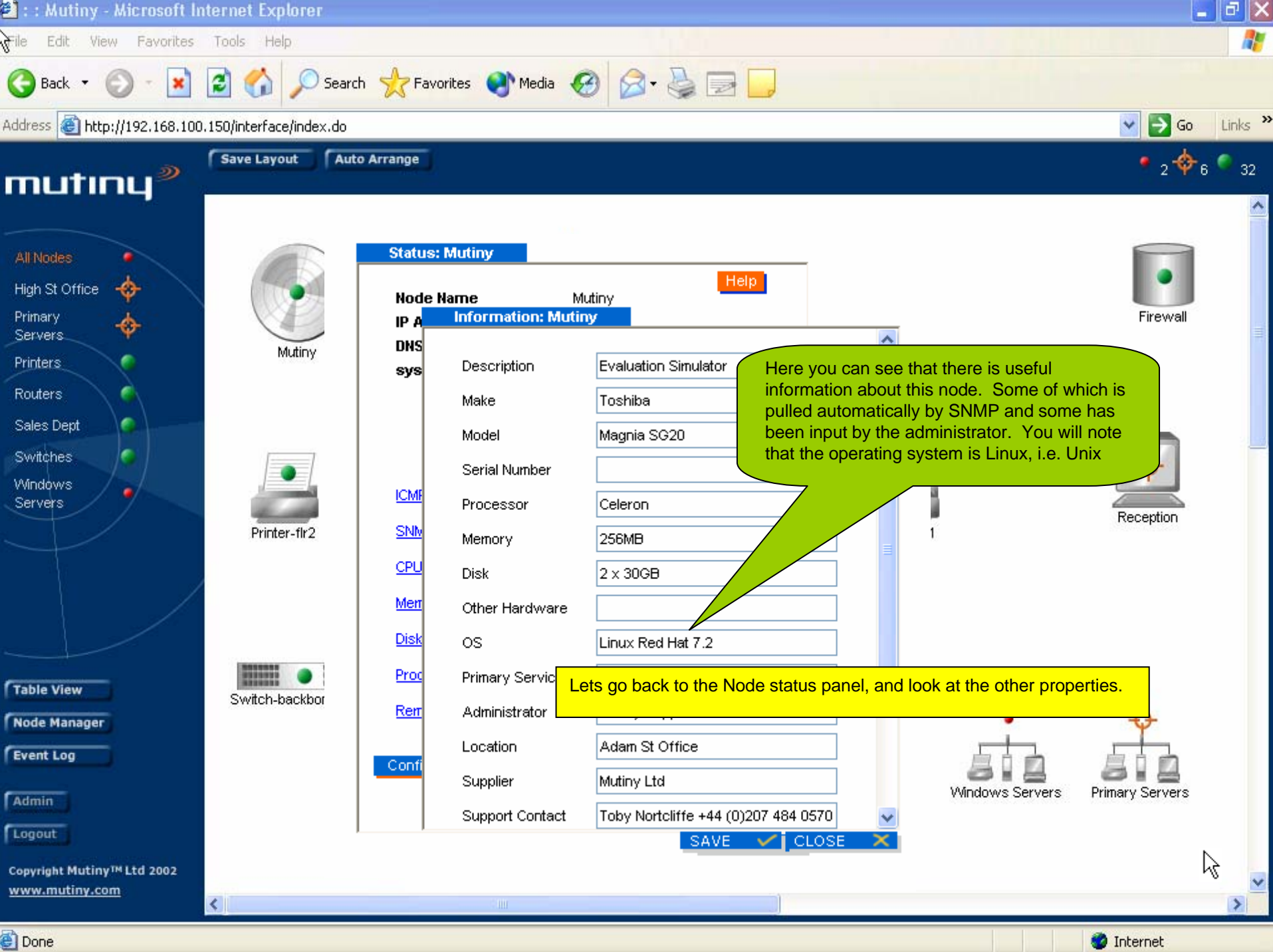
Show

SAVE CLOSE

For Unix machines, CPU is an arbitrary reading ranging from between 0 and 1, whilst Windows machines run from 1 to 10. This machine is clearly supports Windows.

Here we have more CPU detail

CPU has been set to generate a warning alert at 5.0 and a critical alert at 6.0. As we are in admin view, we could change the thresholds.



Status: Mutiny

Node Name Mutiny

Information: Mutiny

Node Name	Mutiny
IP Address	
DNS	
System	Description: Evaluation Simulator
	Make: Toshiba
	Model: Magnia SG20
	Serial Number:
ICMP	Processor: Celeron
SNMP	Memory: 256MB
CPU	Disk: 2 x 30GB
Memory	Other Hardware:
Disk	OS: Linux Red Hat 7.2
Process	Primary Service:
Remote	Administrator:
Config	Location: Adam St Office
	Supplier: Mutiny Ltd
	Support Contact: Toby Nortcliffe +44 (0)207 484 0570

Here you can see that there is useful information about this node. Some of which is pulled automatically by SNMP and some has been input by the administrator. You will note that the operating system is Linux, i.e. Unix

Lets go back to the Node status panel, and look at the other properties.

SAVE ✓ CLOSE ✕

CPU Load, Memory usage and Disk Usage can affect all network services. Simply clicking on each link provides further information.
Lets have a look at [Memory Usage](#)

mutiny

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Status: Mutiny

- Node
- IP Address
- DNS
- sysl
- ICMP
- SNMP
- CPU
- Mem
- Disk
- Proc
- Rem
- Config

Memory: Mutiny

Node Name Mutiny
IP Address 127.0.0.1
DNS Name localhost.localdomain
sysName fergie.mcc.ac.uk

Memory Status
Memory In Use 37.94%
Last Status Change 17:10 30 January 2003

Monitor Memory On Off
Critical Threshold 50 %
Warning Threshold 33 %

Memory Events

OK Warning Critical

Show



Lets look at [Disk Usage](#)

Clicking the [Show](#) button presents more details, including memory capacity and usage

TNM measures actual and virtual memory utilisation which can affect, for example, speed of executing programmes, the speed at which files are opened, and the system's the ability to run programmes concurrently.
Advance warnings will encourage you to move programmes or add memory to the machine, etc.

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Save Layout Auto Arrange

Status: Mutiny

Node Name **Disk: Mutiny**

Node Name Mutiny
 IP Address 127.0.0.1
 DNS Name localhost.localdomain
 sysName fergie.mcc.ac.uk

Disk Status ●
 Last Status Change 14:16 30 January 2003

Monitor Disks On Off

Disks:

Name	%	Status	Total	Used	Free
hvar...			367,508	585	
			47,492	21,213,600	75 % 70

Once again, we simply click on the **Disk Usage** link

Disk Events
 OK Warning Critical

Show Add / Remove Disk

SAVE ✓ CLOSE ✗

Firewall
 Printer-fl
 Switch-back
 Servers
 Primary Servers

You can see that TNM monitors each disc drive.

Limited Disc space can affect the writing or saving of a programme files, e.g. Word, etc. In a business environment it could impact database performance. It will also affect the 'defrag', so opening files becomes laborious. Note that memory intensive files use disc space as swap files.

Typically you will remedy warnings by archiving, inserting more drives, etc.

All Nodes
 High St Office
 Primary Servers
 Printers
 Router
 Switch
 Wireless
 Server

The Toshiba Network Monitor is not just about quick fixes to immediate problems, it is also used to plan ahead and look at trends that will eventually cause problems...

Status: Mutiny

Processes: Mutiny

Node Name: Mutiny
 IP Address: 127.0.0.1
 DNS Name: localhost.localdomain
 sysName: fergie.mcc.ac.uk

Processes Status: ●
 Last Status Change: 14:16 30 January 2003

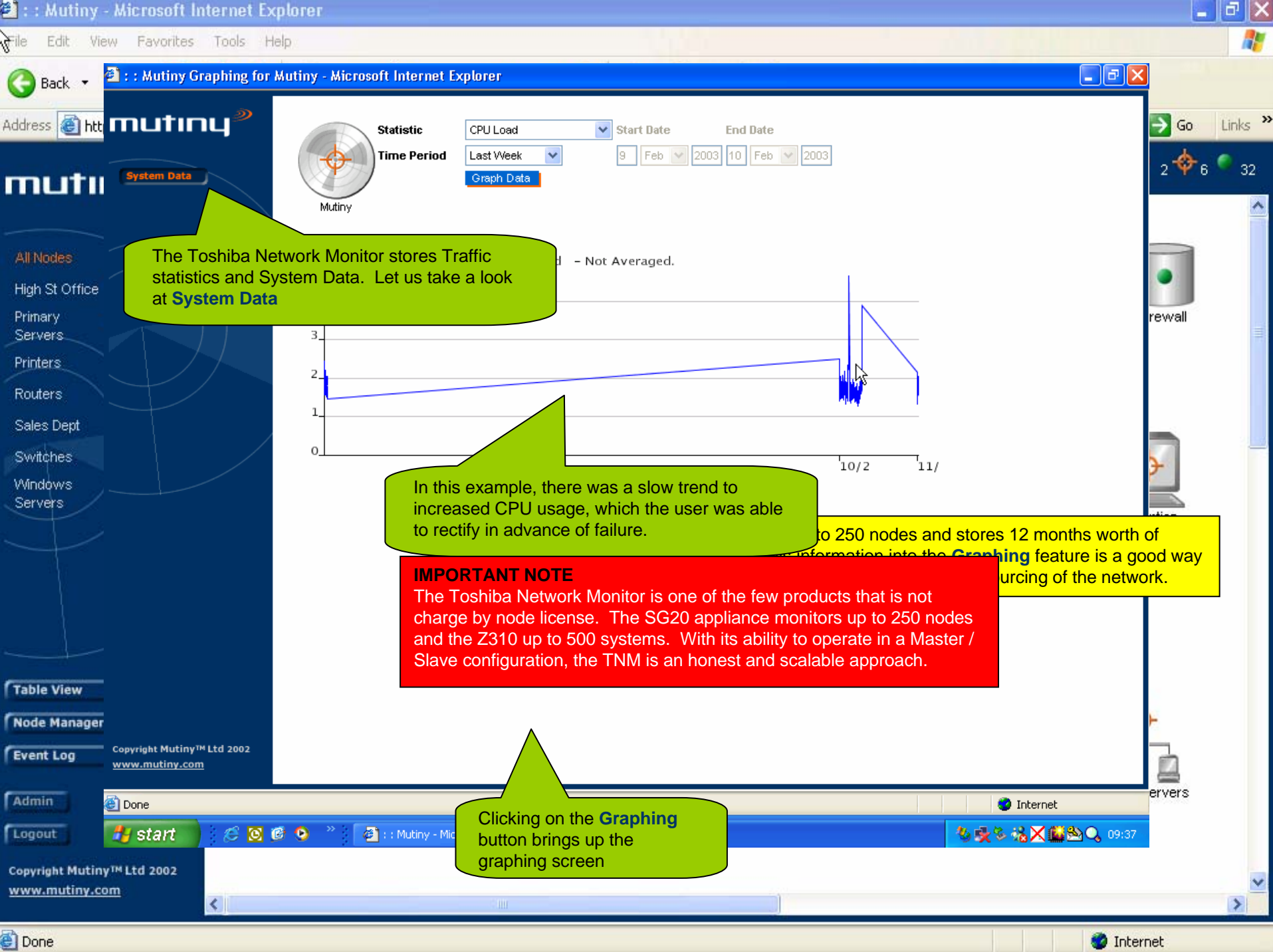
Monitor Processes: On Off

Name	Status	Date/Time
Xvfb	●	14:16 30/01/03
check_polling	●	14:16 30/01/03
mini_httpd	●	14:16 30/01/03
nemDataPoll	●	14:16 30/01/03
nemEvent	●	14:16 30/01/03
nemStatusPoll	●	14:16 30/01/03

SAVE CLOSE

By clicking the **Process** link, we can see that TNM monitors specific processes that each device (perhaps a server or workstation) is running in order to provide User service. A good example of this is...

These are specific processes that the Toshiba Network Monitor is running in order to do its job properly. For example, **nemEvent** is the process of receiving each event from nodes on the network. This could also be, for example 'Word' running on a desktop or Lotus Notes running on a Domino Server



The Toshiba Network Monitor stores Traffic statistics and System Data. Let us take a look at **System Data**

In this example, there was a slow trend to increased CPU usage, which the user was able to rectify in advance of failure.

IMPORTANT NOTE
The Toshiba Network Monitor is one of the few products that is not charge by node license. The SG20 appliance monitors up to 250 nodes and the Z310 up to 500 systems. With its ability to operate in a Master / Slave configuration, the TNM is an honest and scalable approach.

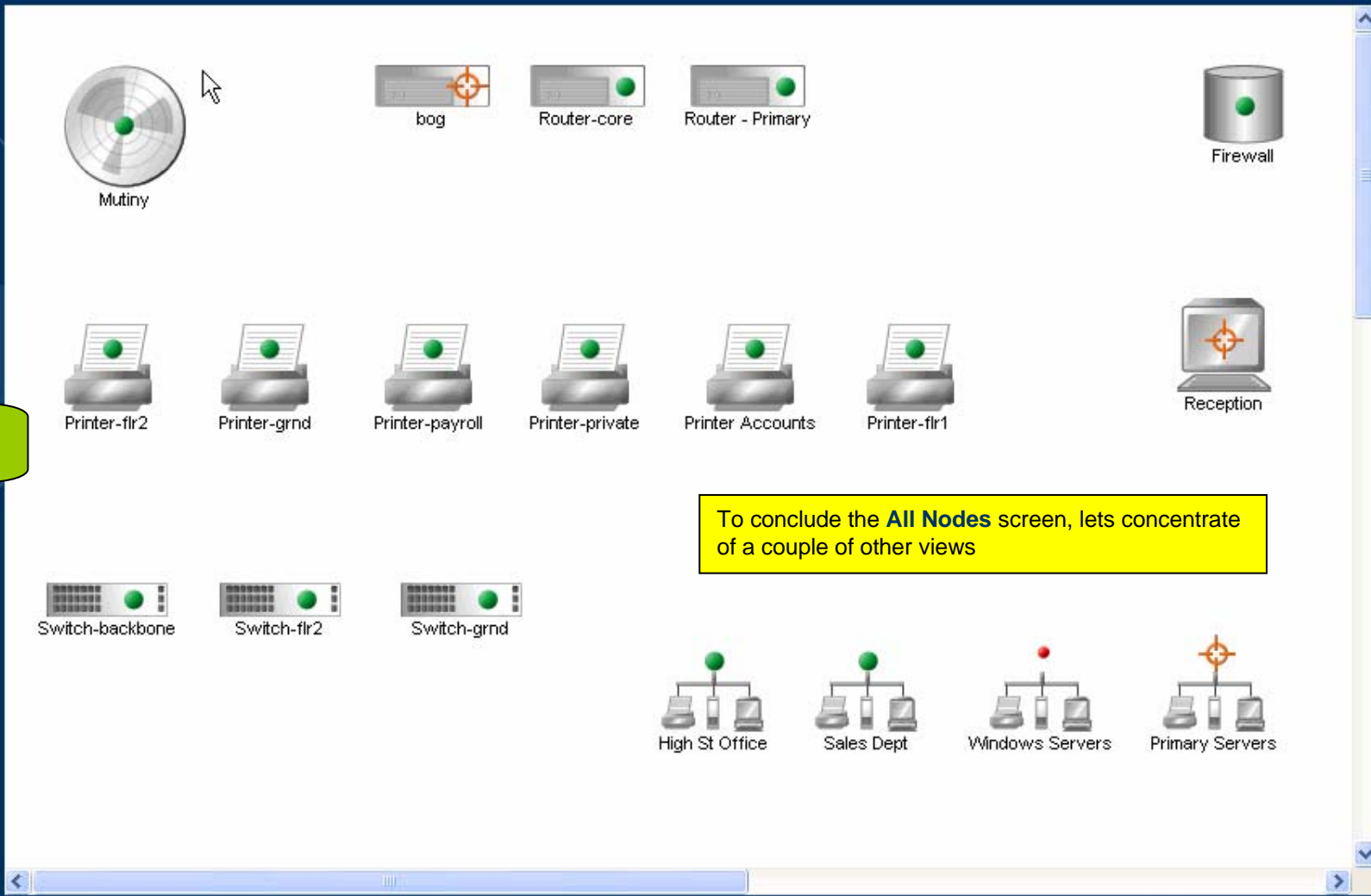
...to 250 nodes and stores 12 months worth of information into the **Graphing** feature is a good way of monitoring the network.

Clicking on the **Graphing** button brings up the graphing screen

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- All Nodes
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Table View



To conclude the All Nodes screen, lets concentrate of a couple of other views

- Table View
- Node Manager
- Event Log
- Admin
- Logout

- All Nodes
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Sort By: Node Descending
Filter By: Status Warning

Update

	ICMP	SNMP	CPU Load	Memory Usage	Disk Usage	Processes	Note Agents
10.10.1.8	●	●	⚠	⚠	○	●	○
bog	●	●	●	⚠	○	○	○
Mutiny	●	●	●	⚠	●	○	○
My Machine	⚠	●	○	○	○	○	○
Reception	●	●	⚠	○	○	○	○
Sales-Dave	●	●	●	⚠	○	○	○
Web Server	●	●	●	⚠	○	○	○

This view can be configured in many different ways, via the drop down box.

Remember, the summary panel gives a true reflection of the state of your network, indicating that 7 nodes are at warning.

The next view is Node Manager
This view is useful for highlighting a group of nodes. For example, this screen has been configured to show all nodes at a state of warning.

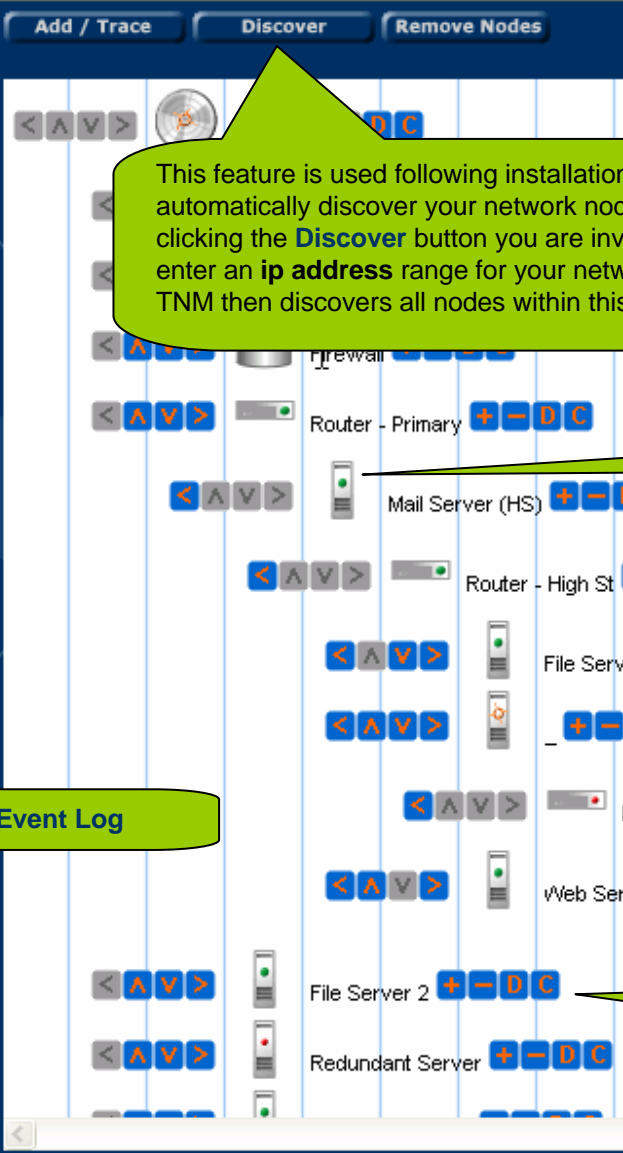
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Table View
Node Manager
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IMPORTANT POINT
 The Toshiba Network Monitor supports 'root cause analysis' ensuring that problems downstream from the single point of failure are not notified until the primary connection is restored.
 For example, if **Router - High Street** (see screen) failed, then TNM highlights its failure, but does not alert you to the two connected servers until visibility is restored. False alerts are a major weakness in many monitoring solutions as it leads to wasted time and effort.

This feature is used following installation to automatically discover your network nodes. By clicking the **Discover** button you are invited to enter an **ip address** range for your network. TNM then discovers all nodes within this range.

Node Manager represents the 'tree view' or topology of the network. This is the screen where, after installation you would see just the Mutiny icon at the top of the screen and a list of nodes are 'discovered', they are arranged in accordance with network topology.

Nodes can be added or moved manually

Finally, the **Event Log**

The **C** button allows you to **copy** particular settings from one node to another(s), rather than manually configuring each node individually. More on this later.

IMPORTANT POINT
 TNM stores 12 months worth of data and has a simple archive feature. Cross network traffic to retrieve this information is negligible (below normal noise levels) ensuring that you do not adversely affect network performance.



- All Nodes
- High St Office
- Primary Servers
- Printers
- Routers
- Sales Dept
- Switches
- Windows Servers

- Table View
- Node Manager
- Event Log
- Admin
- Logout

Time Period: Last Day Start Date: Jan 30, 2004
 Sort By: Time Descending
 Filter by: None

[Update](#)

Date	Node	IP Address	Event	Severity
30/1/03 22:38	Web Server	10.10.1.7	SNMP OK	Ok
30/1/03 22:35	Mail Server	10.10.1.8	CPU Load Warning	Warning
30/1/03 22:35	Mail Server	10.10.1.8	ICMP Echo OK	Ok
30/1/03 22:35	Mail Server	10.10.1.8	Memory Warning	Warning
30/1/03 22:35	Reception	10.30.1.110	ICMP No Echo	Down
30/1/03 22:34	Mail Server	10.10.1.8	SNMP Unknown	Unknown
30/1/03 22:34	Mail Server	10.10.1.8	CPU Load Warning	Warning
30/1/03 22:34	Mail Server	10.10.1.8	CPU Load OK	Ok
30/1/03 22:34	Mail Server	10.10.1.8	Memory OK	Ok
30/1/03 22:34	Mail Server	10.10.1.7	Memory Warning	Warning
30/1/03 22:34	Mail Server	10.10.1.7	ICMP Echo OK	Ok
30/1/03 22:34	Mail Server	10.10.1.7	SNMP OK	Ok
30/1/03 22:33	Web Server	10.10.1.7	CPU Load OK	Ok
30/1/03 22:33	Mail Server	10.10.1.8	Memory Critical	Critical

Event Log is a table of every event occurring on the network. Wherever you are on the system, you can drill down to retrieve more information via the links

The **Admin** button spawns the panel for alerting, configuration and set up.
 Note: this cannot be done on the web demo

That concludes a basic overview of the Toshiba Network Monitor's capabilities.

The second part of the presentation focuses on alerting and demonstrates how easy it is to configure the system.





- All Nodes
- High St Office
- Primary Servers
- Printers
- Routers
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System Configuration

System Operations

Software Maintenance

Backup / Restore

Default Settings

User Administration

Contacts

SMS / Pager Services

Custom Views

Connect Strings

Master / Slave Settings

Table View

Node Manager

Event Log

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Help

System Settings:

System Name: mutiny

Default Gateway: 172.24.208.1

Email Relay IP Address: 192.168.100.157

NTP Server IP Address:

System Contact: Mutiny Administrator

System Location: Mutiny Installation

Mutiny License Key: zzzzzz-eval-732

Let us see how the alerting works, by clicking on the **Contacts** button

Clicking on the **Admin** button, spawns this screen where you can configure the system. There are eleven different sections and we'll take a look at some of them.

This is the main **System Configuration** page.

Domain Name Servers:

Position	Address	Delete
0	127.0.0.1	<input type="checkbox"/>
New Server		

Ethernet Interfaces:

Device	Address	Subnet Mask	Delete	DHCP Server
eth0	192.168.100.150	255.255.255.0	<input type="checkbox"/>	<input type="checkbox"/>

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• The changes have been saved.

Help

Contact ID	Name	Remove
dave	davebrooks	<input type="checkbox"/>
Susan	Susan Turner	<input type="checkbox"/>
Toby	Toby Nortcliffe	<input type="checkbox"/>

Add a New Contact:
Contact ID

Update

In this example we have 3 nominated Network Managers, who are to receive alerts. Clicking a name brings up their personal and alerting details.

Lets click on [Susan](#)

Network monitoring is a waste of time, unless the alerting system is flexible and reliable. TNM is both. As well as the on screen alerts, TNM also uses email, pager and SMS. Some customers link it into their Remedy helpdesk in order to be alerted via a phone call.

The Toshiba Network Monitor alerts any number of people by, for example, a particular event or by a specific node. It can create delays and even alert the boss when something has been fixed!



System Configuration

System Operations

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Connect Strings

Master / Slave Settings

Name: Susan Turner

Contact Enabled:

Email Enabled: Test

Email Address: susan@toshiba.co.uk

Page Enabled: Test

Page Number: 07900691494

Page Service: tmobile

Susan has been enabled to receive both email and ...

...text messages

Warning: Email and Pager tests may take up to a mi

Primary Shift (1):

Enabled:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Start Time	0800	0800	0800	0800	0800		
End Time	1800	1800	1800				

Of the 3 shift patterns, she has been enabled to be alerted on the **Primary Shift** (normal working hours)

and **Secondary Shift** (extended working hours).

Secondary Shift (2):

Enabled:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Start Time							
End Time							

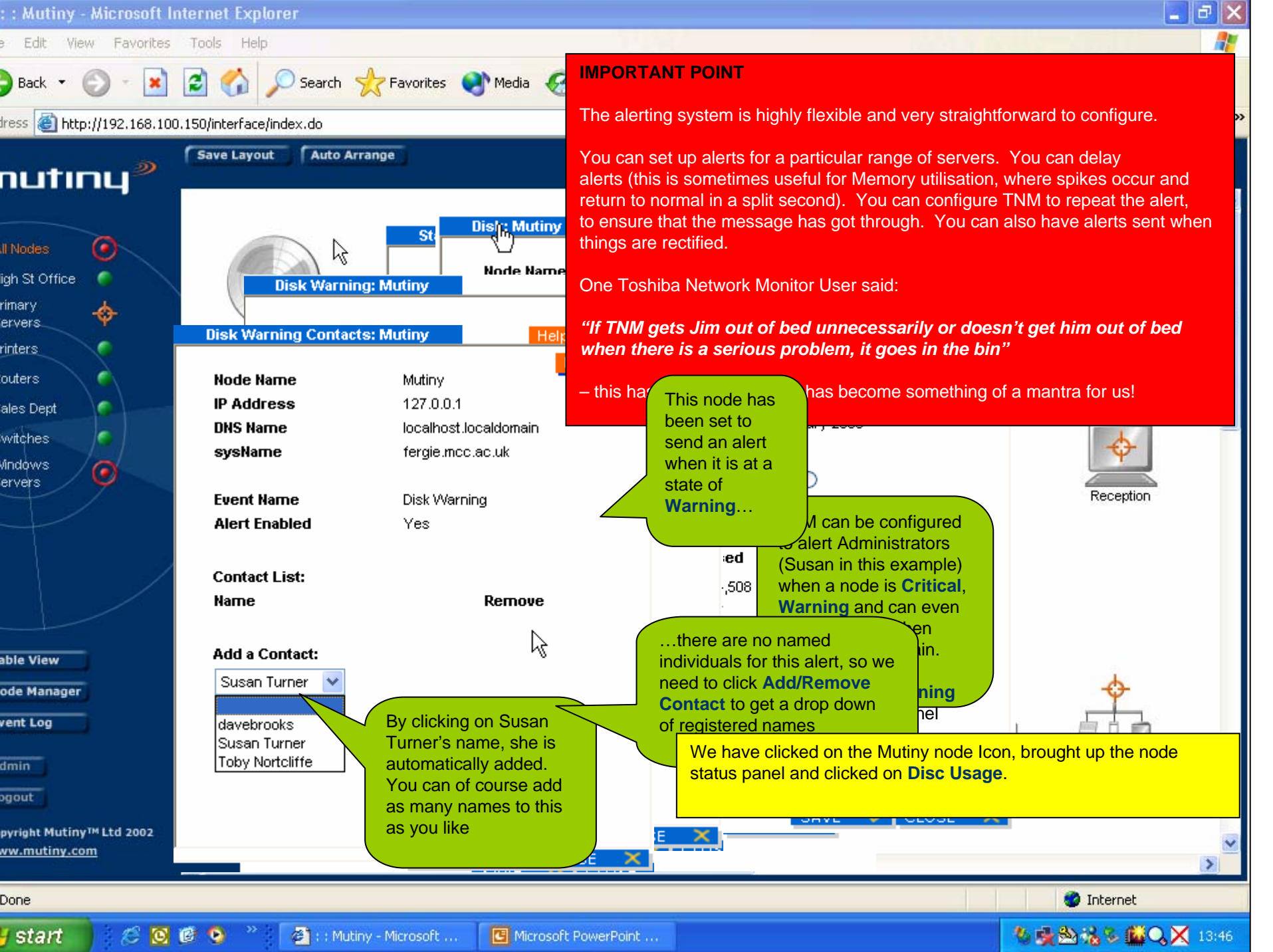
Lets see when and how she has been set up to receive alerts. We'll go back to the all nodes screen and click onto a node.

Default Shift (3):

Enabled:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Start Time	0000	0000	0000	0000	0000	0000	0000
End Time	2359	2359	2359	2359	2359	2359	2359

Created Default Shift (24hr). As you can see, this shift has not been enabled



IMPORTANT POINT

The alerting system is highly flexible and very straightforward to configure.

You can set up alerts for a particular range of servers. You can delay alerts (this is sometimes useful for Memory utilisation, where spikes occur and return to normal in a split second). You can configure TNM to repeat the alert, to ensure that the message has got through. You can also have alerts sent when things are rectified.

One Toshiba Network Monitor User said:

"If TNM gets Jim out of bed unnecessarily or doesn't get him out of bed when there is a serious problem, it goes in the bin"

- this has become something of a mantra for us!

This node has been set to send an alert when it is at a state of **Warning...**

TM can be configured to alert Administrators (Susan in this example) when a node is **Critical, Warning** and can even

...there are no named individuals for this alert, so we need to click **Add/Remove Contact** to get a drop down of registered names

By clicking on Susan Turner's name, she is automatically added. You can of course add as many names to this as you like

We have clicked on the Mutiny node Icon, brought up the node status panel and clicked on **Disc Usage**.

Save Layout Auto Arrange

Disk Warning: Mutiny

Disk Warning Contacts: Mutiny

Node Name	Mutiny
IP Address	127.0.0.1
DNS Name	localhost.localdomain
sysName	fergie.mcc.ac.uk
Event Name	Disk Warning
Alert Enabled	Yes

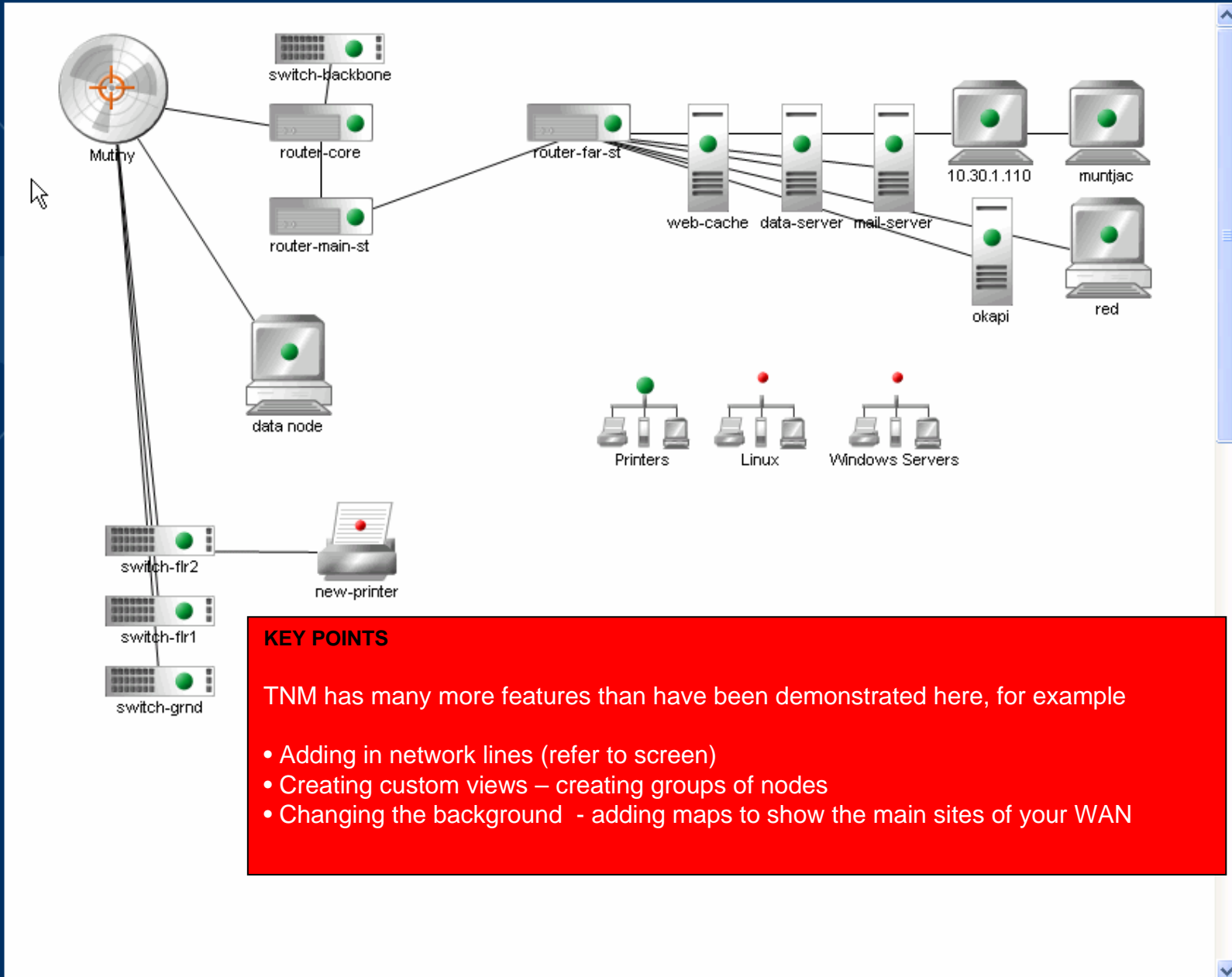
Contact List:

Name	Remove
------	--------

Add a Contact:

- Susan Turner
- davebrooks
- Susan Turner
- Toby Nortcliffe

- All Nodes
- Linux
- Printers
- Routers
- Switches
- Windows Servers



KEY POINTS

TNM has many more features than have been demonstrated here, for example

- Adding in network lines (refer to screen)
- Creating custom views – creating groups of nodes
- Changing the background - adding maps to show the main sites of your WAN

- Table View
- Tree View
- Event Log
- Logout

Twin Systems Plc.
Email: info@twinsystems.com
Tel: 0870 9090898
www.twinsystems.com

Thank you for reviewing the Toshiba Network Monitor. We hope that we have impressed upon you the ease at which you can implement and retain professional 24/7 monitoring. Please visit www.mutiny.com for further information or to arrange to view the system first hand.

