

Re: Backup to USB works but to NAS fails

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- *From:* "David Barnes" <david at bitsolve dot com .nospam.ignore.net>
 - *Date:* Wed, 3 Oct 2007 13:52:33 +0100
-

I've tried to answer things in-line and have cropped some of the junk
David Barnes

"Another Brian" <notbrian@xxxxxxxxxxxxxxxx> wrote in message
[news:e98J\\$ZQBIHA.5328@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:e98J$ZQBIHA.5328@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)

Thank you, David, for replying. I've put my answers in-line. You've given me a lot of food for thought.

Brian Bygland

"David Barnes" <david at bitsolve dot com .nospam.ignore.net> wrote in message news:%23UFAZcFBIHA.5980@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

What type of cable do you have between the NAS box and the server.
How far is it?

(I'm not at church so I doing this from memory) All cables are CAT5. There is a 30' stretch from the server to a hub (which doesn't have any open slots). From there is a 20' length to a LinkSys router that is configured to run just as a switch/hub (DHCP is disabled). Next is the long haul of 150', maybe a bit longer, to another LinkSys router used as a switch/hub. Then 3' to the NAS drive. If we put another network card in the server we could run a single cable directly from the server to the NAS.

[DJB] What about this bit

Can you reduce things down to one decent switch.
Poor network throughput, is most commonly, use of cheap 25\$ switches.
Netgear FS 5xx series are noticeably faster than the FS 1xx series.
HP 2424M, 2524M etc is even faster
Top-end Cisco and HP units are a bit faster again.

What else is on the LAN

On the LAN we have the server connecting to the first hub. That hub has four workstations, two network printers, and a line to the LinkSys router. That LinkSys router has two workstations plus wireless (usually only one wireless PC supported) and two lines to other wireless LinkSys routers. One of those LinkSys is used only to support the same wireless PC when it's moved around the church. The other line goes to the far end of the church to a fourth LinkSys wireless router. This fourth router has the NAS drive and supports wireless for that roaming laptop.

Seems that your first linksys router is the ROOT unit for the LAN you could bung in just ONE 24 port switch and run everything directly off that.

eg an HP 2424M secon hand off ebay for 60\$

first port to server

2nd port to linksys (&wireless)

3,4,5,6 to workstations

7,8,9 to other linksys units

10 to NAS box

Cat-5 UTP cable is dirt cheap and you can get the plugs and crimp tool cheap as well

I would sugest that you invest some time in making up the cables yourself. play with some test leads first..

Buy the CAT5 UTP by the box.. (In the UK we pay £25 for 1,000 foot [305metres] box)

My guess it'll be about \$9 or so in the US

Then look at you cabling layout and try and achieve ALL cables back to one spot..

But that all said gig back-to-back the cable from the NAS to the server SHOULD be the fastest way to do this.

The end-to-end cabling will need to be a CROSS-OVER.

I would sugest that the main cable run is wired normally and you use an rj45-to-rj45 adapter and a short cross-over patch lead at one end.

That way ALL cabling is standard, and you don't have to remember that just this one cable is specially wired.

One factor that may be an issue is signing. By default SBS (and win2k3 and XP) attempt to encrypt and sign the data sent over the lan.

Turning off signing and encryption can improve performance. My thoughts are that you don't need to guard your lan against a rouge machine

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'sniffing' data etc. (sort of big bank type security)

Can you suggest how to turn this off?

If all machines are members of the SBS domain, this can easily be done by some nifty use of group policies on the SBS box..

That way when you add the next workstation you don't have to remember to change the setting, the server/domain will do it for you.

You may have to add the equivalent to the "Small Business Server – Windows Vista policy" as well if you have vista clients.

I've not added a vista client to SBS yet.. so can't answer that. If you have XP home, you are dead in the water

Open up "Group Policy Management"

Under "Domains" you will find your domain name

Under that you will find the linked policy "Small Business Server Client Computer"

R-Click edit..

Set the following 7 policy settings settings:

Computer Configuration (Enabled)

Windows Settings

Security Settings

Local Policies/Security Options

Domain Member

Policy Setting

Domain member: Digitally encrypt or sign secure channel data (always)

Disabled

Domain member: Digitally encrypt secure channel data (when possible)

Disabled

Domain member: Digitally sign secure channel data (when possible)

Disabled

Microsoft Network Client

Policy Setting

Microsoft network client: Digitally sign communications (always)

Disabled

Microsoft network client: Digitally sign communications (if server agrees) Disabled

Microsoft Network Server

Policy Setting

Microsoft network server: Digitally sign communications (always)

Disabled

Microsoft network server: Digitally sign communications (if client agrees) Disabled

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next under the "Domain Controllers" OU you will find the linked policy
"Default Domain Controllers Policy"

R-Click edit..

Set the following 7 policy settings settings:

Computer Configuration (Enabled)

Windows Settings

Security Settings

Local Policies/Security Options

Domain Member

Policy Setting

Domain member: Digitally encrypt or sign secure channel data (always)

Disabled

Domain member: Digitally encrypt secure channel data (when possible)

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Microsoft Network Client

Policy Setting

Microsoft network client: Digitally sign communications (always) Disabled

Microsoft network client: Digitally sign communications (if server agrees)

Disabled

Microsoft Network Server

Policy Setting

Microsoft network server: Digitally sign communications (always) Disabled

Microsoft network server: Digitally sign communications (if client agrees)

If you have cat-5 cable (rj45 plugs) in place then, unless it's very poor quality or badly terminated, it will carry 100MB lan with no problem and SHOULD do gig without issue.

to upgrade to gig, you would need to replace the NIC in the server, change the switches to 10/100/1000 and make sure the NAS box has a GIG nic as well.

The NAS supports GIG. I'd add a second NIC to the server with a dedicated line to the NAS.

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gig back-to-back the cable from the NAS to the server SHOULD be the fastest way to do this.

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That way ALL cabling is standard, and you don't have to remember that just this one cable is specially wired.

The server 'lights out' is probably exhaustion of the NP Pool.

What AV do you have?

Is it set to scan on reads and writes, or just writes?

Have you added the full set of sbs exclusions?

We're using McAfee AV. I'll have to check its settings for the read/write scanning and the exclusion list

Personally I set servers to virus check on write with nightly scans.

If the overnight scans take too long I split the scans up to one disk each night or specific folders etc..

Remember you need to add the SBS exclusions to you ON-Demand scanning as well as teh On-Access scanning.

See MS KB 822158 and 823166

The following (unless stated) need to be EXCLUDED from On-Access scanning

C:\Program Files\Exchsrvr
D:\Program Files\Exchsrvr
C:\Windows\system32\Inetsrv
C:\Windows\IIS Temporary Compressed Files
C:\Windows\ntds
C:\Windows\ntfrs
C:\Windows\sysvol - - - - Exclude
C:\Windows\sysvol\domain - - - Scan
C:\Windows\sysvol\domain\DO_NOT_Remove. - Exclude
C:\Windows\sysvol\domain\Policies - - Scan
C:\Windows\sysvol\domain\Scripts - - Scan
C:\Windows\sysvol\staging - - - Exclude
C:\Windows\sysvol\staging areas - - Exclude

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C:\Windows\sysvol\sysvol -- Exclude
C:\Windows\system32\Wins
C:\Windows\system32\DNS
C:\Windows\system32\config
C:\Windows\system32\DHCP
C:\Windows\system32\logfiles
C:\Windows\system32\spool
C:\inetpub\mailroot
C:\Program Files\Microsoft Windows Small Business
Server\Networking\POP3\Failed Mail\
C:\Program Files\Microsoft Windows Small Business
Server\Networking\POP3\Incoming Mail\
C:\System Volume Information\
C:\WINDOWS\Cluster\
C:\WINDOWS\system32\MsDtc\
C:\WINDOWS\system32\NtmsData\
C:\Program Files\Microsoft SQL Server\
D:\Program Files\Microsoft SQL Server\
D:\System Volume Information\
C:\fax\
D:\fax\
Any other alternate location containing Exchange or SQL

We don't have any extra defragmentation sw. I'll check on the volumes fragmentation and utilisation later today.

Use the windows tool to analyze.. I find JK Defrag is FREE and VERY good job it does. there is a GUI available to set the options and it can be scheduled to run once a night etc..

You may find memory/resource exhaustion is happening as a result of loading on the Network card.
Sometimes tweaking the params can help.
Easiest fix though is to add more ram.. How much RAM do you have?
Are you using the PAE or /3GIG switch?

From memory I think we only have 768MB on the server. I should really try bumping that up as high as we can afford.

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Er yes.. that's probably your problem.. 1GB minimum preferrably 2GB or more.

What is the PAE or /3GIG switch?

Good answer.. early on in SBS we came to the conclusion that one needed the /3GB switch in the boot.ini startup file if you had 1GB or more of RAM.

The line now is that on SBS we DO NOT set this option