

December 2010

iTech Solutions because AS/400's (iSeries, IBM i) didn't come with System Administrators.

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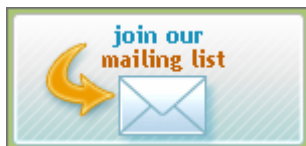
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Greetings!

Wishing you health and happiness this holiday season, and prosperity in the New Year. We thank you for your business and for letting us be part of your success. We look forward to working together in the coming year. Now, sit back and read about how iTech Solutions helped Santa this Christmas :) We will be back in January with our normal System Administrator Technical Tips & Techniques.

All the best to you, your family, and your organization.

The iTech Solutions Team.

→ What Santa wants for his IBM i.

iTech Solutions was at the North Pole last month doing a few upgrades. We upgraded Santa's





6.1 easier

POWER5 520, from V5R4M5 to 6.1.1, and then his Power7 720 from 6.1 to 7.1. Santa Claus called iTech Solutions because he wanted someone with experience to do the operating system upgrades and he wanted the upgrades done right.

We all know this is a busy time at the North Pole, and Santa couldn't afford for any application issues after the upgrade. Santa used the iTech Solutions Upgrade Assurance program, and [iTech Solutions](#) brought one of their machines up to the North Pole. We restored the V5R4 XMAS-01 partition to the iTech machine and upgraded that to 6.1.1. We were able to test all of Santa's applications on IBM i 6.1.1 and when the big guy himself signed off that everything was working fine on the iTech machine, we upgraded Santa's machine XMAS-01. There was no worry if his applications would or wouldn't work. We pre-tested everything on the iTech Solutions loaner machine. Who else would Santa call for an IBM i upgrade, but iTech Solutions?

You know it is just amazing how big Santa's database is on his IBM i. Santa runs a standard ERP package to deal with all the vendors that the Elves purchase their raw goods inventory for making the toys. He has a cool application that figures out how to reverse pack the sleigh on Christmas eve so that the elves load the presents onto the sleigh in the reverse order that Santa delivers them. He had a Websphere Reindeer health application, and a JAVA Weather application

to know where the sleigh would catch some air turbulence. He said most of the Elves run green screen applications, as they require a lot of speed. We talked about extending some of those applications with Open RPG that became available with IBM i 7.1 earlier this year, and how that might help him extend some RPG applications with some Blackberry and iPhone devices he was looking at installing. Mobile applications are a must from the sleigh, and Santa needs to keep in constant communications with the North Pole on Dec 24th.

There were these two customer files, both of which had billions of records in them. One file was called Naughty and the other one called Nice. Santa told me that he had many people move from the naughty list to the nice list this year, but that now the naughty file still had a lot of deleted records in it. This was causing a problem as the batch "Coal" job was taking a real long time to run, and it was messing up the second-shift elves in coal fabrication. Santa said with a belly laugh, we tried to reorganize the file, but it's always locked. The elves are always working. iTech Solutions showed Santa how to use the Reorganize While Active function in IBM i so that Santa didn't require exclusive access during the reorganization process. That allowed the naughty file to be reorganized and all the deleted records to be removed. The batch "Coal" job ran in half the time afterwards. I think that means more coal for naughty boys and girls?

Our next performance issue had to do with

some ODBC jobs & Queries that the Elves had created out in the shop. The elves have created more queries than you can imagine. Every time they ran these ODBC jobs and Queries, the system would just grind to a halt. [iTech Solutions](#) ran the Index Advisor, and determined that a couple of indexes (logical files) needed to be created over the toy file. With a mouse click, we created those required files for Santa. Now those jobs the elves were running are done in a snap. Santa said "It was like a new machine, having iTech Solutions come in for the day and investigate the system". We performed our standard Health Check. Perhaps this is something you might want to put on your list for Christmas or even next year?

During my visit, I was in the office next to the computer room at the North Pole, when out in the computer room there arose such a clatter, I sprang from my desk to see what was the matter. Away from my windows XP laptop I flew like a flash, Tore up the ramp and threw open the door. And what to my wondering eyes did appear, But a miniature sleigh filled with hundreds of tapes, and eight tiny reindeer; With a little old driver, so lively and quick, I knew in a moment it must be Saint Nick. I said "Santa, what is going on?" Santa said "We are all going to do our DR test, and we had to get all the tapes for our IBM i restoration". I said, "Santa we spoke about this during the summer, why not just replicate to one of our AS/400s (iSeries or Power Systems) machines at iTech Solutions, and then not only would you have a Hot site available all the time, if we had a real

disaster your DR machine would be immediately available and you wouldn't be stumbling with all these tapes. Remember we were talking about this whole Cloud Computing concept with the Easter Bunny, and you thought he had been drinking a little too much carrot juice." Cloud Computing is not computers in the clouds, it's a service that iTech Solutions offers that allows you to host your machines at our locations or even just use one of our machines and carve out a virtual LPAR. Santa said, "he had a lot on his mind at the time we had that discussion in August, as with all these new Power7 machines being produced it was creating supply problems for the Xbox 360 which uses a Power processor." We agreed to look into hosting his replication with iTech Solutions in January.

I asked Santa if there was anything else on his list? He said, "there were three more things. First, he said, Mrs. Claus gets so annoyed at him every month when he has to go into the office to do a Full System Backup". I looked at Santa, and said to him, "I have been asking you for years to get rid of that Twin-ax Console and upgrade to Operations LAN Console. You kept telling me that you liked Twin-ax. I said, last quarter when we were doing the iTech Solutions quarterly PTF maintenance, that I could hardly see that screen, as that twin-ax device is so old. If you had Operations LAN console, you, iTech Solutions, or any of the elves could remotely connect from home via VPN right to the console, and do the backup without having to come into the office". [iTech Solutions](#) installed and configured Operations LAN Console, so that Santa could spend a little more quality time with Mrs. Claus. Mrs. Claus was so happy she told Santa to put everyone at iTech Solutions on the Nice list,

no matter what. Whew, that was certainly lucky for me.

Secondly, he said "from time to time the elves are developing new modules and programs and it would be nice if he could get them off the production XMAS01 machine". I said, "well that isn't a problem, lets create a virtual partition on that machine, and put the development environment on that partition". He asked, how could we do that? I said, "remember when we brought that new Power6 machine in, now that we are running IBM i 6.1 we can do more virtualization and create virtual partitions". Santa said to me, "but I only have one disk controller on XMAS01". I said, "no problem, we are going to virtualize the disks and DVD drive, and then share the SAS tape drive between partitions. Since we have an HMC, we won't need any additional hardware on your Power6 520, or your new Power7 720". I told him that iTech Solutions can do this in one day for him. Santa was like a little kid at Christmas, and said "well that is another thing I want from iTech Solutions".

Thirdly, he asked if there was anything we could do, as IBM had assigned him twelve different customer numbers for the North Pole, each reindeer had their own IBM customer number, and a few of the elves had IBM customer numbers. Santa said, "it was confusing when we have to call IBM, and they ask us for a customer number, I don't know which one to give him." I laughed, and said "sorry, even iTech Solutions can't help untangle IBM customer numbers". I think you

could hear his belly laugh all the way down at the South pole.

We were just about at the end of the day, and it was so quiet in the computer room not a creature was stirring, not even a mouse. Santa whispered in my ear, that he was so happy to have [iTech Solutions](#) on his team, that he was making sure we were all on the Nice list. I in turn asked Santa, "What are the people on the Naughty List getting for Christmas besides Coal?". He said, "because they have been so bad, I am giving them Windows Servers. After all the crashes, problems, and headaches they will have with those Windows Servers, they will think twice about being naughty again." I shock my head in agreement.

Then Santa said, "you know the last time you were here you told me that I should backup the system and move my tapes to the South Pole. Well, I am a little concerned that if we lost our tapes, then everyone would know who is on the Naughty and Nice list." I said, not to worry, you have two options. We can do software encryption now that you are on 6.1 with BRMS, or we can do Hardware Encryption with that fancy new Fibre attached LTO-4 tape drive we installed last spring on the 520, and the SAS attached LTO-4 tape drive on the new 720. I could see Santa was very happy as their was a sparkle in his eye.

Now, Santa was starting to look a little tired and I asked him what the problem was? He said, he needs a little more help managing and operating his IBM i. He said it was so much better now that iTech Solutions is handling his PTFs and i5/OS upgrades, but he just wishes that iTech Solutions could help him with things like Technical Support,

remote support, or question and answers. I told him that for a fixed monthly fee, he could have telephone access to iTech Solution's Certified Expert Engineers 24 hours a day, 7 days per week, including holidays like Christmas. Santa said "I thought Santa was the only person who works on Christmas".

Support includes assistance, consultation advice on technical matters, how-to questions for the elves, and that we could also use tools like VPN to remotely access his machine to determine the problem and work with his staff to resolve the issue. He said, that was what he wanted for Christmas. If Santa wants iTech Solutions for his support, then shouldn't you?

So, I am glad to report that [iTech Solutions](#) is what Santa wants for Christmas.

→ **Something to think about.**



With the holiday season upon us, I didn't want to wear you down with technical articles this month, but I want you to think about something.

Your actual Backup Tapes.

Does anyone know how to actually find them?

Are they labeled? If you were on vacation on a remote island with no communication, could someone else in the company find your tapes? Find the right tapes? You spend all this time each night doing backups, but if you can't find the tapes, what good are the backups?

Do you rotate your backups so that you have a couple of versions to go back to if there was a problem with your most recent nightly or monthly tape? Is there a procedure on how to find the tapes? Is it printed or on the computer which we would have to recover first?

For the new year, make sure you have a good recovery plan, and it includes vital information about where your tapes are located, and how to find the right tapes.

→ Release levels and PTFs

People are always asking me how often they should be performing PTF maintenance, and when is the right time to upgrade their operating system. I updated this article from last month with the current levels of PTFs. Let's look at PTFs. First, PTFs are Program Temporary Fixes that are created by IBM to fix a problem that has occurred or to possibly prevent a problem from occurring. In addition, some times PTFs add new functionality, security, or improve performance. Therefore, I am always dumbfounded as to why customers do not perform PTF maintenance on their machine at least quarterly. If IBM has come out with a fix for your disk drives, why do you want to wait for your disk drive to fail with that problem, only to be told that there is a fix for that problem, and if



you had applied the PTF beforehand, you would have averted the problem. Therefore, I think a quarterly PTF maintenance strategy is a smart move. Many of our customers are on our quarterly PTF maintenance program, and that provides them with the peace of mind of knowing their system is up to date on PTFs. Below is a table of the major group PTFs for the last few releases. This is what we are installing for our customers on iTech Solutions Quarterly Maintenance program.

	Releases			
	7.1	6.1	V5R4	V5R3
Cumul. Pack	10229	10215	10292	8267
Tech. Refresh		1		
Grp Hipers	17	76	141	169
DB Group	4	15	28	24
Java Group	4	14	25	23
Print Group	2	19	42	20
Backup/Recov.	4	17	35	33
Security Group	3	19	15	7
Blade/IXA/IXS	3	18	14	-
Http	3	15	24	17

The easiest way to check your levels is to issue the command WRKPTFGRP. They should all have a status of installed, and you should be up to the latest for all the above, based upon your release. Now there are more groups than the ones listed above, but these are the general ones that most people require. We can help you know which group PTFs you should be installing on your machine based upon your licensed programs. Here is a nice tidbit. The Cumulative PTF package number is broken down as YDDD, where Y is the year and DDD is the day it was released. Therefore, if we look at the cumulative

package for V5R4, the ID is 9104. We can determine that it was created on the 104th day of 2009, which is April 14, 2009. Look at your machine and this will give you a quick indication of just how far out of date in PTFs you may be. I left V5R1 off the list, because if you are on V5R1, you don't need to be worrying about PTFs, you really need to be upgrading your operating system. The same can be said for V5R2 and V5R3, but there are still customers who are on those releases.

If you have an HMC, you should be running V7R7.2M0. If your HMC is a C03, then it should stay at V7R3.5 SP3.

For your Flexible Service Processor (FSP) that is inside your Power 5 or Power5+ (520, 515, 525, 550, 570), the code level of the FSP should be 01_SF240_403. Power 6 (940x M15, M25, & M50 machines, and 8203-E4A & 8204-E4A) customers should be running EL350_085. For Power6 (MMA, 560, and 570 machines) your FSP should be at EM350_085. If you have a Power6 595 (9119-FMA) then you should be on EH350_071. POWER7 the firmware level is AL720_066 or AM710_097 depending on your model.

If you need help with upgrading your HMC or FSP just give us a call. We will be happy to perform the function for you or assist you in doing it. Contact [Pete Massiello](#).

We have the skills to help you get the most out of your System i. For more information on any of the articles please contact us at info@itechsol.com. We would also like to know what you think of this newsletter and any items you would like us to discuss in future issues.

Our staff of Certified i5/OS professionals can help you get more out of your machines. Remember, i want everything to work.
i want control.

i want an **i**
i need iTech Solutions.

Sincerely,

Pete Massiello
iTech Solutions

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