

## November/December Newsletter

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Greetings all,

Welcome to the end of '21 bumper edition!

I hope you are all keeping well and having a quiet finish to an interesting year. I have been putting the finishing touches on a couple more redpapers with Dino and the teams as well as running some PowerVC and IBM COS classes an IBM team in India. While the delivery platform for the virtual classes has improved, I still think that nothing beats the face to face contact for ability to judge the students progress and help where required – looking forward to things opening up soon!

A few updates to share

- After a short blip on the redbook radar, thankfully the redbook team is back together, and among other publications the draft of the The HA/DR redpaper has been released, details below.
- PowerSC 2.0.0.2 has been release and I have been testing PowerSC MFA with AIX 7.3. The HA MFA Server option using Postgres replication is easy to set up and works well. Just ran into an issue with the Google Authentication App (Android), but the IBM Security Verify App (Android) worked well. For 2.0.0.2 see [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FOther+software%2FPowerSC+Standard+Edition&fixids=powersc\\_2.0.0.2&source=myna&myns=swgot her&mynp=OCSSTQK9&mync=E&cm\\_sp=swgot her- -OCSSTQK9- -E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FOther+software%2FPowerSC+Standard+Edition&fixids=powersc_2.0.0.2&source=myna&myns=swgot her&mynp=OCSSTQK9&mync=E&cm_sp=swgot her- -OCSSTQK9- -E)
- Red Hat has released RHEL 9 Beta, and I have been testing (okay playing with) both x86 and ppc64le (GCC 11, latest versions of Go and Rust; based on glibc 2.34; support for Flatpaks and completes the migration to Python 3 (3.9 is the default).
- IBM announced the Cloud Pak for Business Automation version 21.0.3. Highlights are of over 80 new features and enhancements for Cloud Pak for Business Automation, see <https://www-356.ibm.com/partnerworld/wps/servlet/ContentHandler/news/H000006246SC>

### Quick bites (end of 2021 snackpack)

#### **The IBM i High Availability Handbook**

Everything you need to get started with high availability on IBM i in 4 easy-to-read articles.

See: [https://www.helpsystems.com/cta/ibm-i-high-availability-handbook?code=cmp-0000009470&ls=717710006&utm\\_campaign=rb-high-availability-for-all&utm\\_medium=drip-email&hsmi=189301639&hsenc=p2ANqtz--sB52GoC4KzPgPSAdGS94PwtsWbslMYAy72LbwMI-l9AK1iqxp9qc5lL\\_7FL-8APnXKnWOHyfE58vwtex5TSGIjq\\_pah6DuK4nJY-liflHtTdX3I&utm\\_source=hubspot](https://www.helpsystems.com/cta/ibm-i-high-availability-handbook?code=cmp-0000009470&ls=717710006&utm_campaign=rb-high-availability-for-all&utm_medium=drip-email&hsmi=189301639&hsenc=p2ANqtz--sB52GoC4KzPgPSAdGS94PwtsWbslMYAy72LbwMI-l9AK1iqxp9qc5lL_7FL-8APnXKnWOHyfE58vwtex5TSGIjq_pah6DuK4nJY-liflHtTdX3I&utm_source=hubspot)

## **The Complete Guide to Securing IBM i Exit Points**

Exit points and exit programs aren't new concepts, but seem to get more questions about them than any other topic related to IBM i security. This guide is designed to equip IBM i pros with information about what exit points are and how exit programs work, along with their impact on your security posture. See: [https://www.helpsystems.com/cta/download-complete-guide-securing-ibm-i-exit-points?code=cmp-0000009413&ls=717710006&utm\\_source=common&utm\\_medium=email&utm\\_campaign=pt-exit-points](https://www.helpsystems.com/cta/download-complete-guide-securing-ibm-i-exit-points?code=cmp-0000009413&ls=717710006&utm_source=common&utm_medium=email&utm_campaign=pt-exit-points)

## **How Legacy Processing in IT Leads to Downtime on IBM I**

Tom Huntington presents a brief history of the AS/400 operations evolution. According to a 2020 ITIC survey, 60 percent of respondents cited human error as the number one cause of unplanned downtime. In that story, the president of an IT operations and cybersecurity company observed that "the root causes of downtime are the same as they were 20 or 30 years ago. But there are more of them." See:

[https://www.helpsystems.com/resources/articles/how-legacy-processing-it-leads-downtime-ibm-i?code=cmp-0000009374&ls=717710006&utm\\_campaign=rb-defeat-downtime&utm\\_medium=drip-email&hsmi=178128527&hsenc=p2ANqtz-8EP9mrKpVvhJmyg1gsLn8YLCk\\_oibu4ic2l5RSZj6lN6E2NDMbzEunHoQwXoi77JkWRKk0iWCODBiKC6uvy-31ogzwI8fiL89B0PGyiQYVmeSe50&utm\\_source=hubspot](https://www.helpsystems.com/resources/articles/how-legacy-processing-it-leads-downtime-ibm-i?code=cmp-0000009374&ls=717710006&utm_campaign=rb-defeat-downtime&utm_medium=drip-email&hsmi=178128527&hsenc=p2ANqtz-8EP9mrKpVvhJmyg1gsLn8YLCk_oibu4ic2l5RSZj6lN6E2NDMbzEunHoQwXoi77JkWRKk0iWCODBiKC6uvy-31ogzwI8fiL89B0PGyiQYVmeSe50&utm_source=hubspot)

## **AIX 7.3 Leverages Power10 Processor to Support Customers' Hybrid Multicloud and AI Endeavours**

AIX 7.3 features take advantage of the unique capabilities of the Power10 processor. IBM's Carl Burnett, Maria Ward, Petra Buehrer and Raj Krishnamurthy provide a detailed technical update. See:

[https://techchannel.com/IT-Strategy/10/2021/aix-7-3-power10-hybrid-multicloud?utm\\_campaign=TECH%20TechBeat%20SMB&utm\\_medium=email&hsmi=178420520&hsenc=p2ANqtz--S0z22QOfJsMIk7Svr34wEv89KbH9pcBcu0bAysJPnrrJfsoMnY6xT0z3ONAOEPSyfNDh9Q5TmpVSgmTm84P3gefSAC2go2KK9CHwOOQkZidQAxk4&utm\\_content=178420520&utm\\_source=hs\\_email](https://techchannel.com/IT-Strategy/10/2021/aix-7-3-power10-hybrid-multicloud?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=178420520&hsenc=p2ANqtz--S0z22QOfJsMIk7Svr34wEv89KbH9pcBcu0bAysJPnrrJfsoMnY6xT0z3ONAOEPSyfNDh9Q5TmpVSgmTm84P3gefSAC2go2KK9CHwOOQkZidQAxk4&utm_content=178420520&utm_source=hs_email)

## **Development Accessibility With the Code for IBM i Extension**

Liam Allan explains how users can now access Code for IBM i as a free, open-source extension to fulfil all their development needs right from VS Code. See:

[https://techchannel.com/SMB/09/2021/liam-allan-code-for-ibm-i?utm\\_campaign=TECH%20TechBeat%20SMB&utm\\_medium=email&hsmi=178420520&hsenc=p2ANqtz--WnFjWvwwHi2V9NTLkmIBNREcvkVTSLaVNse13-KAIKzktzDf\\_JnKLGOLXztzGWEpUwcfOt4SmYNnPzLglWori-h\\_tF3zFmkO3nt6L899qtvwhw&utm\\_content=178420520&utm\\_source=hs\\_email](https://techchannel.com/SMB/09/2021/liam-allan-code-for-ibm-i?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=178420520&hsenc=p2ANqtz--WnFjWvwwHi2V9NTLkmIBNREcvkVTSLaVNse13-KAIKzktzDf_JnKLGOLXztzGWEpUwcfOt4SmYNnPzLglWori-h_tF3zFmkO3nt6L899qtvwhw&utm_content=178420520&utm_source=hs_email)

## Check NPIV Virtual Fibre Channel Adapter Mapping on AIX

Chris Gibson explains how AIX/Power System administrators can now use an alternative to *kdb* for viewing VIOS "identifying info" from client AIX LPARs. See: [https://techchannel.com/SMB/10/2021/native-virtual-fibre-channel-aix?utm\\_campaign=TECH%20TechBeat%20SMB&utm\\_medium=email&hsmi=178420520&hsenc=p2ANqtz-8do4pWWQAYJf2Qc\\_Ms-nCkeBwhCxTkDaTK9nY5arbLwI1e8FQNRzo1faxKkYCINTpotB2ekzYwcdyQBiTuXB3dFNCIBah65JDcHnXYEZH72rbYeM&utm\\_content=178420520&utm\\_source=hs\\_email](https://techchannel.com/SMB/10/2021/native-virtual-fibre-channel-aix?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=178420520&hsenc=p2ANqtz-8do4pWWQAYJf2Qc_Ms-nCkeBwhCxTkDaTK9nY5arbLwI1e8FQNRzo1faxKkYCINTpotB2ekzYwcdyQBiTuXB3dFNCIBah65JDcHnXYEZH72rbYeM&utm_content=178420520&utm_source=hs_email)

## Right-Size Your Power10 Capacity and Configuration

The annual IBM i Marketplace Survey Results show that 35 percent of IBM i organisations plan to upgrade their hardware in the next year. If your business is running older Power technology (Power6, Power7, or Power8) and is considering a move to Power9 or Power10, you will need to confidently and correctly size the new hardware. See: [https://www.helpsystems.com/cta/how-right-size-power10-capacity-configuration?code=cmp-0000009376&ls=717710006&utm\\_campaign=rb-intro-to-capacity-planning&utm\\_medium=email&hsmi=180327924&hsenc=p2ANqtz-9yEogWi1zcWrsdeYwZimMmaS1DSkxIOYv6le\\_tJESce0U-CsVF6dPgQcT0kJYZPLgAdP9j8tBK1QfLS30IJW0tx9P\\_COl4OHPVpswqFGIQKQiYujE&utm\\_source=techchannel](https://www.helpsystems.com/cta/how-right-size-power10-capacity-configuration?code=cmp-0000009376&ls=717710006&utm_campaign=rb-intro-to-capacity-planning&utm_medium=email&hsmi=180327924&hsenc=p2ANqtz-9yEogWi1zcWrsdeYwZimMmaS1DSkxIOYv6le_tJESce0U-CsVF6dPgQcT0kJYZPLgAdP9j8tBK1QfLS30IJW0tx9P_COl4OHPVpswqFGIQKQiYujE&utm_source=techchannel)

## The New IBM Navigator for i

In the latest iTalk episode, Paul Tuohy talks to IBM's Tim Rowe about the all new IBM Navigator for i, the history of the IBM i OS and what it's like to have a ninja in the family. See: [https://techchannel.com/SMB/11/2021/tim-rowe-new-nav?utm\\_campaign=TECH%20TechBeat%20SMB&utm\\_medium=email&hsmi=180922212&hsenc=p2ANqtz-9iW4YQkNk4\\_D4qe8FP25KXm4T8n2gfixRbQNdBm8canS2fWsmHA68yr0mruqTqsp42D690k-I89geLnFaTzQgSZMIwEE5aIvcMpMgPZycKgtKV7g&utm\\_content=180922212&utm\\_source=hs\\_email](https://techchannel.com/SMB/11/2021/tim-rowe-new-nav?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=180922212&hsenc=p2ANqtz-9iW4YQkNk4_D4qe8FP25KXm4T8n2gfixRbQNdBm8canS2fWsmHA68yr0mruqTqsp42D690k-I89geLnFaTzQgSZMIwEE5aIvcMpMgPZycKgtKV7g&utm_content=180922212&utm_source=hs_email)

## Sweden Going Cashless and How Technology Plays a Big Role

Charlie Guarino talks with Mats Lidström, CPO and IBM i chief architect, Apper Systems, about his IBM i journey and his unique perspectives. See: [https://techchannel.com/Trends/11/2021/mats-lindstrom?utm\\_campaign=TECH%20TechBeat%20SMB&utm\\_medium=email&hsmi=180922212&hsenc=p2ANqtz--SB9cFQAox5XwKxGwdF3pKAoF4FQh0pXMHXixLop5X8oXVPbha3b0ce7XW9VMX6Th6VKrOsz9jlfzqAX-5RAckQexTyfODnS2kGnrWH2G-ay9SGk&utm\\_content=180922212&utm\\_source=hs\\_email](https://techchannel.com/Trends/11/2021/mats-lindstrom?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=180922212&hsenc=p2ANqtz--SB9cFQAox5XwKxGwdF3pKAoF4FQh0pXMHXixLop5X8oXVPbha3b0ce7XW9VMX6Th6VKrOsz9jlfzqAX-5RAckQexTyfODnS2kGnrWH2G-ay9SGk&utm_content=180922212&utm_source=hs_email)

## Interesting Points About the Power HMC

Jaqui Lynch shares her real-life experiences upgrading a 7063-cr1 HMC from 931 to 951, and the new HMC upgrades. In the past few months she has been migrating many clients to

the new Power HMC (7063-cr1 and 7063-cr2). During that time she found some great reasons to migrate from the Intel HMCs - apart from the fact that they are end of life and can't run the newer levels of the HMC code. See:

[https://techchannel.com/SMB/11/2021/updating-power-hmc?utm\\_campaign=TECH%20TechBeat%20SMB&utm\\_medium=email&hsmi=183939600&hsenc=p2ANqztz-8mTJuD9jb9T1CVt1lixzWfiwJzbNVNZj0nZrYLu56kcbB\\_aAhGmk7Aa-YKj1dVLKEvUrK0Pe3ZMew\\_wzKO2ukzx5KSZt5x8ottrmn8tTAvz9uJeRg&utm\\_content=183938427&utm\\_source=hs\\_email](https://techchannel.com/SMB/11/2021/updating-power-hmc?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=183939600&hsenc=p2ANqztz-8mTJuD9jb9T1CVt1lixzWfiwJzbNVNZj0nZrYLu56kcbB_aAhGmk7Aa-YKj1dVLKEvUrK0Pe3ZMew_wzKO2ukzx5KSZt5x8ottrmn8tTAvz9uJeRg&utm_content=183938427&utm_source=hs_email)

### **New AIX 7.3 Announcement**

IBM Champion Rob McNelly shares his summary of the 19<sup>th</sup> October announcement. See:

[https://techchannel.com/Trends/10/2021/mcnelly-aix-7-3?utm\\_campaign=TECH%20TechBeat%20SMB&utm\\_medium=email&hsmi=183939600&hsenc=p2ANqztz-84OMXKAeX3SEQl0IDPYvDwOn734mTc\\_pzzN71BjkhMuA-T9aSW9kykigyIhCWh8nyy4y2vnTuSxd1KxD0jHGqCIIwnZ3JX4zzqDX2JdwT8\\_xDdikI&utm\\_content=183938427&utm\\_source=hs\\_email](https://techchannel.com/Trends/10/2021/mcnelly-aix-7-3?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=183939600&hsenc=p2ANqztz-84OMXKAeX3SEQl0IDPYvDwOn734mTc_pzzN71BjkhMuA-T9aSW9kykigyIhCWh8nyy4y2vnTuSxd1KxD0jHGqCIIwnZ3JX4zzqDX2JdwT8_xDdikI&utm_content=183938427&utm_source=hs_email)

### **Monitoring Tools for Power Systems and AIX**

Jose Luis Ortega discusses how monitoring tools can improve service availability and productivity by proactively identifying, diagnosing and repairing slow or otherwise unstable connections. See: [https://techchannel.com/SMB/10/2021/monitoring-tools-aix?](https://techchannel.com/SMB/10/2021/monitoring-tools-aix?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=186544526&hsenc=p2ANqztz-9y3a8gOrsE3-mCuN-0BHMOPn4sNup6caE4pXxfQoRbu9cJ6t_BBx1j2tJLV5zXZ0-yqNaojUBi1CONzdcUbTtnLvH4p4lIJpaONs8VNNHeZWHRIMA&utm_content=186540093&utm_source=hs_email)

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[93&utm\\_source=hs\\_email](https://techchannel.com/SMB/10/2021/monitoring-tools-aix?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=186544526&hsenc=p2ANqztz-9y3a8gOrsE3-mCuN-0BHMOPn4sNup6caE4pXxfQoRbu9cJ6t_BBx1j2tJLV5zXZ0-yqNaojUBi1CONzdcUbTtnLvH4p4lIJpaONs8VNNHeZWHRIMA&utm_content=186540093&utm_source=hs_email)

### **Basic AIX Security Strategies and Best Practices**

Jaqui Lynch covers some of the basics of locking down your LPARs – this is not done by default, but easy to do as Jaqui explains. See: [https://techchannel.com/SMB/04/2021/aix-security-strategies?utm\\_campaign=TECH%20TechBeat](https://techchannel.com/SMB/04/2021/aix-security-strategies?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=189360534&hsenc=p2ANqztz--bIo-6zYIsOs6Th0xSH8e4kXVKjIuQkNRyivUXQZ8eURL7pUXbHW-MuLb44biH4Kegurd4M-4O8mumE3WP1U3VR9XirxtvlQBZGiQOdKSa4fiizcc&utm_content=189359928&utm_source=hs_email)

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### **Watson Query is Now Generally Available on IBM Cloud Pak for Data as a Service**

IBM Watson Query is a universal query engine that executes distributed and virtualised queries across databases, data warehouses, data lakes, and streaming data without additional manual changes, data movement, or replication. See:

<https://cloud.ibm.com/catalog/services/data-virtualization>

## A guide to IBM Courses, Tracks and Certifications

IBM Champion Rob McNelly explores courses, tracks or certifications you can use for developing IBM i and AIX resources internally. See:

[https://more.mspcommunications.com/e3t/Btc/OR+113/d2nPhZ04/VW1qBq4BdCh7W5R-yrn7ryb-fW5NMkyh4C5vCpN8cZm4D3q3n\\_V1-WJV7CgM0BN5\\_Cc3SP9r-jW4958\\_S14RnJzW3tWVzB6xLPrrN7BF7nypsjYwW29TFnF6jVrPfW3mC-WP8sJF53N39NQHx3x3FnW7b0gWL7zZDlqW65dnk33nbzVqW1pqFrs7NQQYCW3FYCqP4g7yZnW8yl84k27cSLLW2WYdFQ7qR-t5F7Np9wv4TngW9kqv915n3gcYW3QwWjG7RmfWpW5-kVRv6JSRWmW7BTyfl4SyHRGN1MnldBQhg5jW4C4x0Y3l5wThW6lwZnY72fyPtMdy mn5sy-6QW19B9J\\_3cPNkqN87p3VCmlc-XW2qcWnk1qGJQ0W15vK-C6051DD3lKB1](https://more.mspcommunications.com/e3t/Btc/OR+113/d2nPhZ04/VW1qBq4BdCh7W5R-yrn7ryb-fW5NMkyh4C5vCpN8cZm4D3q3n_V1-WJV7CgM0BN5_Cc3SP9r-jW4958_S14RnJzW3tWVzB6xLPrrN7BF7nypsjYwW29TFnF6jVrPfW3mC-WP8sJF53N39NQHx3x3FnW7b0gWL7zZDlqW65dnk33nbzVqW1pqFrs7NQQYCW3FYCqP4g7yZnW8yl84k27cSLLW2WYdFQ7qR-t5F7Np9wv4TngW9kqv915n3gcYW3QwWjG7RmfWpW5-kVRv6JSRWmW7BTyfl4SyHRGN1MnldBQhg5jW4C4x0Y3l5wThW6lwZnY72fyPtMdy mn5sy-6QW19B9J_3cPNkqN87p3VCmlc-XW2qcWnk1qGJQ0W15vK-C6051DD3lKB1)

## Log4Shell Part 1: Answering FAQs on the Log4Shell (LogJam) Security Vulnerability

Jesse Gorzinski on the Log4Shell security vulnerability, what it impacts and how to remediate the problem in Java programmes. See:

[https://techchannel.com/Trends/12/2021/log4shell-part-1?utm\\_campaign=TECH%20TechBeat%20SMB&utm\\_medium=email&hsmi=198739665&hsenc=p2ANqtz-9PDkMBuKzC754RQ3g-P8Hlal7Eys3tcYnDAQNd8xf-TxD6BS049g-dv9cqkyKBbEujA7fDXs7B5PVFBqjbZZGvDBJLsy\\_Le5hOJ7fvgnFWVwWYmw&utm\\_content=198739665&utm\\_source=hs\\_email](https://techchannel.com/Trends/12/2021/log4shell-part-1?utm_campaign=TECH%20TechBeat%20SMB&utm_medium=email&hsmi=198739665&hsenc=p2ANqtz-9PDkMBuKzC754RQ3g-P8Hlal7Eys3tcYnDAQNd8xf-TxD6BS049g-dv9cqkyKBbEujA7fDXs7B5PVFBqjbZZGvDBJLsy_Le5hOJ7fvgnFWVwWYmw&utm_content=198739665&utm_source=hs_email)

## 3 steps to migrate PowerHA shared volume groups to new storage while keeping a copy on the old disks.

The most commonly used approach to migrate shared volume groups from the current storage array to a new one in a PowerHA cluster is done by mirroring and then un-mirroring the volume group. However, there can be business requirements to preserve a copy of the volume group on the old storage array as a backup. This guide shows how to migrate shared concurrent volume groups managed by PowerHA to new storage, while keep a copy of the volume group on the old storage with no downtime. See:

[https://www.ibm.com/support/pages/node/6514853?myns=swgoth&myntp=OCSSPHQG&mync=E&cm\\_sp=swgoth- -OCSSPHQG- -E](https://www.ibm.com/support/pages/node/6514853?myns=swgoth&myntp=OCSSPHQG&mync=E&cm_sp=swgoth- -OCSSPHQG- -E)

## In case you missed ....

- **ASEAN Power (AIX, i, Linux) Meetup**

The November meeting was a technical review of the new features of AIX 7.3 and included a reminder of some of the cool new things that were recently added to 7.2.

Two long-time AIX users who were involved in the Beta testing also shared their experiences with the programme.

- Chris Gibson: IBM Lab Services, Melbourne, Australia. AIX and Power Systems specialist. AIX blogger <https://lnkd.in/gBJTeErK>
- Antony (Red) Steel: Technical Specialist / CTO, Belisama Singapore, AIX, Linux and HA and clustering enthusiast.

For more details:

- <https://www.meetup.com/Singapore-AIX-IBM-i-Linux-on-Power-Meetup-Group/events/282089347/>
- <https://community.ibm.com/community/user/viewdocument/20-new-things-with-aix-73?CommunityKey=39c1c206-c74f-4436-9001-878ecc8ec54b>
- **IBM Navigator for i - A whole new world.....**

IBM Navigator for i has been around in various forms for many years. It started as a fat client running on a Windows PC, then moved to a sort of web based solution for the past many years. With the release of the latest support, Navigator has been completely redesigned and rebuilt from the ground up. A new user interface leveraging the latest in web based UI technologies, and even completely reinventing the back end to take full advantage of the IBM SQL Services that have become so popular. This session is a live demo, where we show you the many aspects of the new Navigator support, as well as an in depth look at Performance Data Investigator including how to really look at performance in new ways.

Presenters:

  - Tim Rowe, Business Architect Application Development & Systems Management for IBM i
  - Lora Powell - Team Lead PDI Development team

See: <https://ibm.box.com/v/PSVUG-IBMiNavigator>
- **A Strategy for Specifying POWER9 AIX LPAR Implementations**

Earl Jew's talk for the IBM Power Systems VUG. See: <https://www.ibm.com/support/pages/node/1120377>

Presentation materials: <https://ibm.box.com/v/PSVUG2021LPARImpStrat>
- **Call Home in ESS**

The latest IBM Elastic Storage System (ESS) Webinars that was hosted by the ESS Support team to share expertise and knowledge of the ESS product, as well as product updates and best practices. See: <https://ibm.ent.box.com/s/o7gd1q0zrnn6cb09d4be2xnlq1alba5l/folder/151836850205>
- **Multi-Factor Authentication: Best Practices for the IBM i**

Security breaches caused by compromised passwords are driving IBM i shops to implement stronger user authentication practices, such as multi-factor authentication (MFA). Many regulatory standards—such as PCI DSS, GDPR, and CCPA require user authentication techniques found in multi-factor authentication (MFA) and two-factor authentication (2FA) systems, with many governments mandating MFA protection for critical systems

Joe Hertvik & Lloyd Ramdarie discuss a number of best practices for implementing MFA, See: [https://learn.common.org/products/multi-factor-authentication-best-practices-for-the-ibm-i-joe-hertvik-lloyd-ramdarie#tab-product\\_tab\\_overview](https://learn.common.org/products/multi-factor-authentication-best-practices-for-the-ibm-i-joe-hertvik-lloyd-ramdarie#tab-product_tab_overview)

## Coming soon

- **IBM Power Systems Virtual User Group**

VIOS top tips by Jaqui Lynch, on 27/1/22 at 00:00 UTC +8 (90 minutes). Details being finalised.



## Redbooks and Redpapers

- **IBM Cloud Object Storage System Product Guide**, draft Redbook, revised: October 28, 2021  
<http://www.redbooks.ibm.com/redpieces/abstracts/sg248439.html?Open>
- **IBM SAN Volume Controller Best Practices and Performance Guidelines for IBM Spectrum Virtualize Version 8.4.2**; draft Redpaper, revised: November 13, 2021  
<http://www.redbooks.ibm.com/redpieces/abstracts/sg248509.html?Open>
- **IBM FlashSystem Best Practices and Performance Guidelines for IBM Spectrum Virtualize Version 8.4.2**, draft Redpaper, revised: November 22, 2021  
<http://www.redbooks.ibm.com/redpieces/abstracts/sg248508.html?Open>
- **IBM Power Systems Virtual Server Guide for IBM i**; draft Redpaper, published: December 7, 2021  
<http://www.redbooks.ibm.com/redpieces/abstracts/sg248513.html?Open>
- **Oracle on IBM Power Systems**; draft Redbook, published December 8, 2021,  
<http://www.redbooks.ibm.com/redpieces/abstracts/sg248485.html?Open>
- **IBM Power E1080 Technical Overview and Introduction**, revised: December 9,  
<http://www.redbooks.ibm.com/abstracts/redp5649.html?Open>
- **High Availability and Disaster Recovery Options for IBM Power Systems: Cloud and On-Premises**, draft Redpaper, published: December 13, 2021  
<http://www.redbooks.ibm.com/redpieces/abstracts/redp5656.html?Open>
- **Implementing the IBM SAN Volume Controller with IBM Spectrum Virtualize Version 8.4.2**, Redbook, revised: December 16, 2021  
<http://www.redbooks.ibm.com/abstracts/sg248507.html?Open>
- **Implementing the IBM FlashSystem with IBM Spectrum Virtualize Version 8.4.2**, Redbook, revised: December 16, 2021  
<http://www.redbooks.ibm.com/abstracts/sg248506.html?Open>
- **IBM DS8900F Performance Best Practices and Monitoring**, Redbook, published: December 17, 2021  
<http://www.redbooks.ibm.com/abstracts/sg248501.html?Open>
- **IBM Cloud Pak for Data with IBM Spectrum Scale Container Native**, Redbook, published: December 17, 2021  
<http://www.redbooks.ibm.com/abstracts/redp5652.html?Open>
- **Securing IBM Spectrum Scale Unified Data Foundation With QRadar**, IBM Cloud Pak for Security, Blueprint, published: December 17, 2021  
<http://www.redbooks.ibm.com/abstracts/redp5666.html?Open>

## IBM Alerts and notices

### AIX Alerts:

- **VPM\_THROUGHPUT\_MODE VALUE CHANGES TO DEFAULT AFTER LPM**

Applies to:

- AIX 7.1  
APAR: IJ35052 Fix available in service pack: 7100-05-09-2148
- AIX 7.2  
APAR: IJ35733 Fix available in service pack: 7200-05-03-2148

During LPM, vpm\_throughput\_mode value changes to default at the target system.

The following systems are affected:

USERS AFFECTED:

MIN	MAX	FILESET
7.1.5.39	7.1.5.44	bos.mp64
7.2.5.0	7.2.5.101	bos.mp64

- **IJ35178 - Encrypted logical volumes unable to mount**

For logical volumes encrypted on a system without IJ35178 applied (referred to as 'Version 0' encrypted LVs), changing the in\_core\_enabled setting with the acfo command can result in garbage data being read from or written to the LV due to a difference in the encryption/decryption method used with in\_core\_enabled. This behavior can cause file systems to fail to mount, or applications that use raw LVs to fail to run. Reverting to the original in\_core\_enabled setting used when the LV was first encrypted restores access to the LV data. See:

[https://www.ibm.com/support/pages/node/6494777?](https://www.ibm.com/support/pages/node/6494777?myns=aix&myntp=OCSG11S&mync=E&cm_sp=aix--OCSG11S--E)

[myns=aix&myntp=OCSG11S&mync=E&cm\\_sp=aix--OCSG11S--E](https://www.ibm.com/support/pages/node/6494777?myns=aix&myntp=OCSG11S&mync=E&cm_sp=aix--OCSG11S--E)

- **Vulnerability in libc affects AIX (CVE-2021-29860)**

There is a vulnerability in the libc.a library that affects AIX 7.1, 7.2 and VIOS 3.1.

See: [https://www.ibm.com/support/pages/node/6516774?](https://www.ibm.com/support/pages/node/6516774?myns=aix&myntp=OCOE609&myntp=OCSG11S&mync=E&cm_sp=aix--OCOE609-OCSG11S--E)

[myns=aix&myntp=OCOE609&myntp=OCSG11S&mync=E&cm\\_sp=aix--OCOE609-OCSG11S--E](https://www.ibm.com/support/pages/node/6516774?myns=aix&myntp=OCOE609&myntp=OCSG11S&mync=E&cm_sp=aix--OCOE609-OCSG11S--E)

- **Vulnerability in EFS affects AIX (CVE-2021-29861)**

There is a vulnerability in EFS that affects AIX 7.1, 7.2 and VIOS 3.1, See:

[https://www.ibm.com/support/pages/node/6516786?](https://www.ibm.com/support/pages/node/6516786?myns=aix&myntp=OCOE609&myntp=OCSG11S&mync=E&cm_sp=aix--OCOE609-OCSG11S--E)

[myns=aix&myntp=OCOE609&myntp=OCSG11S&mync=E&cm\\_sp=aix--OCOE609-OCSG11S--E](https://www.ibm.com/support/pages/node/6516786?myns=aix&myntp=OCOE609&myntp=OCSG11S&mync=E&cm_sp=aix--OCOE609-OCSG11S--E)

### PTF in error:

- **AIX71 TL05 PTF in Error**

AIX Service Pack 7100-05-09-2148. See:

[https://www.ibm.com/support/pages/node/6525352?](https://www.ibm.com/support/pages/node/6525352?myns=aix&myntp=OCOE609&mync=E&cm_sp=aix--OCOE609--E)

[myns=aix&myntp=OCOE609&mync=E&cm\\_sp=aix--OCOE609--E](https://www.ibm.com/support/pages/node/6525352?myns=aix&myntp=OCOE609&mync=E&cm_sp=aix--OCOE609--E)



- **AIX72 TL05 PTF in Error**  
AIX Service Pack 7200-05-03-2148. See:  
[https://www.ibm.com/support/pages/node/6525350?myns=aix&mynp=OCSSG11S&mync=E&cm\\_sp=aix-\\_-OCSSG11S-\\_-E](https://www.ibm.com/support/pages/node/6525350?myns=aix&mynp=OCSSG11S&mync=E&cm_sp=aix-_-OCSSG11S-_-E)

#### AIX Updates:

- **AIX Service Pack 7300-00-01-2148**  
Contains important fixes, see: [https://www.ibm.com/support/pages/node/6524658?myns=aix&mynp=OCSSG11T&mync=E&cm\\_sp=aix-\\_-OCSSG11T-\\_-E](https://www.ibm.com/support/pages/node/6524658?myns=aix&mynp=OCSSG11T&mync=E&cm_sp=aix-_-OCSSG11T-_-E)

#### VIO Server Updates:

- **Fixes: Mini Pack: VIOS 3.1.3.14**  
See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2Fvios%2F5765G34&fixids=VIOS\\_MP\\_3.1.3.14&source=myna&myns=swgoth&mynp=OCSSPHKW&mync=E&cm\\_sp=swgoth-\\_-OCSSPHKW-\\_-E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2Fvios%2F5765G34&fixids=VIOS_MP_3.1.3.14&source=myna&myns=swgoth&mynp=OCSSPHKW&mync=E&cm_sp=swgoth-_-OCSSPHKW-_-E)

#### PowerHA Updates:

- **Lodash vulnerability in PowerHA**  
Lodash versions prior to 4.17.21 caused vulnerability in PowerHA releases in service. See: [https://www.ibm.com/support/pages/node/6524656?myns=swgoth&mynp=OCSSPHQG&mync=E&cm\\_sp=swgoth-\\_-OCSSPHQG-\\_-E](https://www.ibm.com/support/pages/node/6524656?myns=swgoth&mynp=OCSSPHQG&mync=E&cm_sp=swgoth-_-OCSSPHQG-_-E)
- **PowerHA fix information for PowerHA 7.2.3 Service Pack 6**  
PowerHA 7.2.3 Service Pack 6 is now available for download as of Nov 2021.  
NOTE: PowerHA SystemMirror 7.2.3 SP6 testing has been done on the following AIX levels and is recommended:
  - AIX7.1 TL05 SP9
  - AIX7.2 TL01 SP6
  - AIX7.2 TL02 SP6
  - AIX7.2 TL03 SP7
  - AIX7.2 TL04 SP4
  - AIX7.2 TL05 SP3See: [https://www.ibm.com/support/pages/node/6516766?myns=swgoth&mynp=OCSSPHQG&mync=E&cm\\_sp=swgoth-\\_-OCSSPHQG-\\_-E](https://www.ibm.com/support/pages/node/6516766?myns=swgoth&mynp=OCSSPHQG&mync=E&cm_sp=swgoth-_-OCSSPHQG-_-E)
- **PowerHA fix information for PowerHA 7.2.4 Service Pack 4**  
PowerHA 7.2.4 Service Pack 4 is now available for download as of November 2021.  
NOTE: PowerHA SystemMirror 7.2.4 SP4 testing has been done on the following AIX levels and is recommended:
  - AIX7.1 TL05 SP9
  - AIX7.2 TL01 SP6
  - AIX7.2 TL02 SP6
  - AIX7.2 TL03 SP7
  - AIX7.2 TL04 SP4
  - AIX7.2 TL05 SP3

See: [https://www.ibm.com/support/pages/node/6517344?](https://www.ibm.com/support/pages/node/6517344?myns=swgother&mynp=OCSSPHQG&mync=E&cm_sp=swgother_-_OCSSPHQG_-_E)

[myns=swgother&mynp=OCSSPHQG&mync=E&cm\\_sp=swgother\\_-\\_OCSSPHQG\\_-\\_E](https://www.ibm.com/support/pages/node/6517344?myns=swgother&mynp=OCSSPHQG&mync=E&cm_sp=swgother_-_OCSSPHQG_-_E)

- **PowerHA fix information for PowerHA 7.2.5 Service Pack 2**

PowerHA 7.2.5 Service Pack 2 is now available for download as of November 2021.

NOTE: PowerHA SystemMirror 7.2.5 SP2 testing has been done on the following AIX levels and are recommended:

- AIX7.1 TL05 SP9
- AIX7.2 TL01 SP6
- AIX7.2 TL02 SP6
- AIX7.2 TL03 SP7
- AIX7.2 TL04 SP4
- AIX7.2 TL05 SP3

See: [https://www.ibm.com/support/pages/node/6517352?](https://www.ibm.com/support/pages/node/6517352?myns=swgother&mynp=OCSSPHQG&mync=E&cm_sp=swgother_-_OCSSPHQG_-_E)

[myns=swgother&mynp=OCSSPHQG&mync=E&cm\\_sp=swgother\\_-\\_OCSSPHQG\\_-\\_E](https://www.ibm.com/support/pages/node/6517352?myns=swgother&mynp=OCSSPHQG&mync=E&cm_sp=swgother_-_OCSSPHQG_-_E)

#### ESS Alerts:

- **Mellanox OFED 5.x considerations in IBM ESS V6.1.2.x**

IBM Spectrum Scale is moving to Mellanox OFED 5.x (specifically MLNX\_OFED\_LINUX-5.4-2.4.1.x) starting with the release of ESS 6.1.2.0 (November 2021). This decision has important ramifications on customer environments that need to be carefully understood.

See: [https://www.ibm.com/support/pages/node/6525242?](https://www.ibm.com/support/pages/node/6525242?myns=s033&mynp=OCSTXKQY&mynp=OCSTHMCM&mync=E&cm_sp=s033_-_OCSTXKQY-OCSTHMCM_-_E)

[myns=s033&mynp=OCSTXKQY&mynp=OCSTHMCM&mync=E&cm\\_sp=s033\\_-\\_OCSTXKQY-OCSTHMCM\\_-\\_E](https://www.ibm.com/support/pages/node/6525242?myns=s033&mynp=OCSTXKQY&mynp=OCSTHMCM&mync=E&cm_sp=s033_-_OCSTXKQY-OCSTHMCM_-_E)

- **Apache Log4j Remote Code Execution Vulnerability - Log4Shell - CVE-2021-44228**

IBM Spectrum Scale and ESS bundle Apache Log4j. Apache Log4j versions prior to 2.15.0 are susceptible to this vulnerability which could allow a remote attacker to execute arbitrary code on the system, caused by a flaw in the Java logging library. By sending a specially-crafted string value, an attacker could exploit this vulnerability to execute arbitrary code on the system. See:

[https://www.ibm.com/support/pages/node/6526202?](https://www.ibm.com/support/pages/node/6526202?myns=s033&mynp=OCSTXKQY&mynp=OCSTHMCM&mync=E&cm_sp=s033_-_OCSTXKQY-OCSTHMCM_-_E)

[myns=s033&mynp=OCSTXKQY&mynp=OCSTHMCM&mync=E&cm\\_sp=s033\\_-\\_OCSTXKQY-OCSTHMCM\\_-\\_E](https://www.ibm.com/support/pages/node/6526202?myns=s033&mynp=OCSTXKQY&mynp=OCSTHMCM&mync=E&cm_sp=s033_-_OCSTXKQY-OCSTHMCM_-_E)

- **There are multiple vulnerabilities in the Linux Kernel used in IBM Elastic Storage System**

There are security vulnerabilities in versions of Linux Kernel that are shipped with versions of IBM Elastic Storage System. A fix for these vulnerabilities is available.

See: [https://www.ibm.com/support/pages/node/6529340?](https://www.ibm.com/support/pages/node/6529340?myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033_-_OCSTHMCM_-_E)

[myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033\\_-\\_OCSTHMCM\\_-\\_E](https://www.ibm.com/support/pages/node/6529340?myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033_-_OCSTHMCM_-_E)

#### ESS Updates:

- **October, 2021 - IBM Spectrum Scale and IBM Elastic Storage Server (ESS) Technical Support Newsletter**

This newsletter is aimed at clients and specialists installing, upgrading, or who use IBM Spectrum Scale (formerly known as GPFS) or IBM Elastic Storage Server (ESS). See: [https://www.ibm.com/support/pages/node/6510184?myns=s033&mynp=OCSTXKQY&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-\\_-OCSTXKQY-OCSTHMCM-\\_-E](https://www.ibm.com/support/pages/node/6510184?myns=s033&mynp=OCSTXKQY&mynp=OCSTHMCM&mync=E&cm_sp=s033-_-OCSTXKQY-OCSTHMCM-_-E)

- **ESS\_FIRMWARE-6.0.0.12-x86\_64-Linux**

This fixpack is cumulative and includes all fixes completed since the last release.

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_FIRMWARE-6.0.0.12-x86\\_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-\\_-OCSTHMCM-\\_-E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_FIRMWARE-6.0.0.12-x86_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-_-OCSTHMCM-_-E)

- **ESS\_ADV\_BASEIMAGE-5.3.7.3-power-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_ADV\\_BASEIMAGE-5.3.7.3-power-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-\\_-OCSTHMCM-\\_-E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_ADV_BASEIMAGE-5.3.7.3-power-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-_-OCSTHMCM-_-E)

- **ESS\_DME\_BASEIMAGE-5.3.7.3-ppc64LE-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DME\\_BASEIMAGE-5.3.7.3-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-\\_-OCSTHMCM-\\_-E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DME_BASEIMAGE-5.3.7.3-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-_-OCSTHMCM-_-E)

- **ESS\_DME\_BASEIMAGE-5.3.7.3-power-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DME\\_BASEIMAGE-5.3.7.3-power-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-\\_-OCSTHMCM-\\_-E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DME_BASEIMAGE-5.3.7.3-power-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-_-OCSTHMCM-_-E)

- **ESS\_DME\_BASEIMAGE-6.0.2.3-ppc64LE-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DME\\_BASEIMAGE-6.0.2.3-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-\\_-OCSTHMCM-\\_-E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DME_BASEIMAGE-6.0.2.3-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-_-OCSTHMCM-_-E)

- **ESS\_DME\_BASEIMAGE-6.0.2.3-x86\_64-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DME\\_BASEIMAGE-6.0.2.3-x86\\_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM- -E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DME_BASEIMAGE-6.0.2.3-x86_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM- -E)

- **ESS\_DME\_BASEIMAGE-6.1.2.0-ppc64LE-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DME\\_BASEIMAGE-6.1.2.0-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM- -E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DME_BASEIMAGE-6.1.2.0-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM- -E)

- **ESS\_DME\_BASEIMAGE\_Legacy-6.1.2.0-ppc64LE-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DME\\_BASEIMAGE\\_Legacy-6.1.2.0-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM- -E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DME_BASEIMAGE_Legacy-6.1.2.0-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM- -E)

- **ESS\_DME\_BASEIMAGE\_3200-6.1.2.0-x86\_64-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DME\\_BASEIMAGE\\_3200-6.1.2.0-x86\\_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM- -E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DME_BASEIMAGE_3200-6.1.2.0-x86_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM- -E)

- **ESS\_DME\_BASEIMAGE-6.1.2.0-x86\_64-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DME\\_BASEIMAGE-6.1.2.0-x86\\_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM- -E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DME_BASEIMAGE-6.1.2.0-x86_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM- -E)

- **ESS\_DAE\_BASEIMAGE-5.3.7.3-ppc64LE-Linux**

See: ([http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DAE\\_BASEIMAGE-5.3.7.3-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM- -E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DAE_BASEIMAGE-5.3.7.3-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM- -E))

- **ESS\_DAE\_BASEIMAGE-5.3.7.3-power-Linux**

See: ([http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DAE\\_BASEIMAGE-5.3.7.3-power-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM- -E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DAE_BASEIMAGE-5.3.7.3-power-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM- -E))

- **ESS\_DAE\_BASEIMAGE-6.0.2.3-ppc64LE-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DAE\\_BASEIMAGE-6.0.2.3-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM--E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DAE_BASEIMAGE-6.0.2.3-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM--E)

- **ESS\_DAE\_BASEIMAGE-6.0.2.3-x86\_64-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DAE\\_BASEIMAGE-6.0.2.3-x86\\_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM--E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DAE_BASEIMAGE-6.0.2.3-x86_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM--E)

- **ESS\_DAE\_BASEIMAGE-6.1.2.0-ppc64LE-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DAE\\_BASEIMAGE-6.1.2.0-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM--E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DAE_BASEIMAGE-6.1.2.0-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM--E)

- **ESS\_DAE\_BASEIMAGE\_Legacy-6.1.2.0-ppc64LE-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DAE\\_BASEIMAGE\\_Legacy-6.1.2.0-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM--E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DAE_BASEIMAGE_Legacy-6.1.2.0-ppc64LE-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM--E)

- **ESS\_DAE\_BASEIMAGE\_3200-6.1.2.0-x86\_64-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DAE\\_BASEIMAGE\\_3200-6.1.2.0-x86\\_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM--E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DAE_BASEIMAGE_3200-6.1.2.0-x86_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM--E)

- **ESS\_DAE\_BASEIMAGE-6.1.2.0-x86\_64-Linux**

See: [http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS\\_DAE\\_BASEIMAGE-6.1.2.0-x86\\_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm\\_sp=s033-OCSTHMCM--E](http://www.ibm.com/support/fixcentral/quickorder?product=ibm%2FStorageSoftware%2FIBM+Elastic+Storage+Server+%28ESS%29&fixids=ESS_DAE_BASEIMAGE-6.1.2.0-x86_64-Linux&source=myna&myns=s033&mynp=OCSTHMCM&mync=E&cm_sp=s033-OCSTHMCM--E)

Keep safe and best wishes for the Western New Year celebrations and a vastly different '22.  
Red, Belisama