In Conversation

In Conversation with Tom Huntingdon
Carol Baker

As HelpSystems publishes its seventh annual IBM i Marketplace Survey, we talk to the report's author Tom Huntingdon, Vice President – Technical Services at HelpSystems on what the driving force behind the success of the report has been.

Tom Huntington is Executive Vice President of Technical Solutions at HelpSystems (https://www.helpsystems.com), and has been with the company for nearly 30 years. He helps manage the worldwide HelpSystems software engineer team that works to integrate and promote our automation and security solutions to partners and customers around the globe.

Tom often speaks on enterprise scheduling, security, automation topics, IBM i technology, and the HelpSystems products, and hosts technical presentations on a variety of automation topics.

He is the author of the HelpSystems IBM i Marketplace Survey and has written articles on automated operations, security, cloud computing, and business intelligence for leading trade journals and newsletters.

Tom was named an IBM Champion in 2016, 2017, 2018, 2019, 2020, and 2021 for over three decades of advocation and thought leadership on the IBM i platform.

Can you tell us about the ethos behind HelpSystems?
As a people-first software company we focus on helping exceptional organizations 'Build a Better IT'. Our holistic suite of security and automation solutions creates a simpler, smarter, and more powerful IT.

Over the years, we have had various equity owners, all of whom have helped shape HelpSystems for the future, and we now have customers in over 100 countries and across all industry sectors around the world.

Each of our customers trust us to deliver solutions based on the fundamentals of good technology design, top-notch user experience, helping them to achieve high levels of productivity. In essence, we aim to provide our customers with peace of mind.

As you would expect from an IT company we were already geared up for the new norm of remote working, and whilst we have 14 offices worldwide, with over 830 employees (many of whom are working from home), you could say that that we have nearly 800 satellite offices all working highly productively.

HelpSystems' IBM i Marketplace Survey is now in its seventh year of publication – what do you see as being the main driving points?

Our survey is very independent from IBM, although we do have some briefings with IBM executives to help build-out the survey results. We have lots of data coming in from the survey on IBM i platform usage, plus internal briefings with colleagues within HelpSystems to gauge their feedback on the data. Courtney Johnson, our Director of Marketing at HelpSystems does an amazing job coordinating everyone to make sure the timeliness of the survey stays on track.

Launched back in 2008, IBM i usage has continued to grow. IBM has already said that it expects growth on the IBM i platform to continue through 2032 and even beyond. Of course, it is the high reliability of IBM i that makes it so attractive. Add this the longevity of a system which constantly evolves, and it's not hard to see why so many businesses have stability for their core business systems which makes the platform so attractive.

From a road map perspective, IBM i does have a very strong road map – its the history of the platform from an operating systems standpoint. At the end of the day, one of the beauties is that if I look back at my time at HelpSystems – back in 1988, I could have written a program for HelpSystems – which I did (I was a programmer way back then) – programs which could have been migrated up to 2020 and not even being recompiled and running today.

One of the reasons why IBM i has been around for so many years is that their applications have been able to grow with the hardware. There is a tendency with hardware that as businesses grow, they don't rewrite their application code to keep up with this. Think about that in the Windows world where every time you go between operating systems versions, you often have to redo everything because it went from 32bit to 64bit technology under the covers.

We haven't had to do that on the IBM i platform. This thing just continues to move on with the capability, and now people move to the cloud and they are not redoing their business applications – they can run them in the cloud.

Looking at the survey in more detail, what would you say has been the biggest impact?

Compared to previous surveys, the biggest change here was IT spend. That would certainly make sense in a COVID year where people have cut costs that were due to grow.

People are thinking about AI. They are also thinking about moving to the IBM cloud, Azure, Google etc. With more major cloud providers now using the IBM POWER processor chip, IBM i, AIX, and Linux, moving to those environments is easier.

What impact is this having on the data centre?

Staying current in the data centre is something we have measured over the last seven years, and one of the key drivers in us looking at the data centre is to get a pulse on whether people are keeping up to date on their operating systems.

Every two to three years, IBM comes out with a new operating system – versions 7.2, 7.3 and 7.4. These are all supported operating systems that IBM will not charge you a fee for, but they also do something called 'extended support' to encourage customers to get off these older versions – but with that in mind, we do still see even older versions still out there.

In the latest survey, we saw a big jump from 4% in 2020 to 15% on the latest version – so there was a good migration in the marketplace from older operating systems, even during the pandemic.

Going from one level to another in the IBM i world is something that you could call a 'non-event'. It is something you can do in a few hours or over a weekend with the minimal downtime.

Another thing we like to keep a pulse on is the POWER server. The POWER processor chip started production way back in 2009 with POWER 4. Until then IBM had been building separate chips for AIX and the IBM i. They then brought that together and now over the last two decades IBM, AIX and Linux can all run on this POWER platform.

In the survey, we have been tracking the migration from the older POWER 6, 7, 8, and 9 to today where we now see 42% on POWER 9 in 2021 compared to those on POWER 8. This server and the upgrade path are really tied to people with leases. They will normally lease for three or five years as part of their normal upgrade path – and I think even within the pandemic we saw people move forward with their hardware just because it is part of their way of doing business around IBM i.

A few years ago, we added the question 'What are your plans for upgrades?' and in 2021 we saw 6% saying that they were upgrading just their hardware; 23% were doing software only; and 29% said that they intended to upgrade both hardware and software.

Typically, the survey is taken sometime in the fall, so for the latest survey this was done in September 2020 for the 2021 results.

Storage is always an issue, so what has the survey found?
The other thing we have tracked in this space over the years is the use of internal vs external disks.

Now for most customers, their storage with this platform is pretty much IBM storage, and there has been a small migration from internal storage to external forms of storage like flash and now NVMe storage on the IBM platform.

Starting to use NVMe technology for storage has really helped to reduce the cost at the lower end (almost by 50% for disk storage in that space).
The other part which is important and why we started tracking this is because external storage really helps customers be truly virtualized.

One of things that has happened in this platform – and started happening many years ago was that IBM came up with partition technology way back in 1999. In today's speak that means virtual machines (VM) – despite coming up with partitioning technology so long ago, only about 25% of the marketplace has one partition.

Being able to virtualize your processor, your memory, plus your IBM POWER server is a lot to think about in terms of storage – because once you have that in place, you can also do things like live partition movements or live VM movement in this environment. For instance, allowing movements of partitions between physical servers is really helpful when setting up cloud storage. This allows critical applications to move from one VM to another VM on another server in the cloud – in a private cloud.

Speaking of cloud, IBM i for the most part is a highly on-premise server that sits with hybrid. Its one of those servers which people like to have because it continues to run and run in the data centre.

I had a customer that told me he had an old POWER server (like a POWER 4) that he had let run. He had taken it home from work because there was no value in it – he let it run for about two decades, and he has never shut it down – and it is still running today!

This is the kind of story you hear on the platform. The server is so reliable that it just continues to run the business, so consequently you really have to come up with a good cost equation or reason to move to the cloud.

If you think of cloud in the sense of AWS and Google Cloud, often when you go to the Google Cloud or AWS you don't get any management services unless you pay an extra fee.

In our world, we have had a lot of customers doing MSP (managed service provider) technology for many years and those MSP have not only been providing that co-location or hosting of virtual machine, but they have also been doing the management – the monitoring of systems, taking care of high availability, back-up, and taking care of security as well.

So, what we are seeing and hearing is that where people are moving their core business to the cloud, often citing a retired workforce, or that they just no longer want to be in the data centre business. Alternatively, they are worried about security and where their systems are physically located, particularly if they are located in a flood plain area.

It is one of those platforms where you hear horror stories where somebody lost their IBM i server because they didn't realize where it was, and they found it many years later by following the cables to the server.
One of the large pharmaceutical storage chains in the US lost their IBM i server because somebody lifted it up and put in a ceiling and they put tiles underneath it, and it was running up there – quite happily and efficiently.

Over the years, I have heard lots of little stories like that, and its all due to the high reliability of the IBM i – people just forget about where the server is physically located.

When it comes to data recall, speed is always an issue. What have you seen in the survey?

Everyone wants to get faster. With POWER 9 the processing speed was 14 nano-metres. Now they are working towards POWER 10 and there was an announcement of that chip back in August 2020 at the Processors Manufacturers conference, so we will probably see POWER 10 hardware from IBM sometime in late Q4 or more likely Q3 2022. IBM is already starting to talk about POWER 11.

Every three years, IBM has a new processor coming out with the POWER platform. This means in the same physical box, users can have IBM i, AIX and Linux operating systems each running different applications. For example, you could have IBM i running in a CRM system, AIX doing some warehousing and automation technology, and maybe Linux is running web services – all on the same physical box with the same processor. With the transition from processor 8 to 9 and now processor 10 – we see that IBM continues to add more bang for performance by adopting industry standard technologies, and we will see people like Google, and IBM itself putting it up in the cloud for managing these types of workloads.

The current family of products is POWER 9. The interesting thing here is on the low end they have a scale-out technology, often these are customers with one processor. But keep in mind that each of these boxes comes with an active processor. The same physical card might have 6 or 8 processors on it, and, by just calling IBM, customers can get an activation key so that they can turn on another processor. So, it is very virtualized, and very easy for them to do. Couple that with storage and you got an environment that you can add more storage memory, more processor and you can do that all on the fly.

What about security?

Security is the number one issue for all IT departments whether it is the audit team, the CIO or CISO, Infrastructure Manager, or the Development Manager – security should be on everyone's minds.

With IBM i the uniqueness here is security – in some regard its security has been a form of security by obscurity. It is one of those platforms that is hidden in the background running critical IT applications but because of its operating system make-up, often hackers don't know what they are getting into. Although you can run Unix applications on IBM i, at HelpSystems we do support running Unix and Linux applications on the platform – and this is often not known that the platform is very securable.

One of the things we have been doing in the marketplace over the last 15 years is that we have a free security scan. Every single day we are taking at least two of our IBM i customers through our security scan. The scan downloads onto their

system, it will run in two to three minutes, and it generates an executive level report. Then we have a few professionals on our team who will walk the customer through those findings, and say, "these are things you need to change". A lot of it will be configuration type of things, such as just getting rid of user profiles which have been on the system for the last 20 years.

Then of course, we also sell tools to solve those security areas such as file managed transfer technology, firewall technology etc.

Security to us is changing the configuration of the platform. The platform and the applications have been around for two or three decades, and in some cases they have gone through different administrators who have made little security mistakes along the way and now is the time to harden those security flaws.

None of us will ever be done securing our systems, and it is important to regularly scan to see whether things are being fixed, or something new is popping up that you weren't aware of.

Are there one or two key points that you would like to get over to our readers?

The mistake around this platform is that in eyes of many CEOs and CIOs, they look at the platform as being legacy and that it is hard to find talent to manage it. That is so far from the truth. The platform is one of the things that got them through the pandemic because their applications just continued to run – they do that with very few staff members so the total cost of ownership is something that people really need to truly understand when they look at it.

If we take, SAP HANA for example running on the platform with Linux – it is the chosen platform for SAP and their cloud for customers who are over 4 terabytes. So as your business grows and you want to have all your data in one spot, this is a really good platform for scalability.

We even see that with SAP IBM i – those are not small SAP shops – huge SAP shops running on IBM i and they love it because it doesn't take an army to run it. So it is a very cost efficient system.

Certainly there is more cost to get into it, but you are getting a database and a very reliable system– that is a big part of it.

The other part of it is that HelpSystems is here to service the platform. It is a big part of our play in the marketplace and we are here to help customers to understand the security.

One of the other things we have learnt in the pandemic is that everybody is working from home so all those manual things- have got to be automated – we can't have people having to print paper in the office. Likewise, we can't have the operator in the data centre running things manually.

One closing quote from you Tom – something inspiring for our readers

It has got to be 'lessons learned over the years'.   Working for a software company it doesn't necessarily get any easier it takes a lot of passion for what you do and really having that inquisitive mind to listen to your customers, to solve their problems by listening, and point them to solutions that are reliable and that are going to work for them. This is something that we at HelpSystems has always delivered, and I am really proud of that.

There are a lot of vendors out there who deliver vapourware. But we have always delivered real solutions for real problems for our customers – that has always been the focus here and it really makes me proud of our team and our efforts.

That along with the great customer support we provide, and the rest is history. Customers will come and do business with you time and time again. At HelpSystems, we aim to give all our customers the greatest gift – peace of mind.