Opinion Paper

DataExpress moves the data
in a secure and managed manner –
enterprises rest easy, assured data arrives
at the right place on time, and uncompromised!

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About the Author

Richard Buckle is the founder and CEO of Pyalla Technologies, LLC. He has enjoyed a long association with the Information Technology (IT) industry as a user, vendor, and more recently, as an industry commentator. Richard has over 25 years of experience with HP's NonStop platform, including eight years working at Tandem Computers followed by just as many years at InSession Inc. and ACI Worldwide.

Well known to the user communities of HP and IBM, Richard served as a Director of ITUG (2000-2006), as its Chairman (2004-2005), and as the Director of Marketing of the IBM user group, SHARE, (2007-2008). Richard provides industry commentary and opinions through his community blog and you can follow him at www.itug-connection.blogspot.com, as well as through his industry association and vendor blogs, web publications and eNewsletters.

Introduction

There's very little in common today with tried and true data processing practice of the past. Moving files between systems was often just a matter of picking up a magnetic tape and carrying it to where it was needed. In some data centers, it was as easy as picking up a box of punched cards or taking hold of several spools of punched tape and loading them into an adjacent card or tape reader that were owned by another computer. Scheduling was immediate and tracking was done with the naked eye. Security was nothing more than making sure you didn't let go of the media until it was in the right hands and managing the process was nothing more than returning with an empty box and a printout confirming the media had been read. The worst that could happen was to drop the card deck or tear the tape but there were card sorters and tape slicers readily available.

However, in today's highly networked and always-on world it's no longer a simple matter to move files. Government agencies as well as industry authorities mandate numerous reporting processes to be performed, often to very strict timetables, and the penalties levied today for failure to comply can run into the millions of dollars. In an increasingly regulated environment, when it comes to moving files, personal information needs to be protected at all times even as large sums of money are involved. Perhaps the only information being transferred is exception data but even here, other government bodies may want this data to track potential law-breaking activities.

Into this landscape came DataExpress, a company specializing in the movement of data that has been in business for many years. "It started out with Billy Whittington, CEO of DataExpress, and myself providing consulting services in the file transfer marketplace following stints with companies providing product," said Michelle Marost, President of DataExpress. "People familiar with The System Center (later Sterling Software) product Network Data Mover (NDM) may know us. In 2000, when Sterling Williams divested of his two companies (Sterling Commerce & Sterling Software), we felt that the market would be receptive to our independent technical capabilities on Sterling's system management and file transfer products. We registered a consulting company, and stared the world in the face."

It wasn't long however before the consulting role transitioned to one of selling products. DataExpress, "the 'traffic cop' at the core of a solution we had outsourced for a major credit card company,   came up for acquisition and it made perfect sense for us, as a company, to invest in the product itself," Marost explained. "In 2004 the acquisition was completed and we became the owners of two products, DataExpress for NonStop (DXNS) and DataExpress for Open Platform (DXOP). Our continued investment in the products has seen these products grow to meet the technology enhancements, requirements and demands that make for a robust product offering."

DataExpress has been a NonStop business partner for a very long time and has established a presence within the payments marketplace – Financial Institutions (FIs) are among the most burdened when it comes to providing reports to agencies and authorities.

And yet the task of moving files in a timely fashion, without fuss or friction, is still an overlooked process for many FIs, with its relevance for the business often overlooked. However, when it comes to mission-critical transaction processing on NonStop systems, moving files remains a critical consideration for all in charge of the oversight of the NonStop system. Perhaps of even more significance to theses FIs is security as nothing has grabbed as much media attention of late as fraudulent intrusions into government and business data centers and this too hasn't been missed by DataExpress. Or indeed, by other NonStop business partners with which DataExpress cooperates.

"There's no question about it, we are not a new partner as we have been in business for decades; however, what is new is that we are now upping our marketing efforts to coincide with security being the most-discussed topic today," Marost explained. "Now that the HP NonStop OS ships with comForte SSL / SSH products, this makes our life a lot easier as DataExpress interfaces with these products and in so doing, removes any necessity for us to create duplicate implementations. Leveraging the work of other longtime partners endorses both parties' development efforts and market presence and just makes sense to us. Having said that, while we are not a new partner, we continue to be innovative and have just completed an effort to fill a void in the NonStop security marketplace by developing a standalone application to invoke the GnuPG implementation in OSS, providing a Guardian based PGP solution."

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Throughout this opinion paper, references pulled from a variety of sources including feature articles, commentaries and blog posts have been used. The uptick in references to both DataExpress the company and the product reflect the growing importance of being able to safely and assuredly move files even as the demand to be supplied such information grows. For the NonStop community, DataExpress remains the only 'full service' managed file transfer option when it comes to moving files and their presence in these very large FIs is a strong endorsement of the value provided by the product, DataExpress.

The days of picking up a box of punched cards are long gone. Hand-offs that were just that, physical hand-offs to the right parties, are now nothing more than historical footnotes. Satisfying the needs of everyone for information to be provided on time and safely requires specialized software, and with DataExpress the needs of both senders and recipients are being met. Within the NonStop community, particularly those that are FIs,

the contribution DataExpress makes to sustain their ability to service their customers is especially welcomed and in the always-on world they operate, knowing their files have arrived where they are needed is all the news that they want to hear.

Moving files is necessary for every business

Even as the always-on world we all live in edges close to where every aspect of technology is tuned to responding immediately, there are always sound business reasons why there's a need to move a file rather than a constant stream of data. Stock exchanges, for instance, have embraced true 24 x 7 operations and yet, the world's largest exchanges have defined hours to trade – without a clear cut start and end time there would be no "futures market" and the exchanges would lose out on valuable revenue-generating opportunities. Moving a file on time and securely has its place and as governments turn to ever-increasing numbers of agencies involved in the oversight of business, getting a file to where it just has to go is not only important to business but often to society as a whole – everyone wants to know that the companies with which they transact business are legitimate and anchored on sound business practices.

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For DataExpress, from the time that the company moved into supporting products, the early days of convincing business of the need for their product – versus developing a tool in-house – was not an easy task. All too often, it became a situation where leaving such responsibility with a third party seemed less than desirable and yet, with time, these same businesses have seen the volume of files to be moved, as well as the diversity of destinations, escalate to the point where the presence of a third party has lessened the burden on all involved. "When we started, it was all about making sure we could move a file from one place to another in a managed way. That is, our customers could schedule a file transfer and they could track the transfer as needed and all the time, be assured that the file would arrive at the right destination and on time," said DataExpress CEO, Billy Whittington. "Our focus has remained keeping the ever-growing complexity appear 'easy' in the eyes of the user."

With the purchase of the two products, DXNS and DXOP, DataExpress found itself with two completely independent solutions – one specifically designed to run on NonStop with the other, the open implementation, capable of running on Linux, Unix or Windows (LUW). Obviously, this broadened the appeal of DataExpress to more than just the

NonStop community and yet, some of the biggest implementations are among FIs with applications running on NonStop. For these NonStop users moving files wasn't just an obligation but a necessary pursuit of strategic significance – miss a deadline and fines can pass the $1 million mark very quickly.

"Typically, what we see is customers looking at something that is a lot better supported than the commodity File Transfer Protocol (FTP)," said Whittington. While these may be useful to consumers, big business needs industrial strength implementations. As DataExpress exerts on its web site, businesses didn't build their computing infrastructure around consumer-grade motherboards, memory chips, and CPU's. Why would they then trust a home-grown, dispersed, unmanaged, unsecured, FTP-only based file transfer product? Is it really the lowest-cost option, based on the value of your business?

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When it comes to service level agreements (SLAs), are you sure your solution meets your customer's expectations? Would your CIO agree? Was it proven with an audit? Who do you call for support in the middle of the night, during a holiday or other peak transmission times, when your secure file transfer application fails? How long do you have to wait for a bug to be fixed if you run into an issue?

The soon to be delivered NonStop X family of NonStop servers (based on the Intel x86 architecture) are sure to make the usage of NonStop systems even more popular as these systems are based on enterprise-grade commodity components. "We see the value provided by HP NonStop systems being recognized among our customers. We see more interest in secure file transfer, not less, and we have a growing pipeline of features that will prove even more valuable for our HP customers down the road," explained Marost. "Our clients know that moving data securely and efficiently is critical to their business, and have trusted DataExpress to manage the process for them. Anyone can move bits and bytes between business units, customers and machines, but have you asked yourself if your business, your relationships and your reputation could survive intact should the integrity of that data be compromised."

There will be no letup in the necessity to provide information in files to interested parties in a timely and secure manner no matter what computing paradigms are embraced in the future. Indeed, with the interest being shown by business in cloud computing, there's likelihood that the need to move files will only increase should cloud computing find

greater universal appeal. DataExpress provides a working fabric that underpins the movement of information across all the systems a business may have deployed and as such, represents a crucial element in ensuring business partners, clients, regulatory agencies and industry authorities all have the information they need and for that, business can remain focused on meeting the ever-changing needs of their growing customer base.

DataExpress eases the pain of moving files

When it comes to moving files, there are a number of attributes that are important to consider. For the team at DataExpress the focus has always been on ensuring the process is fully automated and once set-up, removes any potential guesswork concerning successful transmission. This is particularly the case when there's many thousands of files involved as is the case with some of the larger users of DataExpress. "Originally, DataExpress was designed on NonStop to handle the legacy modem communications via Async, Bisync, and SNA," said DataExpress's Marost. "And today, DataExpress provides IP connections together with a full suite of encryption protocols to support current requirements for file transmissions, all in a single application." However, moving beyond the attribute of flexible network connectivity options, the other important attributes include security, manageability, ease of scheduling, and tracking.

Security:

As already noted, security has ascended to the top of the list as far as CIOs are concerned and everything that can be done to ensure the secure transfer of files is a must. The downside from any security breach is unwanted exposure to the harsh glare of the press and there's not a CIO of any major business anxious to see their names referenced in any security breach media channel – social or traditional. "This is the year of security. What I am seeing within the customer base is a recognition that you can't just pull down a security module and believe you are alright," observed Susan Raye, Senior Analyst at DataExpress. "This is our area of core competence and we continue to listen to our customers as they consider anything new that appears in the marketplace."

This sentiment is echoed in earlier commentary provided by Marost when she responded to questions about DataExpress and the attributes that differentiate the product from alternate product offerings. "I think the answer here is security, knowing where any file is at any time. Since early DataExpress customers were the banks, it was critical to know where each file was in the flow. DataExpress tracks each file as it arrives and as it is delivered."

By way of illustration of the importance of security, DataExpress' Whittington explained its importance to the company in a more pertinent manner. "'If we didn't have fraud, I wouldn't have a job,' I was recently told and it's a reflection on the state of technology today. As I look at what is in the works, I cannot ignore what's happening in the world at large. In America, we have the changes in healthcare brought about by the current administration and this is impacting healthcare providers across the nation – it's forcing the entire healthcare industry to up their investments in infrastructure, including IT. And front and center of such infrastructure upgrades is the secure file transfer of patient information. The same can be said for FIs as recent headlines are forcing even greater investments be made in chip and pin credit card offerings, we see DataExpress making a bigger security contribution behind the scenes. And of course, the sheer volume of emails that attract the hackers of this world opens the door wider for even greater opportunity for our company."

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Manageability:

As important an attribute as security has become, it's always been about manageability. "When we started, it was all about making sure we could move a file from one place to another in a managed way," said DataExpress' Whittington. "However, we also saw how many companies made the assumption that this was an easy task to complete. More often than not, when it came to implementing completely new applications, getting data to where it was needed was often overlooked until the very end of the project, oftentimes jeopardizing the entire project. Our focus has remained keeping the ever-growing complexity appear 'easy' in the eyes of the user."

When it comes to easing the potential pain that can arise when moving files between applications – in-house or to outside parties – manageability has played an important role. From the time DataExpress is installed to when it first transfers a file, the ability to set up the process to happen seamlessly and effortlessly all the while keeping those responsible for the transfer informed of its progress through to completion, has been extremely important to DataExpress.

Scheduling and Tracking:

Often considered an integral part of manageability, when it comes to DataExpress and its oversight of moving files, the additional capabilities that come with DataExpress are worth calling out separately. "Another feature that differentiates DataExpress from other products is our scheduling and tracking," explained Marost. "This is especially important for financial data with Service Level Agreement (SLA) requirements where the penalty for failing to meet SLAs has a direct financial impact to your bottom line. You need to know exactly where the data is at all times and our product can reach out to you if it isn't where it should be, at the time it should be there."

Just recently, DataExpress wrote in the January 2015 issue of the eNewsletter, Tandemworld, that the ability to "set and forget" is just one major benefit that comes with using DataExpress to manage the movement of these files, safely and precisely at the time mandated. No slip-ups by operators and no missed deadlines by business managers – once configured and the requisite triggers set, it will all happen automatically with confirmations for each and every file moved created to meet the needs of the business's auditors.

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When you consider all the additional capabilities that are included as part of DataExpress – from operating in either a client or server mode, pushing or pulling files, to tracking the progress of files moving through the transfer process, it's clear that experiences obtained over the years has contributed significantly to what is provided today. "Whether a customer wants a completely automated process that requires little further input from the line of business managers or a transfer that prompts operators every step of the way, it's really all up to the customer as to exactly the level of DataExpress engagement in the scheduling and subsequent tracking any movement of files required," added Whittington.

Multiprotocol:

There are other important attributes too that contribute to the success of DataExpress. In particular, there are businesses that potentially aggregate multiple files sourced from numerous business partners that arrive via one protocol even as they must be presented to yet another party in an entirely different protocol. According to Marost, "DataExpress also allows remote sites to send in data using one method and deliver the data using another. For example, the remote can send data to DataExpress using HTTPS, with DataExpress forwarding the data to the backend host via SSH. In this case, the backend host does not need to be able to handle HTTPS, DataExpress provides the single point of entry with the internet and limiting the site's exposure to the outside world.

Having DataExpress implementations that run on NonStop as well as on LUW systems also plays into the multiprotocol story – and for very important reason. Often times, while originating on a NonStop system, the files may leave the business via an entirely different platform. "The original DXNS runs on the NonStop platform and has provided a reliable gateway for data transmissions for over 25 years. However, with more and more IP traffic, security departments are requiring traffic to flow through a DMZ site rather than directly to the Nonstop," was how Marost explained such protocol transitions. "This is where our DXOP product bridges the gap. DXOP runs at the DMZ, via a Secure Gateway, as well as behind the firewall, where files are securely stored and forwarded to the Line of Business for processing."

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MultiPlatform:

Not to be ignored (and increasingly a very important attribute, for the reasons explained above), the ability to install variants of Data Express on platforms apart from NonStop is further contributing to the success of DataExpress. "When we bought DataExpress we added instant customers essentially overnight and just as other vendors working with primarily Financial Institutions (FIs), we were impacted by the frenetic Merger and Acquisition activities of the past decade," Marost explained. "But even as some customers were consumed by others we were still able to add new customers."

Furthermore, "with the experience we had and with the knowledge we

accumulated from our consulting days, we were well positioned to build a lot of add-on features that we introduced into the install base. These were all aimed at supporting different customer requirements, but the choice of platforms, NonStop and Open Platforms, and their role within the data center / network dictated that we maintained different products. While NonStop anchors our development we have successfully deployed DataExpress on open platforms including Linux, Unix and Windows. With as much talk as these days of the benefits from building hybrid computers around NonStop, having the extra flexibility of selecting where DataExpress runs only adds to the benefits that come with DataExpress. We see more interest in secure file transfer, not less, and we have a growing pipeline of features that will prove even more valuable for our HP customers down the road!"

All of these very important attributes of DataExpress confirm that in the interests of making sure that securely managing the moving of a file between two systems, disparate or otherwise, is the business of DataExpress. Certainly, "anyone can move bits and bytes between business units, customers and machines," as it has already been observed but making sure that you have "asked yourself if your business, your relationships and your reputation could survive intact should the integrity of that data be compromised" is core to DataExpress winning the business it has to date.

Looking to the future, customers can anticipate seeing more

Through the years, NonStop systems have evolved to embrace different chipsets and different clustering fabrics. With the announcement of the NonStop X family and the continued support of the deep POSIX port, known as the OSS personality (and separate to the Guardian personality), the opportunity to support products not originally targeting NonStop systems has increased considerably. The ramifications for a longtime NonStop partner, such as DataExpress, are significant as they have a number of product features that were only available as part of the open platform product, DXOP.

"Clearly, what we are doing now that excites us has to do with the world of email," said DataExpress' Raye. "Society in general and business particularly, has become over-reliant on email attachments. DataExpress Open Platform (DXOP) now has two new components, DXOP Impulse and DXOP Interceptor. DXOP Impulse is where we started – giving users a browser-based ability to identify files to be distributed to one or more recipients via HTTP and where emails are automatically created, notifying intended receivers. However, in consultation with our customers, this led to DXOP Interceptor which allows businesses to control email attachments."

It seems only logical that files attached to emails would come to the attention of DataExpress as they need to be subject to the same security, and indeed overall management, as we expect of any other file being moved to another system. "Yes, our

latest addition provides for secure handling of email attachments, an area of high security risks today. Everyone has spam filters on their incoming email, checking for junk or malicious intent, normally unbeknown to the average corporate user, yet nobody has that type of filtering silently protecting their outbound attachments – until now," said Marost. "DXOP also provides for ad-hoc file transmissions: you enjoy the security and tracking capabilities of standard DXOP jobs without the requirement to setup an individual job each time you need to send files securely. And yes, the source files can originate on NonStop systems and leverage the presence of DXOP as a front-end satisfying all the needs that security oversight requires today."

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As of right now, the attention of DataExpress is very much focused on ensuring DXNS supports NonStop X and work is ongoing to complete the validation testing program that the arrival of NonStop on the Intel x86 architecture mandates. The expectation by DataExpress is that this validation will be completed in time for the general availability of NonStop X, which is expected to take place mid-March, 2015. However, once this program has been completed, DataExpress is giving serious consideration to testing a DXOP implementation running under the NonStop OSS personality and should that prove successful then all the features available with DXOP will become available to NonStop users.

"For any vendor there is considerable advantages to be had supporting just a single code base," Whittington told me in a recent exchange. "Whether this will be possible with DataExpress has to be ascertained, but obviously, our hope is that the compatibility and indeed the performance are at levels we believe should be possible." Given the length of time they have been in business and the experience that they have had with multiple NonStop systems over the past several decades, DataExpress has every chance of making this transition to a single code base and with such a transition, the NonStop community will have access to even more functionality. And with a single code base, it's highly likely that the team at DataExpress will be able to provide businesses with even more features to better integrate the secure, managed, movement of files throughout the enterprise.

Conclusion

There's very little about the way files were moved in the past that remains relevant today. Files may still have names as they always have had, but everything else has changed. In today's networked, always-on, world where business is performed at the speed of light, files can be moved in an instant and yet, the need to move files on time, securely and conforming to a recipients protocol requirements has made the choice of product very important – the contents of files is critical to the ongoing ability of any business to continue in business. Every bit as important too is the appreciation of the truth that indeed, anyone can move bits and bytes between business units, customers and machines, but at what cost? As DataExpress knows all too well, have you asked yourself if your business, your relationships and your reputation could survive intact should the integrity of that data be compromised!

DataExpress NonStop is a server-based application for automated file transfer management designed to run on the HP NonStop platform. As of today, this robust solution enables customers to schedule, route, format and securely transfer business-critical data over the Internet and private networks including networks running legacy WAN or LAN protocols. DataExpress links to legacy systems and will bridge to current technologies while supporting mission-critical transmission needs, including data security, reformatting and data validation services. All the while, providing tracking services to better inform all those involved of the status of each and every file being moved.

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DataExpress has been a NonStop partner for a number of decades and for all that time, kept investing in each family of the NonStop systems as they have become available. And that investment hasn't lessened with the years as has been demonstrated with the work being done by DataExpress to support the latest addition to NonStop – the new NonStop X family of NonStop systems. Yes, anyone can move bits and bytes but have they the track-record with some of the largest FIs on the planet to support their marketing sound bites?

Perhaps the best summary of all came from DataExpress' Whittington. "For us, what really makes it an interesting area to be working in and why we are seeing a renewed interest in our company has to do with the sum of all the little things we have done to

protect the data within the files our customers have to move. Whether it is a bank transferring sizable sums of money or a medical center passing on patient records, no business wants to have the data compromised nor do they want to find out that the file simply disappeared," Whittington acknowledged. "And here's where I see NonStop systems having a distinct advantage that is a reflection of the maturity you find in their operations center." At some businesses, so many files are being moved to so many locations that mature oversight would be impossible without an automated product like DataExpress.