Your playbook for creating a winning Data Transmission Service

How to transform your data transmission department and drive greater value to your business

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Introduction: Take your best shot

Transform your data transmission department. When you grow into a Transmission Service – as opposed to simply being an IT function – your team gains new respect and influence as you bring increased value to the business.

Understand what might be holding you back

Normally, the primary goal of any data transmission department (or file transfer, or network operations, etc.) is to move large batch files between different systems for processing. And since transactions and other data in the files represent significant revenue, the role of your team in helping to ensure delivery is critical. The problem is, moving files and helping to ensure delivery, is getting tougher every day.

Failures, delays, can have serious financial impacts

And there are other hurdles. More files are headed for more places, on different platforms, each with varied automation and scheduling mechanisms and requirements. High profile security breaches intensify concerns about security. And lack of visibility is forcing IT staff to spend resources tracking down problems at the same time that they are being asked to do more. Which leads us to yet another challenge.

Today's "on-demand" customers expect higher levels of service

They insist on lower failure rates and shorter time to resolution. They want self-service tools that allow them to track their files. And all of these expectations are being quantified in detailed service level agreements (SLA), with penalties for missing the commitments.

Leading IT departments are becoming service oriented

Think of service-oriented architecture (SOA), enterprise service bus (ESB), and Web services as trends that point to the direction IT is headed. Today's winners are upgrading their file transfer department into a Data Transmission Service. Or they plan to do so in the near future.

Use the "Playbook" and begin your transformation now

Flip through it, check out the plays – the order is not critical – and then get moving toward that goal.

Play 1: Act like a business

Challenge

Your department is viewed as a cost center
Some do not see the entire picture, which shows that data transfers are absolutely critical to the success of the business. You might find yourself in this spot if you fail to provide the metrics that can demonstrate your true value to the organization.

Smart play

Act like a business
Set your objectives, document your mission, track your contribution, and communicate your value.

A successful Data Transmission Service provides valuable services to both internal and external customers. This requires a clear understanding of key business drivers. It also demands that you be ready to demonstrate the ways you can deliver value:

- Achieve economies of scale throughout the enterprise
- Provide functionality that otherwise would be unaffordable, or has not been thought about previously

Look to ITIL (IT Infrastructure Library)
This proven model is the place to start. ITIL can support you with solid information on how to define and organize data transmission technology as a service. For more information about ITIL, check out http://www.itlibrary.org

Define the scope of the service, mission statement and vision
Show your organization that a Data Transmission Service delivers value that can be measured.

Take these steps
- Define, track, and publish your key metrics. (Like percentage of transmissions that are successful, number of transmissions per time frame, mean time to resolve exceptions)
- Quantify the cost for the service you provide, whether you bill-back or not. (Cost per transfer, or kilo-character)
- Consider peer and VAN benchmarking to demonstrate you can provide service more cost effectively than anyone else
- Document all incidents and outages along with associated costs
- Track where your people resources spend their time
- Encourage your entire team to strive for consistent process refinement (reduce unnecessary steps and bottlenecks, create standard processes, and identify new efficiencies)

Know what to track
Understanding what to look for is critical. Brainstorming can produce a long list of choices, but these are a few of the key metrics you can track:

- Percent of file transfer success to total volume
- File transfer volume
- SLA success performance
- Cost per transfer

Monitoring metrics electronically
When it comes to SLAs, if you cannot capture and monitor metrics electronically with your current systems, it's important to understand how much investment would be required to do so. This is important for two reasons: first, it affects the efficiency of the process; second, a significant investment to enable capturing a metric could actually increase the cost of the service.

Evaluating metrics
You should also evaluate each metric to ensure that it does, in fact, make the service better. For example, you might originally identify a metric that a file transfer occurs within a fifteen-minute window. That metric is valid and is measurable, but does it ensure that the service meets expectations? What if the transfer was supposed to arrive by 5 pm but doesn't hit until 5:20 p.m. – even though the transfer itself occurred within the 15-minute window? In this example, you would have met the SLA criteria, but the customer would be dissatisfied. Reevaluating the criteria, it would be better to identify the metric as the transfer being completed by a certain time.

How IBM can help

We make it easier for you to talk business to the business audience

The language of business is more than the "speeds and feeds" that most IT managers are comfortable with. IBM can help you to delivery solid business value so that you:

- Improve customer and internal SLA performance, which improves customer satisfaction and retention
- Protect privacy and integrity of data in transit, whether internal or over the public Internet
- Say "yes" to customer requests to support their protocol or automation options
- Handle growth in volumes, connections, and size without increasing staff

Play 2: Define your products

Challenge

Some say your service is too expensive

You're meeting resistance because of cost issues, or maybe some believe your offering is the same for every transfer. Most believe that FTP is free, not seeing the people cost required to get it running and keep it running.

Smart play

Define tiers of service to better demonstrate value

Set clear expectations…Publish the workflow and the commitments associated with each.

When your colleagues grasp the true worth of the Data Transmission Service offering, they will no longer consider it too expensive. You know the value you deliver. Show them.

Publish file delivery tiers

By categorizing your transfers you can then define different expectations, costs and technology choices for each tier.

Here is a way of mapping the various factors by tiers:

	Critical	Process	Edge
Security	High	Medium	Medium
Automation	High	High	Low
SLA	High	Medium	Low
Audit ability	High	Medium	Medium
Process integration	Medium	High	Medium
Timeliness	High	Medium	Medium

These factors can help show that all transfers are not alike, and that you are treating them accordingly.

Show key players how it works

Make certain that the people who matter have a clear understanding of what's in the mix:

- **Security.** When it comes to file security, one size doesn't fit all. How critical, how vulnerable, is the file transfer in question? You've got choices to make.
- **Automation.** If the file transfer doesn't occur on a regular basis, it might not make sense to spend time setting it up for automation. So ask yourself, will this file transfer be repeated often, or is it ad-hoc?
- **Committed service levels**. You should determine if there is a business process or SLA connected to the process that this file transfer is a part of. If there is, you'll not be treating it as a mundane transfer.
- **Audit ability.** If there is a chance you could be asked to prove that the file transfer actually occurred, who the parties involved were, or how long it took, you'll need controls for compliance reporting.
- **Process integration.** If the file transfer is involved in integrating with another application, is there transformation that will need to take place? You should know about any handoff processing or monitoring that is required and treat it accordingly.
- **Timeliness.** You'll want to know if time is a factor. For example, if it involves financial information, speed and timeliness is probably an important consideration. Other transfers don't need to be moved to the front of the line.

IBM® Managed File Transfer Benefit Calculator is a tool to keep handy as you are building an ROI case.
www.mftbenefit.com

Another way to categorize file transfers

Do your "customers" think all file transfers are created equal? They're not. Here's one way to categorize file delivery into tiers and make the distinctions clear.

- **Critical Transfers.** This "business critical" category includes SLAs. Here, both success and failure can be measured in dollars.
- **Process Transfers.** This tier involves integration with distributed platforms and applications – this is where automation, transformation, or process is key.
- **Edge Transfers.** These B2B file deliveries involve standard protocols, ad hoc, or operator initiated transfers.

How IBM can help

We can help enable you to define standard offerings

IBM® Managed File Transfer portfolio is not just a single protocol or one size fits all point product. Our solution provides multiple deployment and configuration options to handle core and edge transfers to allow you to provide:

- Automation for predictable, repeatable transfers
- Insulation for legacy systems against changes in infrastructure, protocols and technology
- Options for system consolidation, especially for edge transfers – because when you standardize/consolidate, you gain economies of scale in efficiency that can have significant impact on the success of your business

Play 3: Be more than a provider. Become a valued partner.

Challenge

File transfer problems are escalating

Your department is perceived to be a roadblock, and people are beginning to point fingers.

Smart play

Give customers what they need, before they know they need it

Become an expert in your customer's business and proactively help them become better at what they do.

Be proactive. Provide customers with the services, tools and procedures that have real value. Get started by defining and establishing organizational standards. If your security team has set encryption standards for customer data, you can now implement, enforce and make it simpler for departments to comply. By using your experience to anticipate problems in areas such as setup, compliance and escalation, you can provide solutions that fit the business requirements for a specific project.

Set up a Center of Excellence for file transfer

This is an important step toward your goal to become more service-oriented, and it can take many forms – from an informational Web site to a project-oriented service desk.

Your Center of Excellence can help you reduce complexity, define classes of transmission, provide users with templates for automation, and use naming standards. (Make it a goal to be able to tell everything about a transfer, just by looking at the name.)

Organize this resource early so that you can address file transfer needs across the organization. This is so important, it's worth saying twice: If you want to become a partner, provide value early in the process.

Offer self-service tools for testing, reporting, and tracking

When you give end users the right tools, they gain the capability to do their own testing, reporting, and tracking. For example, they can experiment to see if their code logic is working – and without the need to call someone else for assistance.

Provide defined escalation procedures

By fully defining the class of transmission, you're also laying out the escalation procedures. With this approach, there's no need to negotiate every little detail with a customer – you negotiate which class of service they want, and that class of service inherits all the other characteristics.

Capture/use ROI metrics

Your customers need to build a business case. Assist them by capturing and making available key ROI metrics across projects and for Data Transmission as a whole. This can help them justify the budget and ask for it as a part of their project funding.

Seek out and remediate substandard transmission processes

Eventually, transmissions that are not covered by your group will fail – but you'll have to support them whether you own them or not. Take advantage of an opportunity to identify potential problems, and fix them before they actually disrupt processes. This includes identifying other non-managed transfers that will fail, for similar reasons, in the future.

Strive to reduce the complexity

What business needs is a file transfer architecture that reduces the overall complexity in the environment and at the same time provides better visibility, auditability, and control. And the reasons why are clear.

Different FTP products across numerous platforms create a complex operating environment. It's not only unwieldy, but it's next to impossible to gain visibility into the huge number of files traversing the organization. FTP activity can typically only be determined by using rudimentary tools to view individual log files that contain a significant amount of "noise."

If you want true enterprise management of FTP, you've got to have a central access point to manage the numerous FTP servers and tools to view activity, performance, and capacity. Sure, each project team can write some scripts to automate the FTP that came with the operating system on their project server. But what happens when that application goes into production and the team moves on to the next project? Who can troubleshoot, monitor, and keep the transfers from failing?

This represents a huge organizational challenge: If you are to succeed, you've got to have clear visibility into all of your FTP processes.

How IBM can help

Take the field with an enterprise wide file transfer solution

IBM Managed File Transfer portfolio is an enterprise-wide file transfer solution that can help you:

- Enable common integration methods across multiple platforms or applications
- Enable line of business departments to see and control their file transfers
- Gain central management and control of user roles and responsibilities
- Promote self-service for common customer inquires and file transmission setup

Play 4: Differentiate your service

Challenge

No central transmission facility
Every department is doing their own thing…Security audits are failing.

Smart play

Offer enterprise-wide visibility
Provide high availability…Centralize audit and governance reporting… Develop a security strategy.

Implement central management and monitoring

If you are to build a convincing ROI case for your data transformation service, you'll need to start tracking, categorizing, and documenting problems and successes.

By identifying what works, you can then replicate the processes. This calls for a central management and monitoring capability, plus excellent visibility into line of business areas.

Define a security strategy and enforcement mechanism

How do you make sure transfers are safe? You'll need a solid security strategy and enforcement policy. Here are some tips:

- No hard coding credentials in scripts
- Offer encryption options for every class of transmission
- Capture audit trails
- Ensure perimeter security (at the DMZ)
- No storage of data in DMZ

There is no overstating the importance of security. And if you have the strategy defined and the right tracking tools, you can help all departments stay secure and in compliance. Take the initiative and keep your organization up to date on key requirements.

Document your backup-disaster recovery plan

If file transfers are business critical, you should have backup and disaster recovery plans. Pretty simple. But are your current measures enough?

How IBM Commerce can help

IBM provides the tools to help you differentiate your service, which demonstrates your value
Using solutions from IBM, can help you:

- Improve
  - Internal and external customer SLA performance
  - Enforce policy and control configuration changes for file transfer infrastructure

- Provide
  - Timely and accurate audit trails and reports for monifodsx file transfer activity
  - Verification of the success or failure of file transfer

- Ensure
  - Protection of privacy and integrity of data in transit whether internal or over the public Internet
  - Leveraging of your existing security infrastructure for file transfers

- Reduce or eliminate
  - Status inquiries so you can concentrate on the exceptions
  - Log searches to resolve transfer exceptions

Play 5 : Know your customers

Challenge

Customer needs are difficult to predict
Sometimes you are blindsided by new requests, in other cases you hear the same requests over and over…Or you offer new capabilities that no one uses.

Smart play

Know your customers
And this starts with their business processes.

Understand the big picture

Knowing your customers – and how they conduct business with their internal and external customers – is crucial to your success. Of course you'll want to understand the business process that the file transfer is part of, but you should also learn about the business drivers behind their requests. This involves asking "why" more than once.

Get involved early

Find a mechanism that requires business users to go through you (rather than around you) early in the design process. One way is to take responsibility for the procurement and provisioning of new file transfer software. Now users will be required to go through your team for new products and license keys, which means you'll be aware when new software is put up. You'll also benefit by having users to go through you to get pre-designed configurations that conform to policy and guidelines.

Show them how to handle growth

Growth in volumes, number of connections, and size of files can represent hurdles to your customers. Show them how you can help them handle growth without adding staff or allowing service levels to decrease. Back it up with your metrics (you're keeping metrics, right?). What's more, by keeping up with their growth, you'll gain their trust as the infrastructure can better support them.

And finally, you can keep up with emerging solutions or technology advancements from file transfer vendors, and pass those improvements on to the Line of Business. For example, let them know about IBM® Sterling File Accelerator that transfers large files as much as four times faster than TCP on the same high-speed line (*see reference 1*).

Prioritize and communicate service roadmaps

Give users an overall plan to integrate improvement across the IT organization. In this way, you can help align IT to the business, plus realize the ROI everyone is counting on.

Extend your offerings to provide innovative capabilities

It's about continuous improvement and offering your customers more of the services that will help them do their jobs more effectively. Find out what they need, then help them get it. As you become a trusted adviser, you'll be asked how to address challenges like transformation, integration, and how to incorporate special process decisions on the data.

Advertise and sell your capabilities

Simply having the capabilities is not enough. You have to make certain people know what you have to offer. And it's up to you to communicate your capabilities to all levels of organization. A bottom-up communication approach is usually more effective than top-down in getting the word out.

How IBM can help
IBM can help you say yes
Sterling Managed File Transfer portfolio can help you:

- Reduce onboarding timeframes for new file transfer partners
- Handle customer requests to support their protocol or automation options
- Support increased file transfer volume

- Support increased size of files from digitization
- Relieve congested message buses, ESBs and e-mail systems from large file handling
- Reduce transfer timeframes for critical transfer over high speed lines
- Provide value-added services, rather than just passing them onto another group
- Decrease cost of custom IT scripting

Bring It All Together

Sterling Managed File Transfer portfolio

Solution	Description
IBM® Sterling Connect:Direct®	Sterling Connect:Direct is the point-to-point file transfer software optimized for high-volume, reliable data delivery of files within and between enterprises. It supports a well defined API that supports multiple clients, across multiple platforms (mainframe, midrange, and distributed) for reliable transfer of information. Sterling Connect:Direct also provides advanced security features for file transfers including industry standard strong authentication and data encryption technology. Used by application developers, programmers, and business users.
IBM® Sterling Connect:Direct® FTP+	Command line replacement for FTP scripts that uses the Sterling Connect:Direct protocol to talk with a Sterling Connect:Direct Server (z/OS, UNIX, and Windows). FTP+ also provides a graphical user interface similar to an FTP client, and can help add greater reliability to transfers without changing existing FTP script based integration. Used by application developers, programmers, and business users.
IBM® Sterling File Accelerator	Sterling File Accelerator diminishes the effect of network latency on large file transfers for more efficient use of your existing large bandwidth line. The result is transfer speeds up to four times faster compared to TCP/IP on the same high speed line (*see reference 1*). Sterling File Accelerator works as an alternate transport for our leading Sterling Connect:Direct file transfer solution. Used by application developers, programmers, and business users.
IBM® Sterling Control Center	Sterling Control Center is a visibility and management solution for managing file transfer activity across your entire file transfer network including Sterling Connect:Direct, IBM® Sterling B2B Integrator, and FTP servers. Sterling Control Center provides centralized monitoring and management for improved quality of service, and compliance with service level agreements. Sterling Control Center provides alerts, notifications, proactive monitoring, and consolidated reporting and metrics of file transfer activities, and easily integrates with Enterprise System Management (ESM) solutions. For Sterling Connect:Direct servers it also provides a common and centralized interface for managing and auditing configurations. Used by IT help desks, Operations staff and business users.
IBM® Sterling Secure Proxy	Sterling Secure Proxy is an application proxy to help secure file transfers across the Demilitarized Zone (DMZ). This allows companies to safely use the Internet to move business critical files using a variety of file transfer protocols including Sterling Connect:Direct, FTP, HTTP, and SSH. Multi-factor authentication, protocol inspection, command filtering, and session break are key capabilities provided by Sterling Secure Proxy for securing B2B file transfers. Sterling Secure Proxy integrates with both Sterling Connect:Direct and Sterling B2B Integrator. Used by application developers, programmers, and business users.
IBM® Sterling File Gateway	As an application within Sterling B2B Integrator, the file transfer capability is designed to consolidate disparate centers of file transfer activity and facilitate the exchange of file-based information with partners and customers securely, in any format, via any protocol and of any file size, over the internet. With its advanced community management, extensive communication-channel support and business process management, Sterling File Gateway facilitates rapid partner onboarding and end-to-end visibility for file movement in a security-rich framework that enables B2B expansion

Final Words: Let's get busy

Data transmission departments are in a battle for budget and relevance in the new "Service-Oriented" IT arena. This playbook provides both process and technology moves that can help you transform your data transmission department into a world-class Data Transmission Service.

Your team, your processes, and your technology will get you to the goal line. Refer to your playbook to get everyone working together. Then take another step in the right direction. Turn to IBM for the expertise, the technologies, and the track record to help you succeed.

IBM

References:
1 Accelerating File Transfer over high-speed networks – 2008 IBM Sterling research study.

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