



GXS Corporate-to-Bank Connectivity

Going-It-Alone May Not Be The Best Strategy

Corporate treasury departments are facing extraordinary challenges on a global scale—literally. In addition to one of the toughest economic climates ever faced, they struggle with credit lines, cash flow forecasting, hedging currency and interest rates, risk management, emerging markets, and corporate-to-bank (C2B) connectivity.

A Treasury Management System (TMS) helps companies with making the right decisions, but is only as good as the data it can access. For example, optimized treasury decisions require real-time data on cash positions, interest and exchange rates, payables, and receivables. If a company's C2B connectivity is not flexible, the TMS may not get all the information it requires to be effective.

Corporations may choose to limit their bank connectivity to a popular standard, or they may choose to support other standards or build custom connections using in-house capabilities. The latter is a problem whose complexity is compounded by the number of bank partners used and the evolving transaction standards that those banks—or their countries of origin—require.

Add to that the technologies needed to deploy C2B connectivity standards, and the skills and expertise required to successfully manage those technologies and standards, and you have a very difficult problem to solve and manage. It's no wonder that corporate-to-bank connectivity is so complex.

The risks to treasury could be higher costs, lost flexibility, inability to work with the bank of choice, or lost opportunity from slow business processes. C2B connectivity is complex, and solving it successfully depends on a number of factors. A closer examination of the complexity-causing issues will help to shed light on the optimal solution to the C2B connectivity problem.

Standards: Moving Targets

Famed computer scientist, Andrew Tanenbaum, once satirically noted that, "The nice thing about standards is that you have so many to choose from." Corporate treasuries managing global businesses and supporting multiple connectivity standards have learned the bitter truth of this statement.

If corporate treasuries have relationships with dozens of banks, they most likely manage multiple integration standards, each with its own structure and rules. However, if polled, most treasuries would favor minimizing their bank connections.

Banks too have found it problematic to offer and manage the variety of connectivity standards requested by corporations. Consider how the bank consolidation that has occurred over the decades has put a burden on banks to support a myriad of standards for corporate customers inherited through acquisitions of competing banks.

CHALLENGES MULTIPLY WITH DIRECT CONNECTIVITY

Cost

- Maintenance costs for each interface
- Less staff availability for other projects

Standards Complexity

- Inflexible file format options
- Lack of ERP integration
- Limited Internet protocol support
- Rigid security policies

Operational Constraints

- Difficult to switch or add banks
- Performance and capacity constraints
- Lengthy implementation times
- Limited knowledge of corporate ERP
- Varying capabilities across geographic regions

Lack of Integrated Interfaces

- Reconciliation challenges
- Limited cash visibility
- Disparate interfaces per bank product line

Standards are being driven by the needs of each country and bank system, and the treasuries of global corporations are struggling to keep up. According to the PwC Treasury Survey 2012, “Undertaking treasury management effectively in such jurisdictions is complicated by the need to manage processes according to each country’s regulatory requirements and potential operational infrastructure limitations.”

The PwC report further noted that, “Given the focus on cash in today’s business environment, treasurers also face the need to maximize the visibility and control of cash and liquidity, on a global basis. Aware of the difficulties of achieving this in emerging markets, treasurers surveyed rate this as their single largest challenge.” It should be no surprise that so many standards evolved as a result.

Popular Standards

When evaluating which standards to adopt, corporate treasury departments must identify the standards that are supported by their ERP or TMS software vendor, and by their partner banks. Some ERP and TMS vendors support a mix of messaging standards including BAI2, EDIFACT, EDI, SWIFT FIN and SAP IDoc messages.

While your treasury vendor may be flexible, your financial institution may not be. An important secondary consideration is what standards your banks support. If your primary cash management banks cannot send or receive ISO 20022 XML, then you may want to stick with EDI or traditional SWIFT FIN messages.

SWIFT, probably the most well known standards body, provides a messaging platform and a number of message type standards that help its members to make their financial transactions more secure and reliable.

However, SWIFT is not a panacea for corporate-to-bank connectivity. For speed and convenience, many banks offer their own connection methods, and some countries have been choosing other standards over SWIFT. For example, Germany and France have expanded the use of the Electronic Banking Internet Communication Standard (EBICS).

Another standard, the Single European Payment Area (SEPA) standard, which is used in the European Union, seeks to improve the efficiency of cross-border payments by making them simpler and less fragmented.

The International Standards Organization (ISO) is a multi-part international standard prepared by ISO Technical Committee TC68 Financial Services. It describes a common platform for the development of messages using:

- A modelling methodology (based on UML) to capture in a syntax-independent way financial business areas, business transactions and associated message flows
- A central dictionary of business items used in financial communications
- A set of XML design rules to convert the messages described in UML into XML schemas, whenever the use of the ISO 20022 XML-based syntax is preferred.

“The nice thing about standards is that you have so many to choose from.”

MULTIPLE FINANCIAL SERVICES STANDARDS

- ISO 20022 XML
- NACHA
- BAI2
- SAP IDOC
- ORACLE
- Microsoft Excel
- SWIFT MT/FIN
- UN/EDIFACT
- ANSI X.12
- Proprietary formats

“SWIFT is not necessarily the only choice for every situation.”

If history serves as a guide, the changing global business environment and the proliferation of new regulations will only increase the number of relationships—and subsequent standards—that a corporation will need to manage.

Solving the Complexity Problem

“The significant problems we face cannot be solved at the same level of thinking we were at when we created them.” — Albert Einstein

Solutions to complex systems problems are seldom found in technology alone. For example, C2B connectivity problems are solved with a combination of technology, experience, and the right skills. Corporations should evaluate their existing technologies, experiences, and internal skills, in order to determine how best to solve their C2B connectivity problems.

Analysis of the problem may reveal gaps in technologies or skills needed to solve the problem. For example, given the demands of a corporate treasury department, one could see how the company’s internal IT resources could quickly become scarce.

“...many corporate treasuries may not have the time or resources they need to manage their C2B connections.”

Furthermore, the skills needed for such complex corporate-to-bank connectivity requirements are not easy to locate, and may come at a premium cost.

Corporations try to strike the right balance between the simplicity of a single standard and the flexibility of accommodating any standard that a particular bank may require. It is probably safe to say that no single standard will work for a global business model.

Corporations that have expertise using multiple standards will be more flexible and able to conduct business more efficiently, rather than adapting to a single standard. However, the cost of this flexibility may mean multiple connectivity platforms, redundant personnel, and expensive skills that may go underutilized. Given the amount of change occurring in banking connectivity, many corporate treasuries may not have the time or resources they need to manage their C2B connections.

For these companies, working with the right partner makes the most sense for their businesses. The right partner, in this case, provides the right combination of technologies, experiences, and skills that ensure that the corporation can be successful managing its core business without being burdened by direct management of its C2B connectivity.

When evaluating C2B connectivity partners, corporations should focus on key attributes of those partner companies, including the history of success, expertise, technologies used, and services offered. The following table offers more detail on those attributes.

Attributes For C2B Connectivity Partners

Attribute	Reason
History of success	Success is not just a destination—it is a journey. A successful integration partner should have a history of growth and expansion within their area of expertise. They should have a customer list that shows a history of being chosen over and over.
Integration expertise	While C2B standards change, they share a common DNA composed of technologies, protocols, and best practices. A strong integration partner will have core teams with the right expertise to manage these evolving standards.
Services—The right C2B connectivity partner’s services will include:	
Implementation and Support	The right C2B connectivity partner should include a full range of services, including those that help to implement system changes like the onboarding of a new bank. They should also be available for C2B connectivity support 24/7.
Activity Monitoring	Your partner should actively monitor your C2B connectivity infrastructure and bank transactions in order to identify, troubleshoot and resolve exception transactions.
Availability and Continuity Services	A cloud-based C2B connectivity partner should provide all the day-to-day systems maintenance, including network administration, database operations, and backups.
Technology—The right C2B connectivity partner should provide the following technology infrastructure:	
Protocol Management, including FTPS, SWIFT, EBICS, VPN, SFTP, and FIN	The right C2B connectivity partner will provide technology that allows for the management of a variety of protocols so that you can focus on your core business.
Mapping and Translation	Mapping and translation technologies are key to a treasury’s ability to connect their ERP and TMS to banks using a variety of standards.
Workflow and Event Triggers	C2B technology infrastructure should include workflow and trigger logic that provides flexible automation of existing processes and communication of milestones and exceptions.
Reports	Like workflows and events, technology that supports strong reporting allows companies the flexibility needed to automate their existing processes. Strong reports also provide the decision-making capabilities needed by treasury managers.
Security and Encryption, including firewalls, ports, SSAE 16 Type II, ISAE 3420, and the physical attributes of data centers	<p>“Security, like correctness, is not an add-on feature.”—Andrew Tanenbaum</p> <p>Any core business system must have powerful security safeguards to ensure its integrity. The right C2B connectivity partner will provide the strongest security infrastructure available.</p>

BENEFITS OF IMPROVING CORPORATE-TO-BANK CONNECTIVITY

- Improve straight-through-processing
- Optimize cash flow
- Improve working capital
- Monitor global liquidity
- Achieve enterprise treasury visibility
- Reduce operational risk
- Enhance regulatory compliance

Putting It All Together

C2B connectivity is a lynchpin component of the corporate treasury, especially for companies that do business globally. Many companies are upgrading their TMS to take advantage of functionality that enables them to better manage their cash and risks, and allow them to be more competitive. Current and planned C2B connectivity should also be evaluated at this time.

By choosing a C2B connectivity partner, organizations can speed the onboarding of new banks, minimize their risks, gain valuable expertise, and lower costs. GXS wants to be your C2B connectivity partner.

GXS has the expertise and infrastructure for your toughest requirements, and through its products and services offers a one-to-many bank connection solution that supports all your standards, including BAI2, EDIFACT, EDI, SWIFT FIN, ISO 20022 XML and SAP IDoc messages. This lets you concentrate on your core business and know that your C2B connectivity partner can keep you ahead of changes in standards, and discover and resolve issues before they become critical.

Why GXS?

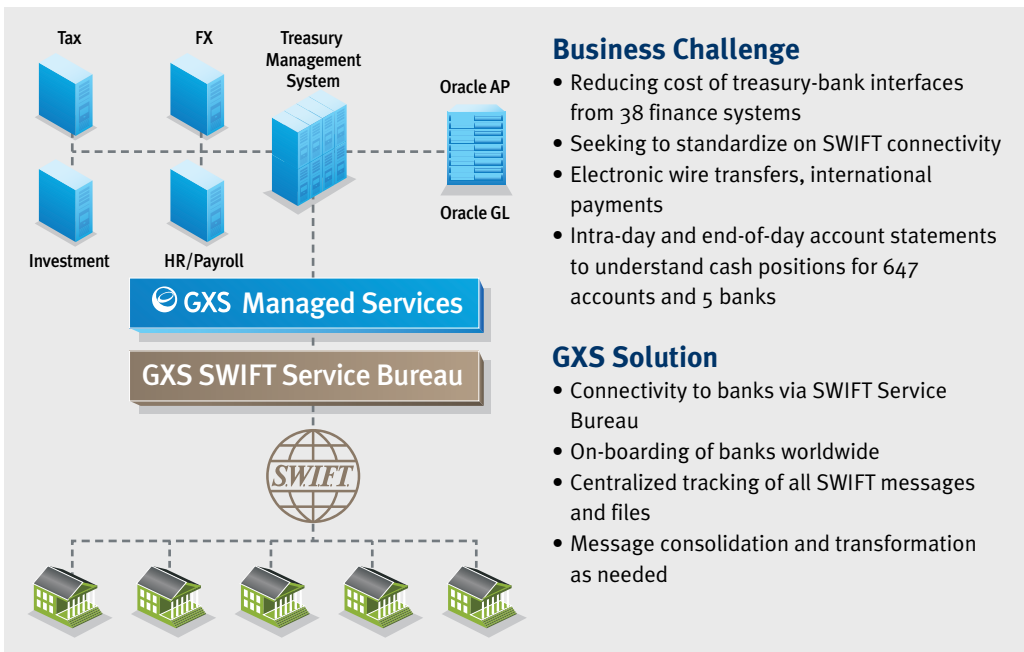
Financial services is one of GXS's fastest growing industry segments as a growing number of treasury managers, commercial banks, insurance firms, payment processors and global custodians seek to enhance the flexibility and agility of their integration capabilities. GXS offers cloud-based services that simplify how corporations connect to their banks and other counterparties. GXS typically reduces not only the cost and complexity of client delivery, but also helps accelerate speed-to-market and time-to-revenue.

GXS provides a wide array of products and services for corporate treasury management including solutions that address business-to-bank integration, SWIFT network connectivity, Enterprise Resource Planning (ERP)/Treasury Management Systems (TMS) integration, payment visibility and invoice automation. To learn more about GXS solutions for financial services, visit <http://www.gxs.com/b2bank>. For additional resources, information and education about the complexities of corporate-to-bank connectivity, visit <http://www.corporatetobank.com>.

GXS Use Case Scenarios

GXS has maintained a leadership position in financial services and other industries because of its combination of technologies and integration expertise. Its C2B connectivity solutions offer the most flexible, scalable, and secure transactions. GXS has been chosen by a number of global corporations for their most demanding integration requirements.

Consider the case of a global high technology manufacturer with specific requirements aimed at helping them optimize their bank connections. This organization decided to standardize on SWIFT. They decided that GXS Managed Services with the GXS SWIFT Service Bureau gave them the best chance for success.



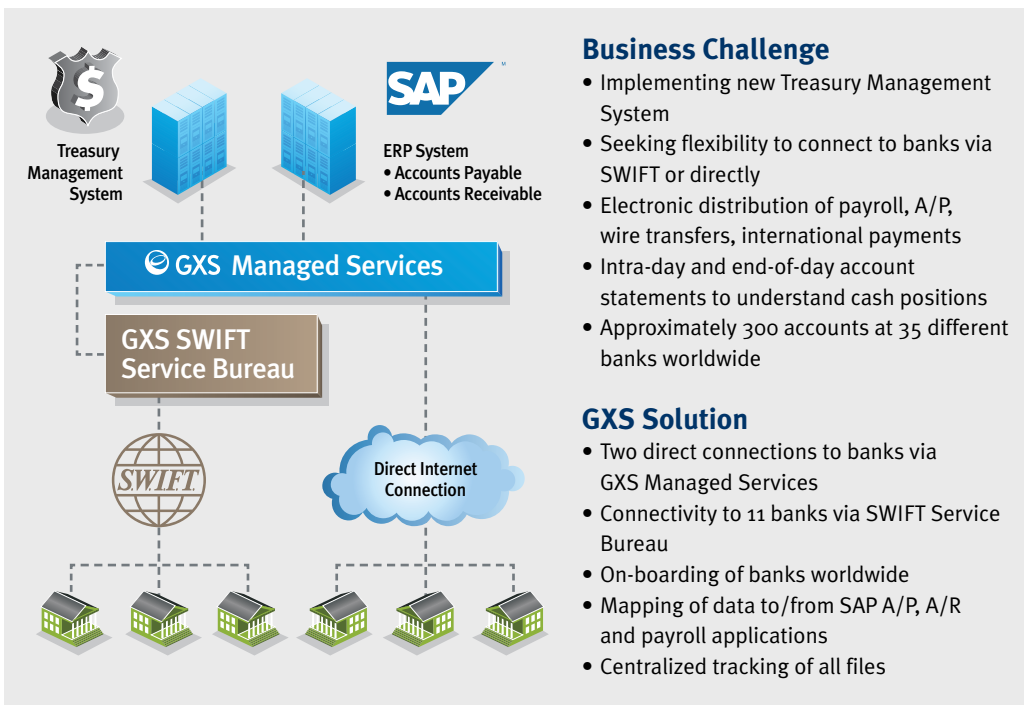
Business Challenge

- Reducing cost of treasury-bank interfaces from 38 finance systems
- Seeking to standardize on SWIFT connectivity
- Electronic wire transfers, international payments
- Intra-day and end-of-day account statements to understand cash positions for 647 accounts and 5 banks

GXS Solution

- Connectivity to banks via SWIFT Service Bureau
- On-boarding of banks worldwide
- Centralized tracking of all SWIFT messages and files
- Message consolidation and transformation as needed

After evaluating their options, many organizations decide that a combination of standards offer them the most flexibility for their treasury operations. Here is an example of a multinational manufacturer that also decided to use GXS Managed Services along with the GXS SWIFT Service Bureau for all their supported standards.



Business Challenge

- Implementing new Treasury Management System
- Seeking flexibility to connect to banks via SWIFT or directly
- Electronic distribution of payroll, A/P, wire transfers, international payments
- Intra-day and end-of-day account statements to understand cash positions
- Approximately 300 accounts at 35 different banks worldwide

GXS Solution

- Two direct connections to banks via GXS Managed Services
- Connectivity to 11 banks via SWIFT Service Bureau
- On-boarding of banks worldwide
- Mapping of data to/from SAP A/P, A/R and payroll applications
- Centralized tracking of all files

Glossary

EBICS: The Electronic Banking Internet Communications Standard (EBICS) is a communications protocol used to transfer data from machine to machine i.e., between the customer's treasury management systems and the bank's processing systems. EBICS was developed by the ZKA (German joint banking authority) and implemented in Germany and France to replace the aging FTAM and ETEBAC X.25 protocols retired on June 30, 2012.

EBICS is an Internet-based protocol and enables the exchange of all types of domestic files (e.g., CFONB France, DTAUS Germany) and ISO 20022 XML files. The protocol is highly secure and ensures mutual authentication between the actors, data encryption (HTTPS) and sealing of files. Apart from Germany and France, large banks in countries like Switzerland and Austria are already supporting the protocol and additional EURO zone countries are expected to adopt the protocol.

BAI2: The BAI2 file format (preceded by BAI1) was developed by the Bank Administration Institute (BAI) as a cash management balance reporting specification. In 2008, the BAI transferred copyright ownership of the BAI file format to the Accredited Standards Committee X9, Inc. (ASC X9). ASC X9 has developed a next generation standard called the Balance Transaction Reporting Standard (BTRS).

EDIFACT: UN/EDIFACT (the United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport) comprise a set of internationally agreed standards, directories, and guidelines for the electronic interchange of structured data, between independent computerized information systems.

EDIFACT is widely used across Europe, mainly due to the fact that many companies adopted it very early on. EDIFACT has seen some adoption in the ASPAC region; however, there are currently more XML based standards being used in this particular region today.

ISO 20022: (International Standards Organization) is a multi-part International Standard prepared by ISO Technical Committee TC68 Financial Services. It describes a common platform for the development of business transactions and associated message flows.

SAP IDoc: SAP IDoc stands for intermediate document and is a standard data structure for electronic data interchange between application programs written for the popular SAP business system or between an SAP application and an external program. IDocs serve as the vehicle for data transfer in SAP's Application Link Enabling (ALE) system.

SWIFT: The Society for Worldwide Interbank Financial Telecommunication (SWIFT) is a member-owned cooperative through which the financial world conducts its business operations with speed, certainty and confidence. More than 10,000 financial institutions and corporations in 212 countries trust SWIFT to exchange millions of standardized financial messages. This activity involves the secure exchange of proprietary data while ensuring its confidentiality and integrity.

SWIFTNet, SWIFT's Internet protocol-based messaging platform, enables financial institutions and corporations to securely and reliably exchange financial messages and files using three primary messaging types:

- **Financial Messages:**

- FIN is a message transfer based store and forward system used by corporates for liquidity and risk management purposes. These messages are traditional SWIFT MT standards (e.g., MT101, MT940)

Further information about SWIFT FIN Message types can be found at <http://89.145.74.220/resources/financial-services-file-formats-and-document-standards/swift/>

- MX/ISO 20022 is a newer SWIFT message standard using an XML format based on ISO20022. ISO 20022 or Universal Financial Industry (UNIFI) message scheme is the ISO Standard for Financial Services Messaging. The ISO 20022 scheme includes five financial business domains: payments, securities, trade services, cards and foreign exchange.

Further information about SWIFT MX/ISO 20022 Message types can be found at <http://89.145.74.220/resources/financial-services-file-formats-and-document-standards/swift-mxiso-20022/>

- **File Transfer:**

- FileAct: Transfer of files such as bulk low-value payment files, check image files, daily information reporting, image statements or other operational data MT/FIN.

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About GXS

GXS is a leading B2B integration services provider and operates the world's largest integration cloud, GXS Trading Grid®. Our software and services help more than 400,000 businesses, including two-thirds of the Fortune 500 and 22 of the top 25 supply chains, extend their partner networks, automate receiving processes, manage electronic payments, and improve supply chain visibility. GXS Managed Services, our unique approach to improving B2B integration operations, combines GXS Trading Grid® with our process orchestration services and global team to manage a company's multi-enterprise processes. Based in Gaithersburg, Maryland, GXS has direct operations in 20 countries, employing more than 2,400 professionals. To learn more, see <http://www.gxs.com>, read our blog at <http://www.gxsblogs.com>, follow us on Twitter at <http://twitter.com/gxs> and join us on LinkedIn at <http://www.linkedin.com/company/gxs>. You can also access our public filings with the Securities and Exchange Commission at <http://www.sec.gov/edgar.shtml>.