

Sinking a lot of money into a black hole

ASP
to the
rescue

Systems for capturing energy trades, keeping track of financial positions, and managing risks have always resided in-house—and not just because they are mission-critical. Until the Internet became robust enough to serve as a software distribution channel, there was no alternative. Users could either build or buy. Those who chose not to roll out their own risk management system had to endure a lengthy, costly, and painful process of system selection and implementation. Over time, this process—which carries risks of its own—came to be considered a universal and necessary evil: sinking a lot of money into a black hole.

Application service providers (ASPs) now offer the functionality of such systems via the Inter-

By ANNE KU

RISK MANAGEMENT TOOLS

Energy traders have an insatiable need for speed. Because their trading and risk management applications must always be state-of-the-art, they must be upgraded frequently. One way for a trading firm to shorten the time between upgrades is to outsource the delivery of its risk management tools to an application service provider via the Internet. But that approach requires an energy trader to scrap a legacy system in which it has invested heavily

net on a “pay as you go” basis. ASPs attract four types of firms that trade in or buy energy: those still relying on spreadsheets for deal capture and risk tracking; companies that make energy transactions infrequently, such as industrial firms and small utilities; energy trading entities whose homegrown legacy systems can no longer cut the mustard; and companies in all categories that are curious about the new approach, but want to “try it before buying it.”

Ready for prime time

Since the Internet was embraced by the business world, ASPs have been improving on the ability to deliver applications instantly from afar. Last year, ENERGY IT, a sister publication of GLOBAL ENERGY BUSINESS, tersely cited the salient reason that energy companies should now consider outsourcing

The ASP model represents a paradigm shift in the concept of software distribution—from that of a product to that of a service

their computing needs: “The ASP model represents a paradigm shift in the concept of software distribution—from that of a product to that of a service.” In practical terms, the approach has two main benefits: flexibility and speed. It lets companies rent rather than buy applications (making it less risky to try out potentially attractive but unproven strategies), and it makes possible quick fixes to problems that previously required time-consuming projects to solve.

The financial sector was one of the first to recognize the benefits of the ASP approach. For commodities traders, it has represented a way to free themselves from the hassle and expense of maintaining client/server trading and risk management systems. This trend hasn’t been missed by the suppliers of such systems. In February 2000, on the Web site DerivativesStrategy.com, it was reported that “derivatives software vendors are frantically transforming themselves into ASPs in order to offer their high-priced client/server packages to a wider user base.”

Energy traders will be pleased to know that a similar evolution will undoubtedly occur in their industry—in time, and over the dead bodies of incumbent risk management software vendors that persist in resisting it. There are three good reasons for believing the paradigm shift will take place: the sophistication of risk-management functionality needed by energy traders is on a par with that needed by commodities traders; fiscal trends in the energy industry follow those proven to work in the financial world; and—most important—someone, eventually, will give customers what they want.

The need for speed

In these days of cell phones and instant

messaging, the adage, “Time is money,” rings more true than ever. Yet, paradoxically, energy traders are accustomed to waiting months, if not years, for a new risk-management or trading system intended to make them more productive and responsive to market changes. Meanwhile, some traders have to put up with in-house help desks that seem to spend more time logging their requests than fixing problems.

The ideal solution to the productivity/responsiveness problem would be a risk management system that is fully functional, scalable, instantly upgradeable, supported 24/7, and intuitive to use. But does such a solution exist?

In energy trading, there’s a new

urgency to get risk management under control, explains Phil Inje Chang, president of San Francisco-based e-Acumen. Big traders can afford to build in-house, or purchase large systems that their vendors continuously enhance. But by going the ASP route, even smaller players can gain access to high-performance risk-management tools, and without paying a big upfront fee or waiting years for them.

Chang observes that one issue that has been of some concern to people considering the ASP approach to risk management is security. Energy traders are understandably sensitive about moving their portfolio data outside their internal network. For this reason, e-Acumen’s AcuRisk product is not currently available via the ASP route—but similar analytics are available for trading-decision support in AcuPower, where the emphasis is on bringing external market intelligence into the trading floor. Chang believes his company will eventually offer the

Systems selection for in-house implementation: A long and costly process

Sales cycles for client/server risk management systems range from three to 12 months, depending on whether the selection process is informal (selected vendors are invited to give demos) or formal (a request for proposals is issued, and demos follow). Implementation projects can run from six to 18 months, depending on the complexity and level of integration, says Jill Febowitz, service director at Boston-based AMR Research. According to Terry Ray, vice president, Energy Information Strategies, META Group, Westborough, Mass., the average time to implement a client/server system is seven months, and the average system age is 3.3 years.

The cost to roll out a system can easily be twice that of the vendor’s upfront fee, and price tags of five times the fee are “not rare.” Ongoing maintenance cost are easily 18-20% of the license costs.

On third-party-vended products, one

risk manager said bluntly that “such investments are never less than \$100 million for a large implementation.”

According to Trent Gall, senior manager and technology service line leader for global energy markets, Deloitte & Touche LLP, Alta., Canada, cost and time frames are highly dependent on the complexity of the trading portfolio—such as the number of products and number of markets—and the required capabilities—risk management, power scheduling, gas scheduling, integration, etc. Although it is difficult to generalize, the selection and implementation of an energy trading and risk management (ETRM) system for an average trading organization can be completed in 12 to 18 months for between \$2 million and \$5 million. If successful, the ETRM system will reduce the reliance on desktop tools (Microsoft Access and Excel) and move corporate information to a more secure and robust platform.

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whole package on a rental basis, because security—like beauty—is in the eye of the beholder.

Leveling the playing field

As Chang hints, the advent of risk management via ASP is serving to mitigate the size disadvantage that constrains smaller energy traders. Others in the know agree. Raj Mahajan, co-founder and president of New York-

based Kiindex, recalls that when he was trading for Goldman Sachs, his smaller clients often had access to far less information than their larger counterparts. Kiindex's ASP product Risk Workbench is undergoing a beta test by a cross section of corporate energy end-users and utilities.

This lopsided situation is one in which even large companies that dominate their industry may find them-

selves when they venture into the energy jungle.

When they do, big energy consumers—such as chemical manufacturers, pulp and paper firms, food processors, and airlines are primarily interested in hedging, and hedging is a task that doesn't require a trading/risk management system as sophisticated as those of large energy trading houses. By turning to an

What to look for in an ASP risk management system

Because hiring an application service provider (ASP) to deliver energy risk management tools is a new approach, it's understandable that consultants, vendors, and users see the process differently.

Blake Pound, a partner with Accenture's energy practice in Houston, lists five important criteria for users to ponder before hiring an ASP:

- **Client base.** Are the prospective ASP vendor's customers in the energy business? How many customers does the vendor have? If it's too many, a startup's resources may be overtaxed and you may find it difficult to get much attention. If it's too few, you may end up teaching the vendor about the user end of the business—not a good idea.

- **Scalability.** The ASP software needs to be able to grow with your transaction volume. Industry analysts, such as Forrester Research and others, report that software restrictions are among the main reasons hindering customer growth.

- **Integration.** Is the software easy to integrate with in-house enterprise systems? Has the vendor done such an integration before?

- **Support.** As markets evolve and new types of transactions are invented, the software has to evolve with those developments. Don't ask about how well the software meets your current requirements, but rather about whether it will be able to satisfy your anticipated needs. Also bear in mind that if you do electricity trading, you'll need 24/7 support.

- **Quality.** Does the vendor have a reputation for releasing software that works? The vendors quickest to evolve

with the market release new upgrades sooner. But in the software business, doing it right is more important than doing it faster. Mission-critical software for trading and risk management must be free of bugs, stable, and of high quality.

Karan Renjen, vice president of power trading systems at Triple Point Technology, Westport, Conn., offers a different perspective on what users should look for in trading and risk management systems. He calls "must haves" the following three technical features: an open, scalable architecture to facilitate integration and customer growth; asynchronous data entry capability to allow traders to multitask; and real-time passive updating, which allows traders to see how dynamic changes in positions affect the company's overall portfolio.

Renjen adds that electricity trading imposes more stringent requirements on risk management systems than do oil and gas trading. Electricity trading is more detailed, localized, and fast-paced, and typically requires more transactions and the handling of much more data. Older systems have had problems coping with the flow, and enabled traders to handle data only in blocks, forcing them to resort to averaging. Newer systems, Renjen explains, let traders manage prices on an hourly or even sub-hourly basis, and even give them the ability to manage forward pricing for an unlimited number of years.

As traded products become more complicated and varied, old model assumptions may no longer hold. A former interest-rate options trader,

Michael Sigman, now executive director of Houston-based Capstone Global Energy LLC, says that he's never come across a modeling environment as challenging as the current one for energy in general and electricity in particular.

Because ASP software is built on newer technology, it may have some advantages relative to older, traditional vended systems. Many well-known vended products were ported to power from other traded markets with simpler or more standardized characteristics. Many of those systems have grown quite large and making changes can prove very difficult. But Sigman has yet to see software that incorporates options and other elements of a portfolio—such as customer contracts and real assets (including how to value storage and transmission contracts)—into a single unified consolidated risk framework. Before you decide on a system, you need to define your portfolio and modeling framework, he advises.

Experienced risk managers realize that you need to look at the entire picture. "A big question for those looking for a risk management system is how to define the boundaries of the system," says Don Winslow, vice president of mid office for Portland (Ore.)-based PacifiCorp Power Marketing, a non-regulated subsidiary of Scottish Power. "Does it include scheduling and back office? No vendor can deliver everything." It is his experience that the greatest diversity arises in scheduling, not in risk management. The risk issues may be mathematically complex, but the mathematical/risk problems are common across the globe.

A trader's dream come true

Not long ago, the founders of New York-based Sakonnet Technology, an energy risk management application service provider (ASP), empathized with the frustrated and dissatisfied traders at JP Morgan. Sakonnet's CEO Thurstan Bannister, who was a former interest-rate and currency swaps trader, recalls missing several good trades because JP Morgan's system couldn't capture them. He complains that, "Systems often constrain traders from playing markets. They can be intensely annoying—a necessary evil at best and a nightmare at worst."

To traders, time is among the most precious of commodities. They resent having to stay late as the trading system struggles to spit out meaningful position reports. They want to run analytics in real time. They can't stand the uncertainty of vendor upgrades, or the wait for them to be installed. In short, Bannister says, the biggest problem with today's trading and risk management systems is that

they can't keep up with the pace of business.

At JP Morgan, Bannister dreamed about the ideal system, one which doesn't cost an arm and a leg, has 24/7 support from an expert rather than a help desk, and can be programmed to handle various products and markets. Then, he and some of his IT-savvy colleagues got together to build such a dream machine. Called Xenon, it is now in its third release, speaks both Java and XML, and is either delivered to clients via the Internet or installed as an application on their intranets.

Sakonnet's first client was the London-based energy derivatives trader Francis Cicoli-Abad. After specifying his requirements for gas options, Cicoli-Abad received the beta version of Xenon's first release within six weeks on a trial basis. Four months after that, he got the production version and became a paying customer. Because management of Cicoli-Abad's company had already committed to a client/server system which would not

be customized or implemented for a while, the trader convinced the executives to let him use Xenon as a stopgap measure. A year and a half and some 30 software upgrades later, Cicoli-Abad moved on to another energy trading firm. But the team he left behind is still using Xenon. And at his new company, he is Sakonnet's first return customer.

Cicoli-Abad explains that what impresses him most about Xenon is Sakonnet's responsiveness. The ASP's experts effectively became his virtual trader support and development team through telephone and on-line chat sessions. But that doesn't mean he discounts the daily impact of the system's performance. Traders can't afford to lose even 10 minutes a day sitting on positions that include options, whose prices change constantly. Xenon's real-time scenarios solve that problem, and in the process provide a dynamic risk management capability that Excel and other spreadsheets must dream about when they sleep.

ASP, a big energy buyer/hedger can gain immediate and affordable access to tools that are just as powerful.

When to hold, when to fold

The short phrase "turning to an ASP" belies the complexity of the decision to do so. It's fairly easy to move to an ASP if you're currently using spreadsheets for risk management. But if you rely on an expensive system in which you've invested a lot of time, money, and effort, the decision to make the transition can be a painful one. Different disciplines use different terms to describe the issue under consideration. In economics, it's called sunk cost. In accounting terms, it's a write-off. Traders call it stop loss.

What complicates this decision, which in an ideal world would be made solely based on economics and time (see box, p. 13), is that it must also reflect a consensus of the trader's front office, mid office, IT, and

other departments. Corporate politics all too often rears its ugly head.

Ashley Abbott, vice president of financial engineering at ForwardVue Technologies, Austin, Tex., witnessed the frustrating politics along those lines in her previous position as a managing director at a top-tier energy company. "Because you have so many conflicts of interests, you end up choosing the system that compromises the least rather than achieves the best results." She hastens to add that, in her opinion, risk management by ASP is still a work in progress. "Sure, there are now plenty of third-party [non-ASP] vendors, but few offer everything a large company needs. [As a consequence,] there's really no such thing as a pure build or buy. The result is always a hybrid and you have to commit to doing both. People get hung up on details of requirements and documentation, and that has a death spiral effect on productivity."

Some incumbents defend their turf

Because it still takes so long to customize, integrate, and implement a hybrid risk management system, many vendors of client/server applications are waiting to see how the ASP field evolves before offering their functionality on a rental basis. As you might expect, these vendors are not shy about voicing their skepticism of ASPs' ability to deliver sophisticated risk management "over the wire."

For example, asked whether he sees an ASP model in his company's future, Coleman Fung, president of New York-based OpenLink, replies, "OpenLink has the technology and the tools to provide ASP-based services, but doesn't see any real market demand for them [yet]. If demand reaches critical mass, OpenLink can introduce these services fairly quickly. However, many trading-oriented energy firms view managing their internal trading and risk management sys-

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'People get hung up on details of requirements and documentation, and that has a death spiral effect on productivity'

tems as strategic and critical. The biggest demand for ASP-based services will probably come from large energy consumers—such as industrial firms and smaller utilities. However, we haven't seen much along those lines so far. Perhaps low-end products are currently addressing the needs of these companies."

Blake Pound, a partner with Accenture's energy practice in Houston, explains the reluctance of incumbents to convert their existing products to the ASP model. He says that because the incumbents' current revenue models are based on licensing and selling maintenance, support, and consulting contracts, moving to a subscription-

based model or one based on transaction volumes would require a strategic change in mindset.

However, Pound adds, the incumbents could develop ASP versions of their software if the market demands it. But self-interest isn't all that's preventing them from doing so. Technical and security questions about ASP have yet to be resolved. For example, energy traders with growing trading volumes require scalability (see box, p. 14), a capability that current ASP offerings haven't demonstrated. The integration of enterprise systems with a risk-management platform hosted half a world away could serve up some unpleasant surprises. And, as men-

tioned, making the Internet the door to sensitive corporate data is still perceived as a bad idea on its face.

Others go with the flow

Not all vendors of energy risk management products are bucking the ASP trend. In the first quarter of next year, Houston-based KWI plans to offer Web-based components that will operate in concert with the company's flagship product, kW3000. Along similar lines, Stamford (Conn.)-based Trade-Capture has adapted its client/server architecture software to work with a browser-based ASP model.

Matt Frye, the company's chief marketing officer, says that Trade-Capture charges customers two kinds of fees for using ICTS-online: a minimal, one-time set-up charge and a fee based on transaction volume. If required, customization is charged for on a time and materials basis. He segments the current market for energy risk management solutions according to customer size. If you're big, you probably need a client/server system, but you might do well to experiment with an ASP product hosted in-house on your intranet. If you're small, risk management tools hosted by someone else are more apt to satisfy your requirements. The "size of the customer's IT staff" has usually turned the scales in favor of the client/server version. Looking forward, he sees that both large and small companies are leaning more toward a Web-based solution at this point.

Pros and cons of using an ASP



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Someone else:

- Purchases, installs, and configures the software.
- Maintains the system and is responsible for uptime and reliability.
- Is responsible for software upgrades, versions, and integration.
- Performs the required data backups.
- Has to hire, train, and supervise IT personnel to do all of the above.

ASPs make sense when:

- State-of-the-art functionality and responsiveness to market changes are critical.
- Management wants to maintain company focus on core competencies.
- Management wants to avoid spending on software and IT staff, but have access to the latest technologies as well.

References

Theo Mullen, E Source, Boulder, Colo.: "Application Service Providers (ASPs)—Not for All Energy Service Providers (ESPs)," October 2001. *Energy Insight Today*, October 2001, "Utilities Slow to Buy into ASP Market"



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Some concerns:

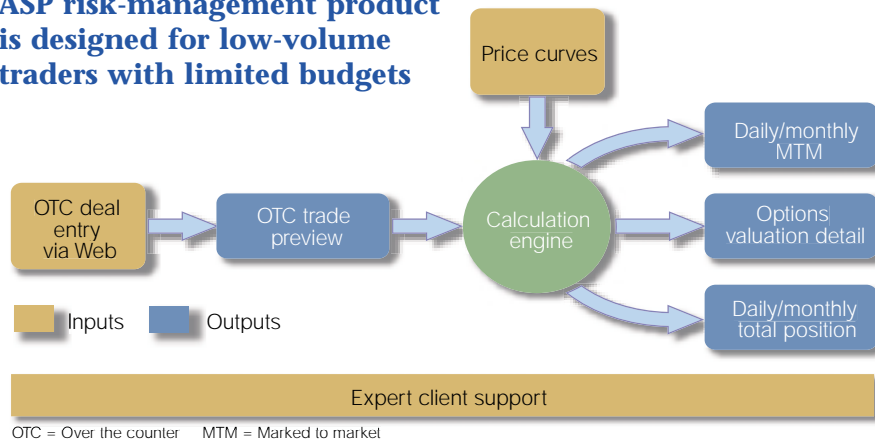
- The ASP market is new and unstable; vendors may disappear.
- No cost saving or additional revenue possibilities.
- IT department may resent use of ASP.
- Customization costs too much, and some customization is almost always required.
- Anxiety over data security.
- Lack of knowledge transfer from ASP.

Things to watch out for:

- ASPs may not be able to perform to claims.
- Scalability.
- Don't short-cut service-level agreement—ask tough questions, demand specific answers.
- Define rules on data ownership, access, and liability before deals are signed.
- Credit risk: What if the ASP goes out of business?

The integration of enterprise systems with a risk-management platform hosted half a world away could serve up some unpleasant surprises

ASP risk-management product is designed for low-volume traders with limited budgets



Selling to competitors

Incumbent software vendors are no longer alone in pioneering the market for energy risk management by ASP. Just as some utilities developed customer information systems for internal use and then began selling them on the merchant market, some energy companies have begun offering Web-based tools developed in-house to their competitors.

Two such companies are Houston-based Enron Corp. and Aquila Inc., Kansas City, Mo., an unregulated subsidiary of UtiliCorp United. Since

it too has entered the risk management ASP arena. The company's Risk180 product (see figure, above) costs investor-owned and municipal utilities, energy aggregators and marketers, and large industrial firms upwards of \$6,000 a month to use. According to Vice President Jennifer Fisher, potential customers for Risk180 are typically low-volume traders who use spreadsheets to manage their energy transactions, and do not wish to buy or build an expensive system to do deal capture and portfolio valuation. Developed jointly with SunGard Trading and

A big attraction of the ASP model is that it allows a company to 'test drive' risk management tools without having to sink millions into a system for hosting them

1999, the former has been marketing its EnergyDesk.com service in the Nordic wholesale electricity market, where it was first used to stimulate competition and liquidity and facilitate trading of non-standard power products. Many of the trading companies, industrials, and generating and distribution utilities that began using the service years ago have since signed up as well for Enron's RiskDesk, an ASP product that permits them to actively manage their risk exposure.

This August, Aquila announced that

Risk Systems, Risk180 currently handles only gas transactions in the U.S., with daily and monthly reporting. Support for electricity trading and real-time reporting capabilities will be added later.

Fisher sees Aquila's ASP offering as having two primary values: the human service behind the software, and access to the price curves of the top five energy marketers. She says the company's more than 100 mid-office experts can help clients who don't know how to decompose risks or interpret risk

exposures. And while the software doesn't reveal the marketers' forward price curves, it does mark the clients' trades against them, providing more accurate information about their marked-to-market positions.

How to do a test drive

A big attraction of the ASP model is that it allows a company to "test drive" risk management tools without having to sink millions into a system for hosting them. More ASP vendors are playing up this advantage. For example, New York-based Sakonnet Technology (see box, p. 15) offers a three-week free trial period and claims that trial users almost always sign up. Since this summer, five clients have agreed to "rent" their ASP solution.

Prospective renters would be wise to do much more than kick the tires. ForwardVue Technologies' Ashley Abbott suggests that customers ask the vendor to test a portfolio with complex physical structures and see how fast they are able to figure it out. She remarks that anyone can do financial products because money is fungible, but in energy it's the physical side that's difficult. For example, can the software and support services handle the different value added taxes imposed on gas transactions by different European countries? And do the vendors have the market knowledge to translate a pipeline structure as the pipe snakes from market to market?

Maintenance and upgrade issues

Abbott also advises checking how intrusive system maintenance is to the customer's business. An ASP solution should be inherently less intrusive than a client/server system because the former can be upgraded electronically; there's no need to send someone to each desk with a disk. Likewise, version control can be done remotely and unobtrusively.

Aside from their superior flexibility, ASP risk management solutions hold no edge on client/server systems where integration and upgrading are



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Given how quickly wholesale energy markets are changing as retail competition is introduced worldwide, the instant upgrading feature of ASP solutions may be too compelling to ignore

concerned. Accenture's Blake Pound explains that changes to data models resulting from technology upgrades could break integration with in-house systems if they are done without advance warning.

Follow the money

What's stopping companies that trade or buy energy from taking the plunge into ASP-sourced risk management solutions isn't their features; it's their underlying economics. A recent report from Boulder (Colo.)-based E Source, a unit of Platts (see box, p. 16), on the subject urges prospective subscribers to determine a realistic return on their investment beforehand. "Just as leasing an automobile can ultimately be more expensive than buying . . . the initial cost is usually much lower than any other alternative, but an ASP may cost more in the long run."

However, given how quickly wholesale energy markets are changing as retail competition is introduced worldwide, the instant upgrading feature of ASP solutions may be too compelling to ignore, even if it adds to the approach's cost. After all, while it may make sense to hang on to that old car if all it does is get you around town, who wouldn't invest in a new model if it will be driven competitively?

In addition to advising potential outsourcers to vet the ASP provider's finances, the E Source report also suggests two ways to make the transition process less painful. One is to determine exactly what internal problem needs to be fixed before approaching an ASP. It's obvious that that's something to which Nor-

way's national energy giant Statoil gave considerable thought; in the end, the company decided to go the ASP route for its U.K. gas desk, but only as a stop-gap measure as it implements a new, client/server risk management system.

The second suggestion in the E Source report is to build a partnership more intimate than the typical vendor-customer sort with your ASP. Again, learn a lesson courtesy of Statoil. One of its traders worked with Sakonnet Technology to develop the functionalities for managing gas options risks that the company's ASP solution would need to have. Now, having moved on, he is an evangelist for ASP at his new firm. ■

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