



*Delivering personalized  
banking services*

## Virtual agents: The new value proposition

### Introduction

The term “customer centric” has evolved into a virtual mantra for companies in the new economy. Yet many executives in the financial services industry are quickly learning that it takes more than technology—CRM software, fast servers and an online presence—to become a truly customer-centric organization. It also takes time, money and people. Because of these inhibitors, highly personalized service has typically been reserved for select groups of high-end clients.

Now, with the help of virtual-agent technologies, companies can significantly extend these services—and their resulting value—to a broader set of customers. Agent technologies can interactively track the habits and needs of each customer, research market and service offerings on the Internet, and execute the most appropriate transactions. Throughout this process, the agent serves as “trusted advisor” and consumer advocate—recommending and anticipating decisions and negotiating with suppliers to secure the best terms for each customer.

The tools to enable these technologies are already in place. Today’s agents, which focus primarily on optimizing the buyer process and strengthening customer empowerment, represent “version one” of tomorrow’s customer-centric models.

## Virtual Agents



### *Theoretically speaking*

In theory, virtual agents have the potential to automate traditionally high-end services like discretionary asset management and financial planning, which demand professional expertise and careful administration. Although there are many automated processes available to today's floor traders and account managers, the majority of these are "standalone" tools that require the user to manually integrate the data and results. What's more, none of these tools are accessible to the end user/client.

Imagine a Virtual Private Banker™ that uses virtual agents to deliver private banking services (once available only to the wealthy) to the broad middle market, at a much lower cost. The Virtual Private Banker manages a full range of financial products—including investments, insurance, lending and tax planning—on a single, consolidated platform that oversees each customer's finances across many products and providers.

The Virtual Private Banker combines a series of modular agent services, each assigned to a different task or product area, such as "virtual investment management," "virtual credit management" or "virtual risk management," for example. The "virtual investment manager" acts as a trusted third party responsible for overseeing an individual or household investment portfolio. The "virtual investment banker" performs a number of interlocking functions that together track and manage a customer's investments. These functions encompass:

- Gathering and displaying a consolidated view of the customer's portfolio across all financial providers
- Maintaining accounting information, such as profit and loss statements, for the purposes of tax preparation and financial planning

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- Providing recommendations on how to best allocate assets and manage risk, based on each customer's risk tolerance, financial attitudes and goals
- Rebalancing the customer's portfolio and optimizing the execution of all trades by comparing multiple sources of liquidity in the market
- Providing filtered and prioritized information on investment topics of particular interest

The virtual investment manager model can only work if the capabilities of the agents and the interests of the customer are fully aligned. This means that the agent must be able to serve as an independent advisor, supported by a multi-provider Web platform that seeks out the best products and services available.

For financial services organizations, this model offers several advantages:

- The company manages each customer's full investment portfolio and receives a steady stream of fee income, even if much or all of the portfolio consists of other suppliers' products.
- These capabilities can be supported with an appropriate level of human interaction at key points in the process.
- The business incurs the lower costs of a Web-based delivery infrastructure—while delivering better service to more clients.
- Services provided by the agent can serve as the foundation for building durable and defensible customer relationships.

## Virtual Agents



### *Early progress*

Over the past five years, the online financial services sector has experienced rapid evolution. The virtual investment management model no longer seems foreign or far-fetched; indeed, the online brokerage industry is already moving in this direction. Having started as a low-cost platform for stock trading, online trading has quickly matured into a diversified, multi-provider investment platform that allows investors to research and buy a wide range of financial services. For example, Charles Schwab and Fidelity Investments are two online trading firms that now give investors access to powerful investment tools and market information, including branded third-party research, market analyses and investment alerts. Investors can analyze their holdings and evaluate specific investment decisions.

A number of online trading firms have developed partnerships with a wide range of financial providers, including online mortgage banks, consumer credit companies and insurers. Although the trend has been to assemble “best of breed” providers from different product areas, this approach does not take into account the customer’s per-

spective of “best of breed,” which is dependent upon their personal assessment. Consequently, online trading firms are gradually developing multi-provider platforms that offer customers access to a number of different providers and product areas, plus the power to make decisions based on their own criteria.

Over the last year, online investment firms have started to offer “account aggregation” services, such as those provided by Yodlee.com and OnMoney.com. These services consolidate each customer’s financial accounts and assets from different providers onto a single balance sheet. Customers can track and manage their complete financial portfolios as a whole, with a platform for developing investment analyses and financial planning tools.

These capabilities, plus the forging of third-party partnerships, have given active investors more information and more choices. Passive investors who prefer to delegate their investment decisions can still rely on human brokers and financial planners; however, as the market continues to develop online resources and tools for active investors, opportunities will also emerge for creating virtual agent services (often in combination with human agents) that appeal to the passive investor.



### ***The new business models***

Agent technologies support three types of business models: utilities, infomediaries and brokers. Each takes a different approach to consumer empowerment. *Utilities* give consumers the ability to research and compare products in order to make faster and more informed purchasing decisions. *Infomediaries* are consumer advocates that provide advice and market information for a narrower range of linked products and providers. *Brokers* facilitate complex transactions by screening buyers and matching them with sellers.

#### **Utilities**

Utilities leverage agent technology to convert business processes into automated functions such as price comparison and vendor selection. The value of a utility depends on the depth—as well as the breadth—of its reach. It must have access to as many products and providers as possible. A utility must also have the ability to deliver detailed comparisons of prices and features across as many product lines and categories as possible. Utilities typically make money on a software

license/subscription basis; revenue is generated primarily through selling its services to other organizations, which, in turn, can use those services to improve their internal and external capabilities.

Ask Jeeves is a utility—a Web-based service that utilizes sophisticated search technology to allow users to solicit information from suppliers in free-form text format. The company leveraged this tool to create a new business—converting the traditionally manual process of information gathering into an automated one. Ask Jeeves is, in essence, an intelligent utility—and a business model that demonstrates only the beginning of what is possible.

We can look forward to more of these types of utilities. By automating and integrating a variety of processes, these agents will become more intuitive and intelligent over time. Today's utilities respond based on what the user asks them to do; in the future, they will “remember” a user's preferences and history, and adjust their responses accordingly to continually improve the consumer experience.

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### Infomediaries

Infomediaries are agents that offer advice on a more narrow range of products and providers. Typically, infomediaries add value by analyzing and integrating a group of products and services centered on a single area or activity, such as investment management or home relocation. To play the role of trusted advisor, each infomediary must add value at every consumer transaction. These agents provide access to a range of branded providers in each product category, and monitor their supplier partners closely to prevent the dilution of the infomediary's own brand. Infomediaries make money by charging either flat or percentage fees on the transactions they broker.

myCFO is an infomediary that provides wealth-management services to affluent individuals and families. This Internet-born service assigns each client a dedicated “personal service director” who assembles a team of professional experts and supervises all relationships and financial arrangements. myCFO's personal

service directors can be consulted by e-mail, phone or in person. What's more, the firm has set up a “skinny branch” system in six cities around the U.S. to facilitate communication among its clients, personal directors and other service professionals.

myCFO's business is to provide relationship-based financial management services—something that cannot be done with technology alone. The tools the service employs enhance the performance of the personal service directors by allowing them to create a consolidated balance sheet that integrates each client's accounts from all their various providers and professional advisors. This platform offers convenience, control and the analytical power afforded by a suite of financial software tools. It also furnishes access to experts and providers across the full range of financial services—from asset management to estate planning to insurance. myCFO personal service directors act on behalf of their clients, without being tied to a specific financial organization.

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### Brokers

Brokers play a role very similar to infomediaries. Although they, too, offer advice and market information on a relatively narrow range of products and services, their focus is on integrating and streamlining complex transactions. To do this, brokers screen and prequalify buyers, often through upfront data processing that is fully integrated with the systems of participating sellers. This approach not only narrows the number of suppliers linked to the system, but it also deepens the product and market information that customers can access, and gives brokers greater freedom to strike better deals. Like infomediaries, brokers make money by charging fixed commissions—paid by either buyer or seller—on the transactions they broker.

E-Loan is a broker that facilitates a wide range of consumer credit transactions, including mortgages, home equity and auto loans from dozens of participating lenders. By bypassing traditional mortgage brokers, E-Loan reduces lending costs and fees. It also simplifies and expedites complex loan-approval procedures by automating paperwork and streamlining processes. Its E-Loan

Express service, for example, allows mortgage customers to complete an online application in just 20 minutes. The service then uses innovations like “drive-by appraisals” to expedite the mortgage process, which is managed by dedicated lending consultants.

E-Loan’s core value proposition of brokering complex lending transactions allows it to generate considerable value in terms of price, flexibility and peace of mind; however, in an effort to maintain and broaden its customer relationships, E-Loan is attempting to move beyond simply brokering transactions to also offer ongoing advice. For example, E-Loan has introduced “My E-Loan,” a service that provides customers with a range of personalized debt information, such as credit scores, product analysis and refinancing alerts. The service allows customers to manage all of their loans from various providers as a dynamic debt portfolio, rather than as a series of isolated transactions.



### *Making strategic choices*

Agent technologies offer new economies of price, scope and convenience. They do this by creating multi-provider platforms that facilitate transactions among many different products and providers. They add value by supplying customized market information and advice.

As agent technologies become more and more powerful, they will play an increasingly critical role in online financial services. As this trend grows, online financial services firms will need to keep a number of strategic issues in mind:

**Richness versus reach:** Both technically and strategically, financial services organizations must confront the familiar tradeoff of richness versus reach. For example, utilities like Ask Jeeves offer amazing reach in terms of the product and provider information they provide, but at the cost of limiting their ability to offer complex advice and sustain customer relationships. Conversely, infomediaries and brokers who pay a price in terms of restricting the scope of their products and providers can focus on providing powerful advice and simplifying complex transactions.

**Sustaining customer relationships:** To build volume, companies should concentrate on moving from brokering one-off transactions to advising customers on an ongoing basis. But in cases like E-Loan, this transition can be difficult. One approach is to create consumer information services that promote return business. In this respect, E-Loan's strategy is particularly clever: offer a consumer debt advisory service that encourages customers to think of their loans and credit accounts as a portfolio that must be tracked and managed over time. An alternative approach to building volume is to forge strong partnerships with other financial service providers, who agree to use agents as private-label utilities that they, in turn, can build into their own services.

**Virtual versus human agency:** Both E-Loan and myCFO support the view that most consumers continue to value human service as an adjunct to automated agent facilities, especially in detailed transactions like mortgage loans, or complex advisory services such as high-end wealth management. Likewise, the brief history of online banking and brokerage has shown that most customers prefer the combination of human and Web delivery because it gives them a degree of comfort, convenience and trust that standalone online access simply cannot provide. As agent services evolve, financial services firms must consider how to use these technologies as part of a multi-channel delivery system that serves a range of customer preferences and attitudes.



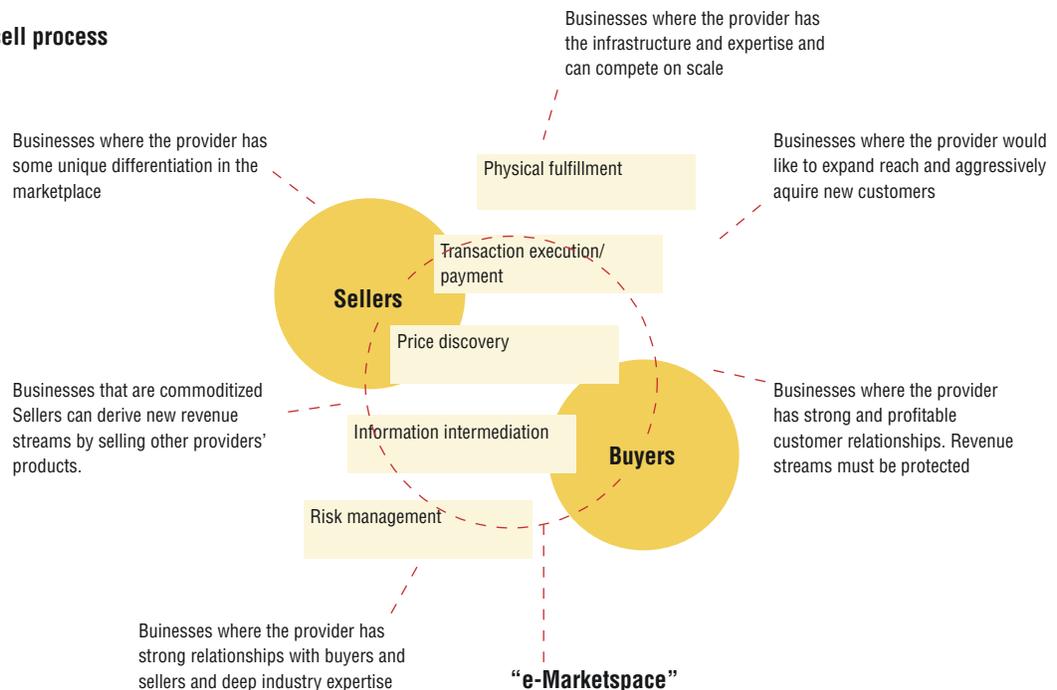
## Looking to the future

The fundamentals of commerce have remained virtually unchanged. In its simplest form, commerce consists of buyers and sellers interacting and exchanging value in marketplaces through a set of defined processes. (See Figure 1.) The buyer analyzes and gathers information, compares product features, analyzes vendors, evaluates payment options, assesses fulfillment options, measures risk, selects a vendor and engages in post-sale servicing. The seller provides buyers with targeted information and advice, customized product offerings, seamless services across multiple channels, plus superior pre-sale and post-sale service and support—while offering suppliers and customers savings in marketing and sales. Over time, virtual agents will enable functionality around as many of these processes as possible, reducing the time buyers and sellers must spend on each process.

New technologies will enable financial service providers to design, implement, adapt and optimize their portfolio of businesses. In this environment, institutions will continue to compete based on scale and unique capability; however, the balance of economic power will shift from traditional portfolio- or product-based value creation to a new set of strategic capabilities and models.

These strategic models will allow organizations to re-engineer their value chain by integrating selected buyer and seller functions electronically. The agent technology will support the “customer-centric” model—empowering the institutions to assume greater control of the end customer’s buy-side processes. (See Figure 2.)

**Figure 1: The buy/sell process**



**Figure 2: Customer centric strategic model**

<p><b>Customer-centric virtual agency offerings will provide significant customer value through “peace of mind” creation, enabling defensible positions of market advantage</b></p>	<p><b>Description</b></p> <ul style="list-style-type: none"> <li>•Offers virtual agency, acting on behalf of customer and representing their wants and needs in marketplace</li> <li>•Manages aspects of a customer’s life and/or “spend” in accordance with pre-agreed rule sets and level of delegated authority</li> <li>•Provides personalized advice and counsel regarding alternatives via an ongoing dialogue with customer — capturing decisions and preferences</li> <li>•Enterprise economic interests are exactly aligned with/centered on customer’s interests</li> </ul>
<p><b>Revenue sources</b></p> <ul style="list-style-type: none"> <li>•Customer fee for services</li> <li>•Percent of customer’s savings</li> </ul>	<p><b>Core competencies</b></p> <ul style="list-style-type: none"> <li>•Understanding, anticipating and reacting to customer needs</li> <li>•Acting as customer advocate with access to the total marketplace, independent of specific product providers</li> <li>•Continuous learning about customers, markets and providers</li> <li>•Ability to build strong and loyal customer relationships by providing “peace of mind”</li> <li>•“Segment of one” personalization/customization, while upholding the highest standards for privacy and security</li> <li>•Providing full customer access, wherever and however they want to interact</li> <li>•Key partnerships with fulfillment organizations</li> </ul>
<p><b>Success metrics</b></p> <ul style="list-style-type: none"> <li>•Customer profitability</li> <li>•Percent of customer spending and/or selling</li> <li>•Customer referrals</li> <li>•Customer acquisition costs</li> <li>•Satisfaction indicators             <ul style="list-style-type: none"> <li>•Retention/loyalty</li> <li>•Increased delegation</li> </ul> </li> <li>•Supplier/fulfillment effectiveness ratings</li> </ul>	



### *An agent in your future?*

Virtual agent technologies are opening up amazing opportunities for enterprises to reinvent and refine relationships and processes. As you reflect on the future of your business, take time to consider how you can integrate your virtual and physical presence to create the optimal hybrid business—one which provides increased efficiency, highly personalized services and greater value for your clients, partners, suppliers and employees. Ask yourself these questions:

- What are your core value propositions?
- How will you select the appropriate e-business models that impact both the revenue and cost structure of your enterprise—across your entire value chain?
- Where can you deploy various aspects of agent technologies to improve interactions with end-user customers and support and enhance relationships with partners and suppliers?
- How can you use these technologies to increase your own internal value-creation processes and improve employee efficiency?
- How will you design models that enable the “plug and play” of new functionality and are flexible enough to enable continual change?
- Have you analyzed your current portfolio of businesses to determine your future marketplace position? Once you decide where you need to be, are you prepared to deploy your new go-to-market model?

### **For more information**

If you would like to find out more about new business models and directions for financial institutions, and learn how these models can be applied to your business today, contact us at [insights@us.ibm.com](mailto:insights@us.ibm.com). To locate additional resources for business executives, visit us on the Web at:

[ibm.com/services/insights](http://ibm.com/services/insights)

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Route 100  
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U.S.A.

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06-01  
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