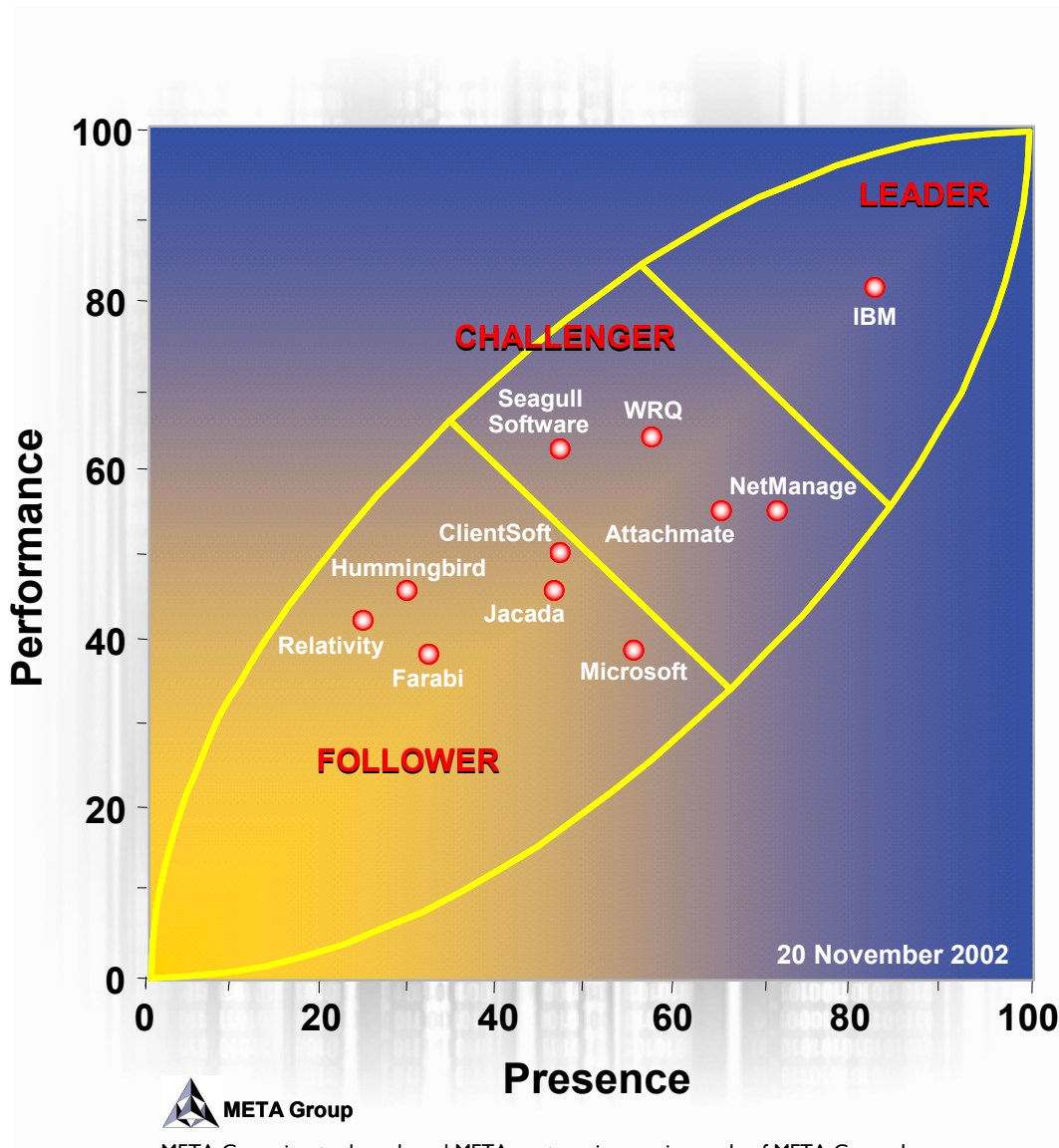


## Host Access: Web-to-Host Tools

### METAspectrum<sup>SM</sup> Evaluation



### Market Definition

This market comprises vendors whose products enable access to and integration of legacy data streams (e.g., 3270, 5250) via interception of the streams using a thin-client approach (i.e., Web browser). Commonly referred to as Web-to-host products, these offerings typically enable integration of data into “newer” applications as well as the ability to remotely access legacy data.

### Market Forecast

Legacy externalization efforts will continue to be dominated by tactical, point-like application integration products with new presentation interfaces (e.g., “Web scraping”). However, during 2003/04, demand for highly scalable e-commerce solutions primarily driven by Web services that leverage transactional legacy mainframe systems (e.g., CICS, TPF, IMS, DB2) will propel screen-based data integration. Consequently, migration to more complex object-like, transaction-centric frameworks and components (e.g., WebSphere, BEA WebLogic) will occur during 2004-06.

### Key Findings

During the past three years, the host access sector has experienced rampant consolidation and merger activity. Indeed, many vendors bet that the market would grow exponentially once organizations had finished with Y2K projects. However, this proved untrue, and a confusing array of host access product suites from a multitude of vendors remains on the market. Most vendors have had success selling traditional emulation products, but user uptake of Web-to-host products has been slow, despite heavy promotion. This can be attributed to the usual litany: scalability, reliability, compatibility, security, and management issues. Host access vendors now face the difficult task of transitioning away from an “emulation” business model toward a Web services model.

This means moving from a proprietary architecture to one that promotes information sharing — a difficult proposition for many vendors faced with revenue shortages and negative bottom lines. New market leaders in this sector must not only demonstrate technical prowess, but also have a broad presence and the ability to exploit emerging standards. Lack of technology differentiation will lead to further consolidation; only vendors with a solid financial base will remain competitive.

### Leaders

With technology differentiation becoming less of a factor in this market, leaders must demonstrate product breadth in terms of integration and functionality, combined with an established financial footing that enables further product development. IBM is the clear leader in this market space, primarily because of its solid financial base as well as its technology, which exploits integration with its WebSphere offering — an important consideration for data centers involved in host integration.

### Challengers

In general, challengers have certain components that stand out as superior, but do not have the level of function or market presence enjoyed by the leaders. Vendors in this space (WRQ, Attachmate, NetManage, Seagull) typically have good technical solutions, but lack the financial resources or breadth of offerings necessary to challenge IBM in the leader area.

### Followers

Followers in this market may have solutions applicable to certain customer segments, but do not have the necessary presence to become a broad market player over time. Vendors in this space are typically financially constrained (with the exception of Microsoft) and have technology offerings that are narrowly focused and do not meet the broad requirements necessary for data centers embarking on host access initiatives.

### Bottom Line

Host access products will continue to play an important role for large organizations externalizing legacy applications. During the next four years, organizations will begin to displace traditional emulation products, and by 2007, more than 90% of large organizations will utilize host access products that externalize legacy applications via Web services. Purchasers will begin to increase their bias toward presence criteria, reflecting increasing market maturity, with technology criteria based on integration with technologies already present in an organization.

*Business Impact: Web-to-host access solutions will continue to reduce the cost of legacy integration, enabling organizations to leverage existing assets and capitalize on new IT opportunities.*

## Host Access: Web-to-Host Tools *Presence* Evaluation

Our market presence evaluation includes a review of each vendor's product and service attributes — representing vendors' ability to **deliver** value to customers. The following seven criteria areas provide a summary of our presence analysis. For complete details on how vendors fared with each criterion in our evaluation, visit [metagroup.com](http://metagroup.com).

| Vision/Strategy  |                     |
|------------------|---------------------|
| IBM              | Very Good/Excellent |
| NetManage        | Good/Very Good      |
| WRQ              | Good/Very Good      |
| Attachmate       | Good                |
| ClientSoft       | Good                |
| Jacada           | Good                |
| Seagull Software | Fair/Good           |
| Microsoft        | Fair/Good           |
| Farabi           | Fair/Good           |
| Hummingbird      | Fair/Good           |
| Relativity       | Fair                |

### What We Evaluated

**General Vision/Strategy** — How well the vendor maps to corporate vision, how coherent the vision is, and how likely the vendor is to translate this vision into market success.

**Messaging/Track Record** — Demonstrated ability to explain and execute plans that define technical and/or solution direction, emphasis, and development that best meet customer requirements.

**Understanding of Market Evolution** — Understanding of the market's evolution, including the impact of Web services and the migration to more complex object-like, transaction-centric frameworks and components.

### Analyst Commentary

Emerging standards, primarily those involving Web services, will have a significant impact on this market over time. Effective exploitation of these standards, coupled with a clear message for integration into transaction-centric frameworks (e.g., WebSphere), will be the key to creating host access solutions. This criteria area represents an analysis of a vendor's ability to predict market changes and to deliver solutions, technology, or services that address those changing needs. The importance of vision/strategy will increase over time, as users integrate legacy applications and data into enterprise infrastructures. IBM rates best in this category because of its integration with existing and future data center technologies, primarily WebSphere. Relativity rated the worst, due to its focus on being a legacy re-engineering company, excluding other forms of legacy access from its portfolio.

| Channels/Partners |                     |
|-------------------|---------------------|
| IBM               | Very Good/Excellent |
| Microsoft         | Very Good           |
| NetManage         | Good/Very Good      |
| Seagull Software  | Good                |
| Attachmate        | Good                |
| ClientSoft        | Good                |
| Jacada            | Good                |
| WRQ               | Good                |
| Farabi            | Fair/Good           |
| Relativity        | Fair                |
| Hummingbird       | Fair                |

### What We Evaluated

**Direct Channel** — Effectiveness of the vendor's direct sales force.

**Integrator Channel** — Size and effectiveness of the vendor's integrator channel (both large and small). Only relationships targeted at the host access market are evaluated.

**ISV Channel** — Strength of the vendor's ISV channel, including both OEM and licensing relationships as well as "referral" partnerships with major application and/or solution vendors.

### Analyst Commentary

The importance of channels and partners will increase as technology distinctions dissipate and the market matures. It is critical that a vendor have a robust portfolio of service partners, because many act as channels incorporating technology into solution offerings. In addition, technology partnerships can enable new integration opportunities to different vendor offerings, increasing the value of an integration solution. Microsoft and IBM rated highly in this category, due to their extensive channel and partner relationships. Indeed, smaller host access vendors strive to be partners of both Microsoft and IBM to drive sales through integration with their respective architecture approaches (.Net and WebSphere).

## Host Access: Web-to-Host Tools *Presence* Evaluation

| Awareness/Reputation |                |
|----------------------|----------------|
| Microsoft            | Very Good      |
| NetManage            | Good/Very Good |
| Attachmate           | Good/Very Good |
| IBM                  | Good/Very Good |
| WRQ                  | Good           |
| ClientSoft           | Good           |
| Jacada               | Good           |
| Seagull Software     | Fair/Good      |
| Farabi               | Fair           |
| Relativity           | Fair           |
| Hummingbird          | Fair           |

### What We Evaluated

**Programs/Coverage Levels** — Effectiveness of publicity, sales, marketing, service, and development activities in building positive perception in the market. Includes success in gaining press engagement/coverage and analyst/key influencer visibility.

**Customer Perception** — Measured, relative awareness on the part of existing and potential customers about capabilities, offerings, vision, and focus. Includes frequency of client inquiries as well as general market feedback.

### Analyst Commentary

Market consolidation will result in all major host access vendors (i.e., leaders and challengers) having relatively strong awareness; therefore, the importance of this criteria area will decrease over time. However, awareness/reputation is currently the most important factor in establishing presence for a vendor, because of large organizations' sensitivity with regard to enabling access to legacy data. It is also important in that it enables vendors to infiltrate user organizations and establish a presence in future integration opportunities. Despite poor performance on legacy access in the past, Microsoft was rated highly due to customer perception of a large influence on this market space. Vendors that rated lowest (Farabi, Relativity, and Hummingbird) have a narrow market perception and concentrate on specific access approaches, thus limiting their market awareness.

| Geographic Coverage |           |
|---------------------|-----------|
| Microsoft           | Very Good |
| IBM                 | Very Good |
| NetManage           | Very Good |
| Seagull Software    | Good      |
| Attachmate          | Good      |
| ClientSoft          | Good      |
| Jacada              | Good      |
| WRQ                 | Good      |
| Hummingbird         | Fair      |
| Farabi              | Fair      |
| Relativity          | Fair      |

### What We Evaluated

**North America** — North America coverage in terms of sales, marketing, and support, not market share.

**EMEA** — Europe, Middle East, and Africa coverage, with a major emphasis on Europe, in terms of sales, marketing, and support, not market share.

**Other** — Coverage outside of North America and EMEA, in terms of sales, marketing, and support, not market share.

### Analyst Commentary

Many of the host access vendors have significant presence within specific countries, achieved in many cases through acquisition of regional vendors. For example, WRQ acquired Dutch company SuperNova, and Hummingbird has a significant presence in Canada and France. Hummingbird is still rated only fair, however, due to lack of penetration in the US and European countries other than France. WRQ has good penetration in North America and Europe, and therefore was rated higher. The ability of a vendor to cover worldwide markets will affect its overall presence as well as its ability to sell to global organizations that must integrate across multiple continents.

## Host Access: Web-to-Host Tools *Presence* Evaluation

| Business Drivers |                |
|------------------|----------------|
| IBM              | Very Good      |
| NetManage        | Good/Very Good |
| Attachmate       | Good           |
| Seagull Software | Good           |
| WRQ              | Good           |
| ClientSoft       | Good           |
| Jacada           | Good           |
| Microsoft        | Fair/Good      |
| Hummingbird      | Fair/Good      |
| Relativity       | Fair/Good      |
| Farabi           | Fair           |

### What We Evaluated

**Core Competencies** — Underlying people-, process-, or technology-based business capabilities that are defensible, unique, and sustainable.

**Intellectual Property** — Owned and protected patents, trademarks, copyrights, licenses, or trade secrets that reflect unique ideas, methods, technologies, and processes, and that offer tangible competitive advantage.

**Culture** — Internal processes, communication methods, leader-sponsored philosophies, or other dynamics that enable better client centricity, speed, responsiveness, efficiency, or market effectiveness.

### Analyst Commentary

A major effect of the host access market's saturation in terms of product offerings is vendors' increasing difficulty in differentiating technology. As each vendor imitates the best features of its competitors, users find it more difficult to understand how each offering is unique. This criteria area evaluates how differentiable a given technology is in the marketplace, and how sustainable that is over time. These differentiators are important to customers, because numerous vendors offer solutions based on specific business or technology issues. For example, Farabi integrates with a .Net environment, exploiting functionality gaps lacking in Microsoft's offering, whereas IBM exploits its integration with WebSphere — two very different architectures. IBM rated the highest due to its technology penetration within data centers (e.g., DB2, CICS), enabling tight integration with its host access offerings.

| Investments      |                |
|------------------|----------------|
| IBM              | Excellent      |
| NetManage        | Good/Very Good |
| Attachmate       | Good           |
| Seagull Software | Good           |
| ClientSoft       | Good           |
| Jacada           | Good           |
| WRQ              | Good           |
| Microsoft        | Fair/Good      |
| Hummingbird      | Fair/Good      |
| Farabi           | Fair/Good      |
| Relativity       | Fair           |

### What We Evaluated

**Investments** — The vendor's position in key markets parallel to the Web-to-host market. This includes all legacy integration offerings, from emulation to framework integration.

### Analyst Commentary

As the market continues to consolidate during the next three years, this criteria area will gain in importance. Moreover, the incorporation of Web services into legacy access offerings will increase the need for investments to complement core access technologies. A vendor with a significantly greater development capacity is more likely to be able to retain or improve market position. NetManage was rated highly due to its investments in other access approaches (purchased Wall Data and Simware), but now must successfully integrate these investments into its overall portfolio to succeed.

## Host Access: Web-to-Host Tools *Presence* Evaluation

| Share            |                |
|------------------|----------------|
| IBM              | Very Good      |
| Attachmate       | Good/Very Good |
| NetManage        | Good/Very Good |
| WRQ              | Good           |
| Seagull Software | Fair/Good      |
| Microsoft        | Fair/Good      |
| ClientSoft       | Fair           |
| Jacada           | Fair           |
| Hummingbird      | Fair           |
| Farabi           | Fair           |
| Relativity       | Fair           |

### What We Evaluated

**Market Share** — Share of market relative to competitors.

**Mind Share** — Relative market awareness versus competitors.

**Wallet Share** — Percentage of IT budget controlled or heavily influenced by the vendor relative to competitors and alternative technologies.

### Analyst Commentary

Share — mind, wallet, and market — is important in establishing presence, but will begin to wane as the number of viable vendors decreases during the next 18-24 months. IBM will continue to have the dominant position in this regard, mainly due to its product integration with complementary technologies and penetration in large organizations.

## Host Access: Web-to-Host Tools *Performance Evaluation*

Our market performance evaluation includes a review of each vendor's product and service attributes — representing vendors' ability to **provide** value to customers. The following six criteria areas provide a summary of our performance analysis. For complete details on how vendors fared with each criterion in our evaluation, visit [metagroup.com](http://metagroup.com).

| Technology       |                     |
|------------------|---------------------|
| IBM              | Very Good/Excellent |
| Seagull Software | Good/Very Good      |
| WRQ              | Good/Very Good      |
| Attachmate       | Good/Very Good      |
| NetManage        | Good                |
| ClientSoft       | Good                |
| Farabi           | Fair/Good           |
| Hummingbird      | Fair/Good           |
| Relativity       | Fair/Good           |
| Jacada           | Fair/Good           |
| Microsoft        | Fair                |

### What We Evaluated

**Data Streams** — Ability to access a multitude of legacy data streams (e.g., 3270, 5250).

**Scalability** — Ability to grow with dynamically changing business requirements, including clustering capabilities to support more users and/or higher transaction volumes.

**Integration** — Functional capabilities to interoperate with related, interdependent, or complementary technologies.

### Analyst Commentary

Technology is one of the principal performance criteria areas, and will remain highly important over time. For the purposes of this METASpectrum, evaluation was focused primarily on vendors' Web-to-host offerings. However, complementary products that make a solution more effective for customers were an important consideration in this evaluation. Of particular importance was a product's ability to integrate into major frameworks (e.g., WebLogic, WebSphere). Not surprisingly, IBM rated highest in this category, due to integration with WebSphere. Seagull also rated highly, because of its product portfolio that enables various approaches to legacy access, all of which complement its Web-to-host offering.

| Services         |                |
|------------------|----------------|
| IBM              | Good/Very Good |
| NetManage        | Good           |
| WRQ              | Good           |
| Seagull Software | Fair/Good      |
| Hummingbird      | Fair/Good      |
| Attachmate       | Fair/Good      |
| Jacada           | Fair           |
| ClientSoft       | Fair           |
| Microsoft        | Fair           |
| Farabi           | Fair           |
| Relativity       | Fair           |

### What We Evaluated

**Technical Support** — Quality and consistency of the vendor's product technical support offerings.

**Documentation** — Quality and consistency of the vendor's product documentation.

**Implementation** — Quality and consistency of the vendor's and its partners' systems integration offerings.

### Analyst Commentary

The services criteria area evaluated technical support offerings, product documentation, and the systems integration offerings of both the vendor and its partners. We expect the importance of these criteria to increase significantly during the next three years as access to legacy data is incorporated into overall company infrastructure initiatives and the need to integrate these tools is driven by business units. IBM rated highest, but NetManage and WRQ have the core competencies necessary to compete and challenge IBM as legacy access initiatives become a more visible part of an organization's infrastructure.



## Host Access: Web-to-Host Tools *Performance Evaluation*

| Pricing          |                |
|------------------|----------------|
| Seagull Software | Very Good      |
| IBM              | Good/Very Good |
| NetManage        | Good/Very Good |
| WRQ              | Good/Very Good |
| Hummingbird      | Good           |
| ClientSoft       | Good           |
| Jacada           | Good           |
| Farabi           | Good           |
| Microsoft        | Fair/Good      |
| Attachmate       | Fair/Good      |
| Relativity       | Fair/Good      |

### What We Evaluated

**Transparency** — Clarity of the vendor’s pricing model, and consistency with which the vendor applies pricing across different deals.

**Value** — Extent to which the vendor is willing to price its product cheaply in relation to the competition.

### Analyst Commentary

This criteria area reflects whether a company offers pricing models that are in line with industry norms, and whether solution pricing is competitive with peers. Prices for Web-to-host products have been stable during the past 24 months, and we do not expect this to change. However, with most vendors now beginning to bundle point solutions into product suites, the transparency criterion will gain in importance, because users will need to understand the individual pricing of components within each suite. Seagull rated the highest in this category, because its product portfolio enables organizations to transition from one product to another, according to business needs, while paying a single licensing fee.

| Execution        |                |
|------------------|----------------|
| IBM              | Very Good      |
| Seagull Software | Good/Very Good |
| Attachmate       | Good/Very Good |
| NetManage        | Good           |
| ClientSoft       | Good           |
| Jacada           | Good           |
| Relativity       | Good           |
| WRQ              | Good           |
| Hummingbird      | Fair/Good      |
| Farabi           | Fair/Good      |
| Microsoft        | Fair           |

### What We Evaluated

**Track Record** — Demonstrated ability to match technology and product deliveries to marketing messages and vision.

### Analyst Commentary

This criteria area evaluates a vendor’s capability to deliver the product functionality defined in its marketing messages and vision. As the Web-to-host market matures, vendors will gain parity in functionality and, therefore, the ability to execute on marketing messages. Consequently, the importance of this criterion will decline, eventually becoming unimportant. Microsoft rated the worst in this category due to the lack of integration and performance of its product during the last few years. Indeed, other access vendors have based their own products on shortcomings within the Microsoft portfolio.



## Host Access: Web-to-Host Tools *Performance Evaluation*

| <b>Agility</b>   |                |
|------------------|----------------|
| Seagull Software | Good/Very Good |
| IBM              | Good/Very Good |
| WRQ              | Good           |
| NetManage        | Good           |
| Hummingbird      | Good           |
| Attachmate       | Good           |
| ClientSoft       | Good           |
| Jacada           | Good           |
| Farabi           | Fair/Good      |
| Relativity       | Fair/Good      |
| Microsoft        | Fair           |

### What We Evaluated

**Responsiveness** — Reactive capabilities to identify, harness, and capitalize on changing market and customer dynamics.

**Development Process** — Internal methods to develop new technology and services, and to test and offer them to the market as measured in months.

**Flexibility** — Capabilities to take existing technology, services, systems, personnel, pricing, and other performance attributes and modify them to specific opportunities, threats, needs, and markets.

### Analyst Commentary

Although the host access market is stabilizing, other standards, particularly Web services, will create a need for vendors to remain agile. Relative strength at identifying, harnessing, and capitalizing on changing market and customer dynamics will remain a critical success factor in this market. Agility is of greater importance for smaller vendors, and will increase in importance as a means of fending off rivals that are better financed (Microsoft). IBM is highly agile and well financed, which makes it hard for other vendors to compete. Seagull also received a high rating, due to the flexible nature of its product portfolio and approach to satisfying customer's business needs. Microsoft's historical lack of agility has negatively impacted its position relative to the leaders in this space.

| <b>Financials</b> |                     |
|-------------------|---------------------|
| IBM               | Very Good/Excellent |
| WRQ               | Good                |
| Microsoft         | Good                |
| Attachmate        | Good                |
| Jacada            | Good                |
| Relativity        | Fair/Good           |
| ClientSoft        | Fair/Good           |
| NetManage         | Fair/Good           |
| Seagull Software  | Fair/Good           |
| Hummingbird       | Fair                |
| Farabi            | Fair                |

### What We Evaluated

**Access to Capital** — Sources of funding for growth, operations, or investments.

**Profitability** — Track record of business results as measured by EBIT (earnings before interest and taxes).

**Growth Rate** — Comparative rate of business growth versus overall market and key competitors.

### Analyst Commentary

Spurred by market saturation and thin margins, consolidation will continue in the host access space. Therefore, the financials criteria area will remain crucial for vendor evaluation during the next three years (along with pricing and technology) and will then diminish as smaller players are acquired. Large, well-funded infrastructure players scored highly in this area. Indeed, IBM and Microsoft are ideally positioned to capitalize on market consolidation, with the necessary capital to increase market share and gain complementary technologies via mergers and acquisitions. Smaller vendors with limited resources will have difficulty surviving during the next three years.

NetManage is a good example of why users should examine the financial stability of a host access vendor before purchasing a product. During the past three to four years, aggressive expansion via acquisition (purchasing Simware, Wall Data, and FTP Software) has resulted in an enormous product portfolio, with many redundant product offerings. During the past two to three years, it has failed to reach the revenue levels necessary to justify the acquisition costs, due to poor product integration and customer disinterest. With a 1:7 reverse stock split (effective September 4, 2002, in an attempt to remain listed on Nasdaq), NetManage's story highlights the difficulty host access vendors have in achieving profitability, especially when attempting to integrate disparate product suites.

### **About METAspectrum<sup>SM</sup>**

METAspectrum<sup>SM</sup> evaluations from META Group (Nasdaq: METG) provide IT professionals with a view into critical market success factors and vendor positioning. METAspectrum, in combination with META Group's SPEX modules — which provide detailed technical analysis of product features and capabilities — delivers comprehensive evaluations of both technology markets and vendor product offerings. METAspectrum evaluations are a standard component of a META Group retainer service subscription and are updated periodically, depending on the characteristics of individual markets. To view completed market evaluations, or learn more about the METAspectrum methodology, visit [metagroup.com/metaspectrum](http://metagroup.com/metaspectrum). For more information on META Group's SPEX offerings, visit [checkspex.com](http://checkspex.com).

### **About META Group**

META Group is a leading research and consulting firm, focusing on information technology and business transformation strategies. Delivering objective, consistent, and actionable guidance, META Group enables organizations to innovate more rapidly and effectively. Our unique collaborative models help clients succeed by building speed, agility, and value into their IT and business systems and processes. Connect with [metagroup.com](http://metagroup.com) for more details.



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