

IBM takes grid to market

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IBM will begin to deliver against some of the expectations it has created for on-demand e-business with the packaging of grid computing products targeted at the financial services, life sciences, automotive, aerospace and government markets. It has also anointed five middleware ISV partners: Platform, DataSynapse, Avaki, Entropia and United Devices.

The offerings are positioned as specifically enabling the strategy of delivering technologies and services for on-demand e-businesses that CEO Sam Palmisano described at the end of last year. Grid computing is considered one of four key technologies that will underpin the ability to create on-demand e-businesses. The others are utilities, Web services and autonomic features. Palmisano has defined an on-demand e-business as an enterprise whose business processes – integrated end to end across the company and with key partners, suppliers and customers – can respond with speed to any customer demand, market opportunity or external threat. They're integrated, virtualized, autonomic and open, according to IBM's lexicon.

Impact assessment

The message

IBM has created packages of homegrown and third-party grid computing products that it will target at five industry sectors. The packages are designed to support R&D, business analytics, engineering and design, government development and enterprise optimization. Platform, DataSynapse, Avaki, Entropia and United Devices are the partner ISVs.

Competitive landscape

HP, Sun, Oracle, SGI and other vendors can count the same ISVs as partners (in different mixes) but have yet to assemble or leverage such a combination of homegrown and third-party products and services.

The451 assessment

To validate its interest and position itself as a leader, IBM has so far focused on its scale scientific and government grid engagements. Now it's turning to address market leadership. This is a pragmatic and broadly appealing first step.

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Context Until now, with no products to speak of, IBM has focused largely on promoting the scale scientific, academic and government grid projects it's involved in, aiming to demonstrate its participation and leadership. Its public-facing commercial activity has been focused around partners – and a commitment to grid-enabling its products – while product development has been going on behind the scenes.

Creating a grid computing general manager position for Tom Hawk last year indicated commercial activity would soon be underway, and Hawk's invited talk at the recent GlobusWorld conference tested the water for IBM's product strategy. As we previously reported, Hawk described the specific industries and opportunities IBM would initially pursue.

According to IBM, key competitive advantages that grids bring include reducing time to market, doing analysis or making decisions more quickly, or uniting research team activity. This may be applied to analyzing the value of a portfolio, designing products or discovering drugs.

Technology The catalyst for the activity is the release of Globus Toolkit 3.0. The key element of 3.0 is an implementation of the Open Grid Service Architecture (OGSA), designed by IBM with input from Microsoft and others to enable grid resources to be accessed by Web services.

IBM hopes soon to make available alpha versions of WebSphere integrated with OGSA/Globus 3.0. It plans to OGSA-enable Storage Tank and its other virtualized technologies through 2003.

The five focus areas for the product offerings are research and development grids (life sciences), engineering and design grids (aerospace, automotive), business analytics grids (financial services, life sciences), enterprise optimization grids (financial markets) and government development grids.

It's serving them with nine new grid computing products: analytics and compute grids for the financial services industry; analytics and data access grids for life sciences; engineering design and design collaboration grids for the automotive and aerospace sectors; and a data grid for government.

IBM has signed partnerships with five companies that develop software for grid computing: Platform Computing, DataSynapse, Avaki, Entropia and United Devices. Platform and DataSynapse are the only two master reseller relationships, although IBM expects others to be enhanced over time.

Each package includes a different mix of data access, grid middleware and management software, plus optional supporting software, IBM hardware and IBM and ISV services.

For business analytics in financial markets, IBM is offering a message-passing interface, a parallel virtual machine and DB2 EEE for application and data parallelization; Globus, DataSynapse and Platform middleware; IBM pSeries and LoadLeveler or xSeries for hardware acceleration; WebSphere, GPFS, Tivoli and Linux as optional supporting technologies; plus IBM Global Services and ISV services. IBM says it will typically enable a financial services company

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to parallelize and run its own algorithms faster – as well as implement third-party analytics applications.

Changing the culture and established processes within an organization to support shared computing models is going to be as important to the success of any grid project as the technology, if not more so. For this reason, IBM has created a series of grid workshops that will be offered in conjunction with or separate from the technology packages.

In addition, IBM's research division has created a 'Grid Value Tool' to enable organizations to assess the contribution grid computing could make to them.

The entry point can be a minimal pilot environment used by tens of people that doesn't go across divisions and is therefore non-disruptive in its evaluation stage. Reference customers for the grid packages include Charles Schwab, oil company PDVSA and Wachovia.

Competition What sticks out like a sore thumb in grid computing is the absence of Microsoft. It shared the platform with IBM and Globus a year ago to announce OGSA but (as we have described in recent reports) doesn't yet see any volume software opportunity in grids.

Hawk says Microsoft has provided architectural and financial support, but clearly has its feet in two camps: supporting OGSA and a proprietary OS route. In IBM's clearest observation yet about Microsoft's lack of presence, Hawk says IBM – indeed the grid community of users – doesn't need to wait for Microsoft to make a decision. "We can virtualize their technology today. If they choose not to play, we can support .NET."

SWOT analysis

Strengths	Weaknesses
IBM has stacked up an unrivalled mix of products and services in industry-facing packages.	Can it turn the expectations – ROI, better time to market, etc. – into reality? As IBM has observed, grids are not the only solution, nor this the only application of them.
Opportunities	Threats
It appears there is now sufficient momentum behind Globus and OGSA to drive them forward as the standard platform for grids and on-demand services, and IBM is instrumental in the development of both.	Grids aren't a killer app, but potentially a killer business model. So getting companies to change their political processes toward resource sharing will be as challenging as the technology sell.