
Vendor overview

Panorama Software is a small company that has had a disproportionate influence on the world OLAP market. Formed in 1994 in Israel, it released its first desktop product in 1995. This was a self-contained, shared-file client MOLAP that was sold only in Israel. Despite its unsophisticated architecture, it had some local competitive successes.

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Panorama and the Analysis Services client tool market

Most people — including The OLAP Report — expected that Microsoft's purchase of ProClarity would severely damage Panorama's business in the Microsoft market because many potential customers would automatically buy ProClarity without even considering alternatives. While this probably has happened in many cases, as evidenced by Microsoft's delight at booming ProClarity sales post-acquisition, Microsoft's plans for ProClarity have disappointed many current and potential customers.

It has dropped the ProClarity Excel add-in, used for producing formatted reports and further development of ProClarity as a stand-alone product has been dropped. ProClarity is being incorporated into **PerformancePoint**, which brings other capabilities, but its future as a strong Windows and Web client is limited. Microsoft sees Excel as its primary OLAP Windows client, with SharePoint used for Web delivery. This means that it is no longer pursuing the more sophisticated end of the ProClarity features spectrum.

Microsoft also slashed ProClarity prices but, ironically, this has allowed Panorama to raise NovaView prices. It is now clearly not competing on a like-for-like basis, and for those customers who are attracted by NovaView's capabilities, there are really no direct competitors left

Apart from ProClarity, Temtec was bought by Applix, which is now being acquired by Cognos, so Executive Viewer's hitherto growing focus on Analysis Services is expected to fade. Similarly, MIS was bought by Systems Union, which was bought by Infor, and it is also not a significant player in the Analysis Services client tool market. IntelligentApps was bought by Sage and renamed Sage BI, which is no longer actively marketed as a general purpose Analysis Services client tool. As for Excel 2007, though improved in many ways, it actually has less OLAP capabilities than older versions of Excel with the Cube Analysis add-in loaded.

So, in a market that once seemed to have an ever-expanding list of Analysis Services client tools, Panorama seems to be the only serious contender left. Panorama addresses the higher end of the market, which requires sophisticated capabilities, and is prepared to pay for them. Many of these customers also use other OLAP servers such as SAP BW and Essbase, so Panorama has changed strategy to work with these products as well (much as Temtec did).

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Panorama today

In January 2003, the original Israeli Panorama owners formed a joint venture with a Canadian investment firm. A new parent company was formed called Panorama Software, Inc., with North American headquarters in Toronto. All the IP, documentation, customer base and employees of Panorama Software Systems were moved to the new entity.

Two executives — Rony Ross, chairman and founder of the original company, and Eynav Azarya, then VP international sales and partners— and one mid-level technical person relocated to the new Toronto headquarters. As part of the expansion and external shareholding, Rony Ross relinquished the CEO's role to Janice Anderson, with senior level experience in AT&T, Lucent and CompanyDNA. However, Anderson did not stay long. Azarya soon replaced her and remains CEO. Rony Ross, chairman and founder of the original company, remains on the board of the new company as executive chairman.

Panorama's R&D operations remain in Israel, and it also continues to maintain an active sales office that supports Israel, East Europe, Africa and Asia-Pacific regions. Panorama claims that Israel remains an ideal location for product development both because customers are physically close to Panorama's R&D center and because the informal and vigorous business climate encourages feedback and interaction.

The Company completed a second round of financing in October 2004. The investment round was led by JMI Equity and included PNV and Intel Capital; in normal Panorama fashion, the amount of funds raised was not disclosed. The company is very coy about disclosing details of its shareholding, revenues and earnings. We think that this level of secrecy stands in the way of the company's recognition as a serious supplier. The company regularly announces that it has achieved high growth rates, but we estimate that the annual revenues are still below \$20m.

Panorama maintains a direct sales force for large enterprises, and sells to the mid-size business market through a partner network. Panorama has significantly expanded its local presence, and now has sales offices in New York, Orlando, Seattle, Toronto, London, Atlanta, Boston, and Tel Aviv. The company also maintains distributors in the Netherlands, South Africa, Mexico, Brazil and China. Panorama's partners' program encompasses nearly 300 partners worldwide with domain expertise in insurance, retail banking, government, healthcare, telecommunication, manufacturing, retail, media and consumer packaged goods industries.

Panorama supports a number of languages, including English, German, French, Spanish, Italian, Polish, Czech, Dutch, Japanese and Hebrew, and more languages are promised. Changing from one language to another is easy, but languages cannot be switched on-the-fly.

As of August 2007, Panorama had 90 employees in all, including 30 in sales and marketing, 35 in R&D, support, and product management.

Panorama says that by August 2007, it had more than 1000 customers worldwide. The customers include Agan Chemicals, ADP, The Apotex Group, Atlanta Gas and Light, Amdocs, Altera, Advocate Health Care, B&D Bank, Bank of Montreal, Bank of America, Bank Hamizrahi, Bank Discount, Bank Hapoalim, Bank Leumi, Barclay's Bank, Brita, Citigroup, Comverse, CIBC, Cellcom, Cascades, Clal Insurance, Dayton Daily News, Dun and Bradstreet, Eden Mineral Waters, EMI Records, EDS, Erie Times, Food Services of America, First International Bank, The Folgate Insurance Group, Gannett, HCR ManorCare, Hadera Paper Mills, ITXC, John Hopkins, Mothercare, MacMillan Publishing, Migdal Insurance, Mayo Clinic, M-Systems, Moody's Investor Relations, Mobitel, Manpower, New York Presbyterian Hospital, National City Bank, Office Depot, Orange, Philip Morris International, Phoenix Insurance, Philips Consumer Electronic, Pilot Travel, Royal Bank of Canada, St. Paul Re-Insurance, Shuferal, Sprint/Nextel, Superpharm and Waterstones.

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Product commercial issues

Unlike most of the larger and some of the smaller BI firms, Panorama has not grown through acquisition, so all of its product line was developed from scratch by Panorama. It is therefore, effectively, a one-product company, though it is now a multi-module business intelligence solution suite rather than just a single client tool. There has been some confusion through its use of both the NovaView and e-BI names for its product range, but it now seems to be putting more emphasis on the Panorama brand, and less on NovaView.

NovaView 5 now incorporates NovaView Analytics, NovaView Smart Reporting, NovaView Dashboards, NovaView Scorecards, NovaView Business modeling, NovaView Visuals, and NovaView for Microsoft Office. There is also a new product called NovaView Spotlight that enables delivery of metrics and KPIs through a Microsoft Office task pane. Apart from Spotlight, the various modules are not sold individually, but in bundled packages for varying numbers of named users.

The base product, required by all sites, is the Windows client, now called the Panorama NovaView Desktop. It is the direct successor to Cognos NovaView and Panorama.View, and has some similarities with the original pre-Microsoft Panorama product. Although the latest version of NovaView is simpler to use than earlier versions, Panorama now sensibly positions it as an analyst's tool, used to define complex views containing filters, exceptions, calculations and KPIs for wider deployment over the Web or via automatically distributed reports.

NovaView Analytics, is the Web access client which is aimed at typical business users. It includes much of the less technical functionality of the NovaView desktop, such as creating formulas, defining sets, implementing filters and setting exceptions and alerts. Most users, says Panorama, will opt for the Web client. The Web client includes a one-click formatted report feature – Smart Reports – that is not available on the desktop, as well as a rich Dashboard application and with new visualization and charting components.

Users of the Web client don't need to know anything about MDX, as most MDX functionality is built into the user interface. Panorama states that ultimately it will phase out the desktop client by moving all the main authoring features (new view wizard, KPI designer, advanced MDX) to the Web Access client. However, these features won't readily be apparent to casual users in order to keep the UI simpler.

The NovaView Web Access client includes both Java and DHTML clients, with the former being both more functional and faster than the latter (once the applet is loaded). There is also an Excel add-in called NovaView for Microsoft Excel. The Excel add-in has all the functionality of the Web client, with the additional benefit that a single Excel spreadsheet can incorporate multiple linked views and charts.

Panorama added a new feature to NovaView 5, the ability to save a view from within the Web client, if given permission by the NovaView administrator. Previously a user could only save a modified view to a private briefing book, not the shared public briefing book. Users can also copy and paste a view from a private briefing book into the shared briefing book. However, users still cannot create a new view from scratch from the Web client.

NovaView Smart Reporting enables one-click conversion of a NovaView Analytics view into a tabular report format, including WYSIWYG formatting, pre-built and custom report templates, advanced data visualization, ability to embed linked charts, free text, and images anywhere in a report, and sophisticated search and data highlighting within reports. Smart Reports retain all the interactivity of NovaView Analytics.

Panorama NovaView Dashboards provide metrics, alerts and management modules to monitor performance and analyze business drivers, trends and variances. Users can define pages to include

several components in a single page. These components include NovaView views (grids), charts, URL links, Smart Reports, and Microsoft Reporting Services reports. In the 5.0 release of NovaView, Panorama added an advanced charting function, which provides artfully rendered line, column, pie, funnel, pyramid, radar and Pareto charts, among other chart types. Charts and grids can be linked so that changes in one are reflected in the other.

Panorama has fully supported and documented API for the Web client object model, allowing the creation of custom applications. An example of the extended use of the API is the NovaView recent integration with Google Earth Enterprise edition.

Roadmap

Panorama has adopted a two-pronged business strategy.

First, the company intends to take advantage of its in-depth knowledge of the MDX language to expand beyond its reliance on Microsoft Analysis Services and SAP BW/NetWeaver BI to additional platforms such as Hyperion Essbase and others. Virtually all the functionality of the NovaView BI suite is based on MDX and Panorama engineers are taking their experience with MDX in Microsoft Analysis Services and applying this knowledge to other OLAP servers such as SAP BW. The company differentiates itself from other BI vendors by remaining 100 percent focused on OLAP, and optimizing NovaView for each server accessed (something that larger BI vendors have conspicuously failed to do).

For example, to overcome the slow performance of SAP BW queries, Panorama developed a new caching mechanism, called Smart Caching, which enables users to answer many standard queries directly from the NovaView server cache, without having to access the BW server. Smart Caching uses an algorithm-based method to determine what views are the most popular. Smart Caching works with both Microsoft Analysis Services and SAP BW.

Panorama also makes the point that NovaView is a light-weight product that runs on top of, rather than superseding, a customer's strategic BI platform, such as SAP BW. It is therefore a much smaller decision than to buy into the increasingly large and complex BI platforms from Business Objects and Cognos. Choosing one of these is a much bigger commitment than it was a few years ago.

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Integration with OLAP servers

Unlike the large BI vendors, Panorama is completely focused on OLAP rather than relational reporting, ETL, etc. It also has not owned its own OLAP server since selling its first product to Microsoft in 1996, but instead goes out of its way to make the most of the OLAP servers it connects to. For a number of years it only supported Microsoft's OLAP server, but it has now widened its scope. But it still limits its interest to MDX-based OLAP servers and is something of an authority on the quirks of different implementations of MDX.

Microsoft Analysis Services 2005

Panorama has continued with its policy of concerted optimization for Analysis Services. This means that it supports more API features than any other client for the server, while also being designed to overcome some weaknesses in the server.

While some of the supported features may be too obscure for the typical Analysis Services customer to care about, it does mean that those sites that have ambitious plans for Analysis Services are likely to

favor the Panorama approach. In fact, Panorama has previously provided functionality not then offered by the server, such as drill-through and server-based security (through views) when OLAP Services did not offer them. Now, Panorama simply takes advantage of the equivalent features in Analysis Services. But today's Analysis Services still has other weaknesses, including supporting large numbers of concurrent Web users and managing numerous security roles, which Panorama has overcome with features in its server.

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NetWeaver BI (SAP BW)

Most BI vendors have linked their products to SAP BW, as this is regarded as a strategic product by many SAP sites. Panorama had been focused entirely on Microsoft Analysis Services until very recently, so it was late to support BW, and was able to learn from some of the mistakes made by other vendors.

In particular, just as it with Analysis Services, Panorama decided not to treat BW as 'just another OLAP server' as the larger BI vendors are wont to do. SAP does support the Microsoft-driven OLE DB for OLAP and XML for Analysis standards, but its implementation is different to Microsoft's. For example, Microsoft implemented a number of MDX extensions in Analysis Services 2005 which made its version of XML for Analysis superior to other OLAP servers whose MDX implementations were more in line with Analysis Services 2000.

Realizing that it would have to work closely with SAP, just as it had with Microsoft, Panorama formed a collaboration in which SAP would add more MDX functionality to its OLAP interfaces, and Panorama would make NovaView work as efficiently as possible with SAP BW. SAP has since released several software updates to SAP BW and NetWeaver BI with functionality recommended by Panorama. While there is still some functionality available in BEx that is not in MDX (and vice versa) the gap is narrowing steadily. SAP and Panorama engineers continue to meet weekly. SAP's implementation of MDX today has a distinctively Panorama flavor.

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Other OLAP servers

Having had some success with SAP BW, Panorama intends to widen its OLAP server support, with Essbase likely to be the next server to be supported. This should be easier than BW, as Hyperion implemented a more Microsoft-like XML for Analysis support, and Essbase does not have BW's performance problems.

Reporting

Panorama now offers several different reporting options, including the original multidimensional crosstab/chart analytics views, as well as KPIs, dashboards and exploitation of Microsoft Reporting Services.

Smart Reporting

A major addition to the NovaView BI suite is NovaView Smart Reporting, an option available from within the NovaView Web Access client. With this feature, an analytics view can be displayed as a highly formatted report, with users being able to control how every element of the report (table, bands, titles, totals, formulas, headers and footers, images, free text objects, legends, etc.) is formatted. Placement of elements can be set at the pixel level.

Panorama built this feature once it became clear that Microsoft Reporting Services was not particularly suitable for reporting from Analysis Services cubes. Reporting Services does not take full advantage of the extended dimensional model in Analysis Services 2005, but rather use its own semantic layer and report builder. There is also no direct MDX functionality, such as the use of MDX functions, in Reporting Services. In contrast, all of NovaView's MDX capabilities are available in Smart Reporting.

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NovaView Spotlight

A recent addition to the NovaView BI suite is NovaView Spotlight, a personal dashboard that appears on the side or top of Office applications, in the form of Office task panes. Spotlight works directly from Outlook, Excel, and Word in Office 2003, and from all Office 2007 applications. We are not convinced that task panes are necessarily the best way to do this, as they can waste quite a lot of screen estate, which users may be reluctant to sacrifice if data is not changing constantly.

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NovaView Scorecards, Business Modeler, and KPIs

Key Performance Indicators (KPIs) are an EIS concept that has existed since the early 1980s, but has recently come back into fashion as part of the scorecard wave. They are typically calculated business ratios that can be used to track performance.

Panorama made these easier to implement starting with version 4. The KPI can be associated with a single cell (tuple) or with members defined in a MDX set. The Panorama KPIs also includes additional values that are related to the measure such as its goal, trend, minimum and maximum value and for gauges, the color range. These additional values are usually not always in the OLAP cube.

With the NovaView 5 release, Panorama added a scorecarding application that enables users to create their own scorecards and KPIs through a combination of Web-based manual entry and access to NovaView views using a tool called the Business Modeler. The modeler enables the creation of relational tables and OLAP cubes (in Microsoft Analysis Services only) without the need for IT support.

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Dashboard

Responding to the renewed fashion for EIS-style dashboards, Panorama added the new Panorama Performance Dashboard in version 4.0. The dashboard can include crosstabs, charts, KPI gauges, NovaView Smart Reports, Microsoft Reporting Services reports, Microsoft Office documents, and any external Web pages. As with other dashboard products, the aim is to present a simple, attractive, easy-to-access set of reporting components for non-expert or casual users. The application developer has the ability to limit the capabilities available to particular end-users, for example by showing or hiding the Print and Save functions, or disabling drilldown and slicer menus for users who only want to view static information.

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Automatic detection of exceptions

Panorama has always offered excellent exception detection and filtering capabilities — significantly ahead of any of its competitors. In addition to the simple color coding that most tools offer, Panorama also offer the ability to apply multiple simple or 'bubble up' conditions to a cell, with the tests reported both via font styles and colored indicators in any color.

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Application building features

Most of the functionality of the NovaView Web Access client is available in the Web client object model and API. Developers can use the API to develop custom applications that have their own functionality, look and feel. An example of this is Panorama's Performance Dashboard, which was constructed using the API. Dashboard administrators can bring Panorama views, including KPIs, crosstabs and charts, together into a single web application with total layout and workflow control, all without any coding.

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Scalability and fault tolerance

The NovaView Intelligence Server can be used in a server farm scenario where subsequent user queries can be load-balanced across machines. The Server was also designed for fault tolerance so that if a session is interrupted due to a server breakdown the session will be automatically redirected to another machine. This architecture offers a scalable solution for thousands of Web users in which machines can be plugged in and out without disturbing the user workflow.

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Conclusions

Panorama's position in the market has changed significantly since our last review in mid 2005. It is now the last significant independent OLAP client tool vendor left, and it is no longer focused only on the Microsoft OLAP market. Contrary to what might have been expected after Microsoft's takeover of ProClarity, Panorama is now thriving. It has moved upmarket, and is clearly targeting the larger organizations that want a more optimized OLAP client tool than is available from Microsoft or the large, general-purpose OLAP vendors.

The product has obviously moved on, and now also works with SAP BW, with Essbase expected to follow. As with Analysis Services, Panorama has worked to optimize NovaView for BW, which is more than most BI vendors have done. The functionality has also moved on, and now includes new options like Smart Reporting and Spotlight. As before, this focus on OLAP seems to unleash more creativity than is apparent in the larger vendors' product lines.

Clearly, for organizations that want a powerful analytical tool that offers the maximum exploitation of Microsoft's rich OLAP API or SAP BW, with the ability to deploy sophisticated views to large numbers of users across the Internet, Panorama has a compelling, and probably unbeatable, offering. However, with this power also comes complexity. Though Panorama now offers relational reporting via Reporting Services, it still does not have the full range of relational query capabilities offered by generalist BI vendors. This limitation is somewhat less important today with the launch of Analysis Services 2005, which was designed to incorporate SQL-like reporting using the UDM attribute model. SAP BW accomplishes much the same thing with the inclusion of characteristics (attributes).

We have previously criticized Panorama's erratic quality control. Panorama says that it has taken note of these repeated criticisms and improved its software quality and release procedures. While this does seem to have produced an improvement in quality, we do not believe that Panorama's quality has caught up with other BI vendors. Its customers seem to accept this as the flipside of Panorama's creativity, keenness to respond to customer demands and determination to extract every ounce out of the OLAP servers it works with.

If Panorama can pull off the difficult feat of succeeding in the BW client tool market — a goal that has eluded the other BI vendors — and can continue to maintain its high end niche in the Microsoft OLAP market, it should be able to continue to thrive. But in this era of BI consolidation one has to wonder how much longer Panorama will remain independent.

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