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Empowering Excellence

High Tech and Electronics Manufacturing

Empowering excellence in high tech electronics

No other industry segment faces market and technology change as fast or unexpectedly—nor products and processes as complex—as do high tech electronics companies. High tech and electronics companies have long competed on their ability to drive technology and design innovations, optimize highly complex supply chains, deliver superior customer service performance, and ensure rapid time to market.

Add to all that a huge game changer. Today, there is a huge power shift towards the consumer. Large customer and consumer communities are now driving the industry’s agenda, helping shape their technology, product, services, value chains, and go-to-market strategies. Today, market success is not only about having the most innovative or “coolest” product; it is also about delivering a deeply differentiated total customer experience. The result is that brand owners must cultivate a new level of intimacy with end customers and with digital content and services providers, whose offerings are increasingly defining the product experience.

As the industry’s relationships with end customers and content providers grow more intertwined, high tech and electronics manufacturers are faced with new opportunities—and challenges—for serving a growing array of new regional and demographic segments that are proliferating as new sectors of the globe join the market. And atop these opportunities and challenges, the high tech sector faces growing regulatory compliance mandates, fluctuating resources costs, and market expectations for sustainability that add management burdens.

Microsoft is uniquely positioned to help companies in the high tech and electronics industries because we ourselves are a high tech manufacturer. Every day, we experience the same obstacles, challenges, and opportunities. As the maker of products like the Xbox and Zune, Microsoft collaborates with a vast network of partners; manages a highly complex multitiered supply chain; integrates PLM data on their ability to drive technology and design innovations; and creates a total customer experience around consumers, the people who are shaping the high tech and electronic market.

Microsoft understands what digital convergence means to the high tech and electronics sector. We understand what dynamic change is all about. Selling to business and consumers alike, Microsoft is well aware that delivering uniquely differentiated customer service is a requirement for survival in today’s highly competitive high tech electronics business. In building communities with our customers, we understand the power of loyalty and the reality that in the high tech sector, the product is only part of the total customer experience.

We offer the platforms, tools, and industry solutions that help high tech and electronics manufacturers meet the opportunities and challenges of a market where the ground rules are constantly changing. Using Microsoft industry solutions, the people of high tech companies can work within their familiar productivity solutions to make the right decisions, based on access to the right information, at the right time. In an industry that is increasingly driven by collaboration with business partners and ongoing collaboration with customers, Microsoft provides the integration and communications platforms that keep people constantly connected.

The Race Is On

The increasingly global, dynamic end market puts a premium on agility across all facets of the high tech and electronic business. It requires agility in ideation, producing new ideas, selecting partners, managing production, optimizing the global supply chain, and readily adapting new go-to-market strategies. Embracing agility requires that high tech enterprises provide their people with the right information and the right tools at the right time, so they are empowered to make the right decisions in a highly changing, fast-moving market. They require the ability to work within their familiar productivity tools while gaining access to information, services, and compute capabilities as they need it. There is simply no time to waste.

Macro Forces in High Tech Electronics Manufacturing

The high tech industry traditionally competed on its ability to accelerate innovation, increase quality, and optimize global, multi-tiered supply chains. While those factors remain important, new macro forces are reshaping the market.

Power Shift to Consumers.

Consumers themselves are seizing the initiative in proroging the industry to respond to their expectations. Using the power of Web 2.0, they are taking back to the industry and each other, building large communities that are impacting market demand and product expectations. Today’s high tech leaders are the companies that proactively engage with consumers, involving them in the cycle of innovation.

IP Alliances and Digital Convergence.

Given the pace of market and technology change in the high tech industry, no player can afford to go it alone. With product lifecycles shrinking to less than six months, along with the impact of digital convergence, companies are driven to create new IP alliances to ensure that they can bring new products of the future to market faster. IP alliances also drive the need for secure communications and digital rights management so the people across the high tech business network can collaborate within a trusted environment.

Influence of Emerging Economies.

New opportunities are arising in new world regions, many of which formerly primarily served as manufacturing or outsourcing centers. Emerging economies are driving the new wave of consumer spend, creating opportunities for high tech companies to have a presence and provide products and services. They also compel high tech companies to tailor their offerings to the unique demands of the emerging regions that they are serving.

Sustainability and Complex Regulations.

Fluctuating energy and resources costs, compounded by a growing wave of environmental awareness, are raising the issues of sustainability to the forefront in company operations. Many countries are now requiring manufacturers to reduce hazardous material content in their products and reduce the waste stream for product end of life. Energy and resources costs are in turn driving high tech manufacturers to rethink their globally extended supply chains. While these factors add new challenges, they provide significant potential opportunities for cultivating a reputation for “green” products that adds competitive advantage in markets that are becoming more environmentally conscious.

Changing Demographics.

Slow population growth in established markets, combined with rising demand in emerging regions, is impacting high tech and electronics enterprises. On the employment front, impending retirement of baby boomers in mature economies is creating a skills gap that requires intensified recruitment of tech-savvy 18- to 30-year-olds from the “millennial” generation. Increased operations in emerging economies is also driving a more global workforce.
From Enterprise Foundations to Role-Based Productivity

With the macro forces that are accelerating change in the high tech industry, people need to stay connected to each other in a secure, trusted environment where they gain access to the right information necessary for making and executing the right decisions, at the right time. Microsoft products, enabling role-based productivity, become the cornerstone for high tech manufacturers to maintain leadership in a market where the goal line is constantly moving.

This dictates a major shift from the traditional siloed approach to increased levels of collaboration across departments. High tech and electronics companies initially focused on automating discrete business functions such as electronic design automation, manufacturing execution, supply chain management, and customer relationship management. Supporting processes that crossed multiple functional silos, such as an account representative making a delivery commitment to a customer, required custom integration of CRM, ERP, and logistics systems.

That model broke down as the industry became one of the first to evolve to a highly globalized ecosystem that prizes speed and agility and runs on collaboration. When a rival introduces new technology, it is critical to be able to respond quickly and effectively. To remain competitive, manufacturers must be able to collaborate with partners, both within and outside their organization, to make fast, informed decisions. This requires a shift from the traditional siloed approach to a more connected, collaborative model.

Microsoft Office Business Applications (OBA) enable role-based access to information that crosses multiple silos. They require the integration platforms that deliver role-based views so that the right people can make the right decisions, based on the right information, delivered at the right time. They also require the assurance of a secure, trusted environment where they can collaborate with partners, safe under the assumption that their trade secrets and intellectual property are completely protected and accessible only to those individuals who are authorized for specific projects, based on their roles and responsibilities.

Microsoft Office Business Applications (OBA) enable line-of-business applications to be extended in the context of the role that the end user plays within the organization. With OBA, a Microsoft Office user in the accounts payable department can approve supplier invoices without having to log on or learn a procurement system. More than 50% of high tech manufacturers report that they collaborate with partners via non-secure channels. Only 27% of business decision makers and 37% of technology decision makers have faith that their firms’ communications tools are secure.

Microsoft’s Software Plus Services strategy provides a seamless environment, where the same applications and services that are accessed locally can also be accessed through the cloud. With Software Plus Services, high tech electronics manufacturers gain the flexibility of rapidly extending access to partners or implementing new solutions without disruption to their existing enterprise application infrastructure—a critical advantage for a sector where competitive edge is based on the ability to act fast. Software Plus Services-based solutions are available today for helping high tech electronics companies remain agile.

Global Performance Networks

The emergence of cloud computing is further blurring the boundaries of the collaborative high tech enterprise as the performance network goes global. By making the same state-of-the-art enterprise applications and processes accessible, even to the smallest niche design shops or fabricators, cloud computing is making the high tech collaborative ecosystem Global Performance Network a reality. Emergence of Web 2.0 technologies such as blogging, linking, tagging, and social networking in turn is providing yet a new sense of immediacy and direct participation in several ways. Web 2.0 opens new channels for the people of high tech—and their customers—to increase their levels of collaboration and idea exchange.
Networks Are the Key to Empowering Excellence in High Tech Electronics

Always fast-paced and connected, the industry has grown even more proactive and interconnected than ever. High tech manufacturers operate in a world of intertwined networks comprised of:

- **Innovation Networks**, which foster rapid time to market by bringing together leaders in specialties spanning the multiple disciplines of product design and content development.
- **Manufacturing Networks**, which bring together brand owners with state-of-the-art contract manufacturers to transform innovation into product.
- **Value Networks**, which enable high tech manufacturers to balance highly complex, multi-tiered global supply chains with the benefits of profitable proximity to end customers in critical world regions.
- **Customer Networks**, which help brand owners engage consumers and business customers who are intent on becoming active participants in the value chain.

Managing these networks places a premium on transparency, from innovation through manufacturing, delivery, and contact with the customer. High tech manufacturers can no longer expect to succeed by traditional strategies that optimize each of these networks in isolation. In a connected world, they must constantly assess the big picture, and continually track performance, analyzing the impacts of new and existing products on sales, while ensuring that all processes are in compliance with internal policies and regulatory mandates.

Empowering Excellence in Global Performance Networks

Fast-changing competitive environment demands clear window on corporate performance and risk management.

End-to-end performance networks are essential for ensuring that the people of high tech manufacturing understand and support their organizations' competitive goals. Lacking adequate performance management solutions, people often lose sight of the big picture.

High tech manufacturers must constantly track key performance indicators (KPIs) to get the big picture on whether they are meeting their competitive goals. In such a fast-moving sector, the people of high tech electronics companies must constantly have a clear window in real time on actionable information that is consistent and comes from a trusted, secure source. Access must spread across data, application, and organizational silos across the entire enterprise. All stakeholders require early warnings and alerts to outlier trends; they must have access to KPIs that monitor what is happening, analysis tools that help them understand why, and planning tools so they can compare options and scenarios for course corrections.

Microsoft offers a wide range of solutions running on a secure and interoperable platform to help high tech electronics manufacturers manage corporate performance and risk. They include **PerformancePoint Server 2007**, the business intelligence platform that is optimized for data integration, reporting, and analysis, enabling organizations to deliver intelligence where users want it. **PerformancePoint Server leverages SQL Server 2008**, the scalable data storage environment for managing enterprise data, and **SharePoint Portal and Dashboard**, which provide the intuitive, common reporting platform that stakeholders require.

For instance, when a top global, diversified computing manufacturer required a consistent means for measuring strategy against objectives across all business units, geographic, and functional areas, it deployed a Balanced Scorecard solution based on the Microsoft .NET Framework, SharePoint Portal and dashboard technologies to capture key performance indicators from 40 systems across its global sites. It implemented Web-based reporting using a single reporting tool. With an investment of less than $1 million annually, the company is saving up to $20 million each year.

95% of a typical workforce does not understand how the organizational goals and objectives relate to their jobs.

90% of organizations fail to execute their strategies successfully.

86% of teams spend less than one hour per month discussing strategy.

60% of organizations do not link their strategies to their plans and budgets.

Source: Palladium Group/BSCOL

End-to-End Performance Management

People, processes, and technology drive business performance.

- **People**: Organization-wide access to relevant business information (no IT filter)
- **Easy-to-use intelligence tools for all levels and roles**
- **Role-based delivery of performance-related information**

- **Processes and Methodologies**: Scorecards, dashboards, and strategy maps that identify business drivers
- **Standardized KPIs to align with business goals and initiatives**
- **Redesigned business processes to affect business drivers**
- **Automated workflow for simpler consolidation and reporting**

- **Technology**: Data integration to combine information from existing systems
- **Data consistency, security, and integrity**
- **Server-based views to allow collaboration and consistency – single version of the truth**

End-to-end performance management is essential for aligning execution with corporate mission.
Empower Excellence in Innovation Networks

Accelerate New Product Development

For a fast-moving sector such as high tech electronics, it’s no surprise that accelerating innovation and time to market is the chief competitive challenge. The goal—converting ideas into competitive, sustainable advantage—requires “borderless innovation” in which multiple teams are routinely collaborating across world geographies and corporate boundaries, forming innovation networks. Innovation networks thrive on frequent simulation to iterate design ideas and leverage existing designs and configurations to design platforms that span multiple products. At this stage, multifunctional teams address issues such as reconciling product features and production readiness with actual or latent demand, and if the product idea passes the evaluation, the teams conduct exhaustive build versus latent demand, and if the product idea passes the evaluation, product features and production readiness with actual or latent demand, and if the product idea passes the evaluation, product features and production readiness with actual or latent demand, and if the product idea passes the evaluation, product features and production readiness with actual or latent demand, and if the product idea passes the evaluation, product features and production readiness with actual or latent demand.

Microsoft offers platforms and servers that address the needs of innovation networks, ranging from Windows Server and Windows Live for deploying software + services addressing the product lifecycle, to BizTalk Server, for integrating the cross-application processes that comprise the product lifecycle; SharePoint Services for delivering personalized access to product data; Enterprise Project Management Server for stage-gating the innovation process; and SQL Server as the scalable data management platform. For instance, a leading PLM provider has built its solution using SharePoint as the role-based information delivery vehicle.

Microsoft worked with a specialized chip design firm to improve collaboration among cross-functional product development teams located across different parts of the world. Previously, the process for publishing shared product designs and specifications to the Web took several weeks. Using SharePoint Services, the firm simplified the process of collecting team knowledge and sharing product design information. Additionally, the team used Office Professional Enterprise Edition to improve remote access to documents and messaging and deployed Exchange Server and RPC over HTTP to enable e-mail access without a virtual private network (VPN). As a result, the company accelerated design review cycles by 70%, saving 4,000 staff hours annually.

Empowering Excellence in the Customer Network

Focusing sales, marketing, service—and community building—to achieve your growth goals

Ultimately, success is all about connecting and engaging the customer. More than most product industries, high tech electronics enjoy a special place in end customer lifestyles—whether it is for entertainment, fashion, or convenience. The customer touch point has become even more pivotal to the success of high tech manufacturers, as the end market for their products is increasingly driven by consumers, and the emergence of Web 2.0 technologies has greatly expanded the channels for engaging the customer directly—supplementing the retailer as point of contact.

The customer touch point for high tech electronics manufacturers is quite varied: highly tiered supply chains count upstream manufacturers who sell or perform contract manufacture, assembly, or supply chain services for other manufacturers or brand owners. At the downstream end are brand owners who sell equipment to other businesses and retailers or, in some cases, direct to consumers.

For consumer electronics companies, the customer touch point becomes part of the experience that they sell with the core product or platform. Regardless of whether brand owners sell through retail or direct, they must engage with the consumer communities that now exert great power over the marketplace. Beyond product Web sites, high tech manufacturers can engage directly with consumer communities through mashups, blogs, wikis, forums, and promotional activities or events that invite the kind of customer participation that forges long-term brand strength and loyalty. Delivering a 360-degree view of the customer is essential for high tech companies to know their market and bond with their customers.

The challenge is twofold: first there is the need to systematically build and manage sales and marketing campaigns. The other half of the equation is building a complete picture of the customer, a challenge given that most high tech businesses maintain customer-related data in multiple places. Microsoft Dynamics CRM provides the scalable, cost-effective solution for managing customer interaction data. Microsoft SharePoint Server provides the means for sharing data via role-based personalized views across the sales and customer interaction cycles.

For instance, Microsoft is helping high tech customers leverage Web 2.0 to improve retail channel support. Relying on its dealers to correctly install its increasingly complex after-market car audio products, Pioneer Electronics began looking for ways to more effectively support dealers, many of whom had no way to collaborate with peers for help. So Pioneer deployed social networking technologies in a business context, building a dealer portal based on Microsoft SQL Server and the .NET Framework. Pioneer’s dealers gained a vibrant online community where they can share their knowledge, take training, promote their stores, and build allegiance to the brand. The dealer portal also is used by staff at large retail outlets for training and installation information.

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Empowering Excellence Across the Value Network
Supply chain excellence as competitive differentiator

Visibility is essential to preserving agility while managing globally extended, multilayered supply chains in a highly dynamic, competitive environment. There are numerous factors that, at any moment, can increase the risk of disruption to the supply chain. A sudden upsurge of interest across the blogosphere for a new product can easily throw off the best thought-out demand forecasts; a sudden yield issue at a semiconductor fabrication facility will cause cascading bottlenecks both up- and downstream, setting off a rush for securing alternative suppliers; while spikes in fuel prices may drive manufacturers to adjust global or local sourcing strategies.

As pioneers in managing globally extended networks that extensively leverage partnerships, high tech manufacturers have long valued the ability to collaborate in processes for gaining a unified view of the plant floor. Microsoft’s Manufacturing Visibility Pillars

**Empowering Excellence in Manufacturing Networks**
Providing visibility from plant floor to boardroom

Today’s high tech electronics industry has increasingly become a daily, event-driven same-day scheduling business. As technologies change, consumer tastes shift, and supply chain disruptions occur, high tech firms must be able to shift gears on short notice when managing or changing manufacturing plans.

Gaining such visibility dictates integration across multiple tiers, from devices and sensors to distributed control and MES/SCADA systems on the plant floor to laboratory information management and inventory tracking systems. It also dictates integration with one or more ERP systems across different regional or product-focused business units. Ultimately, it requires producing role-based views, so line operators gain a view of processes under their control; lab managers and technicians gain a window into product manufacturing history and configuration that is integrated with test results, and plant supervisors get the big picture on work in process, quality trends, and production scheduling.

Excellence in manufacturing means global coordination with operational excellence. High tech manufacturing leaders can manage product design centrally, communicated electronically in real time to global production sites and strategic partners. Global visibility of production performance allows event-driven planning and same-day scheduling across a fleet of assets based on deep knowledge of equipment and process capabilities. With the right tools, plant managers, supervisors, and operators are empowered to make the right decisions based on actionable information that makes a real difference. Production planning becomes fully flexible; quality improves while cycle times decrease; improved tracking and tracing capabilities address lot tracking while promoting continuous improvement, and people become more productive because they can direct their attention to managing exceptions. Production becomes fully aligned with the business and synchronized to the supply chain and market demand.

Many leading MES and SCADA system providers already rely on Microsoft foundational technologies, including SQL Server for scalable data management; SharePoint Server for delivering role-based views; and PerformancePoint Server for providing KPIs on manufacturing trends. Brand owners who increasingly rely on outsourcing and strategic sourcing to gain access to state-of-the-art processes that can accelerate time to market are using BizTalk Server to integrate views of the “virtual” manufacturing and assembly plant.

A leading global contract manufacturer with several dozen plants and over 250 production lines required an MES solution that could be rapidly deployed, yet scale to the most demanding production requirements. Using SQL Server and Microsoft .NET Framework, the company was able to track production at the serialized unit, lot, and ERP work order levels for as-built configurations; monitor output of build conditions, providing actionable real-time alerts; enforce best practices with dynamic workflow-based parts routing, and maintain complete batch histories. As a result, production quality dramatically improved and production line efficiency increased, greatly reducing manufacturing errors and costs.
Microsoft Standards

Microsoft has a long track record of helping high tech software and solution providers speed new products to market by enhancing speed to insight and innovation and improving value for cost.

The Microsoft software platform has an extensive footprint, everywhere from productivity devices such as PDAs and mobile phones to software that supervises plant-floor devices, handles desktop productivity, supports enterprise business applications and B2B processes, and manages the end user experience. It is underlaid by a trusted platform that enables the people of high tech to empower excellence by sharing innovation, market intelligence, corporate performance analysis, customer insight, and other mission-critical processes and key indicators in a secure environment with the proper level of management.

Microsoft responds to the high tech sector’s need for connectedness and interoperability through its familiar Microsoft Office and Windows client interface, and emerging environments such as Windows Presentation Foundation and Silverlight, which extends the rich client to the Internet. Microsoft is backing up its commitment to interoperability through its involvement with key organizations promoting industry standards and best practices, including:

- OAGI – Charter member High Tech Industry Council
- ISA-95 – Connecting “top floor to shop floor”
- RosettaNet – Co-sponsor of the next-generation RosettaNet Automated Enablement program with Office Open XML
- SOA/Web services – Microsoft is a leading player in driving Web services standards that promote interoperability through implementation of Service Oriented Architectures (SOA)
- Semiconductor Equipment and Materials Institute (SEMI)
- International SEMATECH Manufacturing Initiative (ISMI)

Targeting new product development, global value chain visibility, operational performance, and sales and customer insight, the architecture serves as a blueprint that enables Microsoft technology partners to develop software solutions that can help high tech organizations solve real-world business issues. It also provides a standards-based foundation for interoperability between Microsoft solutions and legacy systems, ensuring that high tech companies can extend the value of their existing technology investments.

Using Windows Live, Microsoft is helping Xbox 360 customers feel more connected through online communities where fans are encouraged to interact through blogs, wikis, and rich media to communicate their experiences with the product and all the games and events that are associated with it. With the high tech electronics industry being one of the most interconnected sectors, Microsoft promotes interoperability through portals and business process servers that promote integration, rich user experiences through the familiar Microsoft Office and Windows client interface, and emerging environments such as Windows Presentation Foundation and Silverlight, which extends the rich client to the Internet. Microsoft is backing up its commitment to interoperability through its involvement with key organizations promoting industry standards and best practices, including:

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- Semiconductor Equipment and Materials Institute (SEMI)
- International SEMATECH Manufacturing Initiative (ISMI)

Key Capabilities for Solutions That Empower Excellence

Like most businesses, high tech electronics manufacturers typically rely on multiple applications that are deployed across multiple platforms. And like most businesses, high tech organizations face significant challenges integrating data and processes across their application silos. They face these challenges as they coalesce the innovation, manufacturing, value, and customer networks across their organizations.

Microsoft applications, server platforms, and tools provide solutions addressing:

- Integration—Microsoft technologies, such as Microsoft BizTalk Server and the Microsoft .NET Framework, provide a powerful means for reducing the complexity that impedes systems integration, resulting in dramatically streamlined collaboration capabilities. Using SharePoint technology, high tech electronics manufacturers deliver the information that empowers their people through personalized portals and work flowing mobile users and stakeholders throughout the organization, while protecting intellectual property through investments in digital rights management services and identity management.

- Collaboration and Unified Communication—With the industry heavily reliant on collaboration between business partners, Microsoft provides the platforms, servers, and tools that keep high tech electronics manufacturers on the same page with their business partners. Microsoft Unified Communications products keep global electronic manufacturers in touch with platforms by bringing together VoIP call management, voice mail, faxes, web conferencing, audio and video collaboration, e-mail, instant messaging, and mobile devices. Microsoft BizTalk Server integrates the B2B processes that help high tech business partners collaborate, while Microsoft SharePoint Server provides the personalized portals that support “the last mile” of collaboration by presenting actionable information and critical processes to the people who must work together across departmental and organizational boundaries.

- Business Intelligence—Built on SQL Server Business Intelligence, Microsoft solutions link systems and data across departments and even across organizational boundaries so that decisions are based on a complete view of all relevant data. We provide high tech companies with analysis tools and business scorecards that can help speed new product development, improve global value chain efficiency, and streamline manufacturing processes.

- Mobility—High tech electronics manufacturers have great need for mobility, ranging from plant supervisors and operators to warehouse personnel, logistics, and field representatives or service. Microsoft solutions provide tools that streamline data entry and transmission, replacing planners, spiral notebooks, and sticky notes with real-time solutions that give people access to important information from numerous mobile devices. Tablet PCs, smart phones, and PDAs also give mobile teams new tools for delivering targeted, up-to-the-minute marketing information across the enterprise.

- Security—With the confidentiality of proprietary information and the high stakes of being first to market with innovative new products, high tech companies must find new ways to help their people enhance the security of research data. The Microsoft architectural framework was designed to reduce vulnerabilities, help protect computing environments through perimeter and host defense systems, and help deploy the latest relevant security updates.

- Microsoft’s Software + Services offerings—Provide high tech manufacturers unparalleled flexibility for running the same enterprise-critical line-of-business applications and software processes unchanged—regardless of whether the software is installed locally or made available on demand through Software-as-a-Service (SaaS). Software + Services complements existing IT infrastructure by providing the freedom of choice to tap additional computing capacity only on an as-needed basis. In turn, Microsoft’s new Azure Services Platform will help developers build the next generation of applications spanning from the cloud to the enterprise data center, delivering compelling new experiences across the PC, Web, and phone.

For instance, it enables high tech manufacturers to take advantage of innovative new solutions such as supply chain analytics, RFID tracking, or customer relationship management without having to buy additional capacity and hire the staff to run it. Or it could be used for virtual collaborations where there is a need to rapidly onboard or decommission partners for specific applications during the life of a project.

“We are excited to see Microsoft’s continued commitment to the High Tech industry and look forward to participating in the Microsoft High Tech Customer Advisory Board to address several of the key challenges that face our industry today.”

—Tom Gill CIO, Plantronics
Microsoft Partner Ecosystem

When you work with Microsoft, you work with the best in the field. With Microsoft, you have access to a wide variety of solutions from one of the industry’s largest partner ecosystems. From industry-savvy Microsoft system integrator partners who can connect your disparate systems and build a flexible, end-to-end solution, to Microsoft independent software vendors who develop best-of-breed solutions, you will gain access to industry solutions that are open, flexible, and interchangeable. With our partners, Microsoft is developing solutions on an integrated technology platform, incorporating Microsoft Business Solutions, Microsoft Office, Windows Mobile, Unified Communications, Windows Server Systems and other products and technologies—all centered on our open-standards, Web-enabling .NET platform.

Together, Microsoft and its large partner ecosystem cover the entire high tech electronics manufacturing value chain, with solutions addressing areas ranging from product innovation and manufacturing to supply chain optimization, sales and marketing, to the customer touch point.

Microsoft Products

- **Microsoft BizTalk Server**—A valuable integration tool for organizations that want to extend the life of their legacy systems, enabling true end-to-end integration and workflow along the entire high tech value chain.
- **Microsoft SQL Server**—Delivers the full range of capabilities essential for storing, accessing, and analyzing large volumes of data while offering the lowest implementation and maintenance costs in the industry.
- **Microsoft Office System**—A tightly integrated system of applications that delivers improved productivity, easier access to critical information, and enhanced collaboration. With the Office System, Microsoft provides the platform for Office Business Applications, a way to extend the back-end enterprise applications so knowledge workers can work with them through the familiar Microsoft Office desktop.
- **Microsoft Dynamics**—A line of integrated, adaptable business management solutions that enables you and your people to make business decisions with greater confidence. Microsoft Dynamics works like and with familiar Microsoft software, automating and streamlining financial, customer relationship, and supply chain processes in a way that helps you drive business success.

Why Microsoft

Microsoft offers familiar tools and technologies that help high tech electronics manufacturers empower excellence in a highly globalized, volatile, competitive environment.

Microsoft empowers excellence in the high tech enterprise with a robust platform that is familiar and easy to use and supports enterprise and B2B collaboration, while providing integration that works.

- **Familiar and Easy to Use**—Microsoft software, touching the majority of business people in the world, is familiar and accessible to people at all levels of your organization, as well as to your partners and customers. From tools for developers to systems and infrastructure for IT professionals to applications for your employees, Microsoft software vastly reduces training time and makes people more productive more quickly.
- **Wildly Used and Supported**—Microsoft makes some of the world’s most widely used and supported software, ensuring that our customers will always find it easy to get the help they need to solve technical issues and have questions answered. In addition to our Microsoft technical support services, a worldwide network of developers, support professionals, and thousands of certified partners means you always have access to the expertise you need.
- **Integration That Works**—Manufacturers everywhere already have spent large sums on technology, creating a pool of technology that is expensive to abandon but also costly to maintain and make available throughout an enterprise. Microsoft is at the forefront in developing tools such as Web services that can connect and stitch together far-flung data sources that until now were isolated from one another. Moreover, our software is designed to work together.
- **Innovative Software**—At Microsoft, we are committed to developing software products that help high tech manufacturing employees reach their full potential. We will continue to create new products that allow a business to evolve and adapt to an increasingly complex marketplace. Our commitment to and leadership in industry-standard technologies such as Web services ensure that companies that use Microsoft products have access to the widest possible array of technology partners and software platforms.
- **Deployed Where You Need It**—Microsoft provides the best of both worlds. With our Software + Services platforms, Microsoft lets you combine the power of the desktop with the low-cost, flexible, zero-deployment advantages of services over the cloud.