

OFFICE.NET VISION

THE NEXT GENERATION OF PRODUCTIVITY

Introduction.....	1
Office.NET Vision Areas and Technology Bets.....	1
Office.NET Business Model.....	2
Office.NET Customer.....	4
Office.NET Competiton	6
Vision Areas	7
<i>My Office</i>	7
<i>Team And Corporate Productivity</i>	10
<i>Keeping in Touch</i>	19
<i>No-Brainer Upgrade</i>	21
<i>Unlocking Information via XML</i>	25
Technology Bets.....	29
<i>Targeting TabletPC</i>	29
<i>Building on Hailstorm</i>	30
Office.NET Customer Value Proposition	31
Office.NET and International Markets	32
Office.NET Tenets.....	32
Operations Excellence.....	35
Office.NET Key Partnerships	37
Office.NET Schedule	38

INTRODUCTION

Office.NET represents a major new vision for Office: integrating web services with the rich client to deliver unprecedented value to our customers. Office.NET is also represents a major shift in how the product team approaches the Office product development cycle. Office.NET is *not* “the next version of Office”. It is an entirely new focus for Office where we will start fresh and extend our software into new and unexplored areas – software services. Office.NET will introduce a new business model, integrate with other strategic Microsoft technologies, and make much of the company-wide .NET vision real.

OFFICE.NET VISION AREAS AND TECHNOLOGY BETS

Office.NET will generate a significant portion of our revenue from subscriptions and services. As we move forward we need to keep in mind the huge asset the millions of desktops and users running Office represent to Microsoft. The experience people have using Office and the importance of transitioning current Office customers to Office.NET -- while also capturing new customers -- will be key to our success. The vision of Office.NET is really quite simple:

:

“Office.NET is a software service consisting of the best combination of software and services that provides a personal experience in creating, communicating and collaborating anywhere and anytime.”

Delivering on this vision requires focusing our effort on these five vision areas, or *pillars*:

“My Office” -- Office.NET presents personal and relevant productivity services to Office customers.

“Team and Corporate Productivity” -- Office.NET will provide the most efficient way for the individuals to share information and work together inside, outside, or across Organizations.

“Keeping in Touch” – Office.NET will provide the set of tools and services that help the user to communicate both as an individual and as part of an organization.

“No-brainer Upgrade” -- Office.NET will lower the barriers that slow the acceptance and use of our software. We will make Office.NET a compelling and easy choice for both existing and new users.

“Unlocking Information via XML” – Office.NET will provide new and innovative tools and methods to create, interact and connect to structured data and documents.

In every release of Office we have extended our efforts beyond the main vision pillars and placed ‘*bets*’ on important key technologies. In Office.NET our key areas and technologies will be as follows:

“Targeting TabletPC”— Office.NET will exploit the exciting and upcoming TabletPC platform by providing end-user note taking and thought processing while seamlessly combining them into the existing Office components.

“Building on Hailstorm” – Office.NET will use Hailstorm as the cornerstone of our service integration infrastructure. Office.NET will be a key consumer and a contributor on the Hailstorm interface design and implementation.

“XML” --- XML will provide us with an open, extensible format through which we can share structured data, communicate between applications and services, and build rich solutions to address important knowledge worker scenarios.

“Building on SharePoint Team Server” --- SharePoint will be the cornerstone of our hosted services. When possible, we will build our new services in Office.NET by integrating them into our SharePoint server. This gives us a consistent technology and user experience for hosting both inside and outside corporations.

The details of each of these vision areas and bets will be discussed in greater detail later in this document. Before that, it is important to understand and address the new business model, customer and the competition for Office.NET.

With Office.net, we will begin a transformation of our business - from the traditional world of selling perpetual client upgrades to delivering services through a new subscription-based offering. This presents us with an unprecedented opportunity to not only provide greater customer value through services and continual product improvements, but to also develop and strengthen relationships with our customers.

OFFICE.NET OFFERINGS

Customers can choose to subscribe to the Office.NET service or they can purchase the Office.NET perpetual client. The Office.NET service will include access to Office.NET services hosted by Microsoft, the non-perpetual Office.NET client, service releases, and client upgrades released during the subscription period. Subscribers will be able to use the Office.NET client on their PCs; they also will be able to access data stored on the web from other PCs using a browser or a previous version of Office.

Over the long term we expect that customers will find our new offerings compelling and prefer subscribing to the Office.NET service, thereby driving revenue growth for our business. Our initial target customer is the technology enthusiast working in organizations of all sizes. In addition, organizations will be able to subscribe to the Office.NET service through existing volume licensing programs.

Customers who choose not to subscribe to the Office.NET services will be able to purchase the perpetual Office.NET client. Office.NET perpetual client customers will receive service releases; however, they will not be able to access Office.NET services nor will they receive client upgrades. Just as we do today, the Office.NET perpetual client will be sold as a full packaged product to consumers and through volume licensing programs to organizations.

SUBSCRIPTION SERVICES

With the first Office.NET release, we will seek to build a critical mass of technology enthusiasts who will evangelize and generate broad end user excitement around a profitable set of Office.NET services. To deliver on this goal, the initial subscription offering must meet the following business criteria.

Value – The new Office.NET services must meet real customer needs and provide relevant, compelling value on an ongoing basis. A valuable set of services is a necessary condition for success in selling the subscription offering and retaining customers over the long term. Our ability to continue selling richer and deeper services relies on customers getting tangible value out of our services now and choosing to renew their subscription on a regular basis in the future.

Innovation – Our services must compete effectively with existing and emerging services in the marketplace. This subscription should also include new and innovative services that Microsoft can uniquely provide given our software expertise and vision. This will enable Microsoft to stand out from the rest of our competitors based on an offering that is distinctive and more innovative.

Cost – The Office.NET services must meet internal cost requirements to be included in the subscription offering. Our ability to generate profit, which is simply revenue minus costs, depends primarily on how well we manage our fixed and variable costs. Fixed costs, or the costs that don't vary with service use, must be managed to drive down the number of subscribers required to reach service profitability. We will also need to manage variable costs, or the costs that do vary across usage levels, so they decrease as the number of subscribers increases. This will enable increased profitability as our service business grows.

In addition, we will contain variable cost by identifying key cost contributors and providing a set level of consumption for specific services in the subscription offering. Customers who need to consume more of a particular service, for instance disk storage, will be able to buy more via an a la carte disk storage service.

SERVER SOFTWARE

Our experiences with SharePoint (SharePoint Portal Server and SharePoint Team Services) and our planning for Office.NET have highlighted the great opportunity we have to deliver additional value to Office customers by developing and marketing server software that leverages and adds functionality to the Office client. For the Office.NET release, we will be shipping the second release of the SharePoint servers to our customers. We will also investigate how we might package other Office.NET server code so that it can be run by corporations on their own servers “inside the firewall.” Complementary client and server software have the potential to be an important source for future Office revenue growth.

CHANNEL & PARTNERS

Our channel will play a critical role in selling our subscription offering and perpetual client. We will expand our channel by developing relationships with new partners to reach technology enthusiasts and by providing incentives for partners to help us sell services. In addition, we will need to provide third parties with valuable service opportunities around customization, solution development, security, and deployment. By doing so, we will be able to expand our definition of partner services to include highly integrated joint-marketing & packaging ventures and even deep integration into the Office.NET services.

OFFICE.NET CUSTOMER

Eight years ago Office was entrenched in competitive battles on all fronts. We succeeded in pulling ahead of those competitors by investing in innovative features that enticed new customers, one Influential End User (IEU) at a time. Soon we found ourselves in a new world – one where we had convinced a broad user base to choose Office. Office next faced the roadblocks of enterprise deployment. So, we focused on these TCO issues and grew the base even more, one enterprise agreement at a time. Now, our business is largely driven by enterprise adoption; we have finally convinced enterprise IT that Office is deployable within the enterprise.

Recent changes in the competitive space, capabilities of the Internet, perception of client feature saturation, and bets being made on our .NET services platform provide Office yet another great opportunity to expand its base. To do so, we need to focus once again on the individual user and reinvigorate end-user buzz, this time around exciting Office services.

Office productivity services will make Office an even more ubiquitous and profitable business than it is today. Our first step towards this new world is to focus once again on making the influential end user a happier, more productive and excited customer.

To define the Office.NET customer target we needed to determine just who this early adopter and influential user has become. In some ways the fundamental characteristics have not changed: the Office IEU is the kind of person who is always looking for more efficient ways of working and living. In order to better identify this user we looked at the broad base of today’s Office customers and created a profile by identifying the top 15% of IEU’s in terms of their interest in new communication and productivity tools, propensity to experiment with new technology to solve problems, and tendency to influence others with their solutions. We call this user the Technology Enthusiast (TE) and predict that by the time we ship Office.NET, elements of this profile (such as reliance on the Internet for personal productivity) will account for at least the top one quarter to one third of the Office user base.

Technology Enthusiasts are more bold, independent and self-sufficient than the majority of Office customers, and are often found in small and home businesses where such agility is necessary for

survival. Even in large organizations they have an entrepreneurial mindset and will often experiment with technology for fun. It is important to note that while Technology Enthusiasts are interested in new technology, they are not necessarily very technical and are not usually considered to be advanced users of any of the technology they try. Their primary interest is in time-saving technology and they will quickly abandon buggy, hard-to-learn or poorly designed products. Once an effective technology is found, however, TEs are delighted to share their “find” with friends, co-workers and purchase decision-makers, and feel rewarded for doing so.

TEs use technology in both work and personal life. They are busy people who are constantly attempting to balance their career with their family/personal interests. Often they are frustrated by managing and prioritizing their own and their family’s time between these two worlds. In an attempt to find this balance, these two worlds (work/home life) often blend together: work is done at home through “kludgy” dial-up or PPTP scenarios. Likewise, this user sends and receives personal email, and accomplishes other personal tasks through the course of their work day rather than spending a lot of personal time making calls or writing letters.

Technology Enthusiasts all use cell phones for basic communication and have generally tried other means of keeping in touch with people or data. This user also roams in several ways—she often works on several machines including: a work PC, a laptop (personal, or checked-out from a hardware pool), Home PC, and device. To work effectively, she spends time moving content from machine to machine, and most often emails herself content as an easy way to move content from PC to PC. Lately she has been trying new ways to not store content locally; instead she is trying to get ubiquitous access to always-live information either from her traditional PC or other devices. In her device usage, she is familiar with, yet frustrated by, synching software and most likely has experienced a failure with potential data loss when synching went awry. While roaming, her information needs are different than when working at her primary work space and she is often manually filtering unwanted information such as notifications, SMS messages or junk email that clog her information pipelines.

Designing a product that delights the Tech Enthusiast is a difficult proposition. It needs to be a real timesaver and make her more effective in creating, balancing and sharing work. It needs to solve real problems. Most importantly, it needs to offer immediate, out of the box functionality without relying on any special infrastructure, training, or patience.

We need to be very sensitive to creating our services in a way that is easy for enterprise adoption. We can not move backwards in client deployability or maintainability. IT departments within these organizations are in the business of serving their internal customer base and will be asked to react to technology trends that certain individuals within the organization bring to work with them. Examples of such technologies are cell phones, Blackberry/Palm devices, external doc storage (i.e. eRoom.net is used for storing documents at Johnson&Johnson). Even Office was once seen as a rogue application brought to work by TEs who knew our technology could help them do their job better. We are seeing trends now that show many enterprise customers are increasingly considering outsourcing of mission critical applications and are beginning to realize that their end users today already use web services like Yahoo mail and WebEx to increase their productivity – both at home and in the workplace.

While Office.NET focuses on the end-user, this release continues our tradition of taking good care of our valuable enterprise customers, which of course are individual end-users working within an organization. Many services in Office.NET require storage of data on a server. This data may reside on Office.NET hosted servers at Microsoft, on an STS 2.0 server managed by an ISP, or may be hosted internally. (see “Customer Value Proposition” section below). While the best communication and collaboration features are enabled by external, or “cloud” storage (Microsoft or ISP) enterprise customers may opt to keep all corporate data within their firewall on Windows 2000/Sharepoint servers. Many customers will keep

business applications and other corporate data within their firewall as well. Those corporations which are deploying Windows 2000 and SharePoint servers will be able to host a set of services, as outlined later in this document, inside their firewall.

OFFICE.NET COMPETITION

The competitive threat to Office has never been healthier. Today we find ourselves competing against market leaders and thought leaders alike. Our competition takes many forms from large software and service companies like AOL and Yahoo to smaller single-feature startups.

One of the effects of this vigorous startup market is that it tends to focus mindshare towards the upstarts. They are seen as the source of novel ideas and exciting new trends. Customer site visits and focus groups with Technology Enthusiasts indicate that although they are still heavy Office users, they are more excited and curious about new services on the web like Zaplets, eFax, driveway, and eStamps than they are about Office.

The proliferation of useful and free productivity services and content that help people do their work has meant that people are starting to spend more time outside Office than ever before. By building on the fact that Office is still the primary productivity tool for most people we have the opportunity to win back this mindshare by providing integrated and useful services that will attract new users and get our current user base excited again.

The big players in the market for software as a service, AOL and Yahoo!, are not just consumer focused anymore. They have realized the need to explore new revenue sources and both are making moves into the business productivity services world. For example, Yahoo ranked #1 in reach among work users in the US and now offers Small Business Center, Connected Office, and Store Hosting. AOL has broken into the business productivity space with its new Mobile Communicator 2-way messaging device, Netcenter portal, and is gaining in the use of AOL email accounts by SORGs and MORGs without IT depts. Both of these competitors are already focused on service aggregation and integration, just like Office.NET. Yahoo wants to be the only source for the same broad range of services that Office.NET is planning to provide - they already offer email, storage, hosting, e-commerce storefronts, instant messaging, collaboration, and voice-access services. Lotus is even integrating several of its offerings in its iNotes service that's under development to provide integrated collaboration services.

Office.NET is a software service consisting of "the best combination of software and services that provide a personal experience in creating, communicating and collaborating anywhere and anytime." Given the fact that most of our competition already focuses on providing you information anytime, anywhere (Yahoo!, FusionOne, vVault) we must differentiate based on our ability to *do* something with that information, not simply to *access* that information.

We are not only competing with the functionality that these competitors can deliver, we are competing with their operations, too. In a services world, running scalable and reliable operations is a core competency, and during the course of running successful online businesses the competition has developed expertise in areas such as billing, operations, and dev/prop/release cycles. In fact, many of our major competitors have been operating in a 24x7x365 service environment for several years now, so Office will need to devote significant resources to operations management to minimize the gap between us and the competitors. The fastest way to be competitive in service operations is to learn from MS internal service providers such as MSN, Hotmail and Office Online to ensure a rapid ascent of the learning curve.

Office's traditional relationship with end-users and end-user productivity, as well a sizable portion of per-desktop productivity spending, is threatened by entrants in the emerging "Portal" market. Software-as-service vendors like Yahoo, traditional infrastructure vendors like Oracle, iPlanet, and IBM, and upstart nice players like Plumtree all covet the centrality of Office to daily productivity. They position their portals as an "alternate business desktop" that devalues Office's traditional and Office.net benefits. We must continue to offer the highest task productivity to users who need to share information, work together, and connect to business applications.

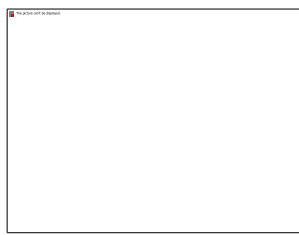
Last, but certainly not least, we need to list our past versions of Office as our competition. There are several customer segments that have locked down on Office 2000 -- or Office 97 in certain local markets - and they have no plans to upgrade. Therefore, a very significant part of the 'competition' comes from these customers and their resistance to move to Office.NET.

Because of the ever changing spectrum of the competition and technology we are constantly monitoring and keeping an up-to-date list of more detailed drill-downs on specific competitors and areas on: <http://officenet/Planning/OfficeNET%20Competition%20Exec%20Summary.doc> and <http://officenet/Planning/OfficeNET%20Competitor%20Profiles.doc>

VISION AREAS

As discussed above, we are committed to move our business model into a subscription service, target customers who are looking for new and innovative solutions, and address a new type of competition and new set of competitors. In order to accomplish these goals we will build Office.NET on these five exciting vision areas: *My Office, Team and Corporate Productivity, Keeping in Touch, No-brainer Upgrade and Unlocking Information via XML.*

MY OFFICE



[click to view the demo](#)

With Office.NET we are transforming our business from an off-the-shelf software package to a set of dynamic productivity services that match the needs of our customers. "My Office" represents the elements of Office.NET that deliver services to our customers, at their location, and according to their tasks.

There are four major areas of investment within this area:

- Looks and Feels Like a Service

- Available Anywhere
- Tools Matched to Tasks
- Customers at the Center

LOOKS AND FEELS LIKE A SERVICE

Office customers are highly accustomed to perpetual licenses, and we must not underestimate their likelihood to view Office.NET as “just another upgrade.” Office.NET services are clearly visible—not simply a bunch of new menu commands scattered amongst an already crowded UI. They are presented consistently and well integrated with Office. It is clearly spelled out for our customers that we have reinvented Office as a service business, and thus the value (and necessity) of the subscription.

We succeed by investing in the following areas:

MyOffice Home Page – The Office.NET home page provides roaming, browser access to the Office.NET services. It is highly personal, providing access to key data such as My Documents and My Public Office (quick sharing space). It is also highly dynamic, regularly highlighting different services that are new, seasonal, popular, or related to recent work.

App Integration – Office.NET services are directly encountered in the path of normal Office usage. Mechanisms like the Net Pane allow customers to gain advantage from web services directly in the context of their rich client usage.

Net Look – Key elements of the Office.NET UI are designed to demonstrate the ongoing value of being connected. They provide a sense of the connection to the service, highlight new or updated services, and provide a clear and consistent UI across all of the services we deliver. There is a strong visual tie between the services when exposed inside the application or on the web. The new look is consistent with that of other web services and intended to appeal to the emotions of tech enthusiasts.

Net Bar – A system-wide toolbar allows you access to keep your personal home page data with you at all times, giving you constant visibility of notifications, key status at a glance, and one-click access to your personal data. This latest flavor of Microsoft Office Manager or Office ShortCut Bar will be reconciled with similar system toolbar efforts by other Microsoft products.

AVAILABLE ANYWHERE

Freedom to roam allows our customers to get to their information or have their notifications sent to them when and where they need it most.

Multiple PCs – We provide the richest roaming experience for two Office.NET PCs, the most common scenario being PCs at both work and home. For example, Office.NET settings and My Documents are available from both machines.

Browser Access – From Internet-connected PCs, customers have access to Outlook & PIM information (as with OWA), documents, their MyOffice home page, and other services from the Office.NET web-UI, with degradation of functionality as appropriate.

Non-PC Devices – Where most valuable, Office.NET supports access to data and settings from non-PC devices. For example, you can’t read a spreadsheet on your cell phone, but you can use your phone to email a spreadsheet stored in Office.NET to someone from your contact list. You can also receive

notifications on your cell phone. By supporting Hailstorm, future device support will be possible as other service providers tap into the Hailstorm services.

Offline – Office.NET meets the offline usage expectations set by Office XP, such as Outlook information and documents. New services may be available only when in a connected state.

TOOLS MATCHED TO TASKS

While Office today provides the best tools for our customers, there is little innovation in the area of matching those tools to the specific goals (tasks) of our customers. For instance, although Office includes a word processor, database, mail merge, and tons of clip art on the web, consider how difficult it is for a typical customer to create a holiday mailing from scratch. There is little help on using features and applications together, and what exists is often too generic. But keep in mind just how hard it is to even find which tools exist (e.g. how does one know when to look for a template vs. a menu command vs. another application vs. a web service, etc.) By applying the knowledge and skill from us, our partners, and our customers, Office.NET will save hours and achieve better results for our customers.

Task Center – Provides a central place to search or browse for tasks. Each task includes all of the expert content available to achieve better and quicker results. Tasks represent our users' goals rather than features—e.g. get a job, plan a meeting, put together a business plan, etc. There is an ever-expanding list of thousands of tasks, which is a perfect match for the strengths of a web service. The more common the task, the more work we spend on optimizing the experience. However, we have depth of coverage as a result of our partner and customer contributions.

Expert Content – Each task will include as appropriate and as available: assistance, automation, templates, media (e.g. clip art), tips from other customers, links to related services (e.g. research and reference tools), support / troubleshooting, and links to additional information (e.g. bCentral or MSN properties).

Online Training – Acknowledging the high demand for books and classes, Office.NET includes a regularly updated collection of self-paced and integrated training topics and tips targeted at the most common training needs of our customers.

CUSTOMERS AT THE CENTER

A concept that permeates everything we do is our connection to our customers, and we visibly use that information to provide a better service. We use tracking and feedback to prioritize our updates. Imagine the day when we know that all of the features we add to the product are addressing specific and known customer needs, and we see immediate feedback on our value. We also allow customers to benefit from each other's contributions, thus creating a system that will improve itself beyond the areas of our investments.

Ratings and Feedback – Throughout the system, customers are invited to rate content and provide comments to us. Ratings are shared back with the customers to help prioritize searches and filter out less relevant content (e.g. the 5-star calendar task should return higher in the search results and is more likely to be chosen by a discriminating customer). Customers can also provide us feedback on product features (à la the "Lame" button in alerts) or request support for additional tasks (as with Template Gallery today).

Closing the Feedback Loop – In addition to explicit feedback, we will be gathering implicit feedback by tracking various forms of usage (e.g. tasks that are chosen, failed search requests, low ratings, popular discussions, alert messages and context). More importantly, we will be able to close the feedback loop by

delivering new content (e.g. new tasks and content show up monthly) and addressing support issues (e.g. alert messages are tracked and then addressed as crashes are in Office XP, aka “Watsonized alerts”).

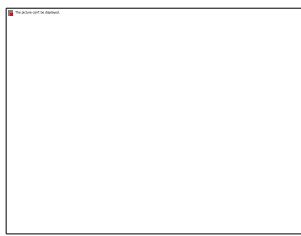
Customer-to-Customer – Customers can leave expert tips and content for use by each other right in the context of the Task Center (e.g. in the “Holiday Letter” task, can see tips from other users on how to best use a mail merge, or examples of holiday templates you can use). Customers can also assist each other directly (via discussion groups or direct chat). Tracking customer ratings provides incentive for them to participate and in a *quality* way. The focus of this investment area is enabling customers to benefit from each other’s experience and skills - the focus here is not on hosting general communities.

INSIDE THE FIREWALL SERVICES

For Office.NET to be an attractive upgrade for corporations, it must be possible for the corporate administrators to integrate with the following set of services inside their firewalls:

Service	Description
MyOffice Home Page	Corporations can use web parts to provide corporate data customization onto the home page and my public office.
My Documents	In the documents user interface, users will see their local My Documents alongside those stored on the web. Office.NET can be further configured to integrate enterprise shares and to provide offline access to SharePoint documents.
Content and Reference Services	Administrators can set up corporate media (e.g. clip art), templates, assistance, SmartTags, Smart Documents, and research/reference sources to show up alongside or in place of our web and partner content.
Customer Tracking	Administrators can track and respond to Office.NET alerts within their environment and control how that information is sent to Microsoft. They can disable having monitoring and UI rating data sent to Microsoft.

TEAM AND CORPORATE PRODUCTIVITY



[click to view the demo](#)

Our ability in Office.NET to build both client and server components of our collaboration story provides Office an unprecedented opportunity to expand our customer's collaboration capabilities. These capabilities fall into these five key areas:

- Working together as teams using SharePoint Team Services
- Finding, sharing, and organizing information and applications using SharePoint Portal Server
- Sharing and presenting rich views and editing capabilities on data using DDS Views and Services
- Collaboratively authoring and sharing documents
- Providing superb note-taking and thought-capturing capabilities

TEAM COLLABORATION

SharePoint Team Services (STS) will be one of the key pillars of our collaboration offerings. We will offer it as a service in Office.NET, making it available to all Office users and freeing them from the need to run their own servers. In addition to enabling collaboration with other team members within their own company, this will also allow them to share information with colleagues in other companies. Finally, STS will also allow all the Office applications to be able to count on a collaboration server that they can build their own services on top of.

There is a substantial amount of infrastructure work required to make this service a reality. SharePoint must integrate with the Office.NET authentication, provisioning, and billing systems. It must scale with good performance to millions of users. We also need to make sure we have a comprehensive list of users, and that people have access to that list, or directory, from any place where there is a need to collaborate.

SharePoint has received strong customer reception in Office XP, but there are a number of areas where we need to fill out competitive feature gaps, so that it will be the leading product of its kind in Office.NET. Some particular areas of innovation include:

- Email integration: Email is the most popular form of collaboration today, and there are some natural ways for us to build SharePoint's popularity on top of the email phenomenon. For example, we can provide a simple way for people to cc: their SharePoint site in order to create a permanent record of project communications. When someone sends a document for comment or editing via email and chooses to include tasks or other items related to the document, we will store these associated items in a SharePoint site, thereby automatically creating a collaboration environment for the document. We can also build Zaplets-like functionality, where the user receives a snapshot of the SharePoint site via email that they can interact with locally or connect to the server to receive the very latest information. The quintessential example of this is the survey app, where the person receives the survey in email, answers the questions, and posts their reply back to the SharePoint Server either directly or via email.
- Integration of Personal PIM data: Today, there is a gulf between the user's personal PIM data, typically held in Outlook, and his/her team data. SharePoint can provide linkages, so that, for example, a user can see a view of their calendar that includes both individual and project appointments and personal contact information can be shared with the team.

- **Instant Messaging and Presence Information:** The very nature of the collaboration process makes this integration critical. When I view my project web sites, I want to see who from the team is online and chat with them about project issues.
- **FrontPage Customization:** The rich HTML editing capabilities of FrontPage can turn its ability to customize SharePoint sites into a huge competitive advantage. Additionally, FrontPage can push forward its leadership into the low end of the web page publishing market by leveraging SharePoint's web site creation capabilities to provide simple yet powerful out-of-the box web site solutions.
- **Image Sharing:** In Office.NET, the task of collaborating and sharing digital images will be drastically simpler. We will accomplish this by integrating digital images tightly with SharePoint services and Email. Users will be able to select and view their images locally and then easily share them. Viewing and selection will occur either through a small client or a control that will be made available to any Office.NET application or service that works with digital images.

PRODUCTIVITY PORTALS

Portals bring together content, data, and applications and delivers them to people or groups in a timely and organized way, helping people find and discover information and apps they need. When deployed in large organizations, portals become a critical aggregation point for disparate islands of documents, business systems, and ultimately users. Because they bring order to information "in place" without moving it into new systems or stores, and because they offer their benefits without requiring new desktop software deployment, portals have received tremendous customer and partner interest and early adoption. As advances in business productivity are increasingly tied to streamlining tasks that cross between content areas or enterprise applications, portal services are a key element in making business workers more productive. A strong portal offering as part of Office.NET brings Office to this rapidly growing market and ensures that Office's strengths in content creation, collaboration, and data analysis are brought to bear on this new focus for user interaction.

A portal application inside the organization will keep us close to existing high-value content and applications while users make their transition to the rich world of subscription services, all the while providing us with a new revenue stream to augment the traditional and .NET Office businesses. SharePoint Portal Server (SPS) V1 got Microsoft into the portal market with the best Office integration and an amount of practical end-user value unmatched in the portal market, but like most V1 products it only scratched the surface. SPS V2 will be the scalable .NET server application that connects knowledge workers to personally relevant information, people, teams, and applications.

The areas of investment will include:

- **Scale: Providing scalability and manageability for the largest intranet sites and the vast majority of extranet sites.** Within the portal market, SPS V1 set the standard for end-user functionality and integration with productivity tools. However, V1 couldn't offer these features to the largest deployments in the largest organizations. Simply put, SharePoint's next version will never lose an evaluation because of an inability to scale. Sheer scalability will be matched by manageability and availability.
- **People: Placing teams, people, and a personally relevant experience at the center of the portal application.** Our portal services will deliver what makes individuals most productive: an experience tailored to their preferences, their organizational role, and their past activities. Effective portals must also reflect the human relationships at the heart of information sharing

and collaboration: the SPS portal will be the easiest place to find out about people and teams and to relate information to those people and teams.

- **SharePoint: Delivering on the promise of the SharePoint family as the full-spectrum solution to collaboration and information sharing.** The “SharePoint” brand carries with it the promise of collaboration and information sharing at all scales, from the smallest groups to the largest organizations. In Office.net, we will begin to deliver on that promise by relating our Portal and Team Services. Team sites will unlock collaboration; portals will make it possible for both participants and non-participants to find and profit from the fruits of that collaboration. For example, portals will provide the means for creating and finding team sites, and portals will provide the richest environment around which to deploy team sites, whether those sites exist in the cloud or in the enterprise.

To get the biggest win, customers will deploy the entire SharePoint family – Team Services (either hosted locally or from the service) for teams to share information and work together, and SharePoint Portal Servers for aggregating team sites together and connecting them to business applications and other content sources in organizations. The portal experience will be richest when aggregating team site content (for example, because of the rich metadata that Team Services brings to shared documents, or because team membership information will help the portal suggest more relevant search results). Work done in team sites will be more visible and more useful to the larger organization because it’s collected and made available by the portal server. Finally, movement between these sites will be as seamless as possible.

Fully delivering on the opportunity for these products to leverage the capabilities of each other and other the Office applications will take several releases. We need to make the first important steps in the Office.net release.

- **Mastering content: Connecting people to content and information.** A SharePoint portal will be the most effective way to publish information to a wide audience, and it will be easier to find information in a SharePoint Portal than anywhere else in an organization. We’ll offer the most useful search UI for corporate portals and will let users ask questions or browse from the broadest array of content sources inside and outside the organization. Subject matter experts will find it easy to create topic-centered places where they can share the best information with readers.
- **Integrating apps: Connecting people to applications.** Great portals aren’t just places where documents congregate – they power HR, Sales, and other critical business activities. SPS will integrate business applications, business intelligence, and internet content and services. We’ll make the SPS portal the preferred place to surface business app UI, content, and behavior. Success will require that we offer a deeper and more meaningful connection to applications with integration points like Web Parts, content crawling, subscriptions/ notifications, and schema, and do richer things once connected, like best bets, classification, or notifications through Office.net’s notification features. Success also requires that we harness Microsoft’s .NET developer momentum and ensure that integration with SPS uses the best of Microsoft’s tools and programmability, so abstractions like Web Parts will be married to the best of .NET.

We’ll seize opportunities to make the corporate portal efforts synergistic with the Office.NET subscription service. The subscription service will provide a variety of exciting services for business productivity. Where possible, the portal server will connect those services to locally hosted business applications and data. For instance, changes to customer data in a local CRM system could trigger the presence-aware notifications through the Office.NET cloud. Portal services will also bring order

to information in the cloud and integrate it with local content. For example, a portal server can index and organize team site information in the cloud and integrate it in search results for local corporate information, exposing cloud data in its business context. Customers with a local portal server and an Office.NET subscription will receive the biggest productivity enhancements.

DATA COLLABORATION

Our leadership position in providing data analysis tools to customers provides us an equally exciting opportunity to deliver rich data presentation and collaboration services. In Office.NET we will deliver a set of list services that scale from simple Excel-like lists to more structured lists, as Access has today. In addition, in FrontPage we will deliver the ability to create data views across Office, using XML data and web parts. By creating data applications in the Office.NET cloud, any Office.NET user will have access to their applications and data anywhere and on any device.

SharePoint-based collaboration and universal data availability: Existing versions of Office provide excellent tools for creating and working with structured and semi-structured data. While Office has done an excellent job at allowing users to create databases and build database applications, Office end users, however, face challenges when they want to create even simple databases. They face further challenges when they want to share, collaborate and present data in non-standard ways. The Data and Developer Services team (DDS) in conjunction with the SharePoint Team Services (STS) team will build functionality that allows Office.NET users to:

- **Create** structured & semi-structured data in the Office.NET cloud and in the Enterprise, either by using existing Office data or by starting from scratch. The goal is to allow end users to create databases in an intuitive and straightforward fashion. We will accomplish this by combining the strengths of Access and Excel and the STS team.
- **Work** with data in the cloud, using pre-built views of their data or by creating custom views
- **Share** and collaborate with others on any device
- **Collaborate** on data in the cloud via both data-specific features (i.e. multi-user pivoting) and Office.NET-wide features (i.e. instant messaging)

One key deliverable from this effort will be a new List WebPart that integrates seamlessly with Office.NET, SharePoint and existing Access and Excel applications.

Web Data Framework: With Office.NET, we have an opportunity to change how our users approach their data-related tasks by extending existing Office functionality beyond the desktop to include web-based services. To this end, we will build and deliver a new framework that makes it easy for end users to personalize, customize, and extend their Office.NET web pages using Web Parts. With a few simple gestures, any Office user can create a personalized web page that not only displays but also allows interaction with the information they care about most. The Web Data Framework will allow Office.NET users to easily integrate content and data (combining different data views and services) from a wide variety of sources into a single solution; the framework will also simplify traditionally difficult challenges like application deployment and rendering an entire application across multiple devices. Finally, the framework will be innovative in the area of page design by letting users easily connect Web Parts together to create custom mini solutions. The framework will ship with pre-defined schemas and data services based on ASP.Net. To deliver these customer benefits, the Web Data Framework team will focus on these major areas:

- **High performance and scalable** Web Part rendering service.
- **Personalization** of SmartPages (digital dashboards) so that users can easily create personal views of data that suit their working style. Web Parts can be added, deleted, and rearranged on a per user basis.
- **Multi-device and multi-language support** so that Office.Net users can access their data wherever they are. Content can be scaled to the client by using a client specific XSL that is associated with each section of data or content.
- **Enhanced layout** features
- **Web clipping** service that let's you clip content as Web Parts and use them in SmartPages or send them as HTML mail.
- **Connect Web Parts** together to create mini solutions. Features let power users connect Web Parts together to create custom behavior.
- **Web Part & SmartPage Services** that allow end users to quickly find and use the data that they need. These services will include:
 - Ability to connect to different data sources. For example, we will work with Great Plains to make their data available. We will also unlock existing Office data.
 - Integration with key Microsoft schemas such as Hailstorm to provide out-of-the-box functionality for a broad set of Office.Net subscribers
 - Out of the box Content/Reference Services such as postal/zip codes, MapPoint, etc.
- **Out-of-the-Box Web Parts** which will provide a rich set of functionality for accessing Office data, Hailstorm services, and scraping generic web pages (like Web Query in Excel today).
- **Support for 3rd party developers** to build Web Parts, based on our open framework.
- **Office.NET Integration**
 - Office.NET subscribers can personalize using Web Parts in "MyOffice" and NetPane
 - Office.NET subscribers can create, manage, and share SmartPages.
 - SharePoint and FrontPage have integrated support for Web Parts and SmartPages.

Weblets: With Weblets, we allow users to perform structured e-mail based collaboration using Sharepoint lists. Customers expect that most collaborative tasks can be accomplished in e-mail, even though some collaboration can be more effectively accomplished in a more structured collaborative environment (as is provided by SharePoint today). Weblets preserves email's strengths – namely its ubiquity and universality – while enhancing the email experience with structured collaborative productivity features. In partnership with the STS and Outlook teams, we will make entry points to creating these lists from a variety of sources (including STS, Outlook, Excel, Access, and Word), and a model for developers to create their own Weblets.

The key features of Weblets are:

- Tight integration of structured list collaboration in Office by exposing Weblets throughout Office
- Enable list collaboration in e-mail, with the richest experience in Outlook.net
- An extensible model for e-mail collaboration around lists
- Create Sharepoint templates to showcase the strengths of Weblets (e.g. document approval in email)

Business Intelligence: In recent years there has been explosive growth in user requirements for deriving information from the growing mountain of digitally captured corporate data. Customer demand for access to data, and analytical tools is becoming prominent in organizations of all sizes. Microsoft's release of OLAP Services with SQLS 7.0 and success in establishing OLEDB for OLAP as a standard are major factors driving this market forward.

At the same time, the feature set of competing BI tools is evolving rapidly. Feedback from the field with early deployments of Office 2000, industry experts, and Microsoft's own ITG, has underscored this challenge. Basic reporting can be done using Office, however, businesses desiring more than the bare basics are turning to partners for BI client software.

Our plan is to deliver a top-tier BI client, based on SharePoint, the Web Components and Digital Dashboard framework:

- Build a feature-rich, extensible, easy to use, business intelligence analysis tool
- Enable customers to easily find, connect to, and interact with data throughout the enterprise
- Make it easy for corporations to leverage their corporate data assets and promote real-time, collaborative decision making, powered by Office.NET
- Make it easy for teams of knowledge workers to share and collaborate on business analysis, just like they can with Office documents
- Provide an out of the box, inside the firewall, collaborative team business analysis website, built on SharePoint, Digital DashBoard (SmartPages) and Office Web Components.
- Provide a high quality query tool for relational and OLAP data
- Leverage and exploit the full capabilities of MDX and the Plato server
- Solve customer problems by providing out-of-the-box analytic capabilities for well-known data (such as Great Plains)
- Integrate publishing of reports with Office.NET user experience
- Create a compelling BI platform that promotes an end to end (server to client) MS solution

COLLABORATIVE AUTHORING

Office is already the market leader for one of the most common collaboration processes carried out today – document authoring. Office.NET will extend the great work done on document collaboration in past releases in several key areas to push forward the definition of collaborative authoring.

In Office.NET, we will use the revisions tracking work and the Office.NET server infrastructure to create a very rich collaborative authoring experience. Users who receive a document via email will see a netpane opened beside the document listing tasks to be accomplished, comments about the document's progress, and the presence information for the document's authors. If a newer version of the document is available on the server, they will be prompted on whether they'd like to use this version instead. In Word, they will be able to edit any portion of the document, and the Office.NET service will take care of merging changes made by them and other authors working on the document at the same time. In other Office applications with less granular change reconciliation features, simple document locking will be provided that will allow them to post changes to the document. The netpane will help the user to understand who has control over the document, and requests to take control can be made by Instant Messaging.

Office.NET will also take the concept of Smart Tags to the next level to create Smart Documents. These are Office documents that have an understanding about their context to help the recipient fill author the document. For example, Monster.com could create a resume template in Word, so that when the user opened the template, instructions would be included in the web pane on how to best fill out the resume. If the user clicks on "Objectives", a list of sample objectives could be presented for the user to use as a starting point. Data could be validated as it is inputted, and a submit button could be included that would register the resume with Monster.com. Service offerings could be included, such as an editing service for resumes. An equally compelling example for the corporate setting is the expense report in Excel that would include code to submit the report directly to the company's SAP system.

A key part of collaborative authoring is the ability to share the documents with other users regardless the organizational boundaries. In Office.NET we will make it easy for the user to store documents directly from the different applications. Every Office.NET subscriber will have a place and an easy way, much like they do today in the case of storing their documents locally, to save the document into our storage. It will be very easy for the user to control who can access the documents in the storage and who is authorized to collaborate on them – ‘sending’ a document to another Office.NET user for review will place the document into a central storage, send a pointer to that storage to the recipient of the message and set the access rights to the document appropriately.

NOTE-TAKING AND THOUGHT-CAPTURING

You need only attend a meeting at Microsoft to understand the rapid emergence of ubiquitous, mobile computing on a variety of new and traditional form factors. Some people bring laptops, others PDA, still others Blackberry email devices. Each of these has its benefits and advocates, but none is perfect for the cause. The Tablet PC initiative is about taking the advances that have occurred in computing hardware over the past several years to create the ultimate portable, untethered PC. That PC is one that is light enough to take anywhere, has long battery life, can run all PC applications, has wireless connectivity, and has a screen of sufficient size and resolution to comfortably read documents on. It also has input methods more appropriate to the venue in which the device lives – in a meeting, on the bus, sitting on a couch. In each of these settings using a keyboard is not convenient or polite. Using a notepad and pen is. The tablet will take the notepad and pen experience that serves users so well and transfer it to this ideal computing device to create the ultimate mobile PC – the Tablet PC.

The state of the art in hardware is finally ready to create such a device, and Microsoft is making a major bet that this will be the predominant form factor for notebook PCs in the future. But the platform cannot be a success unless the world’s premiere software suite, Microsoft Office, supports the initiative, and this support is a major investment area for the Office.NET release.

Our single largest investment will be in creating Scribbler, code name for our note taking application. This application will be super useful for all PC users, but the premiere platform will be the Tablet PC, where people can make use of its form factor and pen capabilities to take notes in meetings and other mobile venues. Scribbler will play a key role in our meetings vision area, allowing individuals and groups to capture notes from a meeting and leverage the task and scheduling capabilities in Outlook to assign follow-up tasks or follow-on meetings. Scribbler will also be able to host the meeting service virtual meeting window (presentation broadcast, whiteboard, etc.), and allow users to take notes synced with the presentation or video, or markup handouts. Scribbler will also be helpful in the brainstorming/thought capture processes inside or outside of meetings. Users will be able to jot down notes about a project or document they’re working on, save text snippets from the web or other documents for later use, organize their thoughts and research, and repurpose them into Word, PPT or other apps to begin writing the final form document.

A reduced form of Scribbler known as Scribblet will be a web part that can be hosted in a web page or in various other locations to allow users to quickly capture thoughts or information snippets even when not inside the Scribbler app. The Scribblet control can also provide a view into the user’s personal store of notes and clippings where needed, such as within Word or PPT, or on a meeting site where the user would like to see the notes they took during that meeting, perhaps so they can publish them as the minutes.

In addition to Scribbler, however, there are likely a number of areas throughout the Office product where we need to invest to make Tablet PC successful. These include the following:

- Working through the impact of the Tablet PC's higher resolution screen on Office UI elements. For instance, fonts may not display perfectly, and controls may not be properly sized for use on the Tablet.
- The higher resolution screen and the portable form factor of the Tablet PC make it an ideal platform for reading documents and replying to the author with comments (it is not as well suited for document editing, unless the user is using the Tablet PC with a keyboard). There are a number of possible investments to make our applications better reading environments. For example, integrating Clear Type into Word, and improving pen-based annotations in Word and PowerPoint.
- The Tablet PC team advocates some different user metaphors for the manipulation of text, objects, and the user interface that they feel are more appropriate for pen users. We need to investigate and address the impact of these differences in our apps.
- The Tablet PC, coupled with a wireless LAN or modem card, will be an incredible email platform. We should think through what functionality in Outlook is required to make this scenario great. For example, where is pen input support most critical?

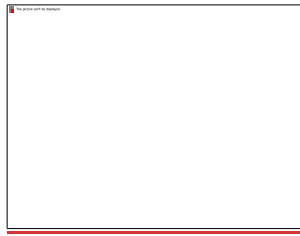
Taken together, Office.NET's investment in team, data, document collaboration and note-taking will redefine the meaning of collaboration and redefine people's image of the Office productivity suite in the process.

INSIDE THE FIREWALL SERVICES

For Office.NET to be an attractive upgrade for corporations, it is possible for the corporate administrators to integrate with the following set of services inside their firewalls:

Service	Description
SharePoint Team Service Collaboration Features	Existing STS features and any new or enhanced features created by the STS team will be available on corporate-hosted STS servers.
SharePoint Portal Server	The primary deployment scenario for SPS is within corporations, although extranet scenarios are expected to grow in importance over time.
Ad-hoc document sharing and collaboration	It is possible to store documents on corporate STS servers and initiate rich sharing and collaboration scenarios around them, including multi-user editing.
List services	The rich list management and editing scenarios will work on corporate-hosted SharePoint servers.
Scribbler	Scribbler will function standalone or in concert with STS servers deployed either in Office.net or within corporations

KEEPING IN TOUCH



[click to view the demo](#)

Communication in its many forms occupies a large part of the daily activity of our customers. Today Office helps those customers with a few forms of that communication, e.g. email and group scheduling via Outlook and in-meeting communication via PowerPoint slides. Office.NET significantly expands the value of Office as a communication tool, by enhancing Office's traditional forms of communication and adding entirely new ones (e.g. integrated Instant Messaging and real time conferencing.)

Our investments in making Office.NET the ultimate communication tool fall into three main areas:

- Provide subscribers with ubiquitous access to all of their email, calendar and other PIM info
- Make Instant Messaging an indispensable workplace tool
- Make Office.NET the center of gravity for all meetings

LIBERATING EMAIL, CALENDAR AND PIM INFO

Most Office customers already have one or more email accounts they can access from their primary computer. A large number of users also have access to their personal calendar and contact information on their computer, typically in Outlook. When it comes to roaming however, customers have very heterogeneous levels of support limited by the infrastructure offered by their corporation or ISP. The picture becomes even more complicated for the growing number of customers with more than one email account (e.g. home/work) or more than one calendar (e.g. individual/family.) They typically get different levels of support and experiences in each of those domains, and they cannot aggregate information across domains (e.g. "show me all the work and home email I got in the last hour, show me my individual calendar overlaid on my family's calendar for tomorrow.")

The Office.NET subscription includes an email, calendar and PIM service hosted by Microsoft. Subscribers can access their information on their personal machine using the full power of Outlook or on the road using a basic browser available in the vast majority of devices. While the service will offer each subscriber an Office.NET email address, it will also be capable of aggregating a customer's existing email accounts(s) based on standard server technology (e.g. POP, Hotmail.) Thanks to this functionality most subscribers will never need to leave the Office.NET environment to access their email and personal information, whether they are at their home base or on the road. In addition, since subscribers' personal information resides in the Internet "cloud", Office.NET will enable entirely new scenarios, such as group scheduling that transcends organization boundaries.

With the volume of email that a typical Office customer receives increasing steadily, a common complaint from today's Office users is that they feel they are loosing the mailbox management race.

Office.NET will offer a number of features that will help put the user back in control of their mailbox. Email threads, which today are difficult to navigate, will be displayed in a non-cluttering, compressed form. Incoming mail will be prioritized based on common-sense heuristics, such as the class of user that sent the mail (e.g. person in my contacts, person to whom I've sent email in the past, person I've never corresponded with, etc.) Messages that can clearly be identified as spam or viruses will be deleted; messages in doubt will be flagged for special handling by the subscriber.

INSTANT MESSAGING THAT WORKS

Instant Messaging has gained immense popularity primarily as a leisure tool. Office.NET intends to bring the same level of popularity to IM in the work context. The Office.NET subscription will offer IM service based on the MSN Messenger service. Office.NET users will be supplied with a new IM address, though they may choose to keep their existing Messenger address if they have one. Office.NET will integrate IM seamlessly into the UI of the productivity apps that users use in their daily work. For example, a user working on a Word document will be able to easily IM other people who contributed to the same document. A user in a meeting will be able to IM other people attending the meeting, whether they are remote or in the same room. Any time a contact appears in an Office context (e.g. in a SmartTag) a user will have the option to engage in an IM conversation with that contact.

IM will be a first class communication option supported side by side with email. While the two services will remain separate at the infrastructure level, Office.NET will make progress toward unifying their user experience. For example, it will be easy for users to switch to sending email if the person they are trying to reach with IM is not available. Similarly, Office.NET will make it as easy as possible to locate the IM address of a contact and maintain it side by side with their email address.

A large part of the value of Instant Messaging in the work environment will be its role as a carrier of Office.NET notifications. Office.NET will include a sophisticated notification service that will be able to route information to a subscriber through various channels based on the priority of the information and the whereabouts of the subscriber. Office.NET will use calendar information and/or PC activity to determine subscriber presence. If the subscriber is at her PC, Office.NET will present high priority notifications as Hotmail "toast-style" alerts while low urgency items will be queued for consideration by the subscriber at her leisure. If the subscriber is away but carrying a device with her, Office.NET will route selected high priority notifications to her via her device. While the basic notification triage behavior will work out of the box, the subscriber will be able to create custom rules to optimize the behavior for her needs.

By using presence information to route notification to different channels, Office.NET will offer a powerful "find me" tool that can save time and frustration in a customer's day. Once the notification service is fine-tuned to a user's daily activities and device use, it will be far easier to tell Office.NET to get a message to that user than it would be to launch the typical "hunt for the missing person" so common in today's workplace.

EFFORTLESS MEETINGS WITH RICH CONFERENCING

A large portion of a user's week is spent preparing, attending and following up on meetings. The tools listed in the Team Productivity vision area will go a long way toward reducing the number of number of meetings to those that are truly necessary. The tools in this section of the Keeping In Touch vision area are aimed at making the meetings that are necessary as effortless as possible, bringing significant time savings to the meeting organizers and attendees.

Office.NET will provide a smooth end-to-end meeting experience which centers around a *meeting workspace*, a special purpose SharePoint site. The workspace is automatically created when the meeting is

first scheduled using Outlook. Leading up to the meeting, the workspace enables the organizer to share responsibilities with participants both within and outside the sponsor's organization. The workspace makes it easy for the group to collaboratively create all supporting material for the meeting, such as the agenda, attendee profiles (for a formal meeting), slides, etc. During the meeting the content of the workspace is exposed within the Scribbler application, allowing Office.NET users to be significantly better informed and prepared. Notes captured by the meeting attendees in Scribbler can be easily fed back into the workspace. After the meeting, the workspace serves as a meeting record, an archive of meeting activity, decisions, and issues that require more effort to resolve. The workspace makes it trivial to perform typical follow-up items such as assigning follow-up tasks, scheduling a follow-up meeting or emailing meeting minutes to a broad audience.

Office.NET will provide rich real time conferencing tools that a user can take advantage of in the context of a scheduled meeting or an everyday telephone conversation. In the context of a meeting (live or virtual) Office.NET will provide participants with a PC with a synchronized view of the slides being presented, enable Instant Messaging between participants, and let the presenter poll the audience for feedback. In the less structured context of a telephone conversation, Office.NET will offer appropriate ad-hoc conferencing tools such as screen sharing, white-boarding and file transfer. For scenarios and hardware configurations that warrant it, Office.NET will offer more specialized conferencing tools such as streaming and archiving of audio/video.

INSIDE FIREWALL SERVICE HOSTING

For Office.NET to be an attractive upgrade and to make it easy for the corporations to deploy and maintain the installations, it is possible for the corporate administrators to run the following set of services inside their firewalls:

Service	Description
Email, Calendar & PIM	Office.NET users who have an Exchange mailbox at their workplace will be able to integrate that mailbox into their Office.NET client experience.
Meeting Workspace	Corporations that deploy intranet SharePoint servers will be able to use them to host the workspaces for in-house meetings.
Conferencing	Corporations that deploy ECS will be able to provide a richer conferencing experience within their Intranet, including video/audio conferencing.
Presentation Broadcasting	Corporations that deploy Windows Media Technology servers in house will be able to use them to conduct Presentation Broadcasts within their Intranet.

NO-BRAINER UPGRADE



[click to view the demo](#)

Office.NET will be a compelling solution for individuals and we must ensure that it continues to be a compelling solution for organizations. With the introduction of a new model for acquiring and using software, Office.NET will face both known and new adoption barriers. While creating Office.NET we must not forget our large existing user base. It is impossible for Office to continue to “grow the pie” if we only seek out new customers and attempt to generate new markets. In order for Office.NET to be successful, we must keep our current customer base engaged and shown them immediate and relevant value with our software and services. Therefore a significant amount of work in Office.NET will focus on removing barriers that cause friction in upgrading to and subscribing to Office.NET.

To address the upgrade barriers and make it simple and seamless for the user to make the transition, Office.NET will focus on:

- Making the deployment and upgrading of Office for both individuals and corporations simple – the time and the effort if installing and maintaining Office.NET is significantly easier compared to the earlier versions of Office.
- Improving customer perception of quality and delivering a robust release of Office – Office.NET will be a more stable and better performing release where we stay in constant touch with the user and provide her a direct channel to provide feedback and get product support.
- Understanding and implementing fully secure and trustworthy software and services – Office.NET will proactively and reactively address all security related issues and thus provides a secure environment for the user to work and store her information.
- Assuring that we provide a set of features and services that will make Office.NET a compelling upgrade for all current Office users –whether the user is an individual user, a user within a corporation without Internet access, or a user within corporations with Internet access, Office.NET will be a ‘no-brainer’ version to upgrade to.

DEPLOYMENT

Office.NET is a combination of familiar client software extended with Internet-based services. While we make it very easy for individuals to install the client software, we need to keep innovating in the area of corporate deployment. Mass-deployment within the organizations that are moving to Office.NET must be simple and painless. Thus, installation and administration will continue to be fundamental focus areas in Office.NET.

Installation – A pleasant and successful user experience begins with a robust and quick installation. When the user has decided to subscribe to our services her goal -- as well as ours -- is to get her started

using the software, and focusing on her work, as soon as possible. Therefore, a fast and robust Office.NET installation is one of our primary goals. In the past, our main sources of installation have relied on a CD or network-based copy. In Office.NET our main thrust will be using Web Servers as the installation source, while still supporting the more traditional installation sources of CDs and file servers. Successful installation of Office.NET will mean that a new user must have a fully functional client release of Office.NET with connected services in less than 20 minutes on a regular DSL connection.

We have invested heavily in Microsoft's installer technology in past releases of Office. Office.NET will continue building on that investment and use Windows Installer as our main upgrade technology. Our decision to support Windows 2000 or higher operating system versions will open new possibilities for us to explore. Office.NET will drive and take advantage of technologies that allow more granular and frequent patching (like Drizzle Updates) for desktop upgrades and methods to assure that we keep the user's system intact (like Fusion).

Corporate deployment and distribution will continue to be areas of heavy investment in Office.NET. It will be possible for administrators to set up web-servers within their corporation and use those as the installation source for the client installation much like they use file servers today.

Updates and patching – Moving to the world of the connected user, Office.NET provides an excellent opportunity to keep the desktop application fresh and up-to-date. "Drizzle" updates and more granular software patches will allow Office.NET to keep customers current with the latest and newest software versions. The focus here will be twofold – to reduce the size of the patches as well as to make the time that it takes to apply them as short as possible. As a goal, each patch should not take more than 1 minute to apply, and the user should not be interrupted by the patch installation.

Roaming – Accessing information and settings that are stored on the web is an important end-user feature as described earlier in this document. Of course, each subscribing user of Office.NET is able to get full-featured software and access to the services on their own 'primary' and 'secondary' machines. With Office.NET the user is also able to get a full-featured experience on other machines where she is an authorized user. If the computer has Office.NET installed, the user is able to download her own settings from the central storage and thus, experience the applications as if she were on her home-base machine. A full-featured application experience is not available on computers that are locked down for installing or accessing installed software. On those computers the experience offered by Office.NET is purely browser based.

Administration – For organizational deployments, Office.NET will continue to focus on easy customization of the software configuration and maintenance. It will be easy for both administrators and individuals to customize and control the set of software and services that are installed. Much like in our current Office product, where one is able to select software components and set user preferences, Office.NET will extend this familiar customization model to also include our web-based services.

QUALITY AND ROBUSTNESS

The expectations about the quality of our software are getting higher with every release of Office. Our continual goal is to have the most robust set of software and services at the launch of Office.NET. The quality of our software will continue to be an important focus area in Office.NET. To deliver on that goal we will build on the existing work that we started in Office XP and extend that work to new areas.

Tell Microsoft -- With the easy feedback mechanism that will be implemented throughout Office.NET, it is possible for us to receive and request feedback on the state of the software or user problems. This allows us to predict and proactively address potential software or service failures. The constant connection

with the user enables us to keep the software always up to date and to react faster to known and anticipated issues like security or new hardware or software incompatibilities.

“Watsonized” Office.NET – Office XP introduced a new technology that enables us to learn more about the software and about the most disastrous software failures -- crashes. Because crashes are just a fraction of all potential failures, Office.NET will extend the use of Office Watson to collect information on all alerts. The combination of knowing about the state of the software, always having the most recent patches on the web, and assuring that the connected users run the most current release of software will increase the quality and robustness of Office.NET. Success of this feature will be measured by drastically reducing the number of PSS calls related to software-related incidents.

Connecting with the PSS – As described above, our goal is to drive down the number of software failure related PSS calls. However, when there is a need Office.NET will provide an easy way for the user to escalate and connect with PSS. For each user it is our goal to provide a personalized service in the form of a web site that allows the users to monitor the status of their outstanding issues. We will also explore services where we can connect with the user in real time and where the support professional and customer can share the screen and work on the problem together.

SECURITY

For Office.NET to be successful we need to start the customer relationship with a promise of uncompromisingly secure and reliable software services. Whether the security threat is caused by an external source, like a virus, or something we have a total control over, like the trustworthiness of the storage, we need to be able to proactively work on providing a fully secure environment. It is crucial to be able to quickly react to new and unanticipated security threats. Although it is difficult to predict all potential security issues, here are some known areas we will address in Office.NET.

Sign-in – Office.NET will build on the sign-in services provided by Passport. We will work with the Passport team and drive the requirements for providing a secure but pleasant sign-in experience. The user data we collect needs to make sense and the sign-in process must be fast. We need to gain the trust of the user from the beginning, while making sure that we are able to correctly authenticate every user during the initial as well as all subsequent sign-ins. Of course, confidential sign-in information -- like personal information used in the central user directory, or financial information related to billing -- need to be collected and treated in a secure manner.

Security of storage – The security of the information that is stored in the central Office.NET storage has the potential to generate the most concerns. For Office.NET to be successful we need to earn the trust of the user to store the information on our servers. The security of the Office.NET provided storage needs to be at the level where both individuals and corporations will trust us with hosting their data. Directly out of the box we will provide the user with a place to store her information and a way to control and change who has access to it.

Having a central and trusted place where the users store their information will provide us an excellent opportunity to offer services that benefit the user by improving the security of the information and documents stored there. For example, we are able to scan the stored document for viruses and eliminate them on user's behalf. We will be able to provide the user a report on who has accessed their stored information. We are able to automatically create backups of all the information that we store and we are able to provide services like notary and archiving, just to mention a few.

Client and Services – We need to expect and be ready to counter the continuous attacks against our client software. The security work that we have done up to this point to anticipate and react to the different security hacks is something we must continue. There will be new viruses and new hackers waiting to take a shot at our new security procedures. People will discover new ways to beat the measures that we have in place, like masquerading or impersonating someone else. Therefore, we need to be on continuous alert in order to proactively and reactively address client code security. Office.NET will bring us a new challenge in the form of server hosted services and client interaction. The ‘seams’ between the services and the client as well as the server code may be subject to security attacks.

Digital Rights Management – One of the new and forward-looking services that we will provide in Office.NET is the integration of Digital Rights Management to provide a service for digitally signed and protected documents. Office.NET subscribers can trust the authenticity of documents that are sent and received via the integrated DRM in Office.NET. Office.NET will also offer secure documents beyond simple signing. With DRM the author can protect the document and make it totally secure by determining who can view the document, who can print it, how long the document is viewable, etc.

INSIDE FIREWALL SERVICE HOSTING

For Office.NET to be an attractive upgrade and to make it easy for the corporations to deploy and maintain the installations, it is possible for the corporate administrators to run the following set of services inside their firewalls:

Service	Description
Installation Service	The administrator can set up a web-server within a corporate firewall and use that server as the installation and deployment source for the corporate installations.
Update Service	Like in the case of initial installation and deployment, the administrator can use a web-server as the source for software patch and ‘drizzle’ distribution.
DRM Publishing	Inside the firewall, the administrator can set up a server that provides licenses that are required for secure document creation.
Corporate Watson and Extended Error Architecture	The administrator can track Office.NET stability within their environment. The administrator has a complete control over what data is gathered from users and shared with Microsoft.

UNLOCKING INFORMATION VIA XML



[click to view the demo](#)

Today Office is the preferred tool for business document creation and Office documents are core to many business practices. For documents that have inherent structure – such as status reports, task lists, employee review forms, and meeting agendas, to name a few – the end goal is not just saving them in their original form but rather analyzing their data and potentially employing that data as integral parts of business processes. Unfortunately, much of the information inside Office documents is locked away so that if users want to repurpose the data within or across documents, it's difficult or impossible. The growing adoption of XML and its emergence as the industry standard for data transport both point to the customer need for extracting and repurposing information and provide a standard that Office.NET will leverage.

Office.NET will unlock information by leveraging emerging XML based standards. Office.NET will focus on the following areas:

- Great out of the box XML editing and analysis tools, including a new editor application focused exclusively on XML documents and a new list structured list tool that works in conjunction with SharePoint;
- Improved XML based interoperability, including support for the XML file format in the core applications, support of XML as an interop standard in the form of the ListML schema for list structured data, and data transformation services;
- SOAP based interfaces to services, including SharePoint, SmartPages, and Office data sources;
- Support for XML based solutions, including out of the box solutions that not only solve common knowledge worker problems but also serve as inspirations for the power of XML as well as providing generalized solutions components, support for third party solutions, and a new XSL template builder that creates the XSL templates for the XML document editor.
- WebParts and Dashboard technology integrated into SharePoint to support Data Driven Web Site scenarios. The FrontPage, SharePoint and the DDS teams are combining efforts to in this area. This work is based on a common XML format for SmartPages (data-driven web pages) and XSL definitions for page layout.

OUT OF THE BOX EDITING AND ANALYSIS TOOLS

Best Editing of Structured XML Documents - Office.NET will provide an XML Document Editor based on the NetDocs code base which edits XML documents natively while providing an Office-like experience for the end user. Editing XML documents natively means that the editor can edit documents conforming to arbitrary XML schemas that fit a particular solution. The documents are edited via an

associated XSL (or a set of XSLs) that describes how to interpret the schema and provides two-way binding between the XML and its user-friendly document-like appearance.

The XML Document Editor has four focus areas. First, it provides a great end user experience for editing and manipulating structured XML data, including a familiar Office-like user interface, with user friendly tools and a simple UI for adding and manipulating document structure. Second, it provides a rich editing environment, including many capabilities that are missing from other forms environments, such as the ability to control the format of documents, user friendly table editing, and Office-level drawing tools. Third, it integrates with existing business process infrastructure, especially infrastructure that is enabled by Office.NET, including SharePoint and Email/PIM infrastructure. Finally, the editor provides useful views onto the data, including flexible and multiple views.

Creating Lists - Another major new initiative in the Office.NET timeframe is Lists. Lists will combine the best of Excel and Access as a new way to allow users to create structured lists. These lists will work in conjunction with SharePoint to provide a new and improved experience for the SharePoint user. As an underpinning of this effort, Lists will be plumbed to read and write XML as their primary file and data format. As part of this effort, there will be several out of the box templates and solutions (XML and XSL) that will allow users to get up and going very quickly in building XML tabular documents.

IMPROVED XML BASED INTEROPERABILITY

Core XML Work in the Applications - Excel, Access, and Word all will do additional work in the area of XML. Word will work on both short and long term projects. For Office.NET the Word team will extend their current HTML file format so that it is ‘well formed’ and can be parsed by an XML parser. In addition, they will add new tags that will enable developers to better understand the structure of the word document, as well as include any manually or auto-applied SmartTags as XML in Word’s XHTML output. In the longer term, the Word team will write out a complete XML representation of their documents.

The Excel team will do additional work to separate data, models, and views. The main thing that they will do is to allow people to round trip “non spreadsheet” data through Excel. For example, Excel will let a user open some arbitrary XML and its schema and map this to a spreadsheet table display. In Office XP we flattened arbitrary schema into SpreadsheetXML, which is not always what the user intended. We will also allow users to annotate a cell using XML. This allows developers to tag cells with specific information that they may use in their business processes. We are also working with 3rd party organizations to understand and parse emerging XML standards such as MathML.

Access will include XML enhancements that finish up the work that was started in OfficeXP and hook into new Office.NET scenarios. The main things that will be done to improve XML import are the ability to transform data before importing, importing arbitrary XSD documents instead of ignoring all non-Access XSD. Regarding XML export, it will be possible to transform XML after exporting, export related tables, export sub-forms/sub-reports and tab controls, and export data pages.

XML Schemas -- Office.NET will define key XML schemas (extensions to Spreadsheet XML, ListML and others) that define a full fidelity format for moving XML data into and out of Office applications. We also plan to support the Hailstorm schemas in Office.NET.

XML Transformation Services - XML allows us to easily move data from one source to another. In the Office.Net timeframe, we will work with specific known schemas such as Great Plains data to transform them into Office XML formats such as Excel’s Spreadsheet XML, Access’s ReportML and our new ListML. We will evangelize our XML formats to third parties and provide assistance to them in building the necessary transforms to get their data in and out of Office applications with high fidelity.

SOAP BASED INTERFACES TO SERVICES

SOAP Interface to Office.NET Data Sources (DSP) - Several teams in Office are currently in the process of defining a SOAP-based interface to the different data sources that we plan to surface in Office.NET. These data sources include SharePoint data, external partner data like Reuter's and US Census data, corporate data sources that we catalog for our users, and data that is stored inside of web sites (e.g. Access MDBs that are stored in a FP web). To provide a uniform binding experience, we may also provide a thin layer over Hailstorm data that conforms to the interface that we are defining (the Office interface is simpler than Hailstorm XMI in some cases, and more complex in others). The teams working on this effort are FP, Data Services in DDS, Web Data Framework in DDS, Lists in DDS, and SharePoint Team Services.

SOAP Based Data Source Catalog - Where DSP is all about inspecting a given data source and getting schema and data out of it (as well as updating the data if applicable), the data source catalog service will provide an easy way to find out what data sources are available to a given user. The data source catalog will certainly surface Microsoft global data like Reuter's and US Census data, but it will also likely serve up all of the user's SharePoint sites as possible data sources, as well as any custom data sources that the user tells us about.

SOAP Interface to Smart Pages - In SharePoint Portal Server's Digital Dashboard implementation we offer a DAV-based interface that allows one to manage dashboards and Web Parts (e.g. you can create new dashboards, import Web Parts, etc.). Moving forward we see this interface evolving into a new interface that is SOAP-based that allows you to do many of the same things that you can do in today's world. This would allow a client application like one of the Office applications to create a new Smart Page and create one or more Web Parts in that Smart Page.

SOAP Interface to Sharepoint - While we are certainly trying to make SharePoint data available via DSP (mentioned above), STS is also looking at providing a SOAP interface to most/all of their functionality. This would allow a developer to create new list views and manage users and.

SUPPORT FOR XML BASED SOLUTIONS

XSL Solutions Template Builder - Office.NET provides an XSL template builder, which offers an easy to use WYSIWYG design surface that enables users to create and customize templates and build solutions around the XML based document-editing experience. The target user of the template builder is the group guru and corporate developer. Additionally, the template builder allows for simple customization of templates by the end user, for example, customizing the non-editable template content via a designer "lite" or customization wizards.

Out of the box solutions for XML Documents - Office.NET provides a set of solutions utilizing XSL templates and the XML document editor. These solutions work out of the box and provide immediate value to the broadest set of our target knowledge worker and Technology Enthusiast customers. These out of the box solutions will be based a small number of services that are widely available and expected to be used by the widest number of knowledge worker customers. Candidate services for solution integration include SharePoint and Email/PIM, and also GreatPlains and Business.NET. Solutions include the XSL templates for viewing and editing the data in useful ways, UI customizations, client side business logic, and middleware business logic that performs shredding of the XML document or other necessary operations.

DATA DRIVEN WEB SITES

Web Parts as XML - In today's world Web Parts are transferred from dashboard to dashboard, or catalog to dashboard, as XML. This will continue in the Office.NET architecture and will be the primary way that Web Parts are exposed via the SOAP interface mentioned above. This will allow someone to pull

a Web Part out of a given Smart Page, modify the metadata properties using an XML DOM or any XML-processing tool, and then save that Web Part back to the store.

FrontPage Data Driven Webs - FrontPage will be relying on Web Parts to enable their Data Driven Web scenarios. More specifically, they will provide a design-time UI for inserting a data source into a page, with the end result being a Web Part that knows how to bind dynamically to the selected data source. FrontPage is building a data-focused XSL editor that will allow users to edit the Web Part's XSL that FrontPage generates at insert time.

INSIDE FIREWALL SERVICE HOSTING

For Office.NET to be an attractive upgrade and to make it easy for corporations to deploy and maintain installations, it is possible for corporate administrators to run the following set of services inside their firewalls:

Service	Description
Out of the box editing and analysis tools	XML document editing will function standalone or in concert with SharePoint servers deployed either in Office.NET or inside the firewall. List management will work on corporate hosted SharePoint servers.
Improved XML based interoperability	The core XML work in the applications, XML schema work, and the XML transformation services can be deployed inside the firewall.
SOAP based interfaces to services	SOAP interfaces to Smart Pages and SharePoint will work inside the firewall. SOAP interfaces to Office.NET data sources (DSP) and the SOAP based data source catalog will function inside the firewall only for those data sources that are themselves hosted inside the firewall.
Support for XML based solutions	The XSL solutions template builder can build solutions for inside the firewall. The SharePoint based out of the box solutions will work inside the firewall; mail based solutions may not be available inside the firewall due to the potential difference in mail architectures.
Data driven web sites	Web parts as XML and FrontPage data driven webs can function inside the firewall.

TECHNOLOGY BETS

Below are the important key technologies that we will '*bet*' on with the first release of Office.NET.

TARGETING TABLETPC

The vision pillars above outline scenarios that are specific to meetings and the use of the TabletPC. This form factor emphasizes the ability to take notes quickly, maintain mobility, and assist in reading. These features round out very valuable future work scenarios.

It is our belief that in the Office.NET timeframe the TabletPC is going to be an incredible opportunity for our customers. As a new and upcoming platform and a key part of Microsoft's overall strategy, Office.NET will also endorse and bet on this technology -- taking an advantage of high-resolution screens, considering 'ink' as a new data type, integrating handwriting into Scribbler, and investing in richedit are examples of the technology bets in this area.

BUILDING ON HAILSTORM

We will be making a big bet on Hailstorm as the platform for the core services used by Office.NET. Our mail, calendaring, address book, IM, notification, application settings and document storage will be built using the corresponding services offered through the Hailstorm XMIs (XML Messaging Interfaces). Doing so aligns us and the rest of the company with the clear hosted server strategy and allows us to focus on how we can build great client and server-side applications that use these services. We will leave the design and operation of the services to the groups in the company who are experts at it.

While most of the Hailstorm services will be built on top of existing server platforms, we will not talk to the services using their "native" protocols. A key part of our bet is that we will talk to them through the Hailstorm layer using the Hailstorm XMIs. This allows us to talk to all of our services using a consistent protocol and ensures that we have a clear story with respect to firewalls, security, etc.

The current early round of Hailstorm specs have some clear limitations that we need to address. Our success at using this platform rests in large part on our ability to work closely with the Hailstorm service teams to make sure the interfaces they implement serve Office's purposes. Much like our early collaboration between the Windows 1.0 team and the Word and Excel teams, we will play a key role in making sure that the Hailstorm interfaces are a great platform for building applications.

In addition to being clients of the Hailstorm platform, we will investigate exposing some of our own services as pieces of Hailstorm. We have some exciting opportunities to allow third party developers to extend SharePoint sites or use some of SharePoint's underlying list services to build custom solutions, giving us a valuable platform strategy.

Finally, by using Hailstorm we are building on a platform that we will be evangelizing to third party developers, and enables a large number of powerful extensibility scenarios to be built around the data and services used in Office.NET.

The list of Hailstorm services we will be using is as follows:

Hailstorm Service	For...
myInbox	Email
myCalendar	Scheduling
myContacts	Contacts, buddy list
myPresence	Presence information (online/offline, etc).
myServices	Core hailstorm infrastructure (service location)
myAddress	User profile information
myProfile	User profile information
myLocation	Targeted notifications
myNotifications	Notifications, data exchange

myDocuments	Document storage and roaming
myApplicationSettings	Roaming settings

OFFICE.NET CUSTOMER VALUE PROPOSITION

Our TCO enhancements in Office 2000 laid the groundwork for future client releases to be easily deployed within Enterprise environments. However, with our shift to a client/services release, the issue of how to deliver the Office experience to end-users must be explored again.

An Office.NET customer may be online or offline, behind a firewall or connecting via an ISP. Connection rates will vary between 56K and T3. Users behind a firewall may or may not have the ability to 'post' data on the Internet, and may or may not have passport authentication. Additionally, Office.NET is making a big bet on SharePoint. Users may have internally hosted SharePoint servers, externally hosted SharePoint services, or no SharePoint access at all.

The following table illustrates the powerful service options Office.NET provides for the different customer segments:

Customer	Environment	Value Proposition
Influential End User	<p>Connects to the Internet directly through ISP, 56K→Cable/DSL.</p> <p>Authenticates with Microsoft through PassPort</p> <p>Uses Microsoft or ISP hosted services</p>	For the first time, any PC owner with a dial-up connection can experience the richness of true collaborative computing. In addition to traditional Office tasks which she performs offline or online, this user can communicate and collaborate with others through the Office.NET client and Office.NET hosted services. She is able to extend her Office experience to any PC she logs on to regardless of local client software. She is able to get to the information on the Internet as well as store information there.
Small Organization or Home Office User	<p>Connects to the internet directly through ISP, 56K→Cable/DSL.</p> <p>Authenticates with Microsoft through PassPort</p> <p>Uses Microsoft or ISP hosted services</p>	Office delivers the same rich functionality to small- and home-based offices through externally hosted SharePoint services and Passport authentication. Small business owners are freed from the burden of learning technologies with a .NET experience that "just works". SORG/SOHO users can collaborate and manage projects with individuals or enterprise partners seamlessly through a connected Office.NET experience.
Progressive Large- or Medium-sized Organization	<p>Users connect via T1-T3 to the Internet through Firewall.</p> <p>Authenticates with Microsoft through PassPort.</p> <p>Use Microsoft or ISP hosted services</p>	Corporate users of Office.NET get the same Office.NET experience as individual users by outsourcing their hosting to Microsoft or an ISP. Functionality looks and feels the same, and Microsoft Passport authentication provides presence to users for real-time collaborative and meeting scenarios. IT Managers are freed from Office.NET client and server administration as well as management of complex extranet, geo-diverse and virtual team scenarios that are enabled through Office.NET hosting. The users are able to get to the

		information on the Internet as well as store information there. SharePoint Portals on the intranet aggregate key business applications and data, connecting it to users and Office.NET hosted services.
Traditional Large- or Medium-sized Organization	<p>Users have limited access to Internet through Firewall</p> <p>Internal SharePoint authentication only (no PassPort)</p> <p>Use internally hosted services (on SharePoint)</p>	Without Passport, Office.NET offers excellent Microsoft hosted service features that do not require identity, but do require the Office.NET client. In the case the organization does not allow Internet access at all, it can still take an advantage of the SharePoint Team and SharePoint Portal services that are hosted inside the firewall. If the corporation does not host SharePoint, Office.NET will still provide value via improved client features like Outlook enhancements, XML and Scribbler.

OFFICE.NET AND INTERNATIONAL MARKETS

Expanding the international availability of Office, shortening or eliminating the delay between US and the localized versions, and providing good feature parity in the different localized languages have all been both goals and great strengths of past Office releases. With Office.NET we will continue to build on the promise of a solid set of both client and software services in the international markets, but with Office.NET we will take a very close look at prioritizing the markets and what services we provide in each market.

Although our long-term goal is to aim for near service-parity across the different international versions, at the launch of Office.NET we will not have an equal coverage of services in each international market. For the first version of Office.NET we will have the services available for the main (five or so) core international markets. We will work closely with strategic early adopters in these countries to learn more about what it takes to migrate to Office.NET as a productivity platform.

The international services will be hosted by our operations in the US. Our priorities on the services and what we can provide in different international markets is partially driven by our partnerships, for example which Hailstorm services are available for each language.

There are also countries where we will rely on services that are hosted on SharePoint by ISPs or corporations. Over time, and especially as we learn more about running international service operations, we will widen the spectrum of countries and the services we provide in each locale.

Just as we will prioritize the services we provide in each language, we will also prioritize the work and services that are offered by third-party vendors. We will be hard-core about providing country-specific services but in the end we will make sure that we capture the right markets with the right set of features. The goal here is not to get a breadth of services in each country and to find as many partners as we can, but rather carefully to select the ones that are crucial for our business growth.

The client features that we are adding to Office.NET will be localized and available in a timely fashion throughout our different languages versions. Consistent with the practice we established in past releases of Office, Office.NET client applications will be Unicode-enabled worldwide executables.

OFFICE.NET TENETS

Although the purpose of the vision document is to build a guiding roadmap for the new and exciting areas we're investing in, it is equally important to be clear about the assumptions or things we know we will not do upon starting the new release. This section will spell out those decisions or "tenets" as we have called them in the past that Office.NET will follow.

OFFICE.NET AND CORPORATIONS

Although Office.NET's main customer and the focus of our services will be on the individual user, it is very crucial that we keep the corporations and large accounts in mind. As we have proven in the past, it is a challenge to make a new version of Office attractive enough for the corporate IT department to make the push on upgrading. The easiest and least costly short-term move for the IT department is to stay with the currently deployed release of Office.

For Office.NET, providing features for administrators is not our focus – individual empowerment is. However, we know all too well that there are some things we can not do, like upgrading system files, not supporting legacy solutions etc. because they will make it too easy for the IT departments to say 'no' to deploying the next version of Office. When we say that administrators are not our focus it does not mean that we can ignore them. Office.NET will follow the same path of well-behaving and easy-to-deploy software as we have done in the past. When designing the features and services we need to keep the corporate needs in mind and avoid designs that will make it difficult or impossible for the administrator to adopt Office.NET. For example, it must be easy for the administrator to turn off access to any or all services that are hosted by us. It needs to be easy for the administrator to redirect Office.NET to use services that are hosted on the top of SharePoint within the corporate firewall and then at a later time to easily switch to the services that are hosted by us.

In order for Office.NET to be a viable product for corporate users, we must also consider the experience of using the product from behind a tightly controlled firewall. In particular, we need to be mindful of a company's unwillingness to store any corporate information outside its firewall. This means that many of our "cloud" services won't be available to corporate users. While we will not aim to make all of our services hostable on a corporate network, we will provide a core set of hostable services with SharePoint that will give our corporate users a compelling client/server experience.

Even when corporate users begin to use cloud services, much of their data and corporate applications (like the systems that automate sales, manufacturing, support, and R&D) will continue to run locally within the organization. The Office.NET client will provide opportunities to bring this critical data together with information in the subscription service on an individual basis, and SharePoint Portal Server will connect the corporate and cloud data and service islands for entire organizations.

Many of the services we host in the cloud will be implemented as features of SharePoint. Our intention is to allow all of these services to be hostable by a corporation. The exception to this would be features that require communication with other services that we can't expect to be available behind firewalls (hailstorm mailboxes, instant messaging, etc.). For features that we will allow corporations to host, we must give special consideration to issues like ease of deployment, provisioning, and administration.

OPERATING SYSTEM AND BROWSER VERSION SUPPORT

With Office.NET we will make a bet on Windows 2000 and later and not support any lower-level operating systems. Although a bold move, it will put even more emphasis on the freshness of Office.NET and that it is a new and different release of Office instead being perceived simply as "Office 11". Reducing the matrix of the operating systems that we support will also help reduce complexity for developing and testing of Office.NET and thus help us meet the shorter schedule.

With the reduction of lower-level operating systems support we are able to eliminate the need for ‘system pack’ updates. However, the decision to support Windows 2000 or later will not remove a previous tenet – that which states Office releases will not require or distribute any new system files. The same guidelines that we had with Office XP not upgrading the operating system will still apply in Office.NET.

Accessing Office.NET via the browser and getting the fullest support on Office.NET features and services will require Internet Explorer 5 or Navigator 4.7 (used by all AOL users) or later. This requirement ensures the best viewing of HTML format Office documents and dashboards that are offered as part of Office.NET services.

PERFORMANCE

Despite our substantial investments in server-based code, it is important to remember that our users will continue to spend a great deal of time in our client applications. Indeed, our success depends greatly on our ability to integrate our client applications with our services in order to create a seamless experience. In turn, this means that the performance characteristics of our client applications continue to be extremely important. Our goal for Office.NET will be to maintain the same (or better) performance and working set as Office XP for existing scenarios. In order to be successful at this, we need to do a better job than ever at considering performance implications of new client-side features early in the cycle. This means greater scrutiny (measurement/reporting and resolution) of performance issues earlier during development milestones of Office.NET

For server-side features, we need to focus on building ultra-reliable, scalable, and maintainable code. Complexity will be our enemy here. We will measure our success not by the number of lines of code we write, but rather by our ability to run our services in a resource-efficient manner (CPU, disk, bandwidth, etc) while maintaining maximum possible uptime.

ACCESSIBILITY AND PRIVACY

Office.NET will be the most accessibility-friendly and privacy-compliant version of Office ever built. Compliance with accessibility and privacy rules and regulations is gaining more importance in every release. Accessibility and privacy have become feature areas that often determine whether our software is purchased or not. Office.NET adoption with our customers requires that we religiously follow the accessibility and privacy guidelines on all the features and services we provide. The upside of cutting the corners here is nil, while the downside can result in individuals or organizations not acquiring or upgrading to Office.NET at all.

BANDWIDTH

Bandwidth must be treated like any other resource that is tied to performance, such as memory or disk space,. When planning and designing for the services we should not assume or optimize for a high-speed connection. The Office.NET service experience must be a pleasant one even when using a 56K modem connection – with the exception of the initial install where the duration is a direct derivative of the line speed. Therefore, each service will be designed so that it performs and consumes the absolute minimum amount of bandwidth necessary and that we make our services as fast as possible. Understanding the bandwidth requirements is crucial for providing an equally good user experience in international markets.

OFFLINE SUPPORT

Office.NET’s focus is about being connected and about ‘being online’. The richest and the best end-user experience can occur when the powerful client code is extended by connecting to Internet-hosted

services. The tenet here is that there is no ‘offline’ support except on the areas where explicitly specified, like offline documents, mail and PIM information.

SPECIFICATIONS , PROTOTYPES AND SCENARIOS

In Office.NET we will have every specification accompanied by a visual prototype that illustrates the feature or the service as the end-user will experience it. Although this tenet is more about ‘how’ we do Office.NET, it is certainly worth calling out here. We have started this practice with the vision – for each vision area described in this document there is a corresponding prototype on //officenet. We will continue this practice and pair up each specification with a prototype. It will also be critical that scenarios are expressed early in the development process. These should be expressed in our specs and later fleshed out in greater detail to ensure end-user usage of our features and services is understood and tested against as early as possible. Developing detailed usage scenarios early in our product cycle has proven to be an invaluable scoping and feature comprehension tool for program managers, developers and testers in past releases (especially Office XP) and we’ll continue this practice in Office.NET

OPERATIONS EXCELLENCE

In Office.NET we are adding an important new dimension to our business model – online operations. As we gear up for the development, delivery and management of our new product services, it’s important we create an efficient, streamlined and flexible environment to build, test, stage, deploy and scale our new online services.

Unlike past releases, Office.NET will enable a new high-touch, constant, online relationship with our users. The foundation of this relationship can take root and grow *only* if we deliver a secure, well-performing and reliable environment for these new services. While each service and feature we deliver has a direct, overt connection to our users, the framework for the delivery of these services is silent, in the background yet must be no less dependable than each service or feature itself. Our new service business can grow only if the delivery framework itself succeeds.

Our challenges herein are in 4 areas:

- Changes to our internal product development process
- Creation of new physical machine environments
- Creation of new service standards we must deliver to
- Changes to our user relationship and feedback mechanisms

DEVELOPMENT PROCESS

We are adding a new engineering discipline in Office.NET – systems engineering. As critical to client-side feature delivery teams (test, pm, dev, ua) in the past, our SE’s will be assigned service / feature teams to work directly with and will be integrally involved early on in the design development, build, testing and staging of these new services.

Our build/test/release environment will be modified with the requisite tools and process changes necessary to build service code, manage the source, pre-test and deliver to testable staging environments. This will be enabled at a basic level by the time our first development milestone starts in June, 2001. A

working cross-team forum will continue to manage these changes and refine them through delivery of Office.NET.

Our shorter product cycle and implied more frequent updating model after we ship Office.NET requires pushing discovery of security, performance and scalability issues further up-stream in our development cycle. Our system engineers and test teams will work closely with developers to define how we augment check-in tests and build verification tests to discover issues in these areas in client and service code.

MACHINE ENVIRONMENT

Though there are only a few models within Microsoft to look to for online services delivery, we will investigate and craft our own support in this area, ensuring Office needs are met but can integrate well with the new Services Platform Divisions framework for a consistent services delivery platform for Microsoft products. Our machine environments will lean and efficient. We will have a consistent set of physical and software configurations from pre-checkin through to deployment to minimize late discovery of configuration-dependent bugs (a bane of other groups in the online business at Microsoft), but will efficiently spread the ratio of services to servers/clusters at an appropriate level to each stage of our build/deployment pipe.

All of our labs (from the servers developers use to pre-checkin test to the special test labs to staging area test labs through to deployment environments) will be locally managed by the teams that own them organizationally but centrally driven to ensure we minimize hardware costs, maximize throughput, repurpose machines at every opportunity and can leverage bulk order discounts whenever possible. We will scale our initial deployment environment around a projected 2 million users (US, domestic) in the first 6 months of Office.NET's release to be managed out of one initial data center in Tukwila. International plans (services, data centers) will be made as we progress through the early stages of Office.NET. We will ensure readiness to scale the environment quickly as post-release usage growth dictates.

STANDARDS

The growth of online relationships between software vendors and users in our industry has created a variable set of standards around what high security, performance and reliability look like. We have the opportunity to set a high bar in Office.NET to ensure privacy standards and security of user information (whether identity, documents, profiles/usage patterns, etc) are protected at the highest levels. We will look at the best models available today and either implement or improve on those in our own development and delivery of Office.NET. Availability is another area where Office.NET will set and deliver on a standard (a la five-nine's (.99999 up-time)) appropriate to what our users will need in this first release. This means creating the necessary personnel process and tools to ensure reliability and availability are kept high. Doing so includes defining our escalation process, use of pagers and 24x7 communication, defining the relationship between the Office sustaining engineering teams, build teams, deployment/system engineering efforts etc to address both routine scaling and reliability issues as well as emergency events.

USER RELATIONSHIP AND METRICS

Accurate business metrics will be key to our success in this business shift. Whether new measures of build and basic test failures early in the cycle through to post-deployment service availability patterns, server load, page/service usage metrics, service level agreement adherence, etc. – we will develop and dogfood key metrics early in Office.NET in this area. The development of these metrics will be primarily owned by the IPO (Internet Platform and Operations) team though clearly collaboration in their specification will occur with all Office teams. Reporting timeliness and accuracy will be a key focus for these metrics and the IPO team will deliver in a separate spec their vision and detail for this area. Our

business metrics here will also give us cost information to run each service so we can better tune our services and have a feedback loop to create optimal pricing.

One of our many unique opportunities in Office.NET is the customer feedback loop. The Quality and Satisfaction team owns the development of this class of services (going well beyond Office XP's Dad Watson-type work) but the operational elements of this coincide with our overall business metrics. The IPO team will work closely with the QnS team to define how we report out the user feedback we get with these new services and how that reporting will be correlated with our operational business metrics.

OFFICE.NET KEY PARTNERSHIPS

The success of Office.NET depends on delivering on the vision and the bets that we discuss above. For us to be successful on delivering on our vision we will be forming key *partnerships* where we create synergies on the work and the technologies provided by other teams throughout Microsoft. The following table outlines the key partnerships and the role they play in the success of Office.NET:

Team or Technology	Partnership
Hailstorm	Core services for email (myInbox), scheduling (myCalendar), contacts (myContacts), notifications (myNotifications/myPresence), document storage (myDocuments), settings (myApplicationSettings), user information (myProfile/myAddress). Passport for authentication and grouping infrastructure.
Tablet PC	WISP (Windows Inking Services Platform) for low-level pen event support, ink rendering, persistence and manipulation, and ink recognition. Coordinating with TabletPC team to allow Scribbler to read Notebook's file format. Also coordinating to share gesture recognition, and ink classifier technologies.
Services Platform Division Operations	Physical machine hosting and operations (tier 1 and part of tier 2) for Office.NET will be done by MSN operations team. Close collaboration on reporting, analysis and tools.
Product Support Services	Seamless integration of product support services, feedback and escalation throughout Office.NET. Peer-to-peer with support engineers. Extensible

	alert mechanism. Client logging for troubleshooting.
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OFFICE.NET SCHEDULE

There will be two main development efforts for Office.NET – the definition, development and testing of client core code as well as the services that plug into it. The first version of Office.NET and the supporting services will be released simultaneously. Once we have the first version shipped, we will look at the improvements and next releases of both the core code and the services independently. Having the technology and the infrastructure of updating the services and the client code independently and more frequently will give us the opportunity to make flexible decisions on the time of delivery of core client code or services code based on the customer feedback and other business needs.

The following is a framework for the major milestones and events on the road to releasing the first version of Office.NET. A more detailed schedule on milestones and check-points can be found on <http://officenet>.

Milestone	Date
Office.NET Vision Final	May 17, 2001
Specifications Ready for Review	June 29, 2001
Specifications Inspected	July 20, 2001
MM1 Coding Starts	July 23, 2001
MM2 Coding Starts	September 24, 2001
MM3 Coding Starts	December 3, 2001
Code complete	February 18, 2002
RTM/RTW	September 16, 2002