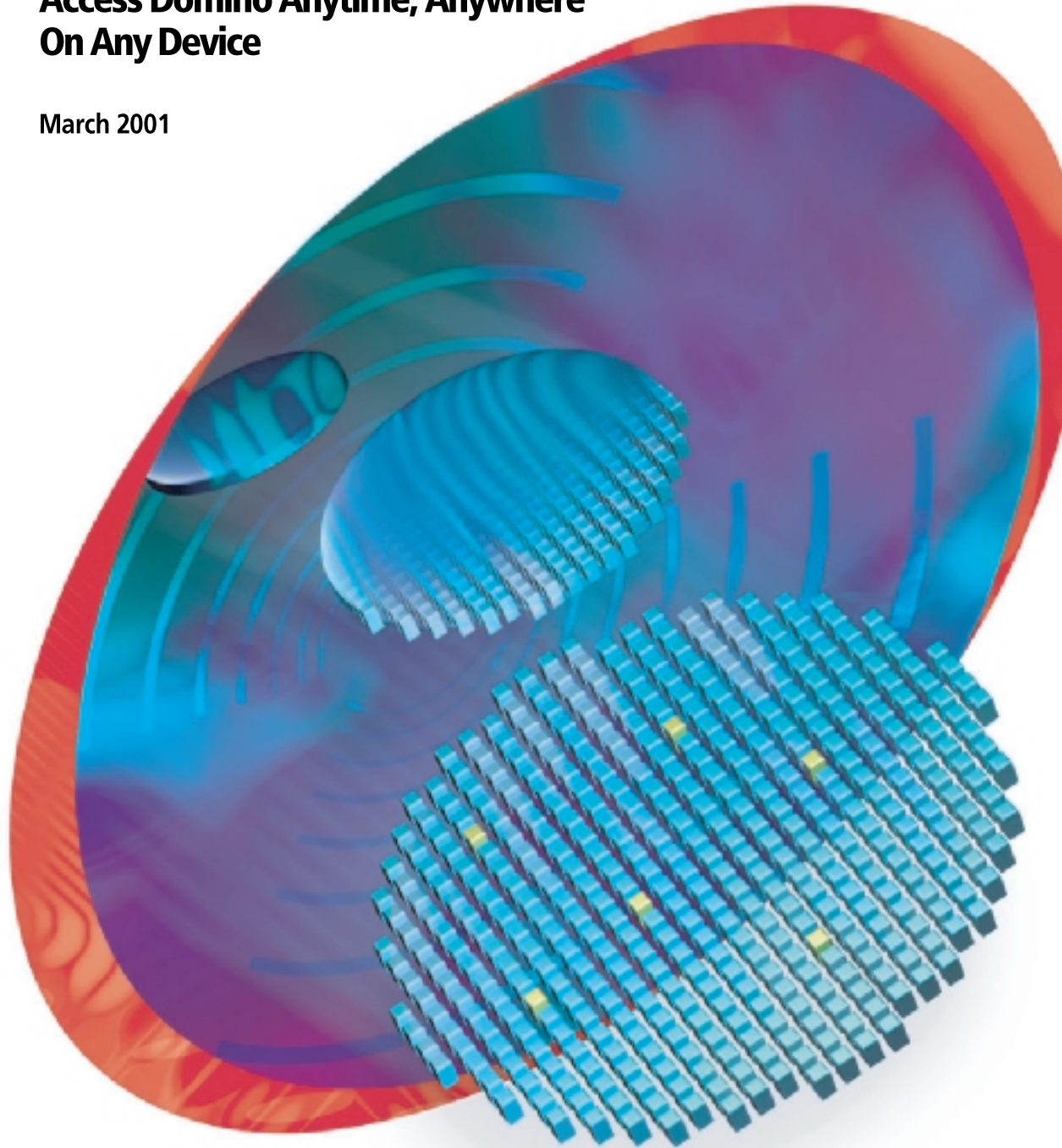


Lotus

The Power of Mobile and Wireless Data Access and Collaboration

Access Domino Anytime, Anywhere
On Any Device

March 2001



A Lotus Development Corporation Product Overview

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INTRODUCTION

PDA's, handheld PCs, interactive pagers and smart phones are all widely used in business today. As their adoption rates continue to skyrocket over the next few years, the ability to extend time-critical information to mobile workers via these handheld work tools will become a competitive necessity for many businesses.

Wireless devices offer the potential to give salespeople, service technicians and other mobile workers as-needed access to e-mail, alerts, group calendars, PIM (Personal Information Management) services and intranet applications without the physical and logistical limitations imposed by laptops and phone jacks. Wait times to receive and respond to messages are reduced or eliminated. Idle time can be put to productive use. Imagine a salesperson accessing server-based customer information or pending orders via her WAP phone while riding in a taxi or waiting at an airport departure gate.

By meeting their information needs more efficiently, mobile workers—a fast-growing percentage of the workforce—become more productive. This reduces cycle times and improves customer service across business units and the organization as a whole. In short, companies that proactively embrace the challenges and opportunities of wireless data access can achieve competitive advantage and gain market share.

While the dollar value of productivity gains, increased efficiency and greater customer satisfaction can be difficult to quantify, mobile and wireless data access also offer more tangible benefits. For example, the ability to access real-time inventory information as an order is submitted in a customer's office can translate into a higher order fulfillment ratio, and ultimately to inventory cost reductions. Similarly, the ability to interact with a logistics application while disconnected from the network can reduce time-to-market and increase sales.

Read on to find out more about new opportunities for pervasive collaboration, made possible by mobile and wireless access to messaging and enterprise business applications.

LOTUS MOBILE AND WIRELESS SOLUTIONS

E-business is unquestionably evolving toward mobile and wireless access to business-to-business applications via handheld devices. This is because mobile/wireless access increases customer convenience and value chain efficiency—provided the right information is available to mobile workers in the proper format for their device(s).

While today's wireless computing marketplace brims with would-be leaders, few vendors have actually delivered solutions that meet enterprise requirements. Employees at home and on the road want to use handheld devices to access server-based personal and corporate data. And they expect key capabilities made possible by a desktop PC or laptop; in particular, the ability to obtain information on demand in realtime, and to send and receive all types of messages. Increasingly, they also require the ability to wirelessly interact with applications via a PDA while disconnected from the network, and then to synchronize with the server or desktop at their convenience.

Lotus® Development addresses these enterprise requirements with the Domino™ Everyplace™ Server family, Lotus Mobile Notes and Lotus EasySync® Pro: integrated products that extend the reach and value of the Lotus Notes® and Domino e-business infrastructure to mobile and wireless devices.

These mobile and wireless products can transform the way your organization communicates and manage the flow of information, by integrating your computing and wireless communication tools. Time-sensitive messages from customers, last-minute meeting notices, hot sales tips and your colleagues' e-mail addresses and phone numbers can be accessed anytime, anywhere—on any device.

DOMINO EVERYPLACE

The new Domino Everyplace server family extends the capabilities of the current Mobile Services for Domino technology, to provide the most comprehensive platform available for secure, reliable and easy-to-administer mobile and wireless services. Along with the Lotus Mobile Notes client, Domino Everyplace provides organizations with a complete solution for the development and deployment of mobile and wireless Domino applications, including B2B (Business to Business) and B2E (Business to Employee) applications.

This next generation of Lotus solutions also gives organizations the flexibility to choose the client devices they want to deliver content to—mobile phones, pagers and/or PDAs—to connect companies, customers and partners at any time, from any location, and/or to provide offline access to applications.

With Domino Everyplace, Lotus has enabled customers to move beyond wireless and offline access to e-mail, to full service PIM capabilities and strategic business applications like Sales Force Automation, Supply Chain Management and Customer Relationship Management. Now organizations can further leverage their Domino investments by extending its collaborative power to every business user in any business situation, on any device. To meet specific customer requirements and support a “grow as you go” deployment

strategy, Domino Everyplace components will be available separately, or as an integrated bundle.

MOBILE NOTES

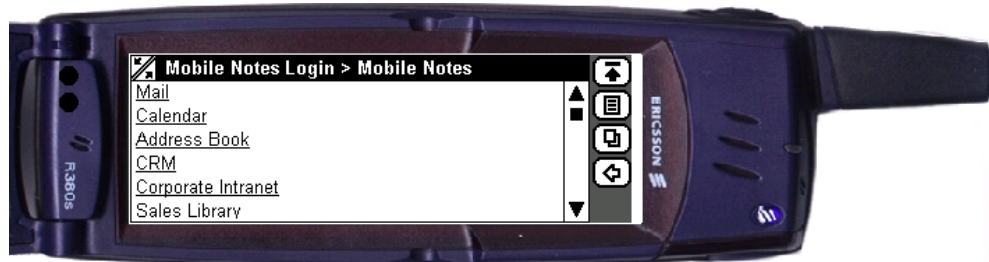
Mobile Notes is the term Lotus uses to describe the experience of accessing the mobile version of a Domino application from mobile and wireless devices:

- Mobile Notes clients are being developed by Lotus for the key operating systems being used on mobile devices (PalmOS, Pocket PC and EPOC). These clients can be thought of as being similar to a Notes client, allowing a Domino application to be run locally on the device.
- Mobile Notes access is the user interface to Domino applications which is offered via a microbrowser on a WAP device. This can be thought of as being similar to the iNotes™ experience offered in a Web Browser.¹

DOMINO EVERYPLACE ACCESS AND MOBILE NOTES

Domino Everyplace Access extends the value of Domino e-collaborative services to WAP devices. It provides secure, interactive, anytime/anywhere access to critical business information including Domino-based e-mail, calendar, directory and Domino applications from WAP devices.

Mobile Notes access brings familiar Notes™ functionality to the end user, along with unified access to the Notes inbox from multiple clients. Custom, individualized menus ensure that



your inbox, calendar, directory and key applications are quickly accessible, no matter where you are. As a compliment to extranet access, you can also set up a wireless portal from which your mobile workforce can read and manage their mail, accept meeting invitations, browse a corporate intranet site, or interact with a wireless Domino application.

Administration is simplified by tight integration with the Domino Directory; mobile and wireless information is automatically added to existing user profiles.

Built on an XML architecture, Domino Everyplace Access is tightly integrated with Domino administration and directory services. Domino Everyplace Access adds value and convenience far beyond simple wireless access.

¹ In Japan, Lotus Phone Connect is used for wireless access via the popular iMode technology.

DOMINO EVERYPLACE SMS

Domino Everyplace SMS includes paging and notification services, for sending and receiving short messages to/from pagers and SMS devices, and for receiving instant e-mail notifications or alerts from any Domino application. For example, Domino Everyplace can automatically forward your Notes mail messages to a wireless device or a pager. It can also forward messages to another person's wireless device if yours is not accepting messages. Or it can reply automatically to messages on your behalf, to let the sender know who will respond to them and when. You can even direct Domino Everyplace to page you or notify you via SMS the instant an e-mail from a specific customer reaches your inbox or send you an alert or notification from any Domino-based application.

DOMINO EVERYPLACE ENTERPRISE AND MOBILE NOTES

Domino Everyplace Enterprise includes a full-featured application development environment for creating and securely extending Domino's industry-leading messaging and collaborative application services to popular PDAs, Smartphones and Communicators, based on Palm Computing, Pocket PC and EPOC platforms.



This integrated product bundle features a revolutionary new developer tool called Mobile Domino Designer, which leverages Domino Designer to enable companies to rapidly and easily extend their Domino-based e-business applications to mobile/wireless devices. Using Mobile Domino Designer, developers can design, deploy, synchronize and manage mobile Domino applications. Built-in services provide a flexible and easy-to-use interface for connecting mobile devices to enterprise data. Device, application and user management are all simplified and centrally controlled via a single administration interface.

Domino Everyplace Enterprise also includes the Mobile Notes client, which brings Lotus Notes functionality to these PDAs. Ultimately, this enterprise solution will enhance business productivity by enabling both wireless and direct wired synchronization of a wide range of devices with mission-critical business applications. Mobile workers will have the ability to work with applications not only remotely and wirelessly, but also when off-line, for the ultimate in productivity and convenience.

EASYSYNC PRO

EasySync Pro lets you work with your most critical Notes-based information anytime, by providing data synchronization between your Lotus Notes desktop and market-leading PDAs that support the PalmOS, Windows CE/Pocket PC, and EPOC platforms. Data sources you can synchronize include your e-mail, calendar and appointments, addresses and contact information, and to-do lists. Along with enhanced configurability and extended device support, EasySync Pro offers powerful, new sync features and advanced data filtering technology for greater flexibility and convenience.

With EasySync Pro, you can use your PDA not only to read your e-mail and see your latest appointments, but also to create new e-mail messages, schedule meetings, update your to-do list, and more. You can conveniently capture new information while on the go, and make more productive use of otherwise idle time. When you return to your desk, simply place the PDA in its cradle and touch the Sync button, and all the information on your PDA and on your Notes desktop is bi-directionally synchronized. For maximum efficiency, EasySync Pro enables you to specify exactly what information you want to synchronize with Notes and/or download to your PDA.

EASYSYNC PRO SERVER

EasySync Pro Server enables organizations to synchronize information from market-leading PDAs directly with the Domino server without the need to synchronize via the PC. It provides simple data synchronization along with the functionality needed to be more productive at anytime and anywhere. Data sources you can synchronize include your Domino-based e-mail, calendar and appointments, addresses and contact information, memos and to-do lists. EasySync Pro supports any wired or wireless connection such as ethernet and analog or wireless modems. EasySync Pro Server supports the Palm OS, Windows CE/Pocket PC and EPOC platforms.

KEY FEATURES OF MOBILE NOTES AND DOMINO EVERYPLACE

Together, Mobile Notes and Domino Everyplace offer organizations:

- **Extended reach for applications.** The Domino Everyplace family provides access to server-based Domino applications via handheld devices, and enables you to rapidly extend applications to provide offline access via PDAs. Domino Everyplace SMS allows applications to automatically send e-mail messages, alerts and notifications to users of one- and two-way pagers and other SMS devices (such as mobile phones), and even to initiate interactive, two-way messaging communication automatically. Domino Everyplace Access allow applications to be used directly from a suitably equipped mobile phone or PDA. Domino Everyplace Enterprise allows an appropriate subset of an application to be run locally on a user's PDA or smartphone.
- **Robust security.** Lotus Notes and Domino represent one of the most secure data networking environments available. Domino Everyplace Access builds on these proven capabilities, in combination with new technologies and industry standards like SSL and WTLS, to address the unique challenges presented by wireless data access. Domino Everyplace Access can also enables organizations to associate an authorized user with each mobile device, track what network a device is used on, encrypt data in transmission, and more.
- **Centralized control.** Domino Everyplace Access provides a full complement of wireless administrative capabilities, which are integrated with Domino administration services for centralized management of the organization's wireless users and devices - familiar Domino security features let you control who gets into your network, and what gets out over it. Domino Everyplace Enterprise provides its own centralized repository of information about the users and the applications they use. Domino Everyplace SMS uses a central repository for User Profiles to define users' mobile devices.
- **Instant extranet access.** When you install Domino Everyplace SMS, you can optionally create a Web site that enables employees, customers, suppliers and other partners to send messages to mobile devices, and to receive replies. For example, a customer can use a Web browser to compose a message and send it to recipients selected from a list of Domino Everyplace SMS users. The site is easy for administrators to configure and for visitors to use, ensuring both privacy and convenience.
- **Wireless portal.** As a complement to extranet access, Domino Everyplace Access allows you to set up a wireless portal from which your mobile workforce can read and manage their mail, accept meeting invitations, browse a corporate intranet site, or interact with a wireless Domino application. Administration is simplified by tight integration with the Domino Directory; mobile and wireless information is automatically added to existing user profiles.
- **Broad support for wireless data services.** The Domino Everyplace family supports a broad range of industry standard protocols for connecting to the world's most popular wireless data services, such as WAP, WML, SSL, SyncML, XML, SMS, TAP, SNPP, SMPP, SMTP and others. Support for both dial-up and TCP/IP based connectivity in Domino Everyplace SMS ensure timely message delivery to all your wireless data services. The whole Domino Everyplace family work with all major cellular phone networks (GSM, TDMA, CDMA, iDEN, etc.), and Domino Everyplace SMS supports all the major paging and wireless packet data networks, like Flex/ReFlex, Mobitex, DataPac, ERMES and CDPD.

THE VALUE OF MOBILIZING YOUR APPLICATIONS

While anytime/anywhere access to e-mail and PIM functions offers compelling benefits, many organizations will realize even greater value by extending their e-business applications to handheld devices. More convenient access to applications enables mobile workers to keep processes flowing, by getting work done wherever they are.

Among the applications e-businesses can leverage for greater value through mobile and wireless enablement are:

- Customer Relationship Management (CRM)
- Sales Force Automation (SFA)
- Logistics applications (dispatching and scheduling)
- Supply Chain Management (ordering, inventory, etc.)
- Information services (traffic, weather, news, business headlines)
- Financial applications (broker, stock/share information, etc.)

Wireless access to CRM applications, for example, enables mobile sales staff to access key customer information while en route or on site. By knowing the customer's current issues, recent transactions, and so forth, salespeople can be more proactive, productive and responsive. The ultimate result will be better customer care, while facilitating better sales management. Field service staff can check the status of queries as needed, or use mobile services to find answers faster.

Similarly, wireless access to SFA applications enables sales representatives to answer questions faster, put together more accurate quotes more quickly, submit orders more efficiently, and move onto the next call with less time spent. This can lead to shorter sales cycles, increased sales per salesperson and reduced staffing requirements.

SIMPLIFYING APPLICATION DEVELOPMENT

As mentioned above, Domino Everyplace allows organizations to rapidly enable Domino collaborative applications for mobile and wireless access, via the easy-to-use Mobile Domino Designer. This tool lets developers focus on the logic of their applications and to work with familiar Domino constructs, without the need to learn specific wireless technologies. In this scenario, a WML-browser-based device can be used for real-time access to Domino applications, while the Mobile Notes client provides the additional capabilities of offline application access and synchronization from PDAs.

Mobile Domino Designer let developers bring familiar, real-time Domino interactive capabilities, like action buttons, forms and workflow, to mobile users. For example, a traveling executive can use a RFP review application locally on her PDA or smart phone, submit proposal information and otherwise interact with the application with full fidelity. When she calls in, she can synchronize her PDA with the server-based, production version of the application, triggering the same workflow processes as if she'd worked at her LAN-based

desktop. Likewise, the same executive could, at her option, interact with the same application via a WAP-enabled phone.

WIRELESS WORKFORCE SCENARIOS

These scenarios illustrate some of the ways mobile workers can benefit from Lotus solutions for mobile and wireless access:

- Salespeople use their cell phones all day, but may only dial in to check e-mail in the evening. They want to be productive while sitting in a cab, waiting at a reception desk, etc. Wireless services can potentially allow them to access e-mail, look up phone numbers in the company directory, check current inventory or price data, request brochures and more. Offline access to applications via Mobile Notes on a PDA allows sales staff to place new orders in an Inventory application at any convenient time, and then replicate the changes later.
- Traveling executives benefit from wireless access to e-mail and PIM capabilities because administrative staff can reach them more easily, and they may be able to leave their laptop at the office. Wireless services also mitigate problems associated with dialing in from hotels and customer sites. Staff can reach them anywhere via SMS; they can check messages easily when they wake up or get off a plane. Wireless services also make it easy to forward e-mail to the hotel fax to be read at leisure, or forward mails to others to delegate action items. So less time is wasted calling back and forth to/from the office and checking e-mail messages.
- Customer support staff can use wireless access to reach the people and information they need to get answers. Wireless instant messaging, for example, enables call center staff to see who's available to help them, ask questions via instant messages and get answers over the phone. Field staff can be informed of urgent issues via SMS on the WAP phones. The result is improved productivity and responsiveness, leading to more satisfied customers.
- Traveling employees can use wireless applications to collaborate with their colleagues at the office, from airport lounges and conferences. They can scan e-mail anytime, get alerts in real-time via SMS, get the word to return urgent calls, and so forth. Using Mobile Notes on a PDA, they can add new information to a CRM application while on a plane, for example, and replicate the changes later.

CUSTOMER SOLUTION PROFILE

KEMET Corporation is the world's largest manufacturer of capacitors made of tantalum, a rare earth metal. Based in Simpsonville, South Carolina, KEMET also ranks second in the United States in production of ceramic capacitors. KEMET products are a vital component of almost any electronic device with a circuit board, including mobile phones, computers and automobiles.

In its drive to be the unquestioned best-in-class supplier, KEMET explored ways for its sales force and IT staff to stay connected while on the road, with anytime/anywhere access to internal resources. As wireless technology evolved, "going mobile" was clearly the best option.

KEMET chose to equip its mobile sales and IT staff with WAP-enabled mobile phones running Mobile Notes, and connecting to the Domino network via Mobile Services for Domino. This setup enables users to receive and respond to e-mail, or follow up with a phone call instead.

According to Matthew Henry, the senior Web developer on the project, the company is extremely satisfied with its new wireless capabilities. "Mobile Notes has helped in many areas and allowed the business to flow much more smoothly in ways it hadn't before," says Henry. He and his managers rely heavily on e-mail. "With Mobile Notes, we're able to handle our jobs pretty much wherever we are. The time we used to call 'dead time' is now useable time." He continued: "I can go anywhere that my Nextel will work and still do my job, productively. I hadn't been able to do that before Mobile Notes and Mobile Services for Domino."

Henry also cited Mobile Notes' ease of use, saying "The biggest learning curve is the wireless device itself, things like figuring out which buttons are function buttons. Mobile Notes has not been a problem at all."

FUTURES

The next major step forward in e-business is the transition to wireless data access, known as m-commerce or Mobile Commerce. Soon the mobile workforce will routinely use handheld devices to search the Web, access data and conduct purchasing and other e-business transactions. Indeed, mobile and wireless messaging and data access will soon transform everyday business interactions the way cellular phone technology changed how business was done in the 1990's, by altering the way information is distributed and shared.

Given these sweeping changes, the ability to support mobile devices has become critical to a forward-looking enterprise application strategy. Early adopters of m-commerce will enjoy significant competitive benefits as the rest of the marketplace struggles to catch up.

Many new wireless standards, devices, applications and services will be available in the months and years to come. However, the wireless industry is still very new and rapidly evolving. Some of the standards and devices currently under development will naturally disappear in the face of competitive pressure. This is particularly the case with today's regional wireless standards, as the marketplace undergoes globalization.

Great uncertainty also prevails with respect to mobile/wireless devices. Many new devices are becoming available, to address a wide range of individual and organizational needs and preferences. What seems clear is that no one type device is likely to meet everyone's needs, and that multiple device designs will exist into the foreseeable future. Indeed, many individuals may choose to carry multiple mobile devices with different capabilities, to meet the specific demands of various business situations.

Yet despite this climate of uncertainty, organizations must plan their mobile and wireless application strategy around the capabilities (often called the "form factor") of the mobile devices their employees are likely to utilize. Wireless device access does not mean simply extending traditional Web applications; it entails new design elements that reflect the small screen sizes and limited processing power of mobile and wireless communication tools.

To help our customers face these uncertainties, Lotus is committed to supporting all important standards and devices as the wireless marketplace matures. This ensures that our customers can move smoothly to accommodate new form factors and support new devices and providers.

One important way in which Lotus will simplify life in a wireless world is to ensure that Domino Everyplace design tools are device- and standards-independent, so that developers can much more easily adapt their applications to circumvent or eliminate the constraints imposed by differing mobile device capabilities, such as varying screen sizes.

Whatever devices and communication standards eventually predominate in the global wireless marketplace, Lotus customers can be assured that Lotus solutions offer the flexibility they need—not only to weather these challenges, but also to react with the speed and certainty required to use change to your advantage.

For the latest information on all Domino Everyplace and EasySync Pro products, visit lotus.com/mobile and lotus.com/easysync.



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