



## The Motorola ES400

Improve response times, availability and decision making for better quality of care with pocket-sized mobile voice and data



With the ES400, healthcare organizations can empower mobile workers with the equivalent of an office-in-a-pocket, all in a small and compact consumer-style design. In addition to voice calls, email and text messaging, users can also securely access electronic medical records (EMRs) as well as back-end applications. As a result, physicians, home health caregivers and hospital administrators are more than just informed, they are able to act instantly, improving productivity and the quality of care.

### The diagnosis: lack of real-time access to patient and other healthcare data hampers decision-making and reduces response times

To ensure the best in patient care, physicians, home health caregivers and hospital administrators need to be connected, able to collect crucial information, access patient records and other information required to make the best decisions and take instant action — regardless of where they may be. Without real-time access to data and other co-workers, inefficient paper-based processes are required that can slow response times, reduce personal productivity and create the opportunity for error — impacting the quality of patient care and the overall patient experience.

### The cure: the Motorola ES400 — pocket-sized anywhere anytime voice and data access

Motorola's ES400 Enterprise Digital Assistant (EDA) is a compact and lightweight pocketable mobile device that will keep your healthcare workers constantly connected to the information and people they need to take the right action, right now. This combination 3.5G world cell phone and mobile computer provides physicians, home health caregivers and hospital administrators with a reliable wireless voice and data connection, providing anytime anywhere access to patient records, inventories, work schedules and more in critical back-end applications; the ability to capture and transmit as well as receive and view detailed photos and videos; the occasional capture of 1D and 2D bar codes, signature and document capture; and the ability to reach and be reached by virtually anyone, by any means — phone call, email or text message. Features that set the Motorola ES400 in a class of its own for healthcare mobility include:

#### The security required for sensitive healthcare data

A complete suite of solutions addresses security, one of the biggest mobility concerns in healthcare — security — allowing healthcare organizations to comply with industry and government security regulations, such as HIPAA.

- A built-in biometric fingerprint reader prevents unauthorized device access, protecting the data on the device and your network resources.

Many different mobile healthcare workers can benefit from this robust mobile computer in a consumer-style form factor, including:

#### Physicians

- Access and update patient EMR in real-time
- Initiate a medication order via CPOE
- Confirm prescriptions
- Collaborate easily with nurses and other caregivers

#### Home health caregivers

- Access and update patient EMR in real-time
- Access detailed patient care plans
- Collaborate easily with physicians, nurses and other agencies
- Scan materials as they are utilized for better inventory management and charge capture
- Automate creation of mileage logs to reduce administrative time
- Provide real-time turn-by-turn directions to keep caregivers on schedule

#### Hospital Administrators

- Access needed back-end applications, from the patient EMR to inventory and scheduling
- Reach staff members by any means at any time — voice, text or email

- Motorola’s tested and validated Mobile Virtual Private Networks (MVPNs) bring wired-line security to wireless communications, without the typical performance degradation.
- Motorola’s Mobile Security Suite (optional) provides a wide variety of device-level security features, such as FIPS 140-2 AES encryption for data stored on the device; remote locking and wiping of lost or stolen devices; a device firewall; intrusion prevention; enforced authentication; and integrity monitoring.

#### **Built to support rich back-end application access**

The ES400 operating system (OS), memory, processor, display and keypad work in concert, allowing users to easily interact with complex, information-rich healthcare applications — despite the size of this compact device. Microsoft’s Windows Mobile® 6.5 industry standard OS enables easy integration with back-end applications as well as an extensive library of ‘off-the-shelf’ applications, allowing healthcare organizations to easily and cost-effectively extend real-time application access to mobile workers. The blazing 600 MHz processor combines with the largest total memory footprint in a device of this size, providing the stability and high-performance required to enable users to run multiple applications. Unlike most other consumer style devices, the entire screen is available for application display — edge-to-edge. The PenTile® display technology delivers twice the brightness at half the power, conserving battery power while providing excellent readability — even outdoors. And advanced keypad design brings a new level of ease to data entry on a device of this size, providing easy one- or two-handed data entry regardless of hand size.

#### **Real business-class durability**

The ES400 is the only device in its category to offer comprehensive durability testing, including drop, tumble, sealing, vibration and thermal shock. The device offers MIL-STD and IEC drop, tumble and sealing specifications, able to withstand single impacts of 4 ft./1.22 m drops; 300 consecutive 1.6 ft./0.5 m hits and exposure to dust, moisture and rain.

#### **The Motorola Enterprise User Interface (MEUI) — a customized user interface for extra easy use**

Accessing complex applications on a small device can often be a challenge — unacceptable in the world of healthcare. The MEUI addresses this need by offering a unique custom and customizable user interface that greatly simplifies access to business features and applications:

- **One touch application access.** Customizable screen buttons and menus enable one touch access to applications that are currently open as well as those that are most frequently used.
- **Easy management of personal information.** The number of new voicemails, missed calls, emails and text messages that have been received, the next appointment time and number of open tasks are all aggregated on the home screen — and just one touch allows caregivers to access, review and if appropriate, respond to the actual items in any given information category.
- **Easy device management.** Instead of requiring users to drill down through multiple menus and screens, settings are logically grouped into individual Device Management Tabs that are always available — such as Memory, Power/ Radio and Audio. A single touch of a tab provides access to all related settings.
- **Flexible setting profiles.** Users can either adjust individual settings on the fly or create powerful custom profiles that can be activated either manually or automatically. For example, when the ES400 detects a quiet environment, a profile can automatically place the ringer in vibrate mode. Conversely, when the device detects a noisy environment, ringer volume can be automatically increased to prevent workers from missing an urgent call.

#### **True cellular network independence: the most flexible cellular connection options ...and a new low total cost of ownership (TCO)**

The ES400 offers an industry first feature that not only ensures connectivity, but also drives the TCO for devices in this class to a new low — dual user-selectable 3.5G broadband radios. The pentaband unlocked device can connect to almost any cellular network in the world — including GSM HSPA and CDMA Rev A — providing constant access to mobile voice and data services for workers that are outside the four walls. Devices can be activated on both the GSM and CDMA networks to ensure connectivity for workers who travel to areas better served by different networks. And since a single device pool can be deployed and re-deployed on different networks at any time, device utilization, lifecycle and return on asset (ROA) are maximized.



With the ES400 in hand, home health caregivers can access and update the patient's electronic medical record (EMR); access detailed customer care plans; send an annotated color photograph of a wound to collaborate on proper wound management; collaborate with other agencies to speed the delivery of additional services that may be required and more — all in real time. Paper-based processes are eliminated, freeing caregivers to spend more time on direct patient care — improving the quality of care as well as the patient experience.

### **Comprehensive Wi-Fi support for a cost-effective in-building connection**

When workers enter the hospital campus, 802.11a/b/g support provides a robust and highly cost-effective voice and data connection, eliminating issues related to in-building cellular coverage and the restriction of cell phones in certain areas of the hospital. In addition, the ES400 can switch to the WLAN for data access, providing uninterrupted application access as users come and go throughout the day.

### **Benefits: the connected physician**

At any point in time, physicians may be in the car, in the office, in the hospital, out to dinner or at home. With the ES400, physicians can carry the equivalent of a portable office in their pocket. Now, regardless of location, physicians remain accessible to nurses and patients by virtually any mode of communication — phone, email or text message — and able to securely access the patient's electronic medical record (EMR) and other sensitive information. In acute care situations the information required to make the best decision is literally at the fingertips of the physician — protecting the quality of patient care and improving patient safety.

Thanks to the ES400, doctors can:

- Review the patient's health history before determining a course of action
- Confirm prescriptions with the hospital pharmacy
- Check the patient record for medication allergies
- Initiate a medication order for the patient via computerized physician order entry (CPOE)
- Update the patient EMR with the actions taken
- Call to confirm history, medications or consult with a colleague
- Contact the nurse to discuss patient status

No need for additional calls to obtain information or hope the patient recalls all medication allergies. Instead physicians are easy to reach, ready to act instantly — with the confidence that comes from being armed with real-time, accurate information.

## Benefits: the connected home health caregiver

Home health caregivers are responsible for the delivery of all types of in-home care to patients who are recovering, disabled and chronically or terminally ill. These valuable caregivers also enable hospitals to discharge patients sooner, reducing risk to the patient as well as healthcare costs for both patient and hospital.

According to a Spyglass Consulting Group 2009 survey, home health nurses report that the availability of patient information is the number one challenge at the point of care<sup>1</sup>. Out in the field these caregivers often rely only on paper records that may not even be up to date due to data entry lag times. In addition, the most time consuming task cited is the documentation of care provided. Home health caregivers spend over 50 percent<sup>1</sup> of their time meeting the documentation requirements imposed by government regulations, healthcare insurers and the hospital itself.

The ES400 helps improve caregiver efficiency and the quality of the services they provide, allowing agencies to better manage this remote field workforce.

### Benefits for home health caregivers

With the ES400 in hand, home health caregivers can:

- Access the patient's electronic health history before administering care and update the record at the end of the visit, providing two benefits:
    - Time-consuming and error-prone paper-based processes are eliminated.
    - Up-to-the-minute information is always available to any healthcare professional involved in the patient's care.
  - Collaborate in real time with other caregivers on the patient care team to ensure proper care is administered to each patient.
  - Collaborate with other agencies in real-time to coordinate other services that patients may require.
  - Follow electronic patient care plans to ensure that the right tasks are performed for each patient — with a complete audit trail that improves accountability and reduces risk for the healthcare agency and patient.
- Capture and annotate a photo or video of a wound to document healing or to assist with assessment and proper care.
  - Scan materials as they are utilized — from medication to a walker to gauze pads — for better inventory management and accurate charge capture.
  - Obtain turn-by-turn directions to ensure prompt arrival at the scheduled time.
  - Automate the creation of call and mileage logs to further reduce administrative time and improve reporting.
  - Respond to urgent communications about other patients via email or text to protect patient privacy and ensure compliance with HIPAA regulations.

### Benefits for healthcare organizations and agencies

In addition, the hospital or agency can better manage the mobile caregiver workforce, maximizing employee utilization, improving accountability and reducing costs:

- Electronic schedules can be sent each morning and easily updated throughout the day to accommodate emergencies and changes in route.
- GPS allows agencies to: monitor caregiver location to improve worker safety; document proof of visitation; and create route plans that minimize mileage and fuel costs.
- An electronic checklist of tasks performed at each patient visit improves accountability and provides a detailed audit trail — without adding any administrative burden.
- Automated tracking of all calls ensures call log accuracy and cost-effective compliance with government record-keeping regulations.
- Electronic input eliminates the delays of the traditional paper system and speeds reimbursement payments.
- An electronic audit trail improves compliance and reimbursement.

1. Healthcare without Bounds, Point of Care Communications for Nursing; Greg Malkary; Spyglass Consulting Group; 2009

## Benefits: the connected hospital administrator/department supervisor

Hospital administrators and the many clinical department supervisors form the collective management team responsible for overall operations. But this management team is always on the move, tending to their many responsibilities. Inside the hospital walls, the day is spent managing staff, resolving issues for patients and their families, and ensuring that procedures are designed to keep the hospital operating as smoothly as possible — and compliant with federal agency regulations. These managers may also attend conferences to stay current with medical trends and technologies as well as charity and other community events as a public relations representative.

With the ES400, these key hospital executives are always reachable in seconds via phone, email or text message, able to stay on top of developing situations. Access to the hospital directory ensures that whomever is needed to help resolve a matter is never more than a few keystrokes away. Access to back-end hospital applications, such as inventory, order management and scheduling applications enables administrators to discover and resolve issues, right on the spot — from addressing a delayed shipment that will leave the hospital short of critical supplies to a staffing issue.

## The ES400: enterprise-class manageability, lifecycle and support deliver a healthy total cost of ownership (TCO)

While the ES400 meets the needs of your clinical caregivers and administrative management staff, it also meets IT requirements and delivers the low TCO required to justify this mobile investment:

- A single global point of control. Motorola's Mobility Services Platform (MSP) is an optional mobile device management solution that enables remote, centralized and highly cost-effective end-to-end management of all your ES400 devices, regardless of where they are located.
- A three-year availability lifecycle. Where consumer-style devices churn as frequently as every six months, the ES400 ensures that the device and applications you test and certify today will be available to serve your users well into the future, protecting your mobility investment.
- Exemplary Service and Support. Two available services help maximize device uptime and minimize support costs. Service from the Start with Comprehensive Coverage covers virtually anything that might happen to the device, including accidental damage, normal wear and tear and even select accessories that ship with the ES400. And our Managed Device Service simplifies day-to-day support through proactive device monitoring and a multi-lingual help desk manned with technicians who can remotely diagnose and resolve device issues — helping you keep the ES400 in the hands of your mobile users.



Bar code scanning allows home health caregivers to scan materials and equipment as they are utilized at the patient home. Inventory systems can be instantly updated, enabling the timely replenishment that prevents out of stocks. In addition, accurate charge capture protects profitability.

***For more information on how Motorola's ES400 Global EDA can improve response times, decision making and the quality of care in your hospital or healthcare agency, please visit us on the web at [www.motorola.com/ES400](http://www.motorola.com/ES400) or access our global contact directory at [motorola.com/enterprisemobility/contactus](http://motorola.com/enterprisemobility/contactus)***



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