

Leveraging Mobile Technology in the Medical Device Supply Chain



MEDICAL DEVICE INDUSTRY
SUPPLY CHAIN COUNCILTM

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- **The Global Mobile Landscape**
- **Do Hardware & Operating Systems Matter?**
- **Current State of the Supply Chain in Medical Device Industry**
- **Benefits to the Supply Chain by Leveraging Mobile Technology**
- **Increasing Visibility**
- **FDA Compliance**
- **Getting Started in your Organization**
- **Case Studies**

My personal cell phone

- **Voice**
- **Texting**
- **Instant Messaging**
- **Music & Video**
- **Web Surfing**
- **Contacts**
- **Calendaring**
- **Tasks**
- **Maps, Directions, Information**
- **Must have at all times**
- **Pay more than cable**



Global Mobile Device Landscape

- **1 billion handsets per year**
- **\$100 billion annual market**
- **Tens of device manufacturers**
- **Hundreds of network operators**
- **An eco-system with thousands of businesses**
- **Windows Mobile accounted for 3.2 million PDA shipments in Q1 07 or more than 60% of all PDA shipments in the qtr**
- **RIM continues to lead the PDA market**
- **RIM is shifting to Smartphones – Blackberry Pearl represents 55% of RIM's total shipments**

PDA Market Growth

Company	1Q07 Shipments	1Q07 Market Share	1Q06-1Q07 Growth (%)
Windows Mobile	3,184,703	62.1%	64.4%
RIM	928,239	18.1%	-0.2%
Palm OS	314,353	6.1%	-35.7%
Symbian	288,000	5.6%	118.2%
Linux	33,400	0.7%	-23.3%
Other	377,150	7.4%	175.3%
Total	5,125,845	100%	39.7%

Do Hardware and Operating Systems Matter?

Operating Systems

- Windows Mobile
- RIM
- Apple OS X
- Palm
- Symbian
- Linux

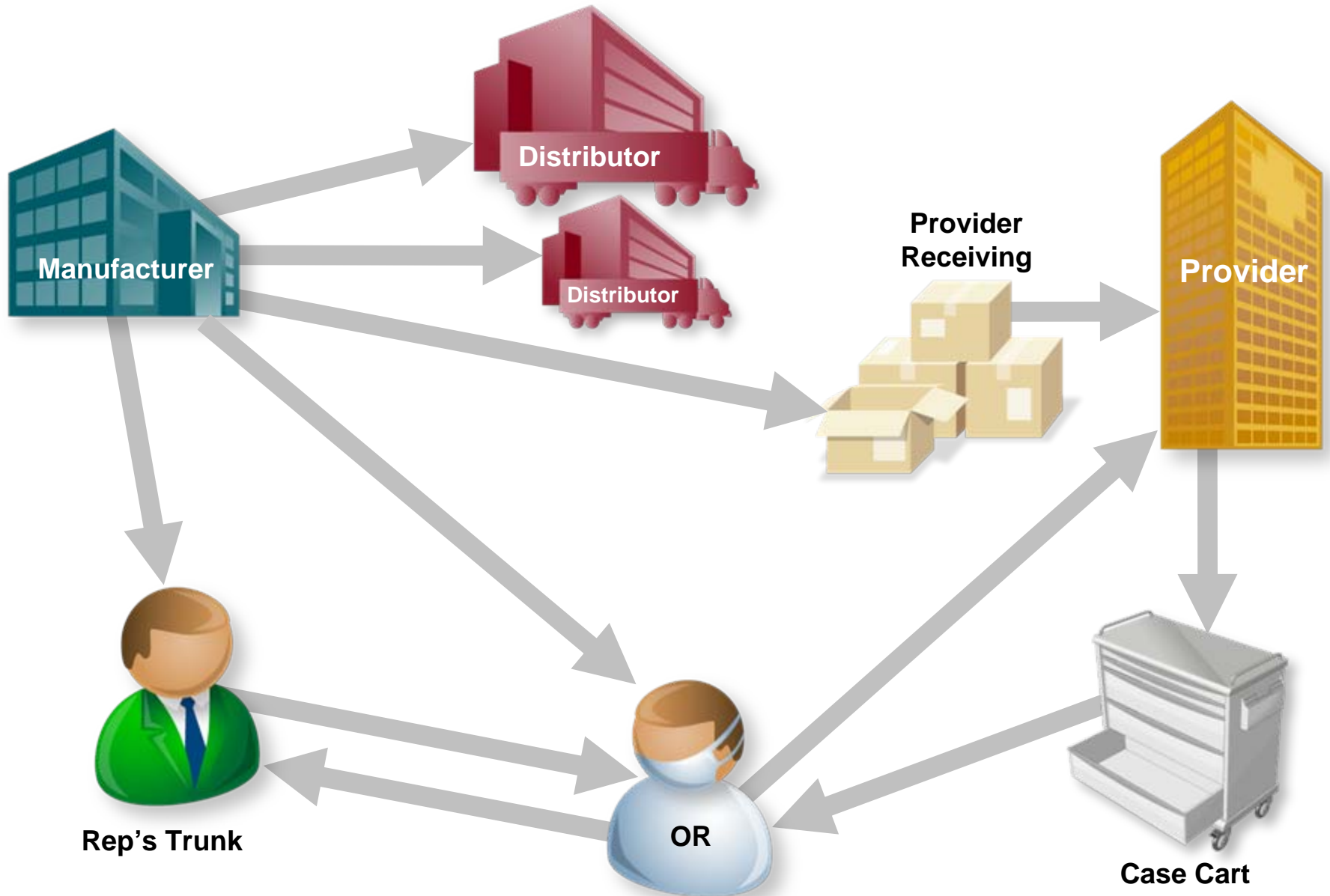


Hardware Issues

- Memory
- Screen Real Estate
- Touch Screen
- Smart Keys
- SD Slots, mini SDs
- Radios
- Rugged
- Sexy factor
- Scanners
- RFID Scanners

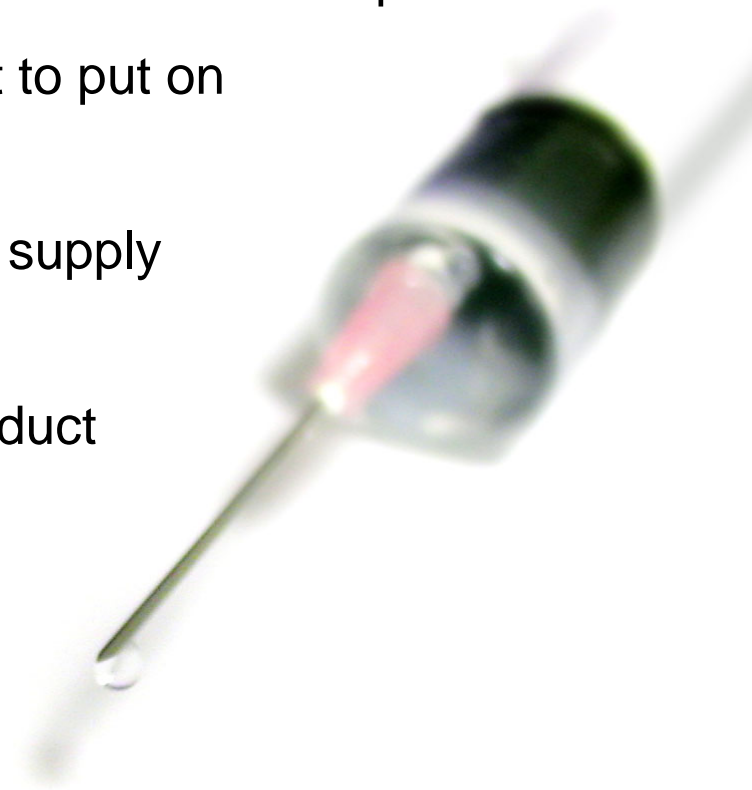


Implantable Medical Device Supply Chain

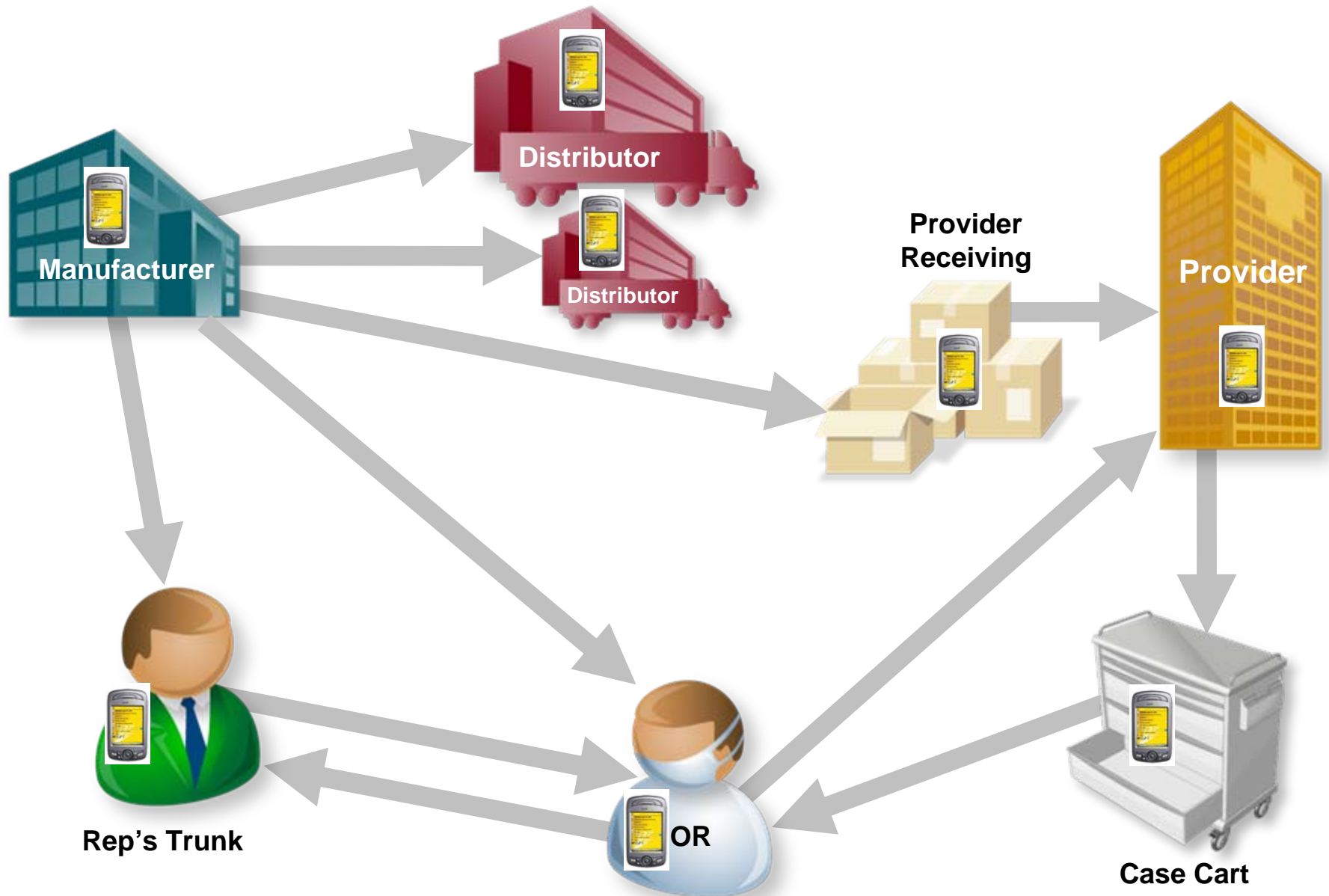


Supply Chain Pain Points

- **Requisition System** Limitations (Order type / Lot-Serial #)
- **EDI** Limitations (Special fields cannot be sent through EDI)
- **Clinicians** key order data into other systems (OR Scheduling)
- **Capitated Items:** Difficult to Match Product Codes to Cap items
- **Non-item master products** are difficult to put on electronic reqs
- **Clinicians & Sales reps** don't prioritize supply chain activities
- **Low visibility** for manufacturer once product leaves the warehouse
- **High PO Reconciliation** because consignment is difficult to track



Leveraging Mobile Technology

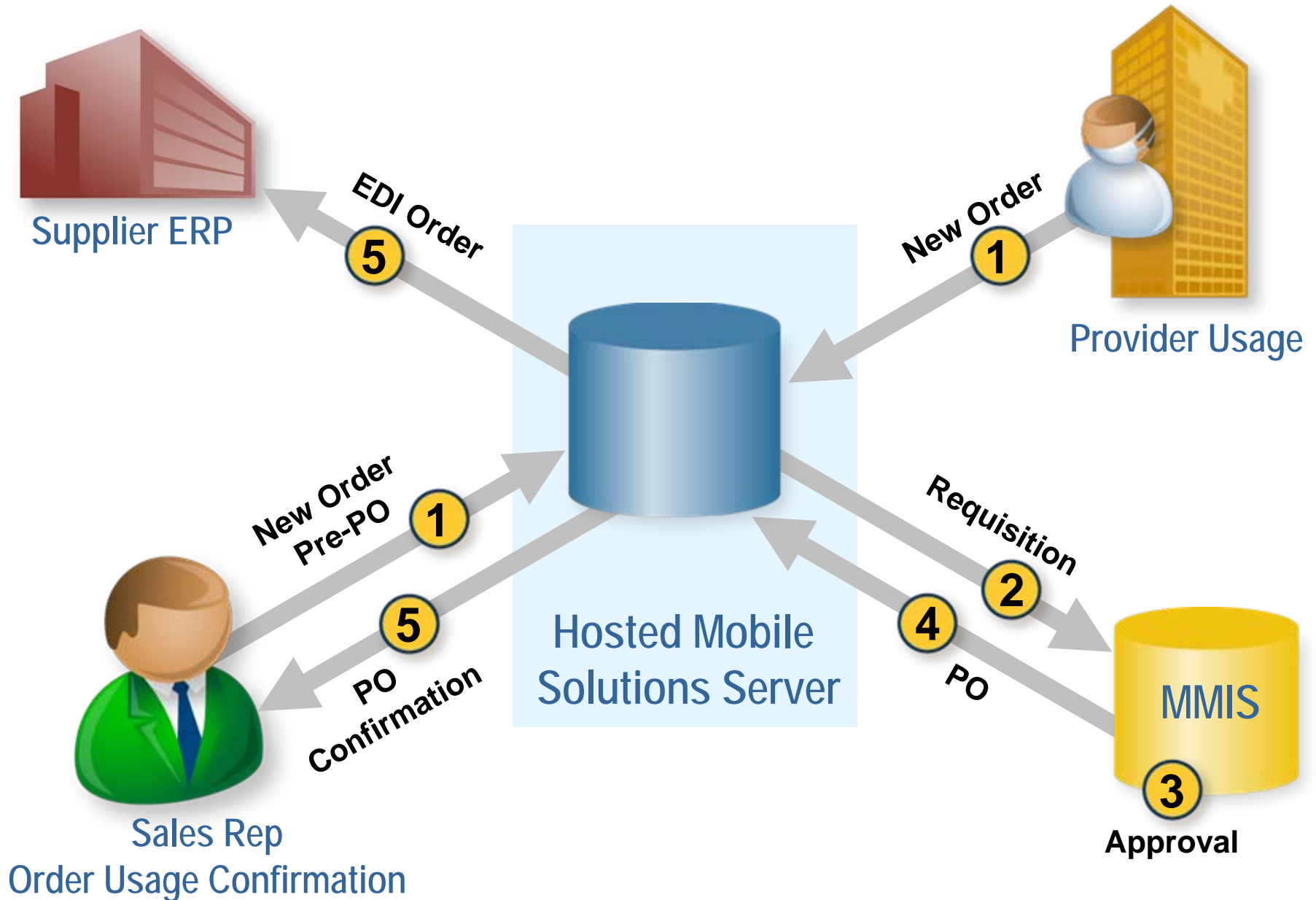


Mobile Technology Can Mitigate the Pain

- **Increased visibility** throughout the supply chain
- Ability to **link suppliers to providers** from location to location
- Ability to **track lot, serial and usage**
- All stakeholders can **access inventory information** throughout the process
- More **accurate** and **efficient** tracking
- Reduction in **reconciliation** errors
- Supports **JIT delivery** across the supply chain



Usage Confirmation Workflow



FDA Tracking enforcement is increasing – UDI rules tightening

- Patient safety
- Product tracking
- Inventory control
- **Final distributors need to provide suppliers**
 - Patient identification data
 - Device information (lot number, batch number, and/or serial number)
- **Two recent high-profile cases resulted in substantial loss of business**
- **FDA requires 48 hour track and trace in event of a recall**
- **FDA Regs that can be tracked with Mobile Technology**
 - Explanted
 - Usage confirmation
 - Implant log registration
 - Returned to the distributor
 - Recalls
 - Disposed of permanently
 - Permanently retired from use

Mobile Technology Case Studies

- **Orthopedics Manufacturer**

- \$960M of orders submitted via handheld
- 25% drop in calls/faxes for order entry
- 25% drop in calls for price checks
- Saves sales reps between .5 - 2.0 hrs / day
- Estimated annual savings <\$2M

- **Implantable Device Manufacturer**

- 98% of sales orders submitted via handheld
- Sales force grew by a factor of 15
- Customer Service grew by a factor of 3
- Reduced invoice time from 18 days to 5 days
- Reduced patient & device registration from 2-3 weeks to 2-3 days
- Enabled real time blind inventory audits
- Enabled real time data analysis of surgery schedule, order & PO status

- **Hospital**

- Central supply and purchasing department using mobile technology to reduce lost charges and improve documentation to the point that inventory losses are less than 1 percent, compared with a national average of 15 to 20 percent.

