



Welcome

NASCIO's Disaster Recovery Webinar Series

**Moderator: Stephanie Czuhajewski,
NASCIO Communications Coordinator**



Asking Questions

- Please use the Question & Answer feature to ask questions at any time
- All questions will be addressed at the end of the presentation
- Responses to any questions not answered on the call will be distributed to all participants via email after the event



Technical Support

If you need technical assistance at any time:

- **Dial *0 (if you have joined by phone)**
- **Call Raindance Tech Support at 1-888-966-8686 (if you have selected the webcasting option)**

Best Practices in Disaster Planning & Preparation



March 27, 2007



Today's Presenters

**Introduction – Clay Whitehead, Market Solutions Specialist
Motorola Networks & Enterprise**

**Polk County, Florida – Ben D. Holycross, Radio Systems
Manager, Division of Emergency Management**

**Enterprise Mobility – Jerry McNerney, Senior Director-
Transportation & Logistics, Motorola**



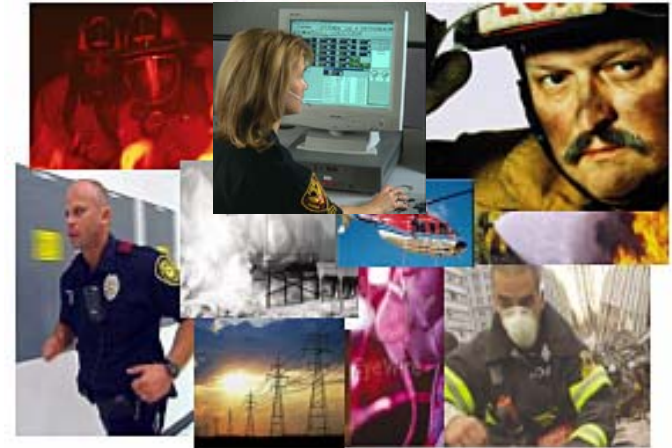
Interoperability - It's about Operability!



Public



Protectors



Right
Information

Right
Person

Right
Time



When disaster strikes...



When the unimaginable happens...



Will you be able to respond?



Mission Critical Communications



COVERAGE

Citywide
Statewide
Countrywide
Worldwide

COST

Implementation
Operation
Value-Added Services



CONTROL

Reliability
Priority Access
Information Assurance
Incident Management



CAPABILITY

Interoperability
Security
Encryption
Emergency
Wireless Data
Applications

COMPLETENESS

Hardened Design
Network Resilience
Training
Maintenance
Migration

CAPACITY

Spectrum
Bandwidth Management
Scalability
Everyday Needs



Lessons Learned

Polk County, FL

**Ben D. Holycross,
Radio Systems Manager
Polk County Emergency
Management**



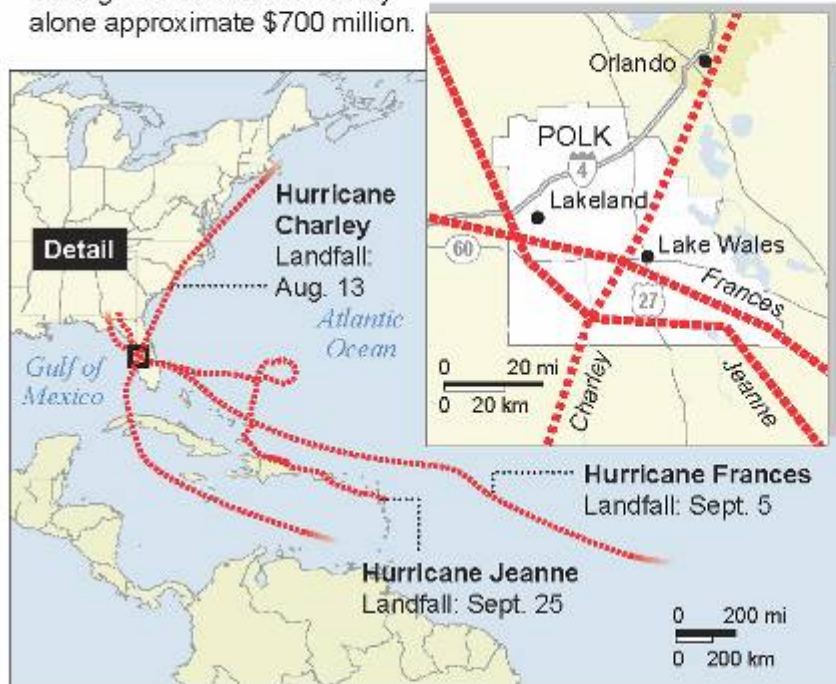
- **Overview**
- **Perspective**
- **Hurricanes Charley, Frances, Jeanne & Katrina**
- **Impact**
- **Technical Operations**
- **Lessons Learned**
 - **Mission statement**
 - **Preparation**
 - **Staffing**
 - **Daily operations**
 - **Vendors**



Polk County Impacts

Three hurricanes in six weeks

Within six weeks three hurricanes have roared through southern Polk County in central Florida. Estimates for the cost of damage for hurricane Charley alone approximate \$700 million.



SOURCES: NOAA; County Commissioner Polk County, Florida; ESRI

AP

Triple strike

Within six weeks three hurricanes have hit Polk County in central Florida.

FLORIDA

Detail



SOURCES: NOAA; County Commissioner Polk County Florida; ESRI

AP

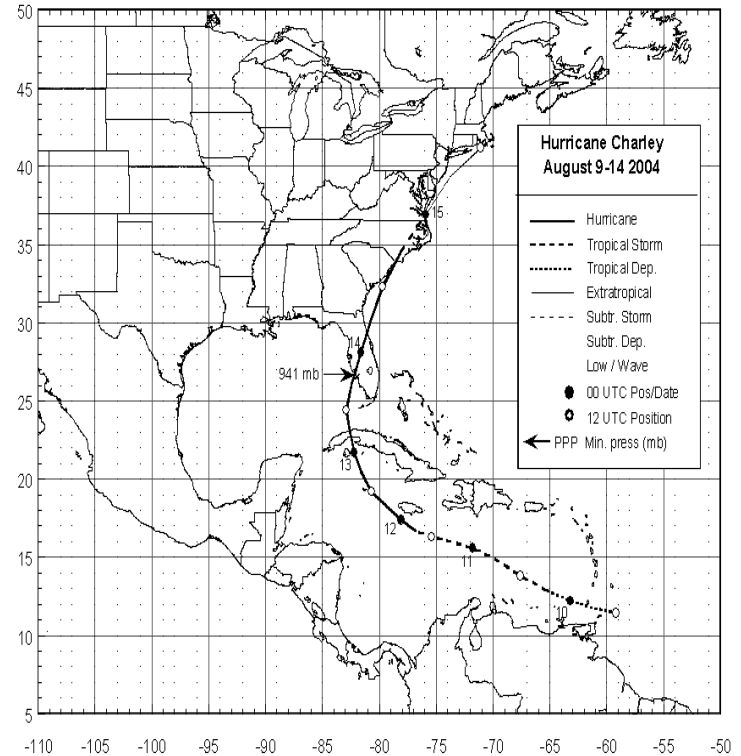


<AP> POLK CO HURRICANES 100204: Maps show paths of hurricanes through Polk County; with BC-FL-Hurricanes triple strike: two sizes; 1c x 3 1/4 inches; 47 mm x 84 mm; 2c x 4 inches; 96 mm x 102 mm; CK,FD; ETA 2 p.m. </AP>

Editors note: It is mandatory to include all sources that accompany this graphic when repurposing or editing it for publication.

Charley, August 13th

- Winds 115 mph+
- Localized flooding
- Road wash-out's *
- Traffic signals gone *
- Power lines down *
- Phone lines down *
- Water and sewer plant outages



Frances – September 5th

Insult to Injury

Localized flooding

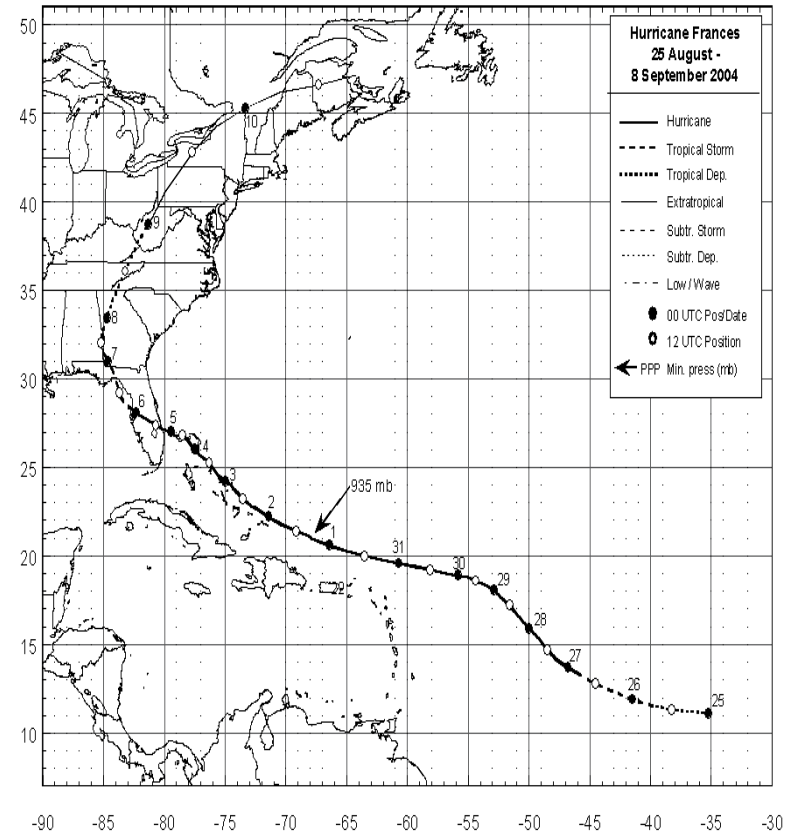
**Damage to infrastructure weakened
by Charley**

Power lines down *

Phone lines down *

**Destruction to temporary repairs
done following Charley.**

Water and sewer plant outages



Jeanne – September 26th

Coupe de Gras

105 mph + winds

Heavy Rain

70 Mile Radius

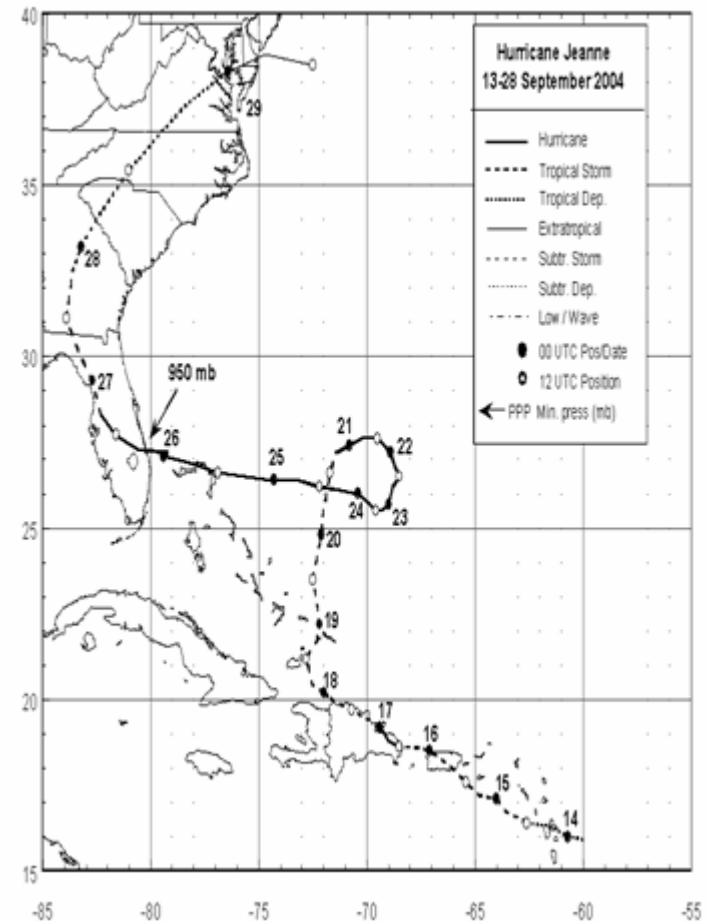
Slow Moving

All of the usual service outages

**Destruction of infrastructure
weakened by the Charley &
Frances**

Frances

Destruction of temporary repairs



Impact

Understand the conditions you will need to operate under

Hurricane Charley

- Traffic volume doubled
- All sites on emergency generator, some for up to 7 days

Hurricane Frances

- Traffic volume increased over 50%
- All sites on emergency generator, some for up to 5 days

Hurricane Jeanne

- Traffic volume doubled during the first 24 hours
- All sites on emergency generator, some for up to 6 days









Technical Operations during Hurricanes

- Other agencies brought in to assist with operations
- Trailer mounted generators
- Staffed shelters
- Transportation of replacement equipment
- Conference calls with suppliers
- Programming & distribution of additional portables, mobiles and other devices to re-establish area wide communications
- Established and manned temporary “on-site” facility
- Removal of damaged towers, facilities, and debris

Lessons Learned

Mission Statement and Disaster Planning

- **Clear & concise mission statement that encompasses normal operations and disaster operations**
- **Ensure staff understands the mission statement**
- **Know the hazards you face**
- **Develop a viable plan based on the hazards**
- **Review the plan with people who have done the real thing**
- **Work the plan – practice regularly and often**
- **Understand potential risk factors and periodically re-evaluate**

Lessons Learned

Preparation

- **Determine which systems are “Mission Critical”**
- **Design the system to survive and function during your high risk events**
- **Understand the difference between systems designed for normal conditions and Mission Critical Systems**
- **Understand the inter-dependencies of components of your system and how component failures affect the system**
- **Spare parts and access to the spare parts when transportation systems fail**

Lessons Learned

Staffing

- **Understand the limitations and capabilities of your staff**
- **Train staff such that they are an asset and can effectively respond during disasters**
- **Identify the staff required to act and respond during disasters**
- **Identify alternate sources of staffing that can be tasked during disaster operations**

Lessons Learned

Daily Operations

- **All equipment should be multi-purpose whenever possible**
- **Spare equipment and parts should be stored in transport containers**
- **Functions and capabilities at the home base should have a portable back-up plan**
- **Ensure proper equipment to sustain staff for a minimum time period, ie 7 days**
- **Ensure staff has a checklist of personal affairs to put in order and provide support when necessary**
- **Plan to be self-supporting**

Lessons Learned

Vendor

- **Clear expectations of the service level the vendor must provide**
- **Expectation should be included in RFPs, RFQs, invitations and vendor qualifications**
- **Include vendors in discussions on disaster operations**
- **Ensure you are able to contact the vendor and have established relationships outside the disaster area**

Final Thoughts

- **When you are the victim of a disaster, you are at the mercy of your neighboring communities and their ability to come to your aid and vice versa**
- **Government is by definition “a perpetual entity”.**
- **When you spend citizen dollars, you have a responsibility to spend it with the long term in mind.**

Best Practices in Disaster Planning & Preparation



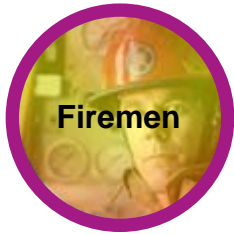
March 27, 2007



First Response is a Collaborative Exercise



Police



Firemen



**Emergency
Medical
Techs**



**Political
Leadership**



Bus Drivers



**Sanitation
Workers**



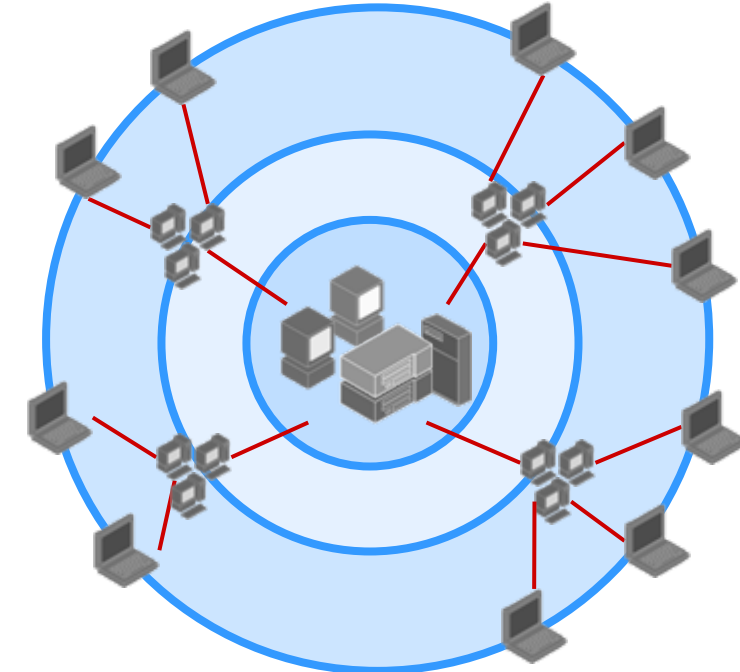
**Social
Workers**



**Probation/
Parole
Officers**



**Park
Rangers**



**Homeland
Security**



**DOT
Enforcement**



**DOT Road
Maint/
Inspect**



**Health
Inspectors**



**Environ-
mental
Inspectors**



**Building
Maintenance**



**Agriculture
Inspectors**



**Utility
Workers**



Military



Census



**Railroad
Workers**



**Customs
Inspectors**



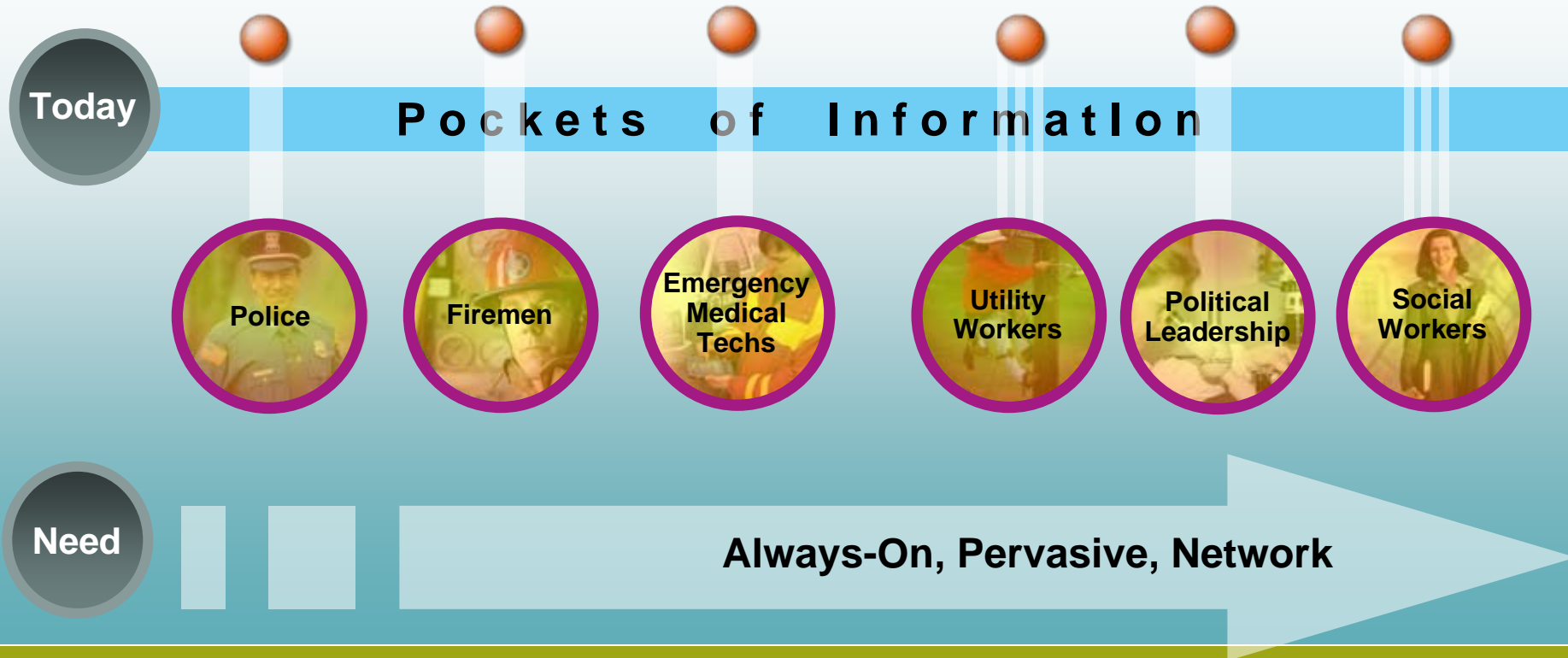
**Port
Authority
Workers**



Command, Control, Execute...













Every disaster has its own unique set of challenges...

Mobility provides the information network to **save lives, maintain critical services, preserve property** and **restore operations**



Enterprise Mobility

The Ability to **CAPTURE, MOVE** and **MANAGE** Information with a Systems Approach

 <p>Mobile Office</p>  <p>Radios</p>	<p>Capture Information in real time, at the point of business activity</p>	 <p>Data Capture</p>  <p>Mobile Computing</p>
 <p>MESH</p>  <p>Canopy</p>  <p>IP Backhaul</p>	<p>Move Information instantaneously to and from the point of greatest impact</p>	 <p>RFID</p>  <p>Wi-Fi</p>
 <p>Motorola Services</p>	<p>Manage The seamless flow of information with exceptional efficiency and security</p>	 <p>MSP</p> 



New Edge Requirements

- Wireless flexibility in a disaster scenario is critical, *must be designed for Mobility*
- Requirements for Mobility are a *superset* of requirements for Portability
- Provide for Seamless Roaming
- Preserve Wired *Networking Integrity Using Industry Best Practices*
- Be *Modular, Manageable, Survivable, Predictable and Secure*



Mission Critical Integrated Solutions

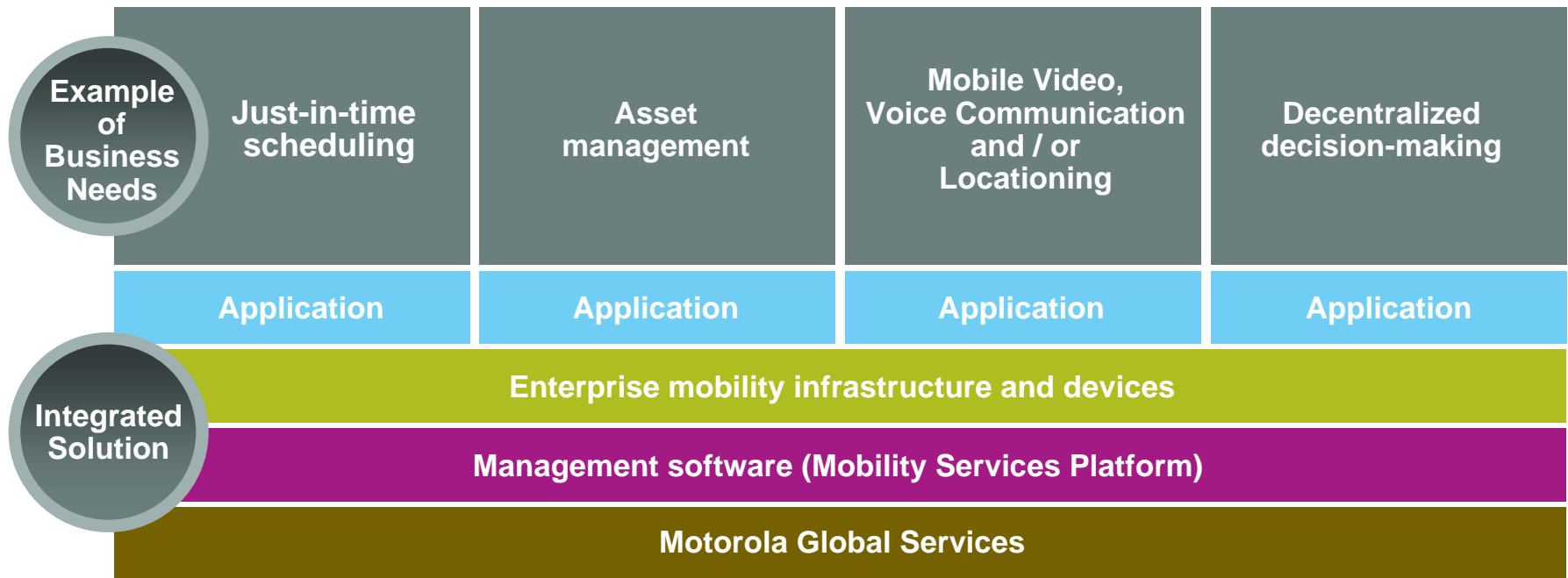
Integrated enterprise mobility solutions bring together:

Enterprise applications

Mobile infrastructure and devices

Management software (Mobility Services Platform)

Global Services



Enterprise Applications

Example of Business Needs	Just-in-time scheduling	Asset management	Mobile Video, Voice Communication and / or Locationing	Decentralized decision-making
Business Applications	Optimization Application	Supply Chain Application	Horizontal Application	Field Mobility Application

Our partners offer best-of-breed, industry-specific application expertise to our customers around the world.

Provide a Solution Center that allows global customers, partners and independent software vendors (ISVs) to:

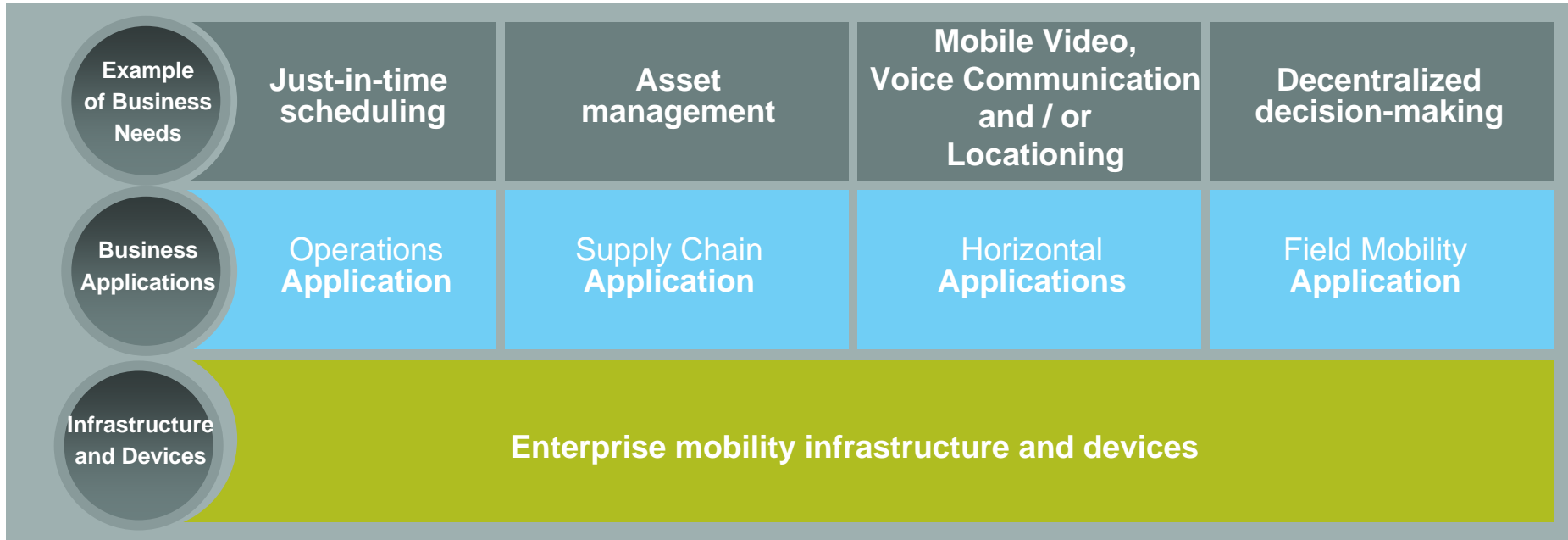
Develop unique applications to solve business needs

Test and validate applications in the environment before deployment

Ensure applications work seamlessly with infrastructure



Devices and Infrastructure



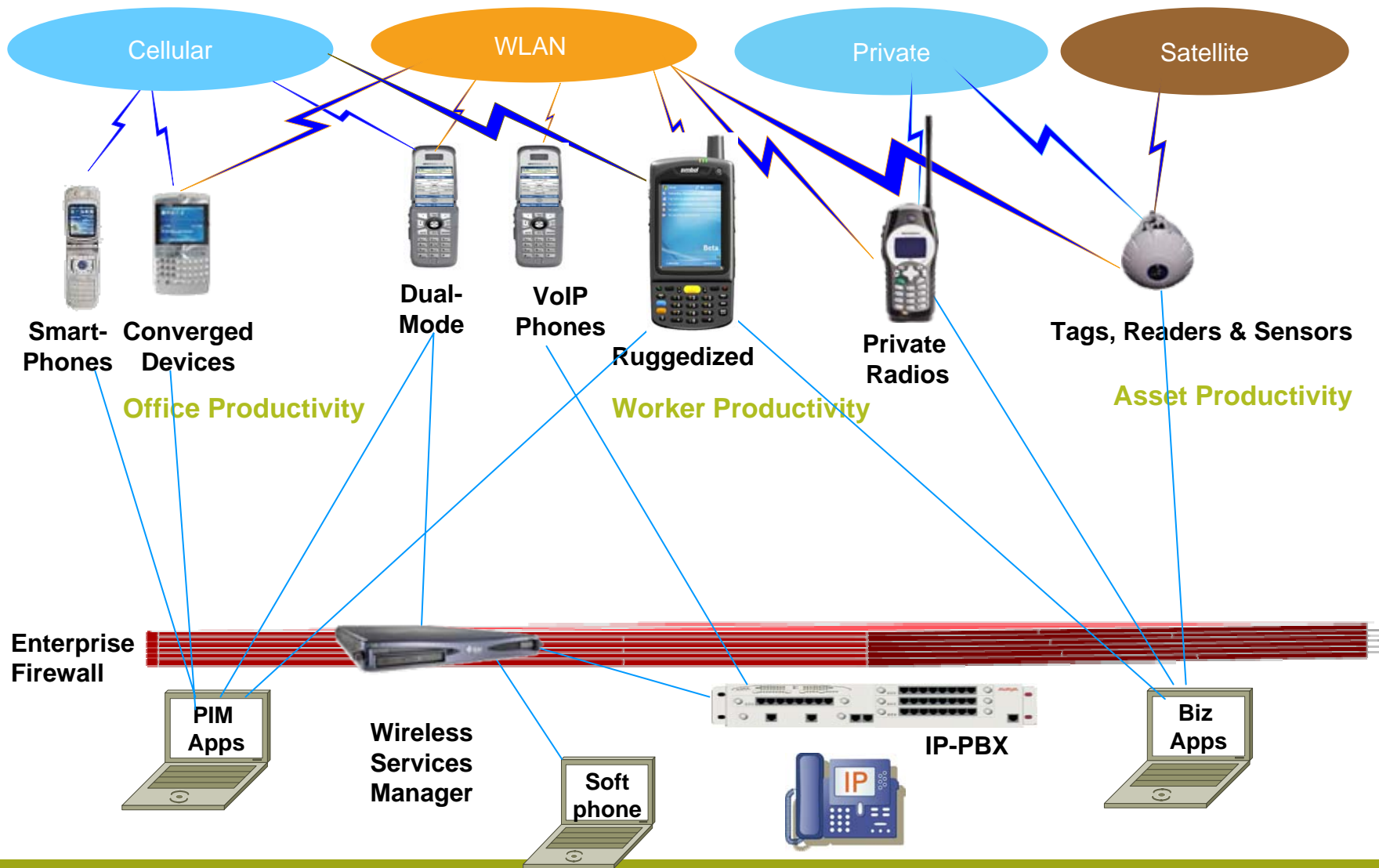
Motorola has a complete line of enterprise mobility products that give you access to mission-critical information in real time at the point of business activity:

**Mobile computers
Bar code scanners
Micro kiosks**

**Radio Frequency Identification (RFID) systems
Wireless infrastructure**



Enterprise Mobility Landscape



Responding to 9/11 (2001)

New York Fire Department

**Tracking Evidence at Ground Zero using
GPS attachment to PPT2800 mapped to
within 3 meters**

Partner: Linkspoint

New York State Police

Forensics Lab

Partner: Porter Lee

NYC Medical Examiner

Evidence Tracking

Partner: Porter Lee



Disaster Planning & Recovery

Be prepared for the

UNEXPECTED. UNTHINKABLE. UNIMAGINABLE.

**Develop the plan... ASK
THE RIGHT QUESTIONS**

What agencies/communities need to communicate in a disaster? What is the process to deploy communications? What level of security is required? What redundancy & pre-positioning is required? What information will help the response teams and how will they get it?

**Get the solution in
place... IMPLEMENT
THE RIGHT SOLUTION**

The right features. The right users. The right degree of security. The right level of redundancy. The right information. The right system flexibility

**Respond to disasters...
PROVIDE SOLID
SUPPORT**

Anticipate the needs. Implement disaster plans. Deploy resources. Provide equipment, complete solutions and services. Support the community.

