Go-To-Market Models and Vertical Solutions
Agenda

• M2M Foundation
• Modules & Devices
• Certification Process
• Solution Models
• Vertical Approach
Wireless M2M Is Changing Our World

Leverages communications as a differentiator

Yesterday

Voice Communications

Data Communications

Today

Fleet Management

Building Management

Inventory Management

Router Backup

Asset Tracking

Digital Signage
M2M Building Blocks

End-to-End Ecosystem

Module + Device + Network + Application

Examples

CDMA | LTE
Working with several industry leading partners to add competitively priced modules for a broad portfolio across 2G, 3G, and 4G LTE.

- New lower cost 1xRTT modules
- Increasing penetration in the global pin-to-pin 3G market
- Competitive 4G LTE pricing to drive penetration
# Full Range of Devices

## VZW MACHINE TO MACHINE

**PRIMARY FUNCTION:** EXCHANGE OF DATA BETWEEN BUSINESS INFRASTRUCTURE AND REMOTE ASSETS

## Example Devices & Applications

<table>
<thead>
<tr>
<th>Horizontal</th>
<th>Routers</th>
<th>Modems</th>
</tr>
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<tbody>
<tr>
<td>Telematics</td>
<td>Safety &amp; Security</td>
<td>Infotainment</td>
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<tr>
<td>Healthcare</td>
<td>Remote Monitoring</td>
<td>Wellness Monitoring</td>
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<tr>
<td>Utilities</td>
<td>Proof of Delivery</td>
<td>Asset Tracking</td>
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<tr>
<td>Transportation</td>
<td>Proof of Delivery</td>
<td>Fleet Management</td>
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<td>Manufacturing</td>
<td>Asset Monitoring</td>
<td>Asset Tracking</td>
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<td>Retail</td>
<td>Vending Machines</td>
<td>Digital Signage</td>
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<td>Government</td>
<td>Logistics</td>
<td>Offender Tracking</td>
</tr>
<tr>
<td>Finance</td>
<td>ATM Machines</td>
<td>Security</td>
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![VDC Conference 2011 Logo](image_url)
Acceptable Use

Certification is required for any product that will be on the Verizon Wireless network including end devices with approved modules. Devices making exclusive use of an external, previously certified USB, PCMCIA, or ExpressCard modem do not require certification.

External Devices

- PCI Express or PCMCIA
- Serial Modem
- USB Modem

Note: Device must still be certified, but not connected devices leveraging the device

Internal Modules

- PCIe Mini/Half
- LGA/BGA

Solutions embedded into devices require certification of complete device
What requires certification:

- Any device to be used on Verizon’s network including devices with embedded approved modules.
- Any SW or HW change of an already approved device.

How to Build a Verizon compatible device:

  - Device specifications
  - Test plans
  - Submission documents
  - Process documents

How to Start certification:

- OEMs sign up via the OD Portal
- Contact the certification team VZWODCert@Verizonwireless.com
A strong module ecosystem and streamlined device certification process means more available devices on the Verizon network.

### Streamlined Certification Process

<table>
<thead>
<tr>
<th>On Board</th>
<th>Develop</th>
<th>Test</th>
<th>System Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Execute NDA and CA</td>
<td>• SFN Program available to allow up to 500 activations for development and demo</td>
<td>• Four Week lab test duration</td>
<td>• Populate DMD with device’s profile</td>
</tr>
<tr>
<td>• Learn about partner’s business</td>
<td>• Sandbox environment available for LTE development</td>
<td>• Five certified 3rd party labs</td>
<td>• Build pricing into the DACC</td>
</tr>
<tr>
<td>• Submission forms and schedule</td>
<td>• Allow 20 activations when using approved modules for development and demo purposes without SFN</td>
<td>• Two Internal test labs</td>
<td>• Create SKU to receive ESNs</td>
</tr>
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</table>

Six weeks for end-to-end certification after legal agreements are signed.
# Approved Test Labs

## External Labs

<table>
<thead>
<tr>
<th>2G/3G</th>
<th>4G LTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>PCTEST Eng Lab, Inc.</strong> Columbia, MD</td>
<td><strong>7 layers</strong> Irvine, CA</td>
</tr>
<tr>
<td>2. <strong>SGS Wireless U.S., Inc.</strong> San Diego, CA</td>
<td><strong>Cetecom</strong> San Diego, CA</td>
</tr>
<tr>
<td>3. <strong>Intertek Labs</strong> Lexington, KY</td>
<td><strong>Intertek Labs</strong> Lexington, KY</td>
</tr>
</tbody>
</table>

- Full certification capability
- Lab cost negotiated directly with lab

## Internal Labs

<table>
<thead>
<tr>
<th>2G/3G</th>
<th>4G LTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Verizon CPE Lab</strong> Bedminster, NJ</td>
<td><strong>LTE Innovation Center</strong> Waltham, MA</td>
</tr>
</tbody>
</table>

- Full Certification capability
- Capacity for two device certifications per month
- No charge to Partners

- Development and Innovation Sandbox
- Apply at: lte.vzw.com
- Gearing up for full certification capability
- No Charge to Partners

Cost is negotiated between Partners and 3rd party labs. IoT testing additional.
Enhancements – Making it Easier

Certification process improvements make it easier for OEMs to certify, bringing more devices to the VZW portfolio

DEVICES

CERTIFICATION PROCESS UPDATES

- 0 free certification program → 2 free device certifications per month
- 0 uncertified device activations → 20 uncertified device activations with approved modules
- $10M general liability insurance requirement → $2M general liability insurance requirement
- Yes professional liability insurance requirement → No professional liability insurance requirement

Six weeks, end-to-end, certification after Certification Agreement signed
Approaching 300 certified devices

FOR MORE ON CERTIFIED DEVICES, VISIT THE M2M RESOURCE CENTER:
http://nextgen.vzwcorp.com/content/hq-departments/marketing-amp-sales-operations/devices-and-modules
M2M Solution Selling

M2M sales entail longer sales cycles to solve for horizontal enablers

Hunters bring in the M2M deals….

… Data and dedicated teams complete and bring in the solutions
VZ has the flexibility to address diverse needs

- Highlights product and generates co-op ad revenue from suppliers
- Retailer ABC pushes content from HQ to signs in retail stores

Retailer ABC Already has a Solution

- Verizon sells transport to Retailer ABC

Retailer ABC Needs a Solution

- Tracks vehicle to better manage routes and conduct maintenance
- Verizon’s Fleet Tracking partners include multiple approved partners

Verizon sells solution to Retailer ABC
Solving Customer Needs

Requires a complete fleet tracking solution

Verizon brings in the best partner for a total solution

- **APP INTEGRATION**: Integration of Retailer ABC’s app with VZ network and platform  
  - YES

- **nPHASE**: M2M Management Center to centrally manage fleet  
  - YES

- **PRODUCTS & PRICING**: Low levels of bandwidth usage; LBS, QoS…  
  - Tiered

- **NETWORK & GLOBAL**: Low-bandwidth usage with delay tolerance  
  - 2G

- **SOLUTION**: BSA, VSP, VSP Plus, White Label  
  - BSA
### Traditional Model

#### HISTORIC APPROACH
- Certification available, but not simple
- Third party OEMs sell devices to accounts, VzW teams activate
- VzW no comp for low value solutions

#### CURRENT MARKET
- Simplified certification process
- In the field teaming with device and solution providers in different models
- Lowering compensation to facilitate account team engagement

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**Updated approach to better serve both the OEM and the VzW sales teams**
M2M Sales Models – Three Forms for Enhanced Collaboration

SELL THROUGH – VSP

- VZW CUSTOMER – VSP
- VSP M2M Solution
- END CUSTOMER

SELL WITH – BSA

- LEAD
- BSA PARTNER
- TRANSPORT
- APPLICATION
- VZW & BSA CUSTOMER

SELL AS – WHITE LABEL

- WHITE LABEL PARTNER
- M2M Solution
- END CUSTOMER
Open Development Partners

OD

Open Development Partner – Able to sell to VzW customers a solution that the VzW account teams can activate for their customer

Open Development Sales Model

VZW
Sales Rep

Sell transport

OD Partner

Sell business solution that adds value to transport

Business Customer

- Customer buys device and solution from partner
- Customer buys network connectivity from VzW
- Customer signs contracts with both VzW and OD partner
- Customer support
  - VzW supports network directly
  - BSA partner supports business solution
- VzW and partner both bill customer for services
Business Solutions Alliance member – Allows VzW and partner teams to collaborate for joint selling, both selling their own components

- Customer buys device and solution from partner
- Customer buys network connectivity from VzW
- BSA enables partner and VzW to co-sell
- Customer signs contracts with both VzW and solution partner
- Customer support
  - VzW supports network directly
  - BSA partner supports business solution
- VzW and partner both bill customer for services
Vertical Solution Provider Plus – New program allowing VzW to work with solution providers to jointly convey value proposition

**Vertical Solution Partner**

**Sales Model**

- Customer buys solution from VSP
- VzW compensates VzW reps for both the VSP and the business customer
- Customer support is provided by the VSP; VzW customer support is provided to the VSP
- Customer is billed by the VSP; VzW bills to the VSP for its services
White Label – Verizon Wireless works with third party partner to create solution that is sold under the Verizon Wireless brand

White Label Partner Sales Model

- Verizon Wireless works with partners to assemble “full solution”
- Solution packaged under Verizon Wireless brand
- Sold through the VzW sales force, supported by solution partner(s) as needed
- Customer is billed only by Verizon Wireless covering the full solution; Verizon Wireless pays the solution provider(s) for their services
### Offering a Spectrum of Solutions Leveraging Partners

<table>
<thead>
<tr>
<th>Transportation</th>
<th>Utilities</th>
<th>Healthcare</th>
<th>Retail</th>
<th>Industrial &amp; Manufacturing</th>
<th>Finance &amp; Insurance</th>
<th>Security</th>
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<tr>
<td>Fleet Mgmt Specialty</td>
<td>Dist Auto Grid</td>
<td>Remote Monitoring</td>
<td>Point-of-Sale</td>
<td>RMAC</td>
<td>UBI</td>
<td>Security Monitoring</td>
</tr>
<tr>
<td>Fleet Mgmt Light Vehicles</td>
<td>Smart Metering Electric</td>
<td>Remote Monitoring</td>
<td>Digital Signage</td>
<td>Waste Mgmt.</td>
<td>ATM</td>
<td>Video Surveillance</td>
</tr>
<tr>
<td>Fleet Mgmt Long Haul</td>
<td>Smart Energy Management</td>
<td>Pager Replacement</td>
<td>Media Broadcast</td>
<td>Tank Monitoring</td>
<td>Payments</td>
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<tr>
<th>Horizontal Solutions</th>
<th>Assets Objects</th>
<th>Assets Things</th>
<th>Asset Law Enforcement</th>
<th>Workforce Mgmt</th>
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</thead>
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<thead>
<tr>
<th>Ruggedized Devices</th>
<th>Ruggedized Handhelds</th>
<th>Tablets</th>
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<table>
<thead>
<tr>
<th>Routers</th>
<th>General Purpose</th>
<th>Specialized</th>
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Note: Solutions represents OD Certified Devices and/or BSA Partners.

For more on M2M Solutions, visit the M2M Resource Center where solutions content is coming soon:

http://nextgen.vzwcorp.com/content/hq.departments/marketing-amp-sales-operations/solutions
# Key Market Focus

## Transportation Overarching Strategy

### Fleet Management
- Track and trace, maintenance, driver compliance, diagnostics
- Fleet pool location, central dispatch, customer location

### Asset Tracking
- Tracking insight, cargo condition information, confirmation of delivery, route updates
- Manual documentation reduction

### Commercial Telematics
- Rollover insight and warning, smart following assistance
- Trip assistance, accident response, cost containment

## Utilities Overarching Strategy

### Smart Energy Management
- Demand management, home area network, new service delivery to end users, outage management

### Distribution Grid Optimization
- Enable communication, advanced metering, supply automation, supply optimization, monitoring and control

### Smart Metering
- Two-way communications between meters and back-end SMI infrastructure for various applications such as demand response
### Key Market Focus

#### Healthcare Overarching Strategy

<table>
<thead>
<tr>
<th>Remote Monitoring</th>
<th>Health Information Exchange</th>
<th>Mobile Health Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Remote Monitoring from Home</td>
<td>• Mobile access to existing and future clinical information systems</td>
<td>• Current and next generation health applications for mobile devices</td>
</tr>
<tr>
<td>• Remote Monitoring On the Go</td>
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<td></td>
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<tr>
<td>• Remote Wellness Monitoring</td>
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#### Manufacturing Overarching Strategy

<table>
<thead>
<tr>
<th>OEM Asset Management</th>
<th>Mobile Enterprise Applications</th>
<th>Plant Productivity Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Remote Monitoring and Control</td>
<td>• Drive increased returns on customer enterprise systems through mobilization of company apps and data</td>
<td>• Solutions driving productivity focused in the areas of Six Sigma, Lean Manufacturing, JIT, Safety and Security</td>
</tr>
<tr>
<td>• Security and Home Automation</td>
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</tbody>
</table>
## Government Overarching Strategy

### Supply Chain and Logistics
- Track and trace, maintenance, diagnostics, location confirmation
- Single inter-agency interface, global coverage

### Mobilizing Applications
- Drive increased returns on government systems through mobilization of apps and data

### Government, Law & Public Safety
- Video surveillance, e-ticketing, secure communications
- Location and compliance management for offenders, parolees

## Other Vertical of Focus ...

| Retail | digital signage, point of sale services, workforce enablement … |
| Banking and Finance | insurance telematics, banking/ATM, real estate … |
Thank you.
MEET THE MACHINE
INNOVATION TO GET YOUR APP IN GEAR