



IoT CONFERENCE 2014 | ASIA

IoT 506 Cellular Strategy & Product Roadmap

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Agenda

- Strategy
- Cellular Roadmap
- Cellular Module Transitions
- Cellular Roadmap
 - Certification Update
- TransPort Roadmap
 - Certification Update
- DeviceCloud Roadmap



STRATEGY

Connecting Mission Critical Machines to Systems/Applications that create significant business value.

✓ Wirelessly



✓ Easily



✓ Reliably

99.99

✓ Globally



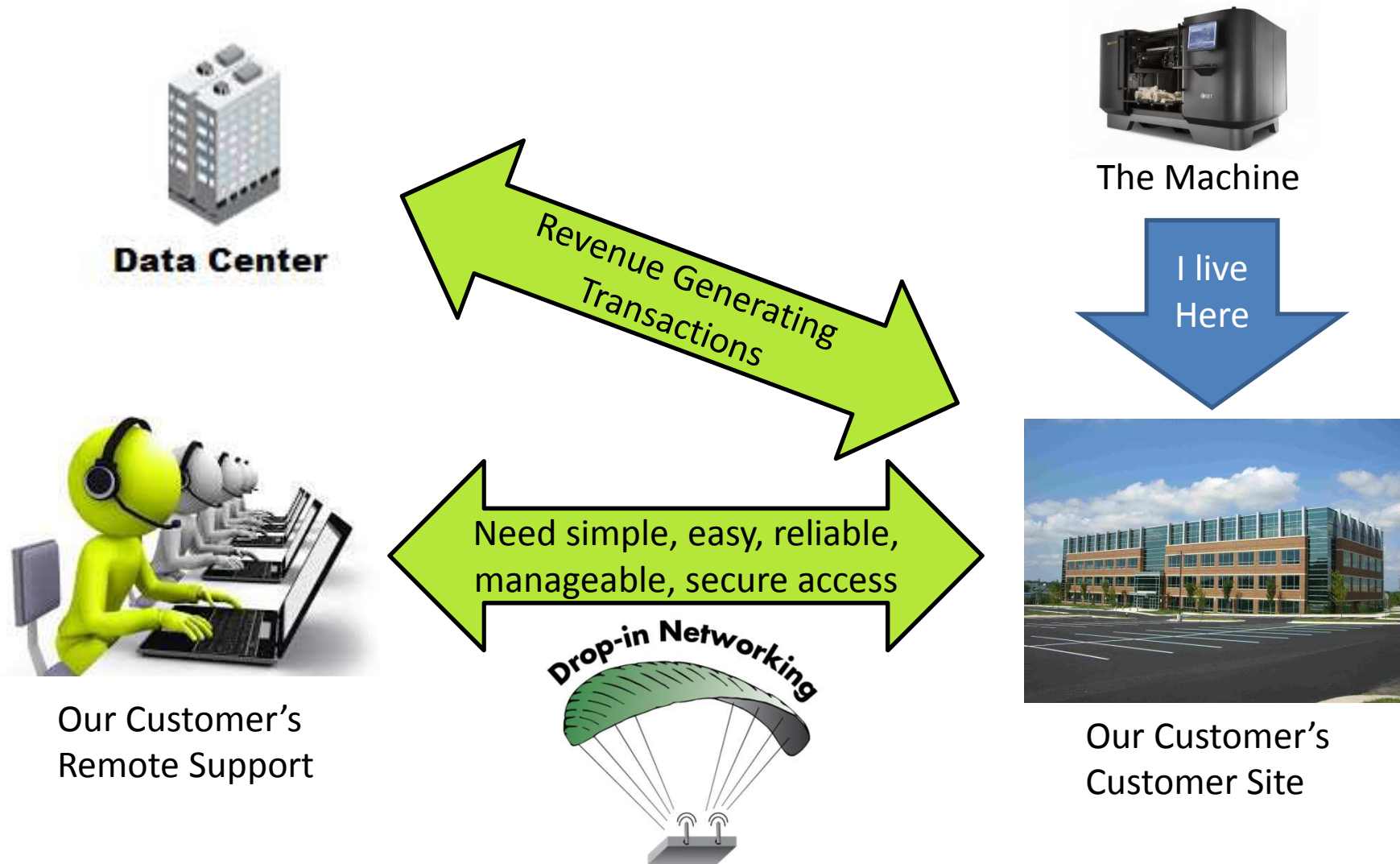
✓ Economically



✓ Securely



Mission Critical Machines



Target Machine Attributes



I generate \$X of recurring annual revenue, or downtime is Very expensive.



I cost more than \$5K unit



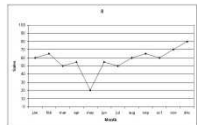
My company has limited Cellular/Wireless Engineering resources.



I have an Ethernet or Serial Port



My company is willing to partner leveraging their skills and expertise.



My volume is less than 30K annually.



I have a 5-Year Life.



I have constant power available.



Adding cellular provides my company a Strategic Advantage.



Bonus



I am deployed globally



My company or BU has limited IT Staff

Cloud

My Company has no Device Cloud Initiative



My Company uses SF.com as a Services Platform



I need customization; programming, branding, integration.

Machine Example Lists

- ATMs, Lottery Machines
- Commercial Lighting Control Systems
- Injection Molding
- 3D, Commercial, Bar Code Printers
- Chemical Controllers
- Medical Diagnostic Equipment
- Test and Lab Equipment
- Commercial Chemical Controller Systems
- Planes, Locomotives
- Traffic Control Systems
- Commercial Industrial Metering
- Industrial Cleaning Machines
- Environmental monitoring stations
- Environmental Controls- HVAC, Security, Lighting, Irrigation
- Commercial Kitchen Equipment
- Ice Machines



CELLULAR ROADMAP

Strategy

- Invest in reliability, advanced routing, security and scalability for large scale deployments (Leveraging DeviceCloud)
- Invest in globalization of our products as driven by our customer base
- Develop specialized versions of core platforms for our target markets
- Invest in technology refresh of underlying technologies
- Early adopter of 4G technologies suited for our target markets

Module Strategy

- No new 2G development, 3G development only where cost reductions are available
- Focus on LTE/4G and supporting worldwide bands (over time)
- Be an early adopter of new technologies like LTE advanced and LTE CAT 0

Cellular Modules

- Edge: Cinterion MC75i (E1)
 - TransPort WR21, WR41, WR44, ConnectPort X4
- HSPA+: Telit HE910 (U9)
 - TransPort WR11, WR21, WR41, WR44
 - ConnectPort X2e 3G, Connect WAN 3G, ConnectPort X4, X4H
- LTE: Huawei ME909u-521 (L1)
 - Transport WR21, WR41, WR44
 - Bands 800, 850, 900, 1800, 1900, 2100, 2600 MHz
- LTE: Telit LE910-EUG (L7)
 - TransPort WR11
 - Bands 800, 850, 900, 1800, 1900, 2100, 2600 MHz



Module Transitions

- Establish Telit HE910 as preferred HSPA+ 3G module
 - Promote for all International customers
 - Actively working on certifications for Japan, AU/NZ, China, Brazil
- Next Generation LTE
 - Added support for Huawei ME909u-521 (L1) – Aug 2014
 - Added support for Telit LE910-EUG (L7) – Nov 2014
 - MDM9215 chipset, Newer, longer lifetime, wider temp range
 - Better regional coverage with 850MHz 3G fallback
 - Certifications in progress with AU/NZ, Singapore

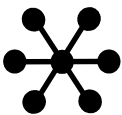
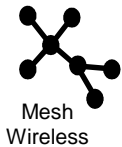
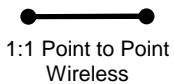
ConnectPort Gateways



ConnectPort Family

- 2G / 3G Cellular
- 5 year warranty
- Embedded XBee module

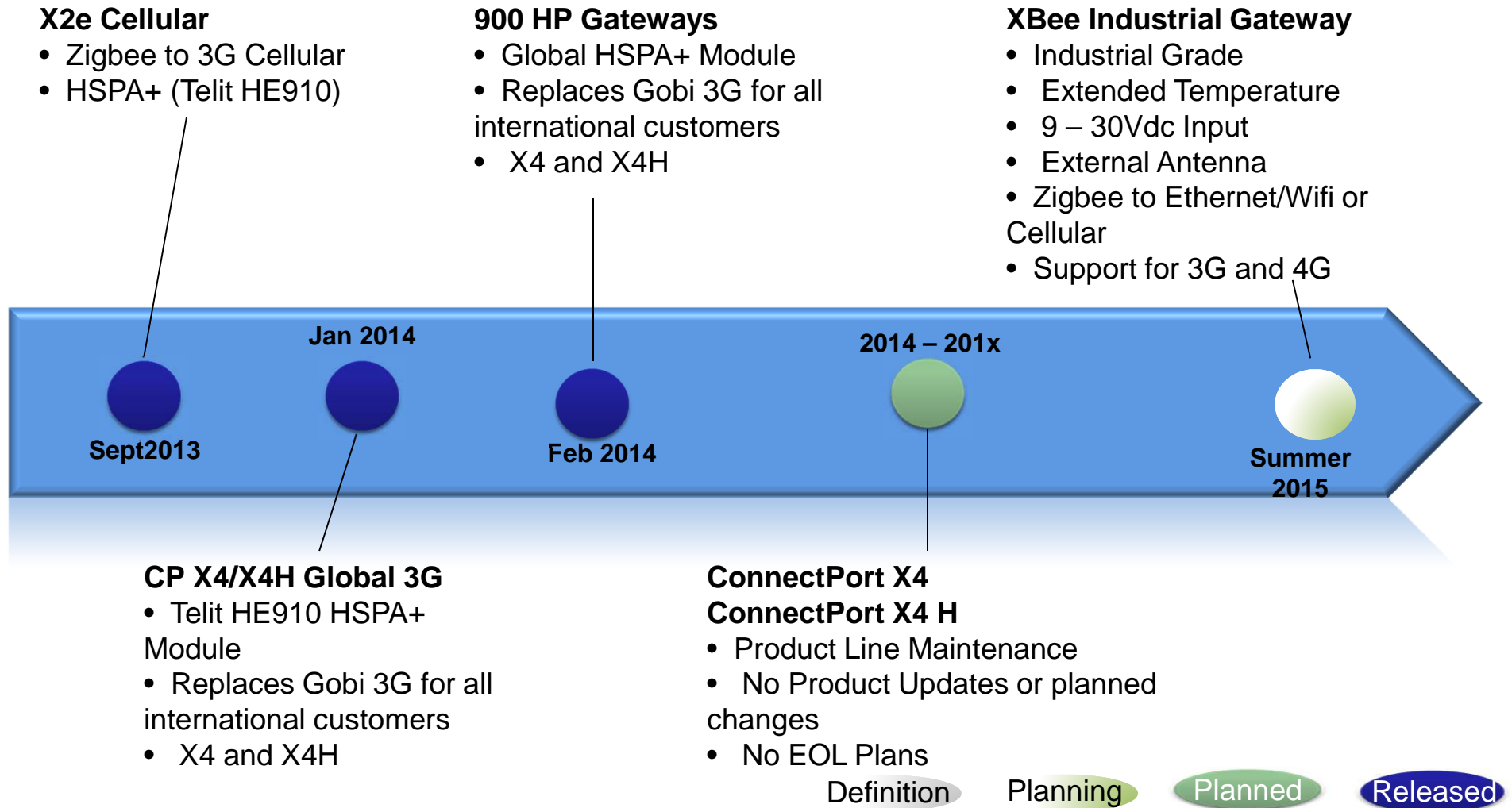
- High performance / multifunction
- Complete end to end wireless
- ZigBee/802.15.4/DigiMesh to IP gateway
- Python support for local applications
- iDigi Dia and ESP developer tool
- Multiple form factors and configuration options






Verticals

- ✓ Industrial / Utilities ✓ Food Safety / Cold Chain
- ✓ Remote Monitoring ✓ Quick Service Restaurants
- ✓ AG Automation ✓ Fleet and Heavy Equipment
- ✓ Tank Monitoring ✓ Intelligent Lighting

Digi ConnectPort™ Roadmap



APAC Certifications – Cellular/Gateways

Products	China CCC Telit DE910	Japan Telec Telit HE910	AU/NZ A- tick Telit HE910	Korea KCC / SKT Telit HE910
Digi Connect WAN 3G			4Q '14	
ConnectPort X4			4Q '14	
ConnectPort X4H			4Q '14	

TransPort Routers



- High performance, multifunction
- 1-4 Ethernet, 1-6 serial
- Wi-Fi (AP and client) option
- GPS, I/O options
- Dynamic Routing (OSPF, BGP, RIP)
- VPN (GRE, IPSec, L2TP, PPTP)
- Stateful firewall
- VLAN or Ethernet Port Isolation
- PCI/HIPAA /CIP Security Compliant
- Extended temperature option
- Remote Management / Device Cloud

Digi TransPort WR Family

- Embedded 2G, 3G and LTE
- 5 Year Warranty (3 year for 44R, 44RR)
- Several Models: 11,21, 41, 44, 44R, 44RR



Verticals

- | | | |
|----------------------|--------------------------------|---------------------------------|
| ✓ Primary Enterprise | ✓ Remote/ Branch Office | ✓ Security / Video Surveillance |
| ✓ Retail POS | ✓ Business Continuity/Failover | ✓ Industrial / Utilities |
| ✓ Data Centre | | ✓ Transit |

Digi TransPort™ Roadmap

TransPort WR11

- Commercial Grade Router
- Single Ethernet to Cellular
- Dual SIM

TransPort WR LTE Update

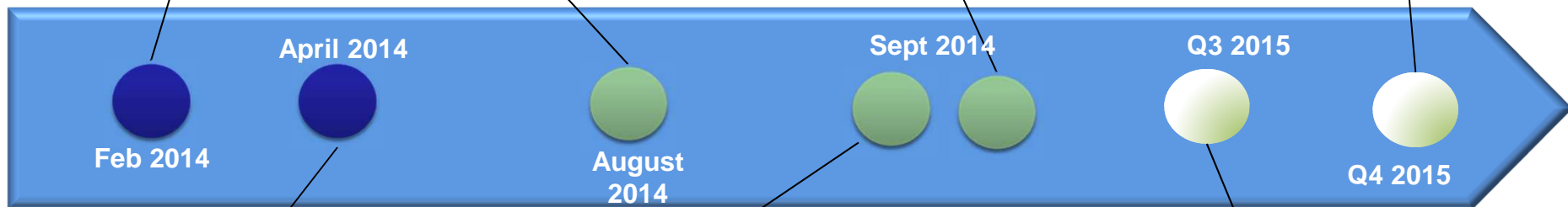
- Huawei ME909u-521
- LTE for ROW
- 4G LTE with HSPA+ and EDGE/GPRS Fallback

TransPort WR11 LTE

- Telit LE910-EUG
- LTE Bands 800, 1800, 2600MHz
- 3G Bands 850, 900, 2100MHz
- 2G Bands 850, 900, 1800, 1900 MHz

TransPort WR21 Industrial

- Industrial Grade
- Din-Rail Mount
- Dual SIM, Multi-Ethernet
- Serial and I/O



Telit HE910 Support

- Global HSPA+ Module
- Replaces Gobi 3G for all international customers

TransPort-specific Device Cloud Enhancements

- Device Health Dashboard: view and report on device health
- Universal Profile Manager: define device profiles and groups and audit for compliance

TransPort WR11 XT

- Extended Temp Models
- 9 – 30Vdc voltage input
- - 30C to +70C temperature
- Ruggedized Enclosure

Definition

Planning

Planned

Released

APAC Certifications - Routers

Products	China CCC Telit DE910	Japan Telec Telit HE910	AU/NZ A- tick Telit HE910	Korea KCC / SKT Telit HE910
TransPort WR11	TBD		4Q '14	
Transport WR21	TBD			TBD
TransPort WR41			4Q '14	
Transport WR44				
TransPort WR44RR				

APAC LTE Certs - Routers

Products	AU/NZ A-tick
TransPort WR11	LE910-EUG Q1 '15
Transport WR21	ME909u- 521 Q1 '15
TransPort WR41	
Transport WR44	
TransPort WR44RR	

Module Options Today:

- WR11 with Telit LE910-EUG
- WR21/41/44 with Huawei ME909u-521
- Digi will pursue additional country approvals based on business opportunity.
 - Singapore (WR21)
 - Thailand (WR21)
 - Korea (LE910-SKG module)
 - Japan (MC7330 module)

Future Module Options:

- Australia, Band 28 support for Telstra
 - MC7430 or LE910-AUv2 available EOY 2015
- Japan, LTE with Band 21 and 1500MHz support
 - Telec, NTT and KDD Approvals
 - MC7430 or LE910-JP available EOY 2015



CCC Certification Options

- Currently CCC certified:
 - WR21-U82B-DE1-CW and X4-Z1J-U801-CW
 - Supports HSPA on China Unicom and GPRS on China Mobile
 - Gobi-3000 module is end of life
 - 3G Options:
 - HE910 , Same carrier coverage as Gobi
 - DE910-SC , EVDO support for China Telecom
 - Can support WR11, WR21, CPX4



China Carriers – LTE Options

	China Unicom	China Telecom	China Mobile
2G	GSM: 850/900/1800/1900	1XRTT: 800MHz	GSM: 850/900/1800/1900
3G	WCDMA(HSPA): 850/1900/2100	EVDO Rev A, 800MHz	TDSCDMA: Band 34/39
LTE	FDD: Band 1 TDD: Band 40, 41	FDD: Band 3, 5 TDD: Band 40, 41	TDD: Band 39, 40, 41

Module Options

Sierra Wireless MC7430	Module Available: 2H 2015
Telit LE920-CAN	Module Available: 2H 2015
ZTE ME3760	Module Available: Now

Firmware Roadmap Items

- Q4 '14
 - Firmware 526x
 - Device Cloud Release
 - Health Dashboard and Profile Manager
 - Performance improvements
 - Optimizing speed and throughput performance
 - Wizards 1.0 (Getting Started and Carrier Switching wizards)
- Q1 '15
 - Firmware 527x
 - Device Cloud January Release
 - Health Dashboard Reporting & White Label Support
 - Wizards 1.1 (VPN, Failover and Firewall wizards)

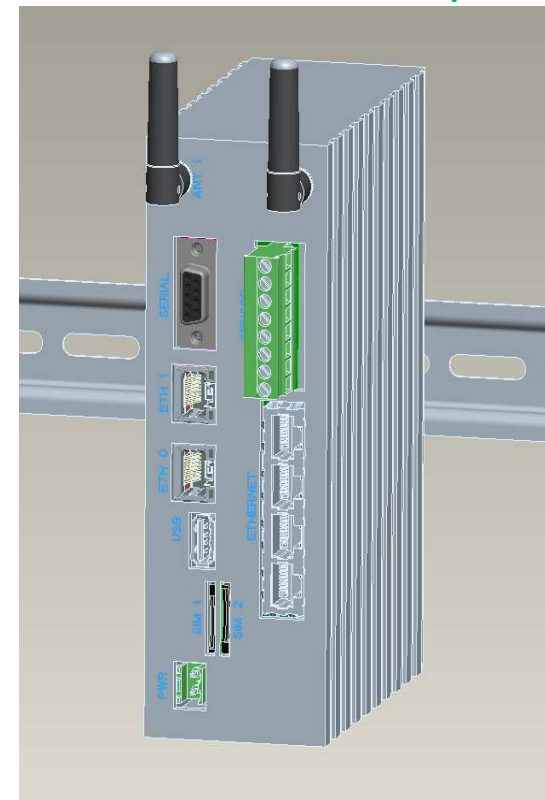
TransPort WR11 XT

- Extended Temperature version of TransPort WR11 for ATM, Kiosks, Vending, Industrial Machines
- When: Q3 2015
- Features
 - - 30C to +70C operating temperature
 - 9 – 30Vdc voltage input
 - Ruggedized Enclosure
 - 3G and 4G Cellular
 - Dual SIM
 - Single Ethernet



Transport WR21 Industrial

- Ruggedized Cellular Router for utility and industrial applications
- Tailored Product for Industrial Space
- When: Q4 2015
- Features:
 - 3G/4G Cellular
 - Dual Ethernet
 - Serial and I/O
 - Dual SIM



Preliminary Specifications

Transport WR21 Industrial Preliminary Specifications	
Wireless WAN Interfaces	LTE, GSM, CDMA (including CDMA450)
SIM	Dual SIM
Ethernet	(2) RJ-45 Ethernet ports
Serial	(1) RS-232/422/485 DB9 serial port with flow control
I/O	TBD
Input Power	6-30VDC; screw terminal connector
Antenna	(2) External antennae
Mounting	DIN Rail
Environmental Rating	-40 - +85C IEC 61850-3 IP44, Class 1 Div 2
Operating System	SarOS
Management	WebUI, CLI, Remote Manager, Device Cloud
Certifications	UL/EN60950, EN55024, EN55022 Class B, CE, RoHS

Target Market for WR21 Industrial

- Distribution Automation (Utility Cabinet Integrators)
- Water and Waste Water
- Scada/Industrial Control
- Oil & Gas
- Telecomm Network equipment control/monitoring



DEVICE CLOUD

Two Major Enhancements to Device Cloud

Device Health Dashboard

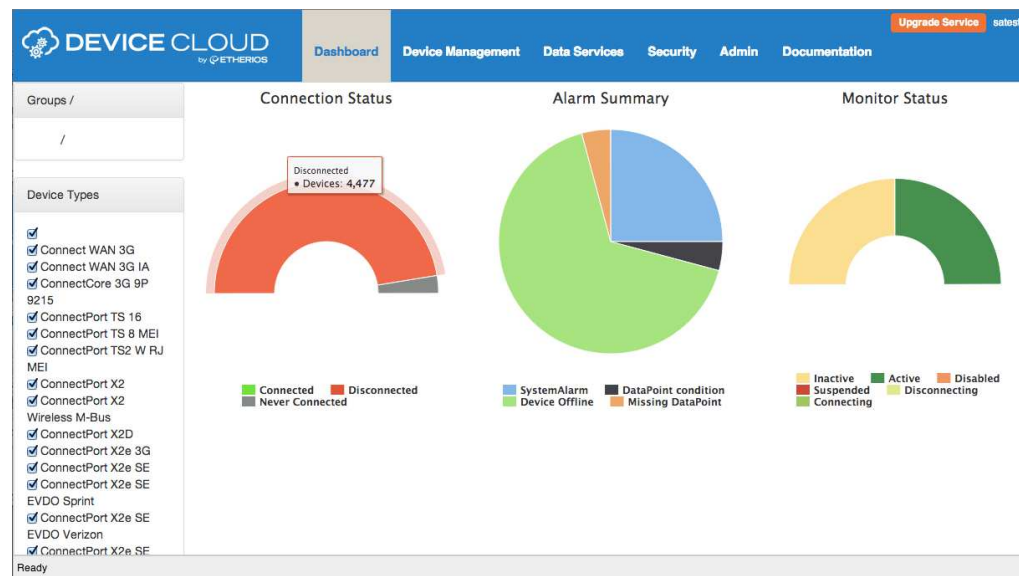
- “Active Monitoring and Alerting on Device Health”
- Actively report local device performance stats
- Dashboard view for groups and individual devices

Universal Profile Manager

- The “Management” in Device Management
- Group devices, define the configuration for the group, and then audit for compliance.

Device Health Dashboard

- Ability to configure devices to report local stats to Device Cloud on a periodic basis
 - E.g. Cellular RSSI, available RAM, CPU utilization, network interface throughput, data sent/received, lat/long stats, etc.
- Account-level dashboard illustrating roll-ups for installed inventory
 - Visualize roll-ups for entire inventory, specific groups or individual devices



Universal Profile Manager

- Ability to define a 'profile' for device types
 - Assigned to a group or tag
 - Define expected:
 - Firmware version
 - Will eventually include XBee firmware; but not in September
 - File system content (file name and checksum)
 - Configuration (per RCI settings group, so could be over-all or just specific config groups)
 - Ability to specify unique (site-specific) settings
- Define action to be performed if devices in scope don't match the profile
 - Send notification upon mismatch
 - Perform specific action upon mismatch





QUESTIONS ?