CEO 940 (Verizon or 950 AT&T) NIGHT



REMOTE CONTROL 2-WAY CELLULAR DISCONNECT COLLAR WITH: RECONNECT, ARM, 30/30 AND OUTAGE NOTIFICATION



Nighthawk's CEO 940 (Verizon) or 950 (AT&T) is a wireless 2-way remote control residential electric disconnect solution, used especially for:

- 1.) High-Turnover Residences: dormitories, apartments;
- 2.) Adding Disconnect to Existing AMR Systems;
- 3.) Slow-Pay / No-Pay / Pre-Pay customers;
- 4.) Scheduled Event Lights: ballparks, game courts, holidays;
- 5.) Seasonal Properties: vacation homes, hunting leases.

Nighthawk CEO 940 / 950 Collar

An ideal 'Drop In' solution.

Extremely Quick Payback

Where and When you need it!

With a few computer mouse clicks, you can remotely disconnect or reconnect, with positive confirmation in under 30 seconds.



The CEO 940 (Verizon) or 950 (AT&T) installs in just minutes and works behind any standard 2S meter. Power is disconnected on the load side, so any AMR meter installed on top of this collar will remain operational and electronic meters can always be read, no matter what the CEO 950 collar connection status.

FEATURES:

- Plug & Play Anywhere Installation
- Web-Based Remote Disconnect / Reconnect
- Homeowner Reset Button for Arm Reconnects
- Service Limiting 30-minutes-off / 30-minutes-on Option, Cycling Indefinitely Until Reconnection
- Positive Confirmations of Actions Taken
- On-Demand or Pre-Scheduled Batch Commands
- Outage Notification With Mapping
- Reports and Data Downloads in PDF or CSV formats
- Industry-standard functionality automatically integrates collars into many billing systems
- Enables some 3rd-party pre-pay options

BENEFITS:

- Saves money on expensive truck rolls
- Keeps utility personnel out of harm's way
- Lowers risk and liability for accidents
- Improves service response capability with immediate power outage notifications, including optional e-mail or cell-phone alerts
- 30/30 option lets you manage challenging accounts, even during moratorium periods
- No damaging socket wear and risk of fire from repeatedly removing and remounting meters to enforce disconnect and reconnects
- System-wide coverage with no infrastructure build out using cellular network

OUTAGE NOTIFICATION ALERTS WITH MAPPING



When Nighthawk collars experience a power outage, they use their "last gasp" stored power (capacitors - no batteries) to notify the online Web system, known as Utility Web-Connect, that "Grid Power Failed".

Upon receipt of this message, Utility Web-Connect makes a map available online with red balloons showing the addresses which have been entered in the system for the collars reporting an outage.

At the utility's option, Web-Connect can also issue a text message to a cell-phone or an e-mail to alert utility personnel that collars have reported an outage, all within the first minute of the power outage.

INTEGRATION WITH BILLING SYSTEMS & 3RD - PARTY PRE - PAY SOLUTIONS

Nighthawk's Web-Connect system can integrate smoothly with a variety of Billing Systems and Pre-Pay solutions, including those from NISC, using its CSV meter readings upload files and industry standard meter control interfaces. With some industry standard billing systems, the Nighthawk disconnect collars can be commanded directly from within the billing system removing the need to use the Nighthawk Web-Connect interface, except for Outage Notifications.

COST JUSTIFICATION

REPRESENTATIVE SAVINGS ESTIMATES

(based on what our customers tell us)

Per Event After Just 2 Events In Your Case?

- 1.) Avoid Field Visit Truck Rolls:
 - a.) Two Men (and possible overtime)
- \$ 60 \$ 120
- b.) Truck (per mile maintenance costs)

- 20 \$ 40
- 2.) Avoid Customer Field Confrontations and Dog Bites
- 3.) Avoid Damaging Wear on Meter Sockets (less frequent replacement costs)
- 4.) Reduce Office Staff Time:
 - a.) Scheduling field visit

8 \$ 16

b.) Tracking and follow-up

- 12 \$ 24
- c.) Know meter connection status instantly and reliably
- d.) Same staff can handle more customers (less work for each event)
- 5.) Reduce office staff stress quick and easy to disconnect or reconnect
- 6.) Reduction in Bad Debts:

- \$ 30
- \$ 60
- a.) Easier reconnect means quicker to decide to disconnect
- b.) No delay in doing disconnects while waiting for next cycle
- c.) 30/30 mode provides alternative motivation to pay bill
- d.) 3rd-Party Pre-Pay choices eliminate bad debts
- 7.) Outage Notifications:
 - a.) Every minute of an outage is unrecoverable lost revenues

\$ \$\$\$

b.) Longer outages consume more customer support time

TOTAL QUANTIFIABLE SAVINGS ESTIMATE

\$ 130+

\$ 260+

Commercial and Industrial Solutions USING NIGHTHAWK REMOTE CONTROL DEVICES NIGHTHA



Measurements, Alerts And Controls At Your Fingertips

CLOUD - CELLULAR DEVICES "PHONE HOME" TRIGGERING REMOTE COMMAND ACTIVITIES



Nighthawk's autonomous field-located two-way communicating measurement, alerting and electrical switching devices integrate seamlessly with Nighthawk's Cloud-based Web-Connect command and control system to provide unique custom solutions including:

- 1.) Remote metering, disconnection and reconnection;
- 2.) Instant power outage, voltage fluctuation and event alarms (copper thefts, overheats, flooding) direct to your cell-phone;
- 3.) Multi-location command, control, automated reporting; and,
- 4.) Big data analytics with mapping, graphics, demand response.



When container ships reach port, they need to connect to shore power for which the port needs to measure the power consumed and promptly bill the ship's account. Nighthawk's OMR device can "phone home" to Web-Connect when the ship connects and disconnects, and Web-Connect can wirelessly obtain instant meter reads at those events. When the ship disconnects, the OMR "phones home" and alerts Web-Connect to calculate and issue the power consumed details, so that the port can immediately invoice the shipping company for the power consumed while in port.

Sample Commercial Application:





For remote applications, such as oil field equipment, irrigation / water management or down manholes, Nighthawk DFD devices can detect trouble and, using inconspicuous, drive-over "mushroom cap" antennas, can alert Web-Connect to text message your cell-phone, with maps showing you the alarming locations, so that you can issue Cloud Cellular commands to an NHC device to switch equipment or flows on or off or reboot electronics, all remotely.

Instant Alarm Device NIGHTHAWK DFD-947 (Verizon or -957 AT&T)



Alerts You Instantly When Urgent Events Occur

MONITORS AND "PHONES HOME" WHEN ALARMING EVENTS OCCUR



The DFD-947/957 is a wireless remote control two-way Distribution Fault Detection device which "phones home" within seconds to alert utility personnel when urgent or alarming events occur, such as:

- 1.) COPPER WIRE THEFTS which disrupt cabinets or circuits;
- 2.) Rising water threats to electrical equipment;
- 3.) Equipment overheating conditions; and,

5½" x 4¾" x 2½" DFD box

4.) Circuit failures, including power outages.





An ideal 'Drop In' solution.
Extremely Quick Payback
Where and When you need it.

When the DFD device is attached to a simple contact sensor switch (or multiple switches in parallel), such as a cabinet door opening switch or a temperature probe or a water level switch, its low-power circuit will close when such event happens.

Whenever its sensor switch closes, the DFD immediately "phones home" to Web-Connect to log the event. Then, Web-Connect will immediately cell text message or e-mail your team to notify them of this event and to map the device's location.

FEATURES:

- Flexible power (by model: 208, 220, 277 or 110 volts)
- It's fast; cell text messages inside 1 minute of alarm
- Your choice of two cell #'s & many e-mail addresses
- Reports power outages and restorations (by model)
- Alarms can alert different people (by account set-up)
- Online Google maps of exact event location / address

BENEFITS

- You know within first minute of event starting
- Saves money on expensive surveillance
- All alarms are date/time-stamped in audit trail
- System-wide coverage with no infrastructure
- Multiple groups can be alerted simultaneously
- No batteries to replace (uses super capacitors)

Nighthawk 100 Decker Court, Suite 215, Irving, TX 75062

Phone: (972) 717-5555 www.nighthawkcontrol.com

NH-100C



TWO-WAY CELLULAR WIRELESS REMOTE CONTROL REBOOTING DEVICE

For customers with distant, or difficult to access, or largely automated electrical devices which need to be controlled remotely (to avoid expensive truck rolls), the Nighthawk NH-100C allows customers to remotely turn such devices on or off using Nighthawk's WebConnect software with a pick 'n' click of a Web button.

Nighthawk's NH-100C can switch a single electrical device for up to 15 amps of 120 volt household or commercial wall socket electrical power, as instructed by your remote, secured and encrypted Web-site cellular commands.

FEATURES

- Wirelessly controlled two-way full confirmation of actions back to the Web-site
- National cellular network, so device can be moved to anywhere inside the United States
- Plugs into common 15 amp household outlet
- Automated scheduling features
- Power Outage notification
- Devices are controlled via Nighthawk's WebConnect software from a PC or smart phone
- Also available in 30 and 50 amp models

APPLICATIONS

- Used for rebooting: WISP network towers; information kiosks; digital signage; remote cameras; WiFi hotspots; co-location equipment, all in distant locations across the country.
- Used to control household or office devices from a distance, even airplane pre-heaters.

ABOUT THE COMPANY

For two decades, Nighthawk has been designing and manufacturing easy to use "Plug and Play" wireless switches to remotely control virtually any electrical device, from any location. Our products set the standard for excellence in those areas that matter most to our customers, including technology, ease of use and installation.



OMS - OUTAGE MANAGEMENT SYSTEM



"Phone Home" Instant Outage Notification with Immediate Text Message or E-mail Alerts plus Online Mapping and Tamper Notification



Nighthawk DFD Event Alarm Device

Nighthawk OMR Outage Reporting Device

Whenever line power fails on a Nighthawk outage qualified cellular device, it will "phone home" to notify Web-Connect that the Grid Power Failed. If you have set up a text message or e-mail alert in Web-Connect, then this message will be forwarded to you via that mechanism within the first minute of the failure having occurred. When the power returns, the cellular meter or collar will "phone home" again to notify of a Power Up, with a separate optional alert, so that the mapping is always up-to-date with the current outage situation.

FEATURES

- Web-Based Interface for mapping.
- Immediate notifications and text or e-mail alerts.
- Outage Management with online mapping.
- Outage notifications and power reactivations are time-stamped and logged in Web-Connect's database for subsequent reporting and data downloads in PDF or CSV formats.

BENEFITS

- Plug & Play installation anywhere, using cellular.
 Immediate staff notifications and alerts enable the utility staff to know of power failures as they occur.
 - If outage is caused by tampering, the meter will also report that possible tampering has occurred.
 - System-wide online mapping enables utility to quickly and visually determine the extent and possible origin of the outage.

REAL - WORLD EXAMPLE WHICH ACTUALLY HAPPENED:



When a traffic accident recently took out a power pole, the power feed to that neighborhood was interrupted. A Nighthawk meter on a house in that neighborhood "phoned home" and notified the utility that the power had failed to that neighborhood, all within the first minute of the power outage, even before the 911 call to the police.

CREATING AUTOMATIC AND IMMEDIATE ALERTS:

Outage Notification - Please enter contact information for personnel who should be contacted in the event of an Outage										
Email Address:	IVR Call Out:									
SMS 1:	Select your wireless provider ▼									
SMS 2:	Select your wireless provider ▼									
Power Up Notification - Please enter contact information for personnel who should be contacted in the event of an Power Up										
Email Address:	IVR Call Out:									
SMS 1:	Select your wireless provider ▼									
SMS 2:	Select your wireless provider ▼									
Tamper Detection - Please enter contact information for personnel who should be contacted in the event of an Tamper										
Email Address:	IVR Call Out:									
SMS 1:	Select your wireless provider ▼									
SMS 2:	Select your wireless provider ▼									

Please note: Nighthawk cellular meters, collars and alarm devices don't contain any GPS technology beyond their cellular components. The addresses used for mapping in the Outage Management System are the addresses you entered into Web-Connect when deploying these meters or collars in the field.

Nighthawk's Web-Connect system allows you to set up three different types of outage alerts, as follows:

Outage Notification: Whenever a cellular meter or collar experiences a power line outage, it will use its "last-gasp" power (from capacitors - no batteries onboard) to "phone home" and report the outage. If you enter an e-mail address or an SMS text message cell-phone number, Web-Connect will contact you via that means to alert you. Web-Connect will show a red balloon on its outage map for any outage meters or collars.

Power Up Notification: When a cellular meter or collar powers up, it "phones home" to Web-Connect and you can choose (or not) to have Web-Connect alert you that it has powered up by entering an e-mail address or an SMS text message cell-phone number. Web-Connect will show a green balloon on its connected map for all powered up meters and collars.

Tamper Notification: When a meter Powers Up (not so for a collar), it will determine if it has been remounted in an inverted posture or if it was jiggled during its "last gasp" power failure, such as would happen if the outage had been caused by the meter having been torn roughly from its socket. In either of these cases, the meter will report a possible tamper and you can ask to be notified immediately if Web-Connect receives a meter Power Up message which indicates either of these two cases (inverted or jiggled during "last gasp").

Sentinel METER

WITH NIGHTHAWK RCM-949



AMR Features for C&I Customers

The DOM 040 is a civile and an extend to a condition of the condition of t

The RCM-949 is a wireless remote control two-way add-in board for Itron Sentinel Commercial and Industrial meters, used especially for:

CELLULAR READING COMMERCIAL AND INDUSTRIAL METER

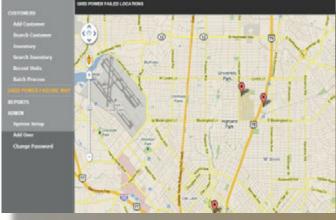
- 1.) Remote Data Collection instantly from remote C&I meters;
- 2.) Web-based Data Integration and Analysis with Graphing;
- 3.) Feeding Billing Systems with Multiple Register Readings;
- 4.) "Fill In" for Dead Spots in Existing AMR / AMI Systems;
- 5.) Enable C&I Customers to Analyze Their Own Usage Data.

Itron Sentinel Meter

An ideal 'Drop In' solution.

Extremely Quick Payback

Where and When you need it!





With a few computer mouse clicks, you can locate meters on a map, or remotely retrieve a variety of meter readings in seconds (interval usage data, demand usage, voltage, etc.); and, graph or download those readings for integration with Meter Data Management or Customer Information and Billing Systems.

FEATURES:

- Web-Based Remote Reads
- Interval Data for Load Profiles, Time-Of-Use Analysis
- Demand Register Usage Data
- Voltage Monitoring Data
- Reports and Data Downloads in PDF or CSV formats
- On-Demand or Pre-Scheduled Batch Commands
- Customer Read-Only Secured Web Access to Their Own Data for Analysis and Graphing Purposes

BENEFITS:

- Saves money on expensive truck rolls
- Keeps utility personnel out of harm's way
- Lowers risk and liability for accidents
- System-wide coverage with no infrastructure build-out enables incremental meter rollouts
- Industry-standard functionality integrates these meters into many billing systems
- Rapid online data collection for analysis and integration into Customer Information Systems

CELLREADER® CARD INSTALLS UNDER GLASS INSIDE SENTINEL C&I METER



The CellReader card has been certified for use inside various form factors of Itron Sentinel C&I electric meters, most especially including Form 9s (8s), as well as others.

Nighthawk can install the CellReader card inside new Itron Sentinel C&I electric meters purchased from regional Itron distributors, or inside many recently purchased Itron C&I meters already owned and deployed by the utility.

Meters using the CellReader card can be remotely read over the Web using Nighthawk's popular Web-Connect cloud software which fully integrates with all Nghthawk products.

INTEGRATION WITH BILLING SYSTEMS & 3RD - PARTY PRE - PAY SOLUTIONS

Nighthawk's Web-Connect system can integrate smoothly with a variety of Meter Data Management and Customer Information and Billing Systems using its CSV meter readings upload files and industry standard meter reading interfaces.

MEETING STRICT COMPUTER SECURITY REQUIREMENTS

Both Nighthawk's Utility Web-Connect cloud software and the Nighthawk RDM-350 module inside the Itron Sentinel meter have been designed to meet strict security requirements:

<u>Trust Center:</u> Extensive security measures prevent unauthorized access to customer information within the Utility Web-Connect application and through its Application Programming Interfaces, including industry standard techniques for: Internet access procedures, SSL transaction protection, and content encryption over the cellular network.

<u>Device Level Security:</u> Nighthawk's cellular communications use a "closed" system in that these SIM cards cannot be called by rogue operators nor can a rogue SIM card function within the Nighthawk device.

<u>Threat Penetration Testing:</u> Nighthawk's system is reviewed and "attacked" annually by the High Assurance Computing Center ("HAC-NET") operated by the Computer Engineering Department of the Bobby B. Lyle School of Engineering at Southern Methodist University in Dallas, Texas. Nighthawk's Utility Web-Connect system has repeatedly received high marks for its invulnerability to external hacking attacks.

PORTAL WITH USAGE MONITORING

Nighthawk's new Customer Portal is for electric utilities or solar installation companies where supporting detailed customer knowledge of electricity usage patterns is important for billing, credit or load shedding purposes.

A variety of analytical charts are available by hour, day, or month, as well as peak usage demand calculations.

This Consumer Portal is a "read-only" copy of the usage data and access to the consumer portal does NOT provide any connection to the secured servers actually issuing commands to the meters, which are tightly secured for utility access only.



ABOUT NIGHTHAWK: For over two decades, Nighthawk has been designing and manufacturing easy to use "Plug and Play" wireless telemetry to remotely control virtually any electrical device, from any remote location. Our products set the standard for excellence in the areas that matter most to our customers, including technology, installation and ease of use.

CellReader® is a registered trademark of Trilliant, for whom Nighthawk is an authorized distributor.

CENTRON® II METER

WITH NIGHTHAWK RDM 230/960/970 Mesh-Cellular NIGHTHAWK



AMI Features for AMR Customers



Itron C2SXD Meter

MESH-CELLULAR™ 2-WAY REMOTE CONTROL METERS

The RDM-230 (mesh only) and Mesh-Cellular™ gateway RDM-960 (Verizon) and RDM-970 (AT&T) meters are a line of wireless remote control two-way residential disconnect meters, used especially for:

- 1.) High-Turnover Residences: dormitories, apartments;
- 2.) Inaccessible Meters: fences, hostile people and animals;
- 3.) Slow-Pay / No-Pay / Pre-Pay customers;
- 4.) "Fill In" for Dead Spots in Existing AMR / AMI Systems;

Mesh-Cellular™

Dynamic, self-configuring, mesh-radio-networked meters clustered around a cellular gateway meter which routes commands and alerts back and forth between the meters and Nighthawk's Web-Connect meter command screens.

With a few computer mouse clicks, you can remotely disconnect or reconnect with positive confirmation, or retrieve meter readings in under 30 seconds.

cellular - (((2))) Cloudbased Internet E-mail or cell text veri7on ridis Sage alerts at&t Nighthawk's Web-Connect Cellular AMI Reads Utility's Customer **Billing** System Alternative Drive-by or Walk-by AMR reads

FEATURES:

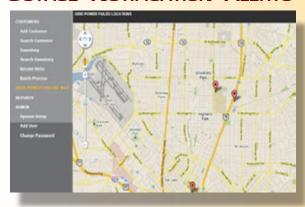
- Web-Based Remote Read / Disconnect / Reconnect
- ERT Drive-By / Walk-By AMR (both SCM and IDM)
- Amperage and 30/30 Service Limit Options
- Outage and Tamper Notification Alerts With Mapping
- Changeable Threshold "Sag-Swell" Voltage Alerts
- Time-Of-Use Data for Load Profiles or Demand Billing
- Reports and Data Downloads in PDF or CSV formats
- On-Demand or Pre-Scheduled Batch Commands
- Demand Response Program to Shed Load
- Countdown-2-Cutoff for Pre-Pay or E.Vehicle Charging
- Future-Proofed: Over-the-air Firmware Upgrades
- Back-Feed Detection and Able to Re-Zero the Meter

BENEFITS:

- Saves money on expensive truck rolls
- Keeps utility personnel out of harm's way
- Lowers risk and liability for accidents
- Improves service response with outage and voltage alerts with e-mail / cell-phone options
- Service limits let you manage challenging accounts, even during moratorium periods
- System-wide coverage with no infrastructure build-out enables incremental meter rollouts
- Mesh hopping extends range of mesh meter installations beyond cellular coverage limits
- Industry-standard functionality integrates these meters into many billing systems

- Meters will meet growing requirements, as you download and activate additional functionality
- Reduces damaging socket wear & risk of fire

OUTAGE NOTIFICATION ALERTS WITH MAPPING



When Nighthawk meters experience a power outage, they use their "last gasp" stored power (capacitors - no batteries) to notify the online Web system, known as Utility Web-Connect, that "Grid Power Failed".

Upon receipt of this message, Utility Web-Connect makes a map available online with red balloons showing the addresses which have been entered in the system for the meters reporting an outage.

At the utility's option, Web-Connect can also issue a text message to a cell-phone or an e-mail to alert utility personnel that meters have reported an outage, all within the first minute of the power outage.

INTEGRATION WITH BILLING SYSTEMS & 3RD - PARTY PRE - PAY SOLUTIONS

Nighthawk's Web-Connect system can integrate smoothly with a variety of Billing Systems and Pre-Pay solutions (e.g. NISC, PayGo, etc.) using its CSV meter readings upload files and industry standard meter control interfaces.

MEETING STRICT COMPUTER SECURITY REQUIREMENTS

Both Nighthawk's Utility Web-Connect cloud software and the Nighthawk RD module inside the Itron C2SXD meter have been designed to meet strict security requirements:

<u>Trust Center:</u> Extensive security measures prevent unauthorized access to customer information within the Utility Web-Connect application and through its Application Programming Interfaces, including industry standard techniques for: Internet access procedures; SSL transaction protection; and, content encryption over the cellular network.

<u>Device Level Security:</u> Nighthawk's cellular communications use a "closed" system in that these SIM cards cannot be called by rogue operators nor can a rogue SIM card function within the Nighthawk device.

<u>Threat Penetration Testing:</u> Nighthawk's system has been reviewed and "attacked" by the High Assurance Computing Center ("HAC-NET") operated by the Computer Engineering Department of the Bobby B. Lyle School of Engineering at Southern Methodist University in Dallas, Texas. Nighthawk's Utility Web-Connect system has received high marks for its invulnerability to external hacking attacks.

CONSUMER PORTAL WITH USAGE MONITORING

Nighthawk's new Customer Portal is for electric utilities or solar installation companies where supporting detailed customer knowledge of electricity usage patterns is important for billing, credit or load shedding purposes.

A variety of analytical charts are available by hour, day, or month, as well as peak usage demand calculations.

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CENTRON® II METER

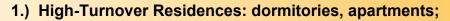
WITH NIGHTHAWK RDM-940 (Verizon) or -950 (AT&T) NIGHTHAN



AMI Features for AMR Customers

UNDER GLASS, 2-WAY CELLULAR REMOTE CONTROL METER

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- 2.) Inaccessible Meters: fences, hostile people and animals;
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- 4.) "Fill In" for Dead Spots in Existing AMR / AMI Systems;
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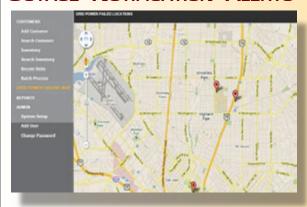
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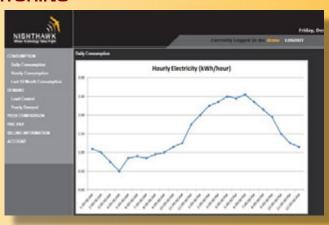
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Utility Meter Management

USING MESH - CELLULAR REMOTE CONTROL



Advanced Metering Infrastructure



Itron C2SXD Meter

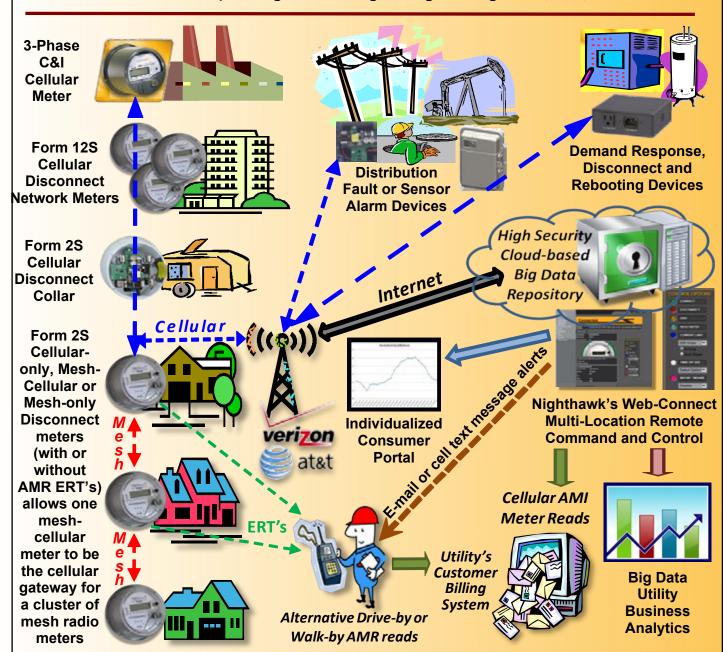
UNDER GLASS, 2-WAY REMOTE CONTROL METERS

Nighthawk provides AMI wireless remote measurement, monitoring and control electric meters and devices, with immediate alerts via e-mail or cell text messages when field situations require operational attention, used for:

- 1.) High-Turnover Residences: dormitories, apartments;
- 2.) Inaccessible Meters: fences, hostile people and animals;
- 3.) Slow-Pay / No-Pay / Pre-Pay / Demand Response customers;

Phone: (972) 717-5555

4.) Voltage Monitoring; Outage Management; and, Fault Alerts.





Cloud-Based Multi-Location Management

Nighthawk's Web-Connect Cloud portal provides "pick and click" 2-way access to all of Nighthawk's range of meters, collars and distribution control or alerting devices from multiple office or field locations, as authorized by the utility.

Disconnect, read or reconnect commands execute in about 15 seconds with alerts and online mapping of power outages, voltage fluctuations and faults.

Dynamic, self-configuring, mesh-radio-networked meters cluster around a cellular gateway meter which routes commands and alerts.

Over-the-air firmware upgrades allow devices to be upgraded while in use.

DDM.	Model	Phase	Commun -ications	ERT	Read -ings	Disco- nnect	Pre- Pay	Time- of-Use	Outage Alerts	Voltage Alerts	Fault Alerts
RDM	-940 (Verizon) -950 (AT&T)	Single	Cellular Only	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	-960 (Verizon) -970 (AT&T)	Single	Mesh to Cellular Gateway	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	-230 (Mesh)	Single	Mesh Only	Yes	Yes	Yes	Yes	Soon	Soon	Soon	No
CEO OMR DFD NHC	-942 (Verizon) -952 (AT&T)	Net- work	Cellular Only	Yes	Yes	Yes	Yes	Soon	No	No	No
	-949 (Verizon)	3- Phase	Cellular Only	No	Yes	No	No	Soon	No	No	No
	-940 (Verizon) -950 (AT&T)	Single	Cellular Only	No	No	Yes	Yes	No	Yes	No	No
	-940 (Verizon) -950 (AT&T)	Single or 3- Phase	Cellular Only	No	No	No	No	No	Yes	No	No
	-947 (Verizon) -957 (AT&T)	Any	Cellular Only	No	No	No	No	No	Option	No	Yes
	-100 (AT&T)	Single	Cellular Only	No	No	Yes	Yes	No	Soon	No	No

CONSUMER PORTAL WITH USAGE MONITORING

Nighthawk's new Customer Portal is for electric utilities or solar installation companies where supporting detailed customer knowledge of electricity usage patterns is important for billing, credit or load shedding purposes.

Consumer Portal is a "read-only" copy of the data, access to which does NOT provide any connection to the servers issuing meter commands, which are tightly secured for utility access only. A variety of analytical charts are available by hour, day, or month, as well as peak usage demand calculations.



ABOUT NIGHTHAWK: For over two decades, Nighthawk (now majority owned by global McWane Inc.) has been designing and manufacturing easy to use "Plug and Play" wireless remote measurement and controls for electric devices. Our products define excellence in technology, ease of use and installation.

End-Of-Line Voltage Reporting Using Nighthawk Remote Control Meters



Measurements, Alerts And Controls At Your Fingertips

CLOUD - CELLULAR METERS "PHONE HOME" WHEN VOLTAGES GO OUT OF RANGE



Itron Form 2S or 12S
Residential Meter

Nighthawk's remote control disconnect meters provide a range of different ways to monitor and report end-of-line voltage, and can disconnect or reconnect residential loads remotely, where:

- 1.) Summer heat can cause end-of-line voltages to sag;
- 2.) Variable loads on a feeder can make end-of-line voltage difficult to predict;
- 3.) Restructuring of distribution lines can cause unexpected voltage drops; and,
- 4.) Peak load voltage "shaving" needs to be managed to ensure adequate voltages reach end-of-line locations.

Daily or Interval Time-Of-Use Voltage Reads:







Phone: (972) 717-5555



Nighthawk meters can be set to report voltage at the same time every day or pre-scheduled to have their voltage read and stored in Nighthawk's Cloud database on a regular repeatable basis. In addition, using the Time-Of-Use feature, meters can have their voltage measurements recorded every minute to every hour, stored on board the meter and collected periodically via a Cloud Cellular connection back to Nighthawk's Cloud database for utility downloading, analysis and reporting.

Instant Alerts When Voltage Goes Out-Of-Range:







Each meter can have individual high and low voltage thresholds set where that meter will "phone home" and notify Web-Connect (Nighthawk's Cloud database) when the meter voltage sags below or swells above pre-defined limits. Web-Connect can INSTANTLY e-mail or text message these voltage alerts to your cell-phone and Web-Connect can show you on a map the stated location of the meter experiencing the voltage problem.



Utility WebConnect



FEATURES

- Secure encrypted interface ensuring only utility personnel have access
- Easy to read customer information screen for all deployed Nighthawk devices
- Detailed information on account status as well as history
- Multiple Users controlled by customer's System Administrator
- Control both cellular and paging devices through a single interface
- System Setup allows for universal settings
- Outage Notification for 2-way field cellular devices with e-mail or cell-phone text message alerts on both Outage and Power Up events
- See and manage available inventory
- Units can be removed from field and re-issued

ABOUT THE COMPANY

For two decades, Nighthawk has been designing and manufacturing easy to use "Plug and Play" wireless telemetry to remotely control virtually any electrical device, from any remote location. Our products set the standard for excellence in the areas that matter most to our customers, including technology, ease of use and installation.



Secure, simple to use interface for Nighthawk cellular and pager based devices.

Utility WebConnect has been developed to provide an easy to use interface to allow utility users to manage their Nighthawk devices in the field. The Web-based interface requires minimal setup and no integration with existing Customer Information Systems. WebConnect is compliant with many billing systems via either its CSV (Comma Separated Values) report outputs or its MultiSpeak compliancy.

Whether controlling a single devices or thousands, nothing could be easier then our WebConnect software. Connect / Disconnect and many other features, depending on the device, are just a click away. Users can even control different device types from a single WebConnect account.

No matter how far away, or how difficult premise access is, total control is at your fingertips.

Current status, Recent Activity and even Detailed History are available for each customer. The WebConnect system offers full reporting capability as well including activity of individuals or all activities for a selected period of time.

Utilities can have unlimited users with various levels of authority, as established by the system adminstrator. This allows utilities to set limits by job function if desired. Reports can be limited as well, so that users can only see their own activity.

With strict security and advanced encryption, utilities can be assured that their data is only available to approved users and that their devices can only be accessed by authorized persons through WebConnect.

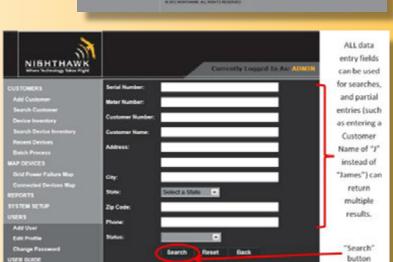
WebConnect FEATURES:

SECURE SIGN-ON

Each user is provided a unique sign-on offering enhanced security and full traceability of events. The system administrator can add or remove users, determine levels of authority and even unlock user accounts that have had more then three failed sign-on attempts.

ROBUST SEARCH CAPABILITY

The Search page allows the user to enter any of the relevant utility customer data such as Meter Number, Customer Name, or Customer Number. If you enter exact information, then it will return only that record. If you enter partial data matching more than one record, then multiple records will be returned.



EASY TO READ INTERFACE

The user interface is simple to read and offers detailed information regarding current status, most recent messages sent to the device and a full history of all messages sent. From the interface screen, all available commands can be entered by a simple click of the mouse. All encryption is done via the Nighthawk gateways. Users are not required to remember access numbers or activation codes.



E-MAIL AND CELL-PHONE ALERTS WITH MAPPING





