

# EN6080 Area Control Gateway Release Notes

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## Release Version 1.3.2

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### Release Compatibility

Action	From Version	To Version	Supported	Special Notes
Upgrade	1.0.x	1.3.x	Yes	Direct reversal of this action is not supported
Upgrade	1.1.x or 1.2x	1.3.x	Yes	None
Upgrade	1.3.0	1.3.1	Yes	Supports additional devices
Upgrade	1.3.1	1.3.2	Yes.	Supports additional devices.
Downgrade	1.3.2	1.3.1	Yes.	Browser user interface will not render correctly on downgrade from 1.3.2 to 1.3.1 when EN1222S-60 or EN3022 are registered to the EN6080; that device will respond to ReSTful queries with null Type XML attribute.
Downgrade	1.3.1	1.3.0	Yes	Browser user interface will not render correctly on downgrade from 1.3.1 to 1.3 when the EN1244, EN1245, EN1751 and/or EN1752 are registered to the EN6080; those devices will respond to ReSTful queries with null Type XML attribute.

Action	From Version	To Version	Supported	Special Notes
Downgrade	1.3.x	1.1.x or 1.2x	Yes	If more than five end devices have been registered without a license, only five end devices will be accessible
Downgrade	1.3.x	1.0.x	No	Not supported due to differences in license key format

## Features

### Support for Additional Devices

The EN6080 will now support the use of the following Inovonics products: EN1222S-60 and EN3022.

## Fixes

### Added EN1221S-60 Conditions

Added streaming and log events for EN1221S-60 condition notifications:

- Secondary battery low.
- Missing primary battery.
- Primary battery low shutdown.
- Alarm clear by magnet.
- Alarm clear by button press.

## Known Issues

### Internet Explorer can Cause Corrupted File

Product configuration backup operation may result in a corrupted file when using Internet Explorer browser. Inovonics recommends using Firefox browser for this operation.

### Factory Reset with Battery Removed

If factory reset is performed with the battery removed, the EN6080 may lose its serial number. Perform the factory reset procedure with the battery installed.

### “Only 5 Endpoints Available” Error

On a unit fresh from the factory, there is a very small chance that the message "No EN6080 license. Only 5 endpoints available." may appear when using the browser interface. This is due to browser caching and can be eliminated by refreshing the browser.

### Incorrect Endpoints Returned After Firmware Downgrade

The number of endpoints allowed does not update after performing a firmware downgrade from 1.3.0. to 1.2.80. After the firmware downgrade is performed, the EN6080 area control gateway requires a factory reset before it will return the correct number of endpoints allowed (5). Otherwise, the EN6080 will continue to return the defaulted 150 endpoints allowed by the 1.3.0 firmware.

### **Partition ID 500 May be Deleted**

Performing a reboot following a ReSTful POST or PUT to Partition ID 500 will result in its deletion. It is recommended to abstain from using Partition ID 500.

### **Avast and Other Antivirus Software May Interfere with Firefox**

Using the Avast antivirus software with Web Shield, which is activated by default, may interfere with Firefox's ability to communicate with the EN6080, causing, for example, a firmware upload to fail. Other antivirus suites could have a similar effect.

### **Factory Reset Issue if Battery not Installed or Time not Set**

Factory reset using a REST request will not occur if there is no battery installed or the time is not set.

### **Large Networks can Inhibit Updates**

Status and active/inactive updates for repeaters may not be reported in a very large, busy network.

### **WebSocket Closes when Replaying Second to Last Entry in the Event Log**

When replaying the event log starting at the second to last entry, WebSocket will close.

### **EN6080 Reset Connection If Error Processing Response**

If the EN6080 incurs an error while processing an HTTP request, the associated TCP-IP connection might be terminated. If the HTTP response has been partially communicated to the host system, the XML response document will appear to be truncated.

### **End Device Reset Can Interfere with Next Alarm**

If an end device is in an alarm state when the device is reset, the next alarm may be missed by the EN6080.

### **Downgrade to 1.0**

The EN6080 area control gateway version 1.2 cannot be downgraded to version 1.0 due to changes in the license key format introduced in version 1.1.9. Even though the firmware upload message indicates a successful update, the EN6080 area control gateway rejects it, causing it to appear as an upload failure.

### **Forgotten IP Address**

The EN6080 area control gateway sends out a gratuitous ARP when it powers on or resets. If the EN6080 area control gateway

administrator forgets the IP address of the unit, it may be recovered using a network protocol analyzer (e.g. Wireshark).

### **Data Encoding**

The EN6080 area control gateway's REST API only supports sending and receiving UTF-8 encoded data with a seven bit code point.

### **Character Selection**

The EN6080 does not reliably escape unsafe XML characters, which can cause issues with XML validation upon retrieval. Avoid using unsafe XML characters (such as "<", ">" and "&", as well as white space other than normal spaces) as data payloads.

### **Web Page Download Reliability**

The web page download may not be reliable over a connection that requires TCP retransmissions. However, this issue does not affect the communication between the EN6080 area control gateway and a host application.

### **Windows Delayed ACKs**

The Windows registry needs to be updated to remove a 200 ms per TCP packet delay when communicating with the EN6080 area control gateway. Instructions for adjusting the registry for Windows 7 are available in the *EN6080 Area Control Gateway User Manual*.

### **DHCP to DNS Integration**

Since the EN6080 area control gateway does not pass a host name in the DHCP request options, it may be difficult to locate in a DHCP administered system without instructing the DHCP server to associate the EN6080 area control gateway's MAC address with a known IP address. If this is not an option, static IP addressing is recommended.

### **Static IP Address Indicator**

The static address indicator LED on the EN6080 area control gateway does not remain lit when it is set to the default static IP address of 192.168.60.80.

### **EN6080 Fails to Communicate When the MTU is Less Than 1280 Bytes**

MTU of the network supporting EN6080 needs to be at least 1280 bytes or a connection will not occur.

### **Invalid IP Address Handling**

If an octet of a static IP address is above 255, the EN6080 area control gateway may abort parsing and attempt to use zero values for that and any remaining values further to the right. For example, specifying 192.168.300.30 causes the EN6080 area control gateway to attempt to use 192.168.0.0 which renders the unit unable to communicate. If this occurs, follow the factory reset procedure in the *EN6080 Area Control Gateway Installation Instructions*. The legal values of the octets are 1-255 for the first

(leftmost), 0-255 for the second, 0-255 for the third, and 1-254 for the fourth.

### DHCPDISCOVER Upon Reset

The EN6080 area control gateway performs a DHCPDISCOVER after power-on or reset before sending the DHCPREQUEST. A DHCP server that cannot correlate that the discover is coming from a machine that already has been leased an IP address on the network may attempt to ping the IP address and refuse to offer the requested address because the EN6080 area control gateway is responding to pings on that address. In this situation, it is recommended to either turn off pinging on the DHCP server or give the EN6080 area control gateway a static IP address.

## Release Version 1.3.1

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### Release Compatibility

Action	From Version	To Version	Supported	Special Notes
Upgrade	1.0.x	1.3.x	Yes	Direct reversal of this action is not supported
Upgrade	1.1.x or 1.2x	1.3.x	Yes	None
Upgrade	1.3.0	1.3.1	Yes	Supports additional devices
Downgrade	1.3.1	1.3.0	Yes	Browser user interface will not render correctly on downgrade from 1.3.1 to 1.3 when the EN1244, EN1245, EN1751 and/or EN1752 are registered to the EN6080; those devices will respond to ReSTful queries with null Type XML attribute.
Downgrade	1.3.x	1.1.x or 1.2x	Yes	If more than five end devices have been registered without a license, only five end devices will be accessible
Downgrade	1.3.x	1.0.x	No	Not supported due to differences in license key format

## Features

### Support for Additional Devices

The EN6080 will now support the use of the following newly-released Inovonics products: EN1244, EN1244-60, EN1245, EN1245-60, EN1751, EN1752.

## Known Issues

### Factory Reset with Battery Removed

If factory reset is performed with the battery removed, the EN6080 may lose its serial number. Perform the factory reset procedure with the battery installed.

### “Only 5 Endpoints Available” Error

On a unit fresh from the factory, there is a very small chance that the message "No EN6080 license. Only 5 endpoints available." may appear when using the browser interface. This is due to browser caching and can be eliminated by refreshing the browser.

### Incorrect Endpoints Returned After Firmware Downgrade

The number of endpoints allowed does not update after performing a firmware downgrade from 1.3.0. to 1.2.80. After the firmware downgrade is performed, the EN6080 area control gateway requires a factory reset before it will return the correct number of endpoints allowed (5). Otherwise, the EN6080 will continue to return the defaulted 150 endpoints allowed by the 1.3.0 firmware.

### Partition ID 500 May be Deleted

Performing a reboot following a ReSTful POST or PUT to Partition ID 500 will result in its deletion. It is recommended to abstain from using Partition ID 500.

### Avast and Other Antivirus Software May Interfere with Firefox

Using the Avast antivirus software with Web Shield, which is activated by default, may interfere with Firefox's ability to communicate with the EN6080, causing, for example, a firmware upload to fail. Other antivirus suites could have a similar effect.

### Factory Reset Issue if Battery not Installed or Time not Set

Factory reset using a REST request will not occur if there is no battery installed or the time is not set.

### Large Networks can Inhibit Updates

Status and active/inactive updates for repeaters may not be reported in a very large, busy network.

### WebSocket Closes when Replaying Second to Last Entry in the Event Log

When replaying the event log starting at the second to last entry, WebSocket will close.

### **EN6080 Reset Connection If Error Processing Response**

If the EN6080 incurs an error while processing an HTTP request, the associated TCP-IP connection might be terminated. If the HTTP response has been partially communicated to the host system, the XML response document will appear to be truncated.

### **End Device Reset Can Interfere with Next Alarm**

If an end device is in an alarm state when the device is reset, the next alarm may be missed by the EN6080.

### **Downgrade to 1.0**

The EN6080 area control gateway version 1.2 cannot be downgraded to version 1.0 due to changes in the license key format introduced in version 1.1.9. Even though the firmware upload message indicates a successful update, the EN6080 area control gateway rejects it, causing it to appear as an upload failure.

### **Forgotten IP Address**

The EN6080 area control gateway sends out a gratuitous ARP when it powers on or resets. If the EN6080 area control gateway administrator forgets the IP address of the unit, it may be recovered using a network protocol analyzer (e.g. Wireshark).

### **Data Encoding**

The EN6080 area control gateway's REST API only supports sending and receiving UTF-8 encoded data with a seven bit code point.

### **Character Selection**

The EN6080 does not reliably escape unsafe XML characters, which can cause issues with XML validation upon retrieval. Avoid using unsafe XML characters (such as "<", ">" and "&", as well as white space other than normal spaces) as data payloads.

### **Web Page Download Reliability**

The web page download may not be reliable over a connection that requires TCP retransmissions. However, this issue does not affect the communication between the EN6080 area control gateway and a host application.

### **Windows Delayed ACKs**

The Windows registry needs to be updated to remove a 200 ms per TCP packet delay when communicating with the EN6080 area control gateway. Instructions for adjusting the registry for Windows 7 are available in the *EN6080 Area Control Gateway User Manual*.

### **DHCP to DNS Integration**

Since the EN6080 area control gateway does not pass a host name in the DHCP request options, it may be difficult to locate in a DHCP administered system without instructing the DHCP server to associate the EN6080 area control gateway's MAC address with a

known IP address. If this is not an option, static IP addressing is recommended.

### Static IP Address Indicator

The static address indicator LED on the EN6080 area control gateway does not remain lit when it is set to the default static IP address of 192.168.60.80.

### EN6080 Fails to Communicate When the MTU is Less Than 1280 Bytes

MTU of the network supporting EN6080 needs to be at least 1280 bytes or a connection will not occur.

### Invalid IP Address Handling

If an octet of a static IP address is above 255, the EN6080 area control gateway may abort parsing and attempt to use zero values for that and any remaining values further to the right. For example, specifying 192.168.300.30 causes the EN6080 area control gateway to attempt to use 192.168.0.0 which renders the unit unable to communicate. If this occurs, follow the factory reset procedure in the *EN6080 Area Control Gateway Installation Instructions*. The legal values of the octets are 1-255 for the first (leftmost), 0-255 for the second, 0-255 for the third, and 1-254 for the fourth.

### DHCPDISCOVER Upon Reset

The EN6080 area control gateway performs a DHCPDISCOVER after power-on or reset before sending the DHCPREQUEST. A DHCP server that cannot correlate that the discover is coming from a machine that already has been leased an IP address on the network may attempt to ping the IP address and refuse to offer the requested address because the EN6080 area control gateway is responding to pings on that address. In this situation, it is recommended to either turn off pinging on the DHCP server or give the EN6080 area control gateway a static IP address.

## Release Version 1.3

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### Release Compatibility

Action	From Version	To Version	Supported	Special Notes
Upgrade	1.0.x	1.3.x	Yes	Direct reversal of this action is not supported
Upgrade	1.1.x or 1.2x	1.3.x	Yes	None



Action	From Version	To Version	Supported	Special Notes
Downgrade	1.3.x	1.1.x or 1.2x	Yes	If more than five end devices have been registered without a license, only five end devices will be accessible
Downgrade	1.3.x	1.0.x	No	Not supported due to differences in license key format

## Features

### EN1941XS Support

The EN6080 will now support the use of the EN1941XS one-way serial data RF module.

### Enforcement of the Maximum Simultaneous Connections

The EN6080 will enforce the maximum number of simultaneous connections. A 503 service unavailable error will be sent on an attempt to make an eighth simultaneous connection.

### Factory Reset Available

The EN6080 now provides a method for customers to reset to factory default settings. This can be used to repurpose the device, or if the password or IP configuration has been forgotten or misconfigured. This feature is only available on EN6080s manufactured after March 31, 2013. Please refer to the updated *EN6080 Area Control Gateway Installation Instructions* for more information.

### Number of Unlicensed End Devices Increased

An unlicensed EN6080 will now support up to 150 end devices.

### Firmware Version Reporting Improved

The EN6080 now reports the firmware version using four fields instead of three.

## Fixes

### EN1221S CurrState Field

The CurrState field for the EN1221S-60 now accurately reflects the method used to clear the alarm.

### Restoring Configuration No Longer Resets IP Configuration or Passwords

Restoring the configuration from a backup will not reset the IP configuration or passwords. This prevents possible issues introduced by restoring forgotten IP configuration or passwords.

### **WebSocket Close Handshake Executed Correctly**

The EN6080 now executes a WebSocket close handshake correctly by sending the close frame.

### **ID Values No Longer Skipped During Registration**

The EN6080 no longer skips ID values when a duplicate registration is rejected, followed by a valid registration.

### **Devices Allowed to be Deleted and Re-Added**

The EN6080 now allows devices to be deleted and then re-added once the maximum capacity has been reached.

### **File System Handling of Deletions and Re-Adds Improved**

The file system now handles multiple deletions and re-adds without continually increasing file size.

### **PUTs to Change Device Information now Accepted**

A PUT to change device IDs or PTI now works instead of being ignored.

### **Out-Of-Memory Error no Longer Provided if an Empty Log is Requested Repeatedly**

The EN6080 no longer has an out-of-memory error if an empty log is requested more than 199 times.

### **Empty Log Streams Correctly Closed**

The EN6080 now closes an empty log stream correctly.

## **Known Issues**

### **“Only 5 Endpoints Available” Error**

On a unit fresh from the factory, there is a very small chance that the message "No EN6080 license. Only 5 endpoints available." may appear when using the browser interface. This is due to browser caching and can be eliminated by refreshing the browser.

### **Incorrect Endpoints Returned After Firmware Downgrade**

The number of endpoints allowed does not update after performing a firmware downgrade from 1.3.0. to 1.2.80. After the firmware downgrade is performed, the EN6080 area control gateway requires a factory reset before it will return the correct number of endpoints allowed (5). Otherwise, the EN6080 will continue to return the defaulted 150 endpoints allowed by the 1.3.0 firmware.

### **Partition ID 500 May be Deleted**

Performing a reboot following a ReSTful POST or PUT to Partition ID 500 will result in its deletion. It is recommended to abstain from using Partition ID 500.

## **Avast and Other Antivirus Software May Interfere with Firefox**

Using the Avast antivirus software with Web Shield, which is activated by default, may interfere with Firefox's ability to communicate with the EN6080, causing, for example, a firmware upload to fail. Other antivirus suites could have a similar effect.

## **Factory Reset Issue if Battery not Installed or Time not Set**

Factory reset using a REST request will not occur if there is no battery installed or the time is not set.

## **Large Networks can Inhibit Updates**

Status and active/inactive updates for repeaters may not be reported in a very large, busy network.

## **WebSocket Closes when Replaying Second to Last Entry in the Event Log**

When replaying the event log starting at the second to last entry, WebSocket will close.

## **EN6080 Reset Connection If Error Processing Response**

If the EN6080 incurs an error while processing an HTTP request, the associated TCP-IP connection might be terminated. If the HTTP response has been partially communicated to the host system, the XML response document will appear to be truncated.

## **End Device Reset Can Interfere with Next Alarm**

If an end device is in an alarm state when the device is reset, the next alarm may be missed by the EN6080.

## **Downgrade to 1.0**

The EN6080 area control gateway version 1.2 cannot be downgraded to version 1.0 due to changes in the license key format introduced in version 1.1.9. Even though the firmware upload message indicates a successful update, the EN6080 area control gateway rejects it, causing it to appear as an upload failure.

## **Forgotten IP Address**

The EN6080 area control gateway sends out a gratuitous ARP when it powers on or resets. If the EN6080 area control gateway administrator forgets the IP address of the unit, it may be recovered using a network protocol analyzer (e.g. Wireshark).

## **Data Encoding**

The EN6080 area control gateway's REST API only supports sending and receiving UTF-8 encoded data with a seven bit code point.

## **Character Selection**

The EN6080 does not reliably escape unsafe XML characters, which can cause issues with XML validation upon retrieval. Avoid

using unsafe XML characters (such as "<", ">" and "&", as well as white space other than normal spaces) as data payloads.

### **Web Page Download Reliability**

The web page download may not be reliable over a connection that requires TCP retransmissions. However, this issue does not affect the communication between the EN6080 area control gateway and a host application.

### **Windows Delayed ACKs**

The Windows registry needs to be updated to remove a 200 ms per TCP packet delay when communicating with the EN6080 area control gateway. Instructions for adjusting the registry for Windows 7 are available in the *EN6080 Area Control Gateway User Manual*.

### **DHCP to DNS Integration**

Since the EN6080 area control gateway does not pass a host name in the DHCP request options, it may be difficult to locate in a DHCP administered system without instructing the DHCP server to associate the EN6080 area control gateway's MAC address with a known IP address. If this is not an option, static IP addressing is recommended.

### **Static IP Address Indicator**

The static address indicator LED on the EN6080 area control gateway does not remain lit when it is set to the default static IP address of 192.168.60.80.

### **EN6080 Fails to Communicate When the MTU is Less Than 1280 Bytes**

MTU of the network supporting EN6080 needs to be at least 1280 bytes or a connection will not occur.

### **Invalid IP Address Handling**

If an octet of a static IP address is above 255, the EN6080 area control gateway may abort parsing and attempt to use zero values for that and any remaining values further to the right. For example, specifying 192.168.300.30 causes the EN6080 area control gateway to attempt to use 192.168.0.0 which renders the unit unable to communicate. If this occurs, follow the factory reset procedure in the *EN6080 Area Control Gateway Installation Instructions*. The legal values of the octets are 1-255 for the first (leftmost), 0-255 for the second, 0-255 for the third, and 1-254 for the fourth.

### **DHCPDISCOVER Upon Reset**

The EN6080 area control gateway performs a DHCPDISCOVER after power-on or reset before sending the DHCPREQUEST. A DHCP server that cannot correlate that the discover is coming from a machine that already has been leased an IP address on the network may attempt to ping the IP address and refuse to offer the requested address because the EN6080 area control gateway is responding to pings on that address. In this situation, it is recommended to either turn off pinging on the DHCP server or give the EN6080 area control gateway a static IP address.

# Release Version 1.2.80

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## Release Compatibility

Action	From Version	To Version	Supported	Special Notes
Upgrade	1.0.x	1.2.x	Yes	Direct reversal of this action is not supported
Upgrade	1.1.x	1.2.x	Yes	None
Downgrade	1.2.x	1.1.x	Yes	None
Downgrade	1.2.x	1.0.x	No	Not supported due to differences in license key format

## Features

### Product Type Identifier (PTI) Table Updated

The PTI value table has been updated to include all supported devices.

## Fixes

### EN6080 Reset Requesting Filtered Event Stream

The EN6080 could reset if a filtered event stream was requested without specifying time or count. This has been addressed and fixed in this release.

### Malformed SYN-ACK Causes TCP-IP Connection Reset

When the host system would try to reconnect following a TCP-IP disconnect, the EN6080 would respond to the TCP-IP connection request (i.e., SYN) with a malformed acknowledgment (i.e., SYN-ACK). This has been fixed by this release and is no longer an issue.

### EN6080 Disconnects When Most Recent Log Entry Specified

If a host system tries to reconnect to the log event stream using a timestamp of the last event and no subsequent events have occurred, the EN6080 would disconnect the event stream instead of streaming new events. This issue has been fixed by this release.

## Known Issues

### Partition ID 500 May be Deleted

Performing a reboot following a ReSTful POST or PUT to Partition ID 500 will result in its deletion. It is recommended to abstain from using Partition ID 500.

### **Device Resets do not Appear in the Event Log**

Though device resets appear in live streaming, they will not appear in the event log when viewed using the browser interface, or when the event log stream is replayed.

### **WebSocket Closes when Replaying Second to Last Entry in the Event Log**

When replaying the event log starting at the second to last entry, WebSocket will close.

### **EN6080 Reset Connection If Error Processing Response**

If the EN6080 incurs an error while processing an HTTP request, the associated TCP-IP connection might be terminated. If the HTTP response has been partially communicated to the host system, the XML response document will appear to be truncated.

### **End Device Reset Can Interfere with Next Alarm**

If an end device is in an alarm state when the device is reset, the next alarm may be missed by the EN6080.

### **Downgrade to 1.0**

The EN6080 area control gateway version 1.2 cannot be downgraded to version 1.0 due to changes in the license key format introduced in version 1.1.9. Even though the firmware upload message indicates a successful update, the EN6080 area control gateway rejects it, causing it to appear as an upload failure.

### **Forgotten IP Address**

The EN6080 area control gateway sends out a gratuitous ARP when it powers on or resets. If the EN6080 area control gateway administrator forgets the IP address of the unit, it may be recovered using a network protocol analyzer (e.g. Wireshark).

### **Data Encoding**

The EN6080 area control gateway's REST API only supports sending and receiving UTF-8 encoded data with a seven bit code point.

### **Character Selection**

The EN6080 does not reliably escape unsafe XML characters, which can cause issues with XML validation upon retrieval. Avoid using unsafe XML characters (such as "<", ">" and "&", as well as white space other than normal spaces) as data payloads.

### **Web Page Download Reliability**

The web page download may not be reliable over a connection that requires TCP retransmissions. However, this issue does not affect the communication between the EN6080 area control gateway and a host application.

## **Windows Delayed ACKs**

The Windows registry needs to be updated to remove a 200 ms per TCP packet delay when communicating with the EN6080 area control gateway. Instructions for adjusting the registry for Windows 7 are available in the *EN6080 Area Control Gateway User Manual*.

## **Registered Device File Consumption**

If the entire set of 3000 devices and 500 repeaters is registered and unregistered more than 18 times, the file size can cause errors. This should only be an issue if the EN6080 area control gateway is subjected to automated testing.

## **DHCP to DNS Integration**

Since the EN6080 area control gateway does not pass a host name in the DHCP request options, it may be difficult to locate in a DHCP administered system without instructing the DHCP server to associate the EN6080 area control gateway's MAC address with a known IP address. If this is not an option, static IP addressing is recommended.

## **Static IP Address Indicator**

The static address indicator LED on the EN6080 area control gateway does not remain lit when it is set to the default static IP address of 192.168.60.80.

## **EN6080 Fails to Communicate When the MTU is Less Than 1280 Bytes**

MTU of the network supporting EN6080 needs to be at least 1280 bytes or a connection will not occur.

## **Invalid IP Address Handling**

If an octet of a static IP address is above 255, the EN6080 area control gateway may abort parsing and attempt to use zero values for that and any remaining values further to the right. For example, specifying 192.168.300.30 causes the EN6080 area control gateway to attempt to use 192.168.0.0 which renders the unit unable to communicate. It will need to be returned to Inovonics for recovery. The legal values of the octets are 1-255 for the first (leftmost), 0-255 for the second, 0-255 for the third, and 1-254 for the fourth.

## **DHCPDISCOVER Upon Reset**

The EN6080 area control gateway performs a DHCPDISCOVER after power-on or reset before sending the DHCPREQUEST. A DHCP server that cannot correlate that the discover is coming from a machine that already has been leased an IP address on the network may attempt to ping the IP address and refuse to offer the requested address because the EN6080 area control gateway is responding to pings on that address. In this situation, it is recommended to either turn off ping on the DHCP server or give the EN6080 area control gateway a static IP address.

# Release Version 1.2.46

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## Release Compatibility

Action	From Version	To Version	Supported	Special Notes
Upgrade	1.0.x	1.2.x	Yes	Direct reversal of this action is not supported
Upgrade	1.1.x	1.2.x	Yes	None
Downgrade	1.2.x	1.1.x	Yes	None
Downgrade	1.2.x	1.0.x	No	Not supported due to differences in license key format

## Features

### IE Support

The EN6080 area control gateway now supports Internet Explorer (IE) 11. It makes use of HTML5 (WebSocket), which is only supported by IE10 and higher. All OS versions running IE10 have been provided IE11 as an update.

### Reconnect Without Missing Events

If an event stream connection to the EN6080 area control gateway is lost, it can be re-established specifying the time stamp of the last event received. The EN6080 area control gateway will then replay all of the events (up to 3000) from that time stamp, and then transition into a traditional live event stream.

### Configuration Events

All actions that affect the configuration of the EN6080 area control gateway now generate events in the event stream. Monitoring the EN6080 area control gateway for configuration changes no longer requires polling.

### Array Slicing

The EN6080 area control gateway can now provide the size of all arrays (zone list, partition list, etc.) and let a host fetch portions of the array in slices.

### Device Current State Reporting in Queries

When the host queries the EN6080 area control gateway for device information, the response now includes the state of the device when it sent its last transmission. This includes the entire set of active alarms and condition indicators (such as low battery and tamper). The format of the current state (CurrState) field is a 32 bit binary value encoded into hexadecimal. For CurrState values, see the *EN6080 Area Control Gateway Integration Guide*.



## **Device Current State Reporting in Events**

When the EN6080 area control gateway generates an event report for a monitoring host, it includes the complete state (CurrState) of the device that is the source of the event.

## **Enhancements**

### **UL 2560 Support**

EN6080 area control gateway version 1.2 firmware and hardware are tested for compliance to ANSI/UL 2560.

Compliance with this standard also requires the use of transmitters with a check-in interval of 60 minutes or greater. Version 1.2 firmware recognizes Inovonics devices with PTI (product type identifier) values associated with these check-in intervals.

### **Web GUI Progress Indicators During Array Loading**

The EN6080 area control gateway's web GUI now uses the array slicing feature to provide progress indicators for all operations that access arrays.

## **Fixes**

### **Web GUI Retries**

The web GUI now retries three times before giving up on being able to contact the EN6080 area control gateway. An example is the initial request for the licensing status.

### **Empty Contact Information**

The web GUI now displays an empty text box instead of "n/a" when the contact information is blank.

## **Known Issues**

### **Downgrade to 1.0**

The EN6080 area control gateway version 1.2 cannot be downgraded to version 1.0 due to changes in the license key format introduced in version 1.1.9. Even though the firmware upload message indicates a successful update, the EN6080 area control gateway rejects it, causing it to appear as an upload failure.

### **Forgotten IP Address**

The EN6080 area control gateway sends out a gratuitous ARP when it powers on or resets. If the EN6080 area control gateway administrator forgets the IP address of the unit, it may be recovered using a network protocol analyzer (e.g. Wireshark).

### **Data Encoding**

The EN6080 area control gateway's REST API only supports sending and receiving UTF-8 encoded data with a seven bit code point.

## **Character Selection**

The EN6080 does not reliably escape unsafe XML characters, which can cause issues with XML validation upon retrieval. Avoid using unsafe XML characters (such as "<", ">" and "&", as well as white space other than normal spaces) as data payloads.

## **Web Page Download Reliability**

The web page download may not be reliable over a connection that requires TCP retransmissions. However, this issue does not affect the communication between the EN6080 area control gateway and a host application.

## **Windows Delayed ACKs**

The Windows registry needs to be updated to remove a 200 ms per TCP packet delay when communicating with the EN6080 area control gateway. Instructions for adjusting the registry for Windows 7 are available in the *EN6080 Area Control Gateway User Manual*.

## **Registered Device File Consumption**

If the entire set of 3000 devices and 500 repeaters is registered and unregistered more than 18 times, the file size can cause errors. This should only be an issue if the EN6080 area control gateway is subjected to automated testing.

## **DHCP to DNS Integration**

Since the EN6080 area control gateway does not pass a host name in the DHCP request options, it may be difficult to locate in a DHCP administered system without instructing the DHCP server to associate the EN6080 area control gateway's MAC address with a known IP address. If this is not an option, static IP addressing is recommended.

## **Static IP Address Indicator**

The static address indicator LED on the EN6080 area control gateway does not remain lit when it is set to the default static IP address of 192.168.60.80.

## **EN6080 Fails to Communicate When the MTU is Less Than 1280 Bytes**

MTU of the network supporting EN6080 needs to be at least 1280 bytes or a connection will not occur.

## **Invalid IP Address Handling**

If an octet of a static IP address is above 255, the EN6080 area control gateway may abort parsing and attempt to use zero values for that and any remaining values further to the right. For example, specifying 192.168.300.30 causes the EN6080 area control gateway to attempt to use 192.168.0.0 which renders the unit unable to communicate. It will need to be returned to Inovonics for recovery. The legal values of the octets are 1-255 for the first (leftmost), 0-255 for the second, 0-255 for the third, and 1-254 for the fourth.

## DHCPDISCOVER Upon Reset

The EN6080 area control gateway performs a DHCPDISCOVER after power-on or reset before sending the DHCPREQUEST. A DHCP server that cannot correlate that the discover is coming from a machine that already has been leased an IP address on the network may attempt to ping the IP address and refuse to offer the requested address because the EN6080 area control gateway is responding to pings on that address. In this situation, it is recommended to either turn off pinging on the DHCP server or give the EN6080 area control gateway a static IP address.

## Release Version 1.1.9

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### Release Compatibility

Action	From Version	To Version	Supported	Special Notes
Upgrade	1.0.x	1.1.x	Yes	Upgrade requires new license key (see known issues list)
Downgrade	1.1.x	1.0.x	No	Not supported due to differences in license key format

### Features

None.

### Enhancements

#### New License Key Format

New license key format is encrypted and provides improved linkage to EN6080 device's unique serial number.

#### Added Custom URI for Retrieval of Supported Device List

Add GET URI to return an XML list of products supported by the ACG. Each product should include name, product type identifier (PTI) and market identifier (MID). Useful for applications that need to build product lists on ad hoc basis.

#### Updated End Device Definitions

Definitions now include classification necessary to distinguish between different types of end devices for help in identification and reporting.

## Fixes

None.

## Known Issues

### 1.1.9 Upgrade Process Requires New License Key

If you have installed or tested an EN6080 with a previous firmware version, the web browser will only display 5 registered endpoint devices after upgrading to 1.1.9 until you've installed a new license provided to you by Inovonics. Information about all of your previously registered devices has been preserved in the EN6080 device memory and will reappear when the new license key is entered.

### Downgrade to 1.0

The EN6080 area control gateway version 1.1.9 cannot be downgraded to version 1.0 due to changes in the license key format introduced in this version. Even though the firmware upload message indicates a successful update, the EN6080 area control gateway rejects it, causing it to appear as an upload failure.

### Forgotten IP Address

The EN6080 area control gateway sends out a gratuitous ARP when it powers on or resets. If the EN6080 area control gateway administrator forgets the IP address of the unit, it may be recovered using a network protocol analyzer (e.g. Wireshark).

### Data Encoding

The EN6080 area control gateway's REST API only supports sending and receiving UTF-8 encoded data with a seven bit code point.

### Character Selection

The EN6080 does not reliably escape unsafe XML characters, which can cause issues with XML validation upon retrieval. Avoid using unsafe XML characters (such as "<", ">" and "&", as well as white space other than normal spaces) as data payloads.

### Web Page Download Reliability

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### Windows Delayed ACKs

The Windows registry needs to be updated to remove a 200 ms per TCP packet delay when communicating with the EN6080 area control gateway. Instructions for adjusting the registry for Windows 7 are available in the *EN6080 Area Control Gateway User Manual*.

## Registered Device File Consumption

If the entire set of 3000 devices and 500 repeaters is registered and unregistered more than 18 times, the file size can cause errors. This should only be an issue if the EN6080 area control gateway is subjected to automated testing.

## DHCP to DNS Integration

Since the EN6080 area control gateway does not pass a host name in the DHCP request options, it may be difficult to locate in a DHCP administered system without instructing the DHCP server to associate the EN6080 area control gateway's MAC address with a known IP address. If this is not an option, static IP addressing is recommended.

## Static IP Address Indicator

The static address indicator LED on the EN6080 area control gateway does not remain lit when it is set to the default static IP address of 192.168.60.80.

## EN6080 Fails to Communicate When the MTU is Less Than 1280 Bytes

MTU of the network supporting EN6080 needs to be at least 1280 bytes or a connection will not occur.

# Release Version 1.0.5

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## Release Compatibility

Action	From Version	To Version	Supported	Special Notes
Upgrade	1.0.2	1.0.5	Yes	
Downgrade	1.0.5	1.0.2	Yes	

## Features

None.

## Enhancements

None.

## Fixes

Resolved two issues identified in V1.02:

- Endpoint devices may remain in an inactive status when clock time settings are adjusted
- The EN6080 may inadvertently reset if an IP network disconnect occurs

## **Known Issues**

### **Forgotten IP Address**

The EN6080 area control gateway sends out a gratuitous ARP when it powers on or resets. If the EN6080 area control gateway administrator forgets the IP address of the unit, it may be recovered using a network protocol analyzer (e.g. Wireshark).

### **Data Encoding**

The EN6080 area control gateway's REST API only supports sending and receiving UTF-8 encoded data with a seven bit code point.

### **Character Selection**

Avoid using XML unfriendly characters such as "<", ">" and "&", as well as white space other than normal spaces as data payloads.

### **Web Page Download Reliability**

The web page download may not be reliable over a connection that requires TCP retransmissions. However, this issue does not affect the communication between the EN6080 area control gateway and a host application.

### **Windows Delayed ACKs**

The Windows registry needs to be updated to remove a 200 ms per TCP packet delay when communicating with the EN6080 area control gateway. Instructions for adjusting the registry for Windows 7 are available in the *EN6080 Area Control Gateway User Manual*.

### **Registered Device File Consumption**

If the entire set of 3000 devices and 500 repeaters is registered and unregistered more than 18 times, the file size can cause errors. This should only be an issue if the EN6080 area control gateway is subjected to automated testing.

### **DHCP to DNS Integration**

Since the EN6080 area control gateway does not pass a host name in the DHCP request options, it may be difficult to locate in a DHCP administered system without instructing the DHCP server to associate the EN6080 area control gateway's MAC address with a known IP address. If this is not an option, static IP addressing is recommended.

### **Static IP Address Indicator**

The static address indicator LED on the EN6080 area control gateway does not remain lit when it is set to the default static IP address of 192.168.60.80.

# Release Version 1.0.2

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## Features

Original Release. Please refer to Integration Guide (v1.5) provided at time of launch for features information.

## Enhancements

None.

## Fixes

None.

## Known Issues

### Forgotten IP Address

The EN6080 area control gateway sends out a gratuitous ARP when it powers on or resets. If the EN6080 area control gateway administrator forgets the IP address of the unit, it may be recovered using a network protocol analyzer (e.g. Wireshark).

### Data Encoding

The EN6080 area control gateway's REST API only supports sending and receiving UTF-8 encoded data with a seven bit code point.

### Character Selection

Avoid using XML unfriendly characters such as "<", ">" and "&", as well as white space other than normal spaces as data payloads.

### Web Page Download Reliability

The web page download may not be reliable over a connection that requires TCP retransmissions. However, this issue does not affect the communication between the EN6080 area control gateway and a host application.

### Windows Delayed ACKs

The Windows registry needs to be updated to remove a 200 ms per TCP packet delay when communicating with the EN6080 area control gateway. Instructions for adjusting the registry for Windows 7 are available in the *EN6080 Area Control Gateway User Manual*.

### Registered Device File Consumption

If the entire set of 3000 devices and 500 repeaters is registered and unregistered more than 18 times, the file size can cause errors. This should only be an issue if the EN6080 area control gateway is subjected to automated testing.

### **DHCP to DNS Integration**

Since the EN6080 area control gateway does not pass a host name in the DHCP request options, it may be difficult to locate in a DHCP administered system without instructing the DHCP server to associate the EN6080 area control gateway's MAC address with a known IP address. If this is not an option, static IP addressing is recommended.

### **Static IP Address Indicator**

The static address indicator LED on the EN6080 area control gateway does not remain lit when it is set to the default static IP address of 192.168.60.80.