iOP Pilot Software Release Notes: Release AO12003

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Contents

1 Iridium Broadband Subscriber Unit (IBSU) Software Release: AO12003

1.1 Release Description and Purpose

This note covers the IBSU (9801) Software Release AO12003. This is a combined ADE and BDE release incorporating ADE release AO12003 and BDE release AI12003.

The latest upgrade tool has been used, which only reports a single version number of AO12003 for the combined release.

1.2 Version information

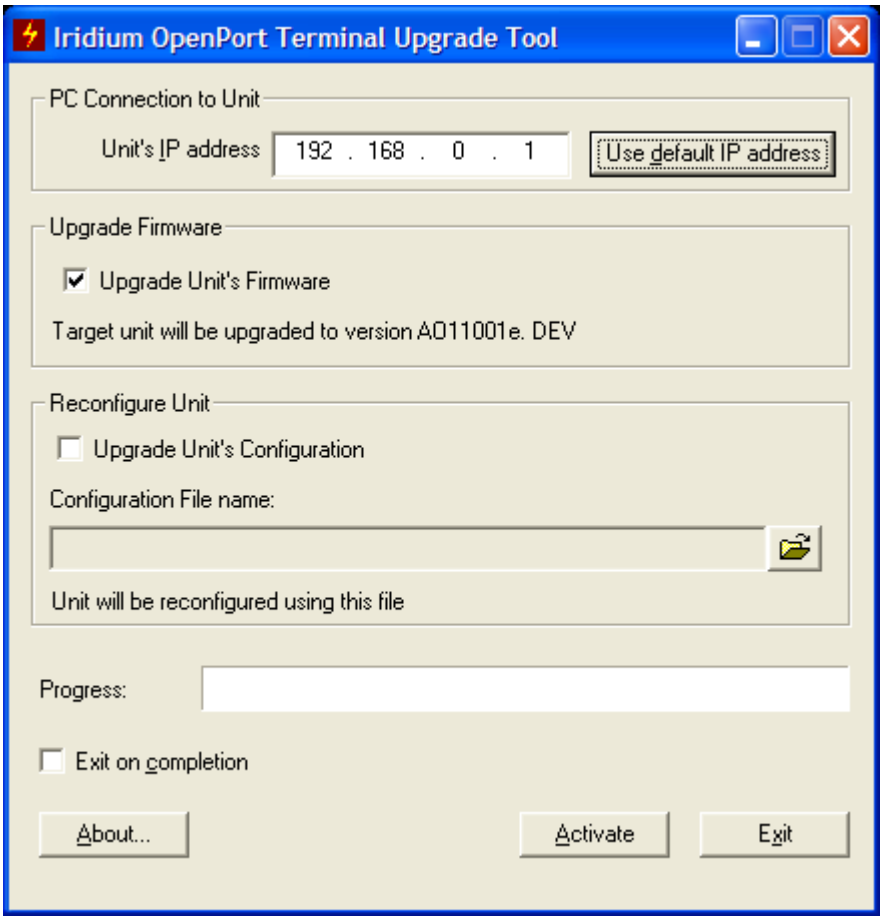
The release version information is:

ADE Software	AO12003, built: May 31 2012 17:36:37 (BST)
BDE Software	AI12003

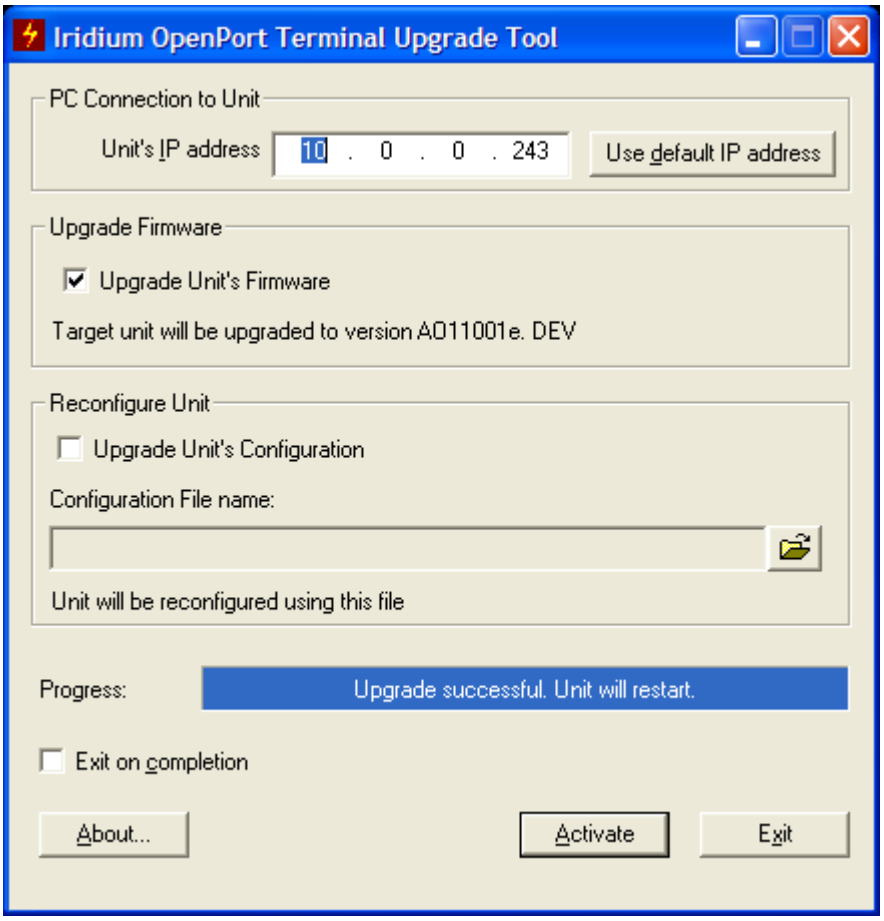
2 Software Upgrade Tool

The Windows Executable Upgrade Tool contains images for the latest enhancements to the IBSU Above Deck Equipment (ADE) and Below Deck Equipment (BDE).

To begin the upgrade double click on the executable and enter the IP address of the unit to upgrade in the box labelled “Unit’s IP address” as shown below, or if (as is common) the IP address is the default 192.168.0.1, click the “Use default IP address” button to fill this in.



Ensure that the checkbox labelled “Upgrade Unit’s Firmware” is checked and click on the button labelled “Activate” to start the upgrade process. The progress bar should then move from 0 to 100 as the upgrade takes place.



Once the process has completed successfully, the text in the progress bar will say “Upgrade successful. Unit will restart”. If the “Exit on completion” box has been checked, the upgrade tool will immediately exit, so this text will not be seen.

At this point the unit will restart.

3 Test Summary

Automated regression testing was performed to verify functional features.

Data performance testing was performed using the Auto-dialer to perform small, medium and large file transfers.

Voice performance testing was performed using the Auto-dialer to perform short, medium and long duration calls voice calls, MOS audio analysis, setup success rates, drop rates and air resource allocation rates.

Manual functional testing was performed to ensure compliance with requirements for new features and existing functionality.

3.1 Known Issues

This section describes issues identified during testing. Iridium R&D Engineering is engaged in continuing diagnosis and development of corrective measures to be included in future releases.

3.1.1 Performance

Performance test results were seen as compliant with product requirements. Functional test results were seen as compliant with product requirements.

4 Changes

4.1 Changes in release AO12003

Firmware version AO10003 is the previous release for the 9801 IBSU; this release contains the functionality included with the AO10003 firmware as well as the enhancements and bug fixes listed in the following sections.

4.1.1 Enhancements

4.1.1.1 PEP and Data Compression

Improved efficiency is provided through the Performance Enhancement Proxy (PEP) feature and data compression. PEP provides improved throughput for data connections that suffer data degradations. Transport efficiency is provided through reducing communication overhead by eliminating redundant information in IP headers.

Additional compression can be achieved by reducing redundant information in the payload data, using ZLIB compression.

4.1.1.2 Bulk Configuration

Bulk configuration provides the ability to fully configure the 9801 by uploading a configuration file to a unit.

4.1.1.3 IP Address White Listing (Firewall)

IP address white listing allows an administrator to restrict the IP addresses for outbound data traffic that computers/devices can use a 9801 to access.

This feature can be enabled or disabled from the device configuration web page under the Administrator login by selecting or deselecting the checkbox labelled “Enabled” under the heading “White List Configuration”.

4.1.1.4 Firmware Version Notification

This feature provides a way of notifying the 9801 user that a new version of firmware is available and provides a link to the support web page.

This feature can be enabled or disabled from the 9801 configuration web page under the Administrator login by selecting or deselecting the checkbox labelled “Enabled” under the heading “Firmware Version Notification Configuration”.

4.1.1.5 Antenna usage statistics

Antenna usage statistics have been added to the diagnostic web page. The values shown are the total number of times each antenna has been selected while in a data call, voice call or location update.

4.1.1.6 GRE and IPSEC Forwarding

GRE and IPSEC protocol tunnelling through a 9801 is available with this release.

These new features allow IP data of the GRE and IPSEC protocols to be forwarded to a specified IP address on the ship side network. Configuration of GRE or IPSEC tunnelling is performed on the 9801 configuration web page under admin or gateway login.

To enable tunnelling select the “Enable GRE tunnelling” or “Enable IPsec tunnelling” checkbox under the “LAN IP Configuration” heading, enter the IP address for the GRE or IPSEC packets to be forwarded to and click the “Update IP Configuration” button. On the confirmation page click “Yes”, the ISU will then reboot and the new IP settings will be applied.

4.1.2 Bug Fixes

4.1.1 ADE Changes

#2817 - Openport denial handling problems

#2956 - Status Page needs to be manually refreshed to see changes

#3030 - Port forwarding shouldn't allow one too many relationship

#3413 - DNS forwarding improperly tied to DHCP server option

#3539 - Add the provisioned bandwidth to the main status web page

#3577 - Change to the "Status" indicator state table

#3654 - Openport ISU Change Password Shows Current Password List

#3826 - "SIM card installed" field on the text status web page meaning inverted.

#3456 - Show voice line state on the status web page

4.1.2 BDE Changes

#3387 - Ring Tone affected on ISU by setting Voicemail Flag