

Ingate SIParator 19 Technical Configuration Notes

How to configure the Ingate SIParator 19 for use with Integra Telecom SIP Solutions

Generic ITSP Method

Overview: This document provides a reference for configuration of the Ingate SIParator to connect to Integra Telecom SIP Trunks. This document covers a basic setup with required steps for interoperability with Integra Telecom only. Specific configuration for interoperability with the customer IP-PBX is not covered in this document. Note that at the time of publication of this document, Integra is not listed as a “pre-configured” option in the Ingate Startup Tool. ITSP configuration is performed manually by selecting Generic ITSP.

Hardware and Software: The following hardware and software were employed to test interoperability between an IP-PBX, the Ingate SIParator and Integra.

Manufacturer	Model	Software Version
Ingate	SIParator 19	4.8.4
MetaSwitch	MetaSphere	7.2

Tested Features: The following is a list of features that were tested.

Feature	Description	Issue (if any)
Basic Call	Making and receiving a call between the IP-PBX and Integra Telecom service provider.	None
Call Hold	Placing a call in On Hold state and retrieval of call from same station.	None
Call Transfer	Relocation of an active call from one station to another. Both internal and external transfers were tested.	None
Conference Call	Call in which at least three parties are connected. Test scenarios included internal and external participants.	None
DTMF	Dual-tone multi-frequency signaling transmission and receiving.	None

Network Topology: Figure 1 shows how the network was configured for interoperability testing.

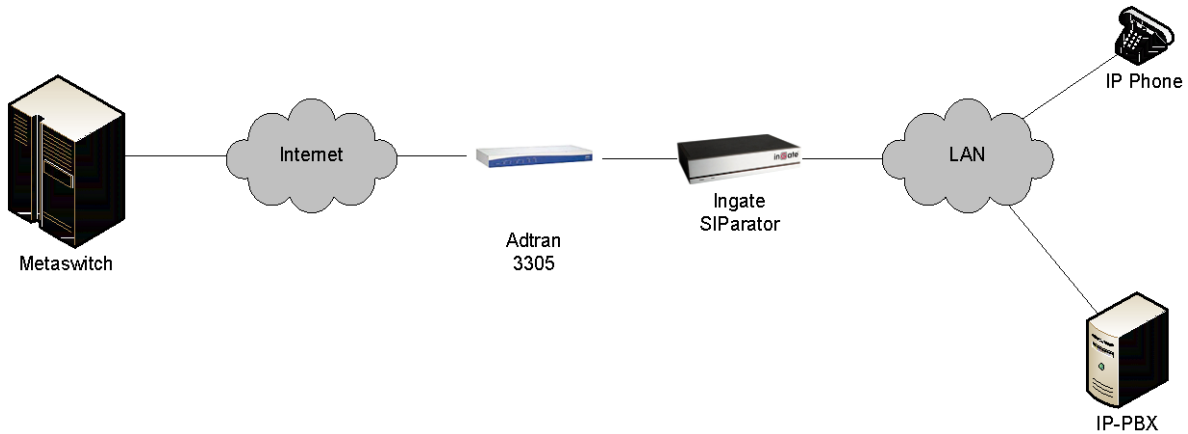


Figure 1: Interoperability network diagram

Hardware Installation: This section explains the hardware installation process for the Ingate SIParator 19.

1. See figure 2 below for the locations of necessary connections.
2. Connect Power to the Unit.
3. Connect an Ethernet cable to the “Eth0” interface. This cable should connect to the customer’s LAN network. This network should also have a connection to the customer’s IP PBX. (shown in red in Figure 2)
4. Connect an Ethernet cable to the “Eth1” interface. This cable should connect the Integra Telecom provided Adtran 3305 CPE router’s Ethernet 0/2 interface.

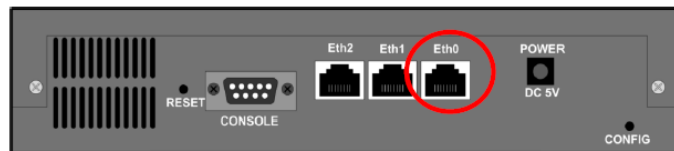


Figure 2: Back of Ingate SIParator 19 and connections.

Configuration Notes: This section contains a detailed description of how the Ingate SIParator was configured for interoperability testing with the Integra Telecom services.

Network Requirements: As in any VoIP deployment there must be adequate bandwidth to support voice traffic. A proper network assessment should be performed before any VoIP deployment.

Assumptions:

- All SIP Signaling uses UDP on port 5060.
- SIP Signaling packets are marked with Differentiated Services Code Point (DSCP) 24.
- Real-Time Transport Protocol (RTP) packets are marked with Differentiated Services Code Point (DSCP) 46.

Licensing Options: The Ingate SIPParator must be equipped with the following licenses.

- SIP Trunking Module
- SIP Traversal Licenses to meet customer traffic requirements

Licensing can be viewed on the Network Topology tab of the Ingate Startup Tool as seen in Figure 3 below.

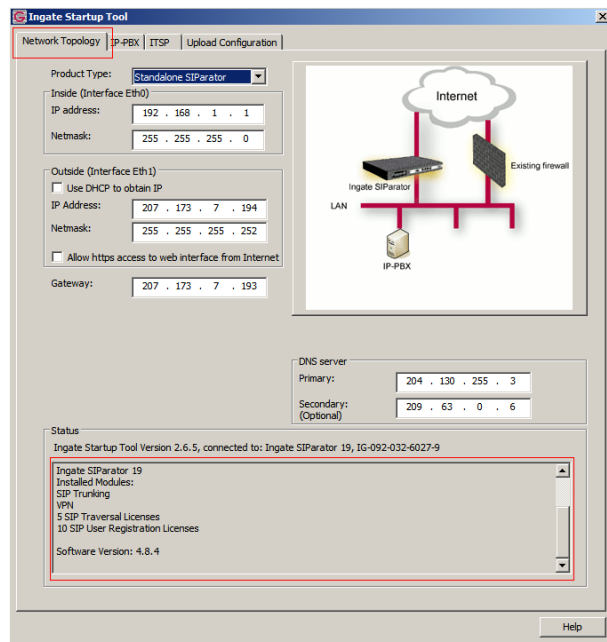


Figure 3: Example of SIP Licenses

Initial Configuration of Ingate SIPParator

Initial configuration of the Ingate SIPParator is performed with the Ingate Startup Tool. The Ingate startup Tool is an installation tool designed to simply the initial commissioning of the SIPParator and will

automatically configure the SIParator to work with vendor certified IP-PBX and SIP trunk service providers.

The Ingate SIParator does not come preconfigured with an IP Address or administrator password so web administration is not possible until the Startup Tool is run.

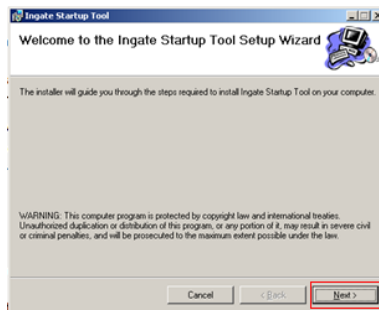
The most recent version of the Startup Tool can be downloaded from http://www.ingate.com/Startup_Tool.php . Click “Download” to begin the process.

Startup Tool Installation

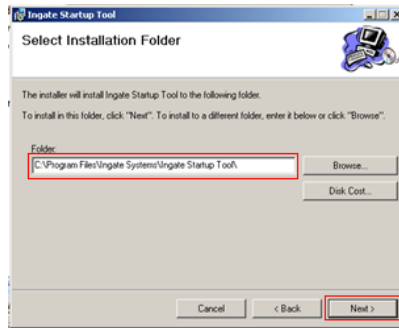
1. Run the “StartupTool.msi” file to begin the software installation process.
2. Select “Run” if prompted with a Windows Security Warning window.



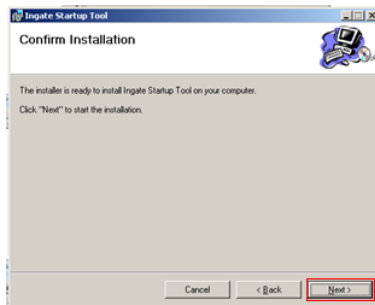
3. Select “Next” to continue.



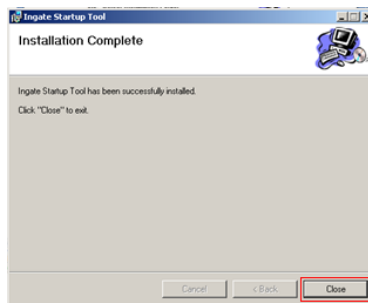
4. If necessary, change the installation destination folder and select “Next” to continue.



5. Select "Next" to commence installation.

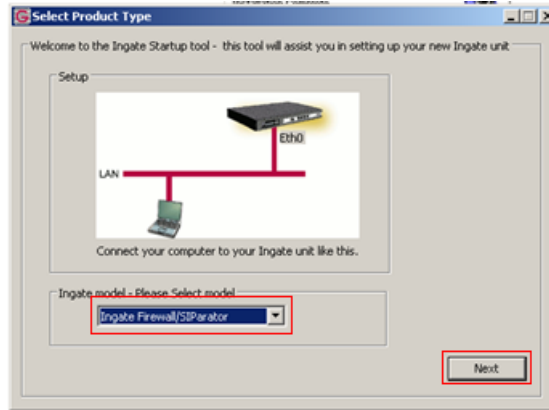


6. Select "Close" once installation is complete. Run the Startup Tool from either the Windows Start Menu or Desktop shortcut. Before running the Startup Tool, ensure that the SIParator Eth0 Interface and administrative PC are connected to the same LAN subnet.

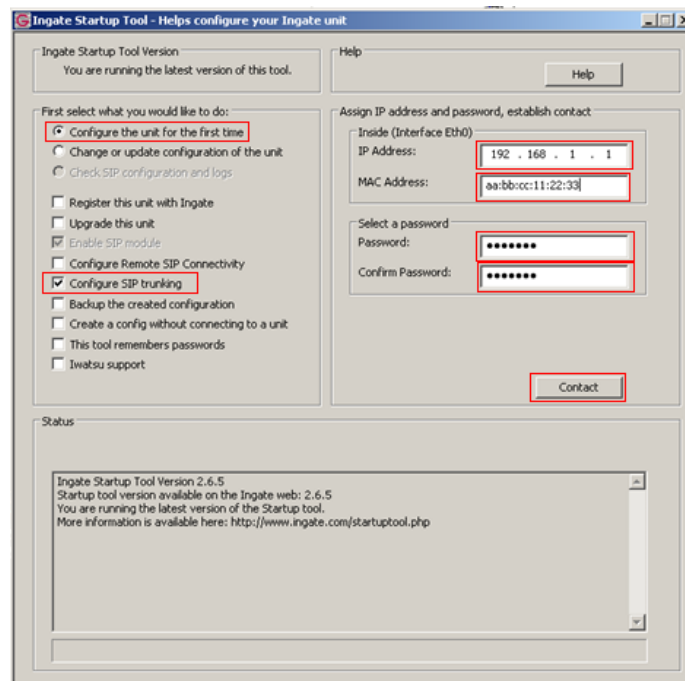


To Configure the Unit for the First Time

1. Launch the Startup Tool
2. Select the "Ingate Firewall/ SIParator" model type and click "Next"

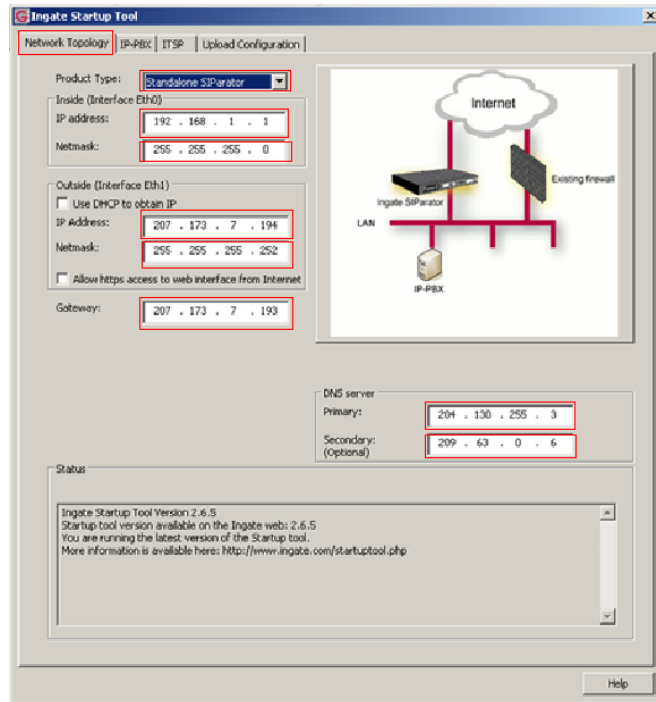


3. Chose “Configure the unit for the first time”. Then check the box to select “Configure SIP Trunking”. Assign a valid IP Address and MAC Address for the interface Inside (Interface Eth0). Obtain the IP Address from the LAN administrator. The MAC Address can be found on the sticker located on the underside of the Ingate SIParator. Then enter the desired administrator password. Once all values have been input select “Contact”.



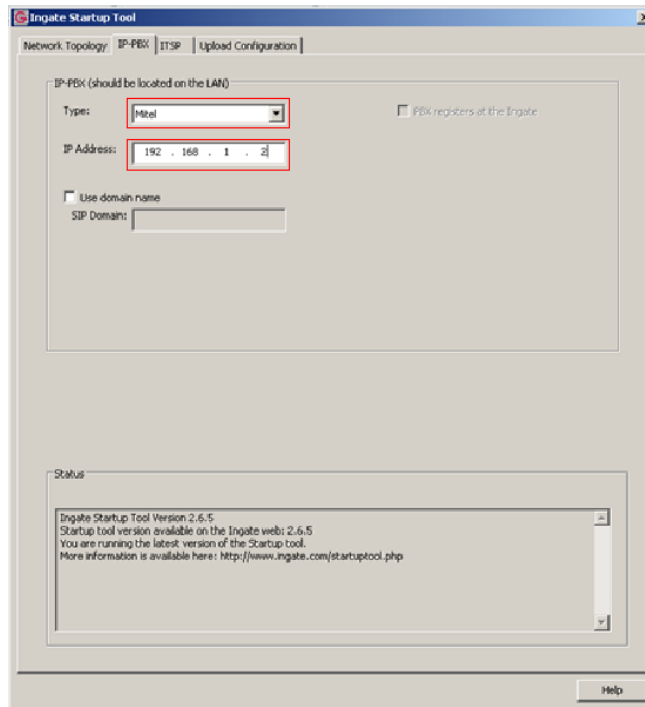
4. Once connected to the Ingate SIParator, the “Network Topology” tab will be displayed. From the product type drop-down select “Standalone SIParator”. Verify that the IP Address for interface Inside (Interface Eth0) matches what was entered on the previous screen. Enter the Netmask assigned by the customer LAN administrator. For interface Outside (Interface Eth1) assign the IP Address and Netmask found in ICC. The Gateway Address can be found XXXXX and is the same Address assigned to the Ethernet 0/2 interface of the CPE

(Adtran 3305 Router). Assign Primary and Secondary DNS server IP Addresses as supplied on XXXXXXXX.



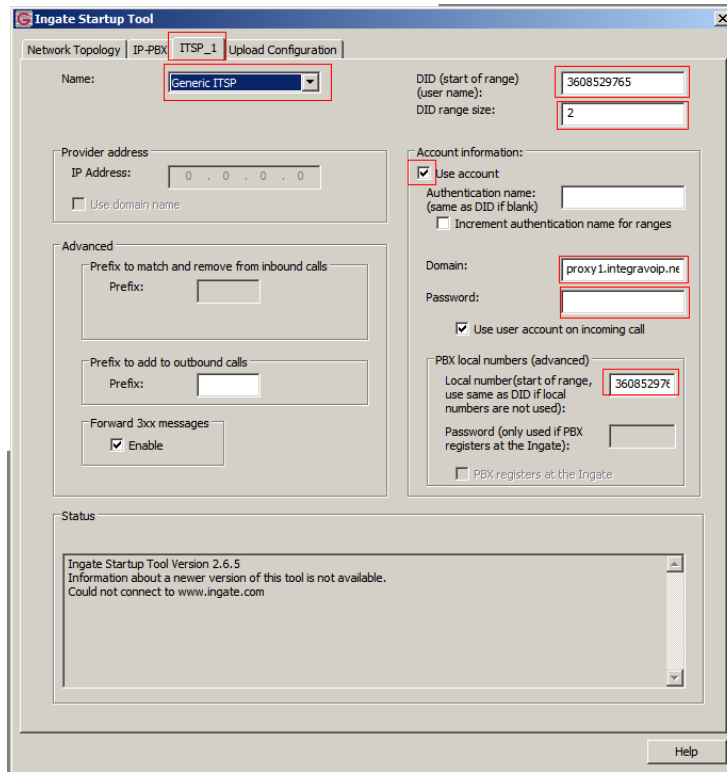
5. Select the "IP-PBX" tab. From the "Type" drop-down, select the appropriate IP-PBX vendor. Enter the IP-PBX IP Address as supplied by the customer. Note that the IP Address of the PBX should be on the same LAN segment as the Ingate "Inside" Ethernet Interface.

Select IP PBX model from drop down.

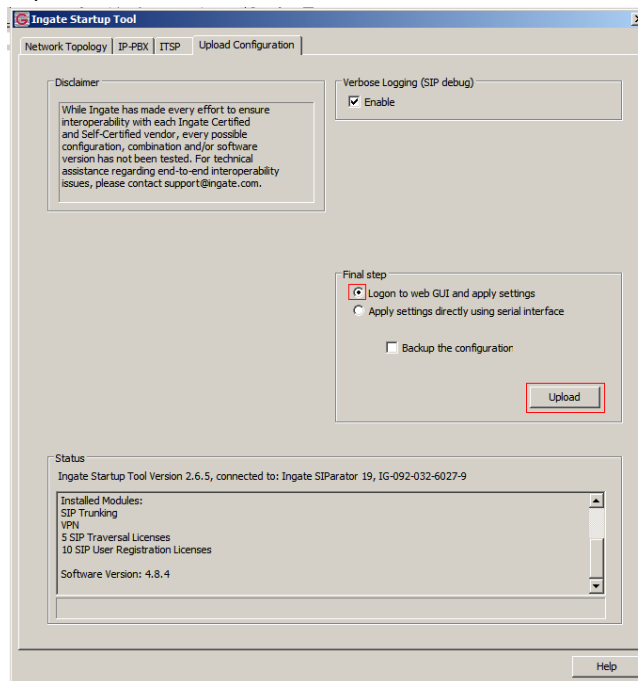


6. Select the "ITSP" tab. From the "Name" drop-down select Generic ITSP. In the "DID (start of range)" field enter the XXXXXXXX found on XXXXXXXXXXXX. Enter the DID range size. Leave the "Authentication name" blank as it matches the DID previously entered. Enter the SBC URL found on the T1 Trunking CLR as the "Domain" and the "Password" as found on XXXXXXXXXXXX. Lastly, enter the DID (start of range) value in the "Local Number" field.

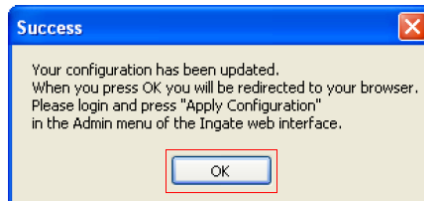
Integra has requested Ingate to add Integra Telecom to the drop down. Until that is added select Generic ITSP



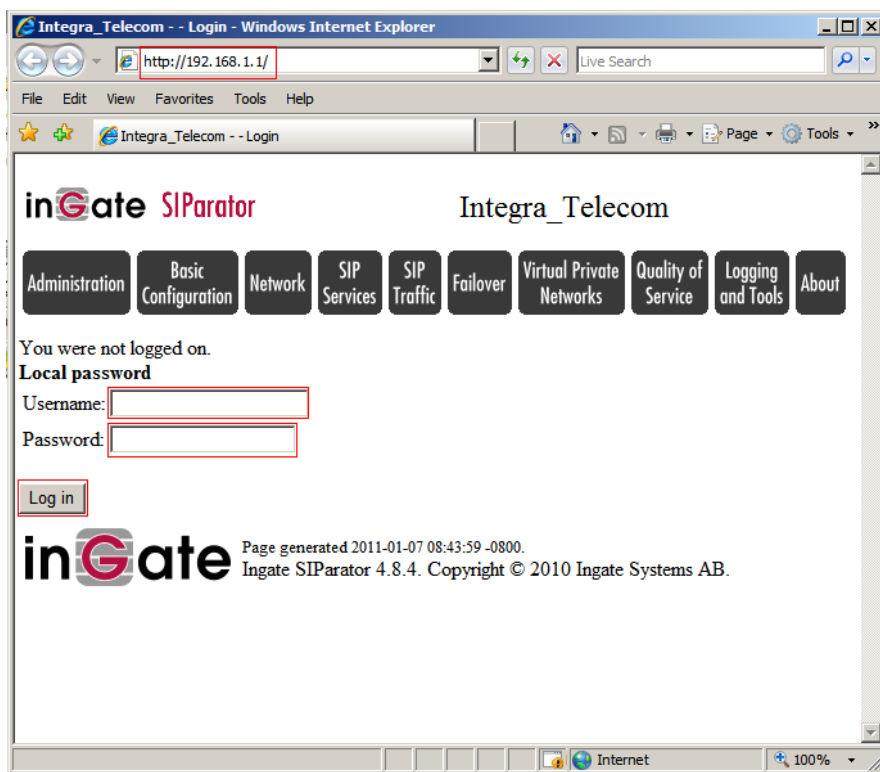
7. Select the "Upload Configuration" tab. Ensure that "Logon to web GUI and apply settings" is checked. Select "Upload".



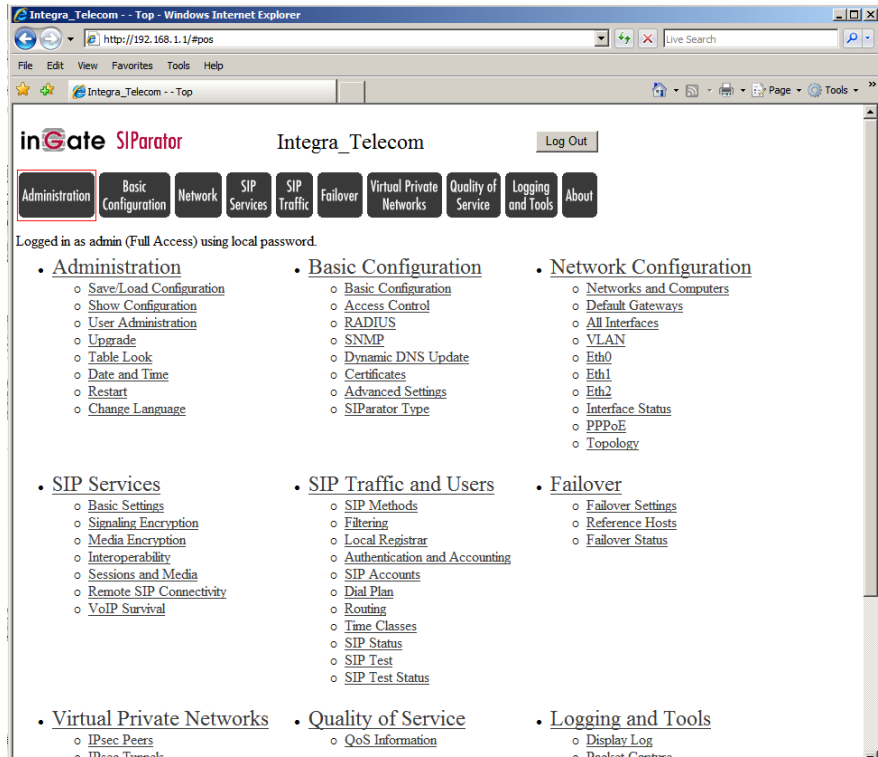
- Once the startup Tool has finished pushing the configuration to the Ingate Unit a window will pop up stating the configuration has been updated. Press “OK” and the PC’s default web browser will open to the Ingate Web GUI login screen.



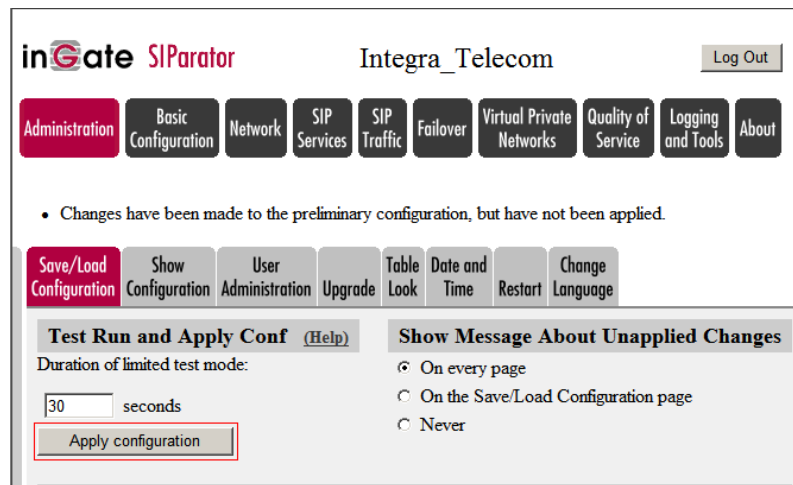
- Enter the username “admin” and the password previously defined in the Startup Tool and push “Log in”



- Once logged into the web administration interface select “Administration”.



11. In the Administration screen select “Apply configuration”.



12. Once the configuration has been successfully applied the administration interface will prompt to Save, Continue Testing or Revert to the previous Private configuration. Select “Save configuration”.

inGate SIParator Integra_Telecom

Administration Basic Configuration Network SIP Services SIP Traffic Failover Virtual Private Networks

You are currently testing the preliminary configuration. You must press either 30 seconds, or the SIParator will revert to the normal permanent configuration

Save configuration Continue testing Revert

inGate Page generated for 'admin' 2011-01-07 08:46:15 -0800.
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13. When the save completes the screen will revert to the previous Administration screen. The web client can now be exited.