



White Paper

Librestream Quick Start Guide for the InGate SIParator: Stand-Alone/LAN Network Setup

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SIP Installation Overview

This document provides a sample Stand-Alone/LAN configuration for the InGate SIParator 19 for use with the Librestream OnSight products.

For detailed SIParator configuration information, refer to the ‘InGate SIParator Reference Guide by Lisa Hallingström’ that is available online from www.ingate.com.

Required Network information:

This information must be known before proceeding with the SIParator configuration procedure.

DNS Servers:

- Public DNS server: OpenDNS.org: 208.67.222.222 (optional)
- ISP provided DNS servers – additional DNS servers provided by your Internet Service Provider

IP Addresses:

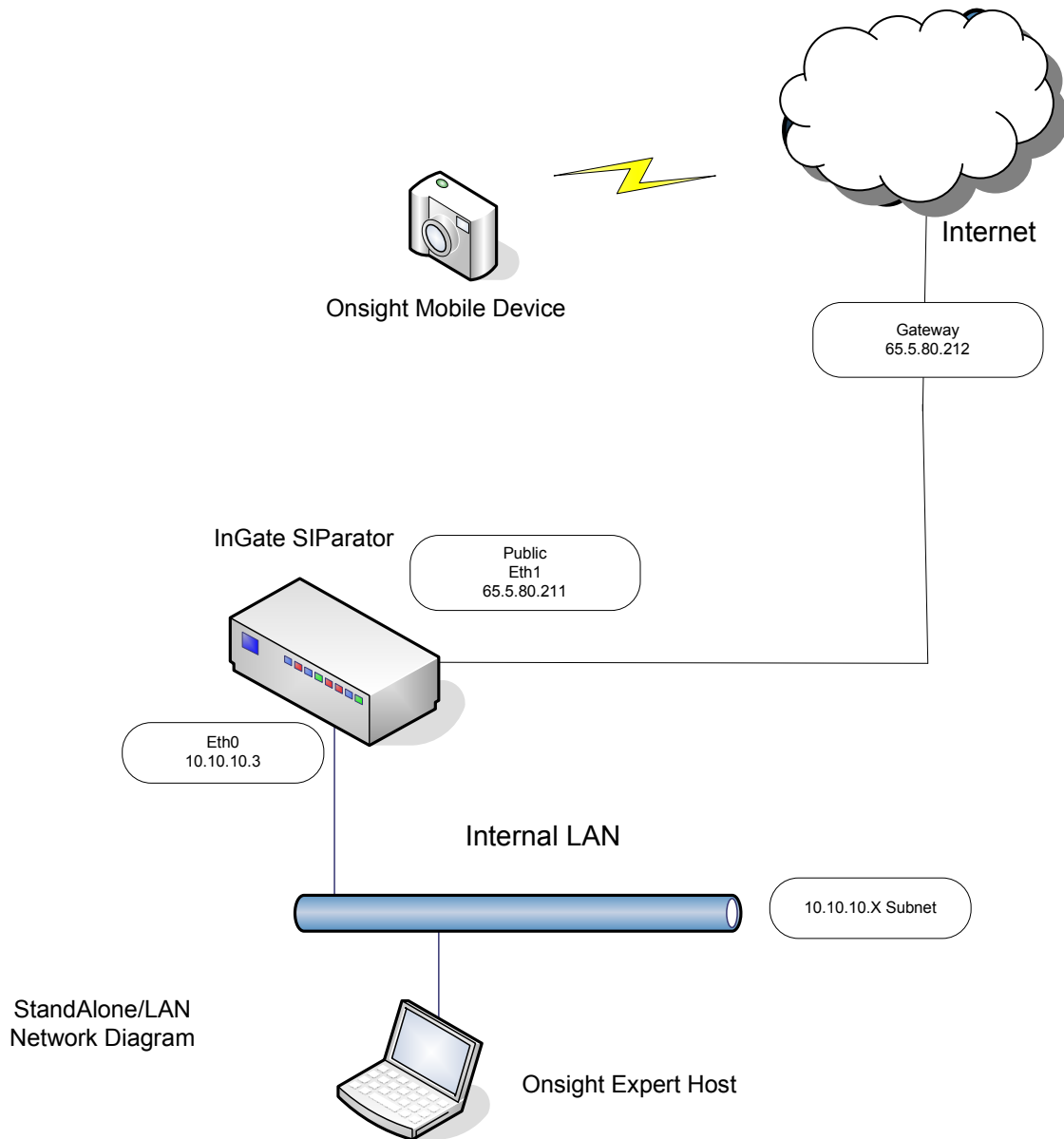
- Public IP: This is the IP address of the SIParator’s Public interface provided by your ISP.
 - Note: If you want to use your SIParator’s domain, e.g. sip.yourcompany.com, as the SIParator’s server Address when registering devices to it, you must notify your ISP so they can add the domain name to their DNS servers.
- Default Gateway: The Gateway IP address provided by your ISP.
- Internal IP – This is the “inside” IP address of the SIParator’s LAN interface

Network Worksheet:

(Fill in with your Network Information for reference)

	IP address	DNS name (optional)	SIParator Interface
Public IP			Eth1
DNS Server 1			Eth1
DNS Server 2			
DNS Server 3			
Default Gateway			Eth1
LAN IP			Eth0

Stand-Alone Network Diagram:



SIParator Sample Configuration:

Note: The IP addresses listed are for example purposes only; they are not intended to be used for the actual configuration of the SIParator. You must use the appropriate information for your network.

SIParator Network Interfaces:

SIParator Public IP Address: 65.5.80.211 (Eth1)

SIParator Internal LAN IP Address: 10.10.10.3 (Eth0)
SIParator Default Gateway: 65.5.80.212 (Eth1)

	IP address	DNS name (optional)	SIParator Interface
Public IP	65.5.80.211		Eth1
DNS Server 1	208.67.222.222	OpenDNS.org	Eth1
DNS Server 2			
DNS Server 3			
Default Gateway	65.5.80.212		Eth1
LAN IP	10.10.10.3		Eth0

Setup Procedure

Note: Before proceeding with the SIParator's configuration install all necessary licenses e.g. the Remote SIP Connectivity) NAT Traversal license. The InGate License certificate has the instructions for installing licenses.

Connect to the SIParator:

Use the InGate Startup Tool, located on the InGate user documentation cd, to connect to the SIParator and set its initial IP address on the internal LAN. See the InGate Reference manual for details. Once the IP address of the SIParator is set you connect to it by entering its IP address in the address bar of your browser.

Make changes to the SIParator's Configuration using the following list as a template:

- Administration
 - Login: admin/admin
 - Save/Load Configuration
 - Apply Configuration
 - Save Configuration - ***This Saves ALL changes***
 - Backup
 - Save/Load CLI Command File – The configuration of the SIParator can be saved to a file.
 - Show Configuration
 - Installed System Version
 - Serial Number
 - Date and Time
 - NTP Servers
 - 0.north-america.pool.ntp.org (24.20.30.232)
 - 2.north-america.pool.ntp.org (64.25.87.54)
 - 1.north-america.pool.ntp.org (140.99.51.115)

- Basic Configuration
 - General
 - Name of this SIParator: “Your Company SIP”
 - Default Domain: “Your Company Domain”.com
 - DNS Servers
 - 208.67.222.222 OpenDNS.org
 - ISP provided
 - Access Control
 - Configuration Transport
 - Via HTTP – Eth0: ON (10.10.10.3)
 - Configuration Computers
 - 10.10.10.0, 255.255.255.0
 - 0.0.0.0, 255.255.255.255 (this allows all computers to access the SIParator’s admin interface.)
 - SIParator Type
 - Standalone
- Network
 - Network and Computers
 - internal: 10.10.10.0, 10.10.10.255: “Eth0”
 - internet: 0.0.0.0, 255.255.255.255: “Eth1”
 - ALL: 0.0.0.0, 255.255.255.255: “-”
 - Default Gateways
 - 65.5.80.212 (ISP provided) – Interface: internet (Eth1)
 - Priority “1” – Set to 1
- SIP Services
 - Basic
 - SIP module: On
 - SIP Media Port Range: UDP 58024 – 58120, see NOTE 1.

NOTE 1: The SIParator passes video/audio/subject audio/data over the UDP Media Ports. The range of ports the SIParator uses is configurable. Each connection between the Onsite Mobile and Onsite Expert endpoints will require 16 UDP (8 for each endpoint) ports.

The range of Media Ports should be configured to allow the maximum number of connections simultaneously that the SIParator will be supporting for your installation. E.g. you expect a maximum of 4 simultaneous sessions at anyone time. The SIParator should then have a minimum of 64 UDP Media Ports available plus a few extra to allow for timeouts on the ports to occur in the event of communication loss between the endpoints i.e. 96 ports in total.

- Sessions and Media
 - Session Configuration
 - Session timer:
 - 4000 s
 - 90 s

- Media Configuration
 - Allow multiple sender IP addresses and ports: ENABLED
 - Tear down media streams at RTP/RTCP timeouts: YES
 - Timeout for RTP streams: 3600
 - Allowed number of media streams per SIP session: 6
 - Remote SIP Connectivity
 - Remote NAT Traversal
 - NAT Timeout UDP: 60 s
 - NAT Timeout TCP: 60 s
 - UDP/TCP: 5060 and 5061

The SIP protocol uses port 5060. SIP-TLS uses 5061.
 - Interoperability
 - Not Applicable, this is required for DMZ setups
 - Remote SIP Connectivity
 - Remote NAT Traversal – ON
 - NAT keep Alive – Use both options and short registration times.
 - Media Route:
 - For Standalone setups: “Route media directly...” This configuration will route data directly between two endpoints when they are on the same subnet, avoiding unnecessary traffic through the SIParator.
 - SIP Traffic
 - User Database:
 - user1, user1pw
 - user2, user2pw
 - user3, user3pw
 - user4, user4pw
 - etc.
 - SIP Status
 - SIP Status: Shows Active Sessions and Registered Users
 - SAVE ALL CHANGES
 - Go to Administration
 - Save/Load Configuration
 - Click ‘Apply Configuration’ button
 - Click ‘Save Configuration’ button
 - “Configuration applied and saved” is displayed.

Interface Tests:

Perform these tests once the configuration is complete:

1. Onsite Expert registration from outside interface (Server Address is Public IP of SIParator)
2. Onsite Mobile Device registration from outside interface (Server Address is Public IP of SIParator)
3. Session: inside registered endpoint to outside registered endpoint
4. Session: outside registered endpoint to inside registered endpoint