



Network Testing and Emulation Solutions

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LANforge-ICEcap Users Guide

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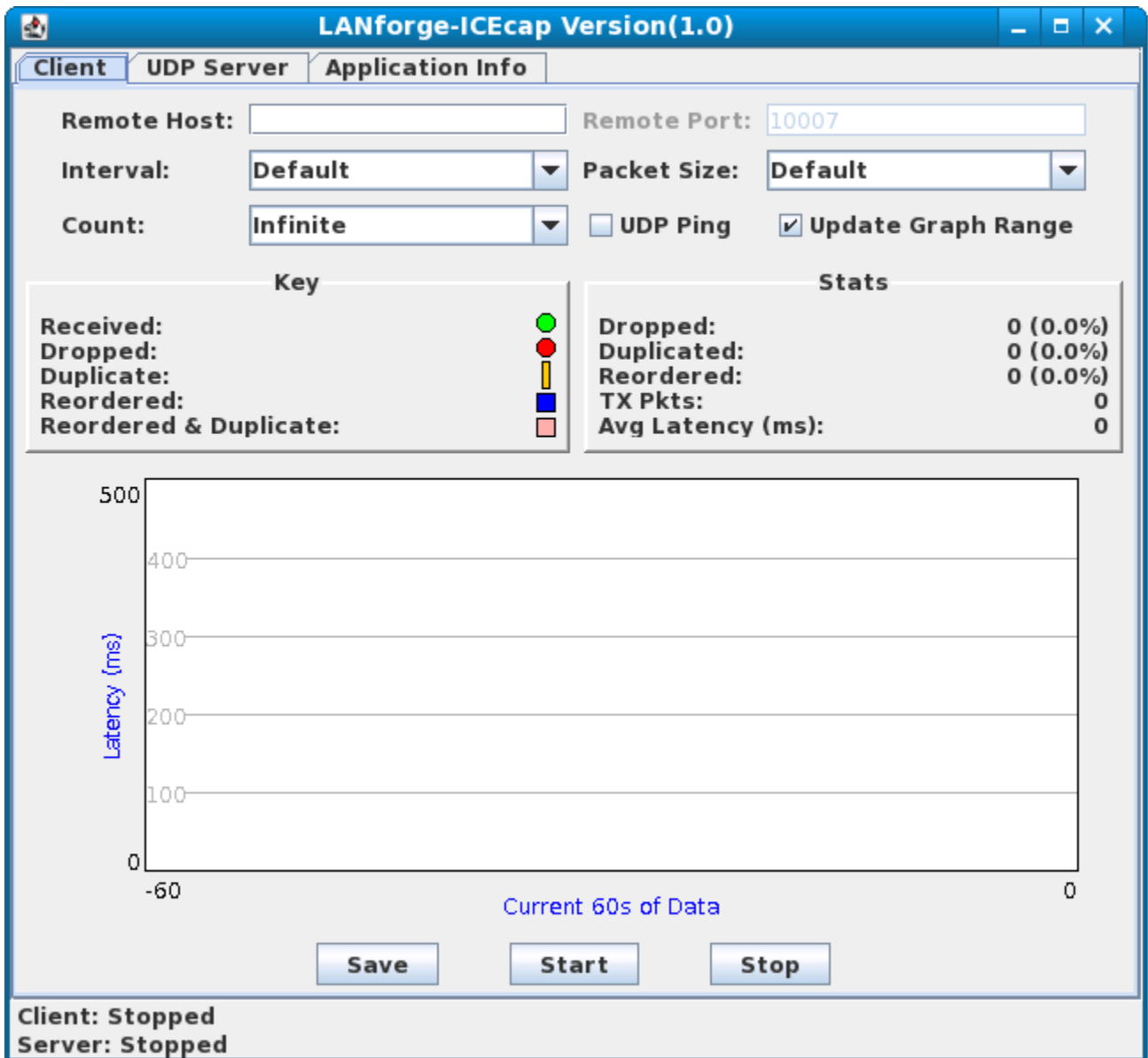
Overview

The LANforge-ICEcap feature is designed to allow one to probe any network path and save the results to an XML file. This file can be replayed in LANforge-ICE allowing LANforge-ICE to replicate the latency, dropped packet percentage, and other behaviours of the probed network in a controlled manner.

1. Main ICEcap Window

After installing LANforge-ICEcap, you are ready to begin. First, start up LANforge-ICEcap. It should pop up two windows, one being the main window, and another that is the console output for low-level details and debugging output. Unless there is some problem with your test, you can safely ignore the console window.

The main window looks like this:



Destination

Specify the IP address or hostname for the remote network device to probe. The resulting file will capture the latency and packet loss between the machine running ICEcap and this destination machine.

Ntwk Interface

Specify the Network Interface to use on the local machine. Leave this blank unless you know you need to use a specific interface instead of the default interface as selected by the operating system.

Sample Interval

Specify (in seconds) how long each sample interval is. The samples sent during the sample interval will be averaged together and saved as a single entry in the resulting XML file.

Duration

Specify (in seconds) how long the ICEcap probe session should last.

Sample Per Interval

Specify how many samples (probes) we should send per each interval.

Payload Size

Specify the size (in bytes) of the probe packet.

Result File Name

Specify the name of the file in which to store the results. The raw data will be saved in <file-name>.dat and the XML file suitable for replay by LANforge will be called <file-name>.xml.

Other Args

If you want to pass any other arguments to the hping2 program, you can enter them in this field. This is not normally required.

Email Server

If you want ICEcap to automatically mail the results to you then specify your SMTP mail server here. ICEcap will attempt to connect directly to this server and speak SMTP in order to send the email. It is likely that

your mail server will need to be configured to allow this direct access.

My Email

Specify your email address. This will be used for the 'From' field in the email generated by ICEcap.

To Email

Specify the email address to which the email should be sent.

Auto Mail

If this option is selected, the email will be automatically sent as soon as the probe session completes. Un-select this if you do not want to send email.

Send Mail

If this button causes email to be sent immediately.

Run

Starts the probe session.

Stop

Stops a running probe probe session immediately.

Exit

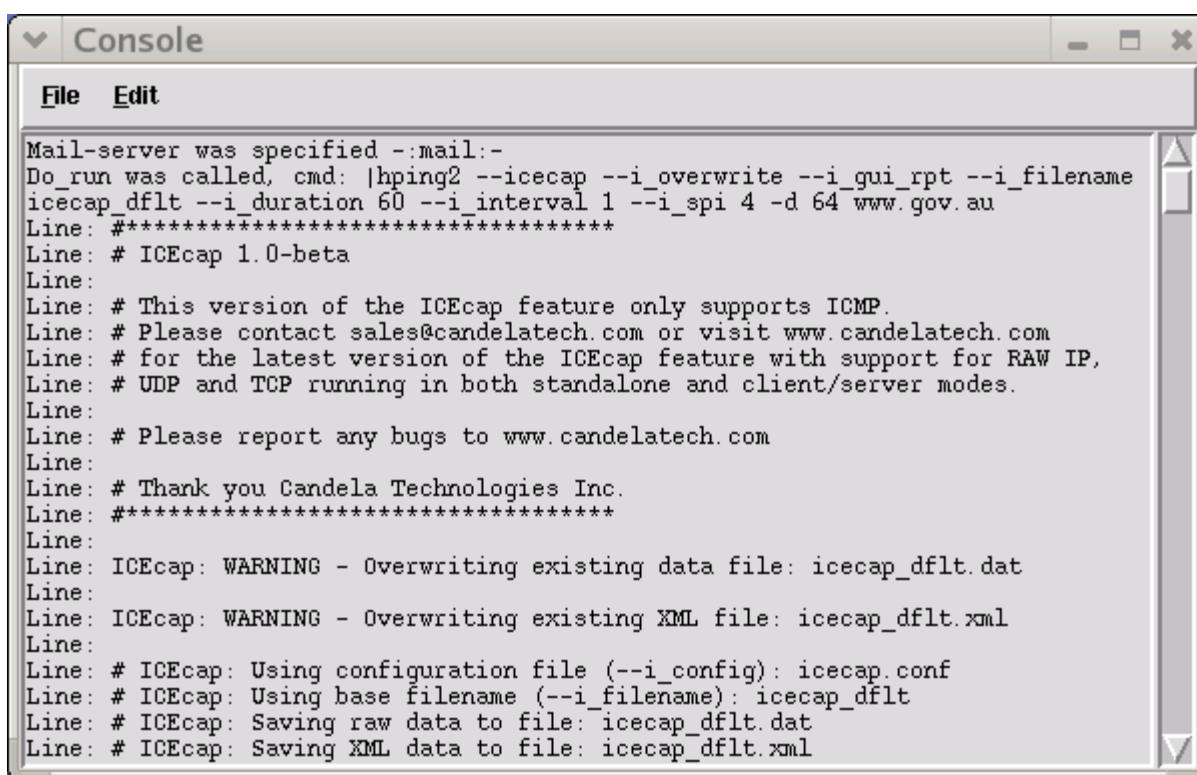
Exits the ICEcap application immediately.

Progress

Displays the current progress for the probe session.

2. Console Window

When you start ICEcap a TCL/TK console will also be created. This window reports output from the hping2 tool and may provide lower-level debugging information. Most users can safely ignore this window. If problems with ICEcap are found, please email the output in this console window to your LANforge support contact.



```
Mail-server was specified -:mail:-
Do_run was called, cmd: |hping2 --icecap --i_overwrite --i_gui_rpt --i_filename
icecap_dflt --i_duration 60 --i_interval 1 --i_spi 4 -d 64 www.gov.au
Line: #*****
Line: # ICEcap 1.0-beta
Line:
Line: # This version of the ICEcap feature only supports ICMP.
Line: # Please contact sales@candelatech.com or visit www.candelatech.com
Line: # for the latest version of the ICEcap feature with support for RAW IP,
Line: # UDP and TCP running in both standalone and client/server modes.
Line:
Line: # Please report any bugs to www.candelatech.com
Line:
Line: # Thank you Candela Technologies Inc.
Line: #*****
Line:
Line: ICEcap: WARNING - Overwriting existing data file: icecap_dflt.dat
Line:
Line: ICEcap: WARNING - Overwriting existing XML file: icecap_dflt.xml
Line:
Line: # ICEcap: Using configuration file (--i_config): icecap.conf
Line: # ICEcap: Using base filename (--i_filename): icecap_dflt
Line: # ICEcap: Saving raw data to file: icecap_dflt.dat
Line: # ICEcap: Saving XML data to file: icecap_dflt.xml
```

3. hping2

The hping2 tool is a modified version of the hping tool created by the good people at www.hping.org. The source code for all Candela modifications to hping2 can be found in the `icecap.src.tar.gz` file available on the Downloads page.

Candela's hping2 is the main engine behind the ICEcap toolset, and in fact you do not need the ICEcap GUI at all if you are comfortable with using command-line tools such as hping2.

Please see the **HPING2 HOWTO** for detailed hping2 usage information.

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