

INE Companion - Capture The Essence of Real Networks for Use in Development & Testing

Understanding The Environment Applications Need to Work In

INE Companion is an appliance that profiles an existing network environment by examining the application traffic (both in terms of volume and type) so that you can understand the conditions in which any new application you are developing, testing or considering purchasing will need to function when rolled out in the production network. Armed with this knowledge, it will replicate the target network to give an extremely realistic test environment in which to develop your software.



Base-Lining the Current Network Environment

Initially, INE Companion can be deployed to analyze the production (or emulated) network's general health by monitoring application traffic, response times and measuring performance.

INE Companion's "High Level" Real Time Network Packet Analysis takes a different approach to typical packet capture techniques by using Real Time Analysis and Categorisation of Network Packets to determine:

- ◆ Overall Application Traffic
- ◆ Application Response Times
- ◆ Application Bandwidth Utilization
- ◆ Overall Bandwidth Utilization

A powerful report writer provides extensive reporting and graphing capability to show what has been happening on the network.

As a result, it is possible to see the response times etc. that applications are actually experiencing- without getting bogged down in laborious, time consuming packet analysis.

By using INE Companion to monitor activity in the live network, application developers, testers and network specialists, will be able to view current and historical performance of their applications across the WAN.

The data collected helps to build up an accurate profile of network usage and provides detailed reporting on errors, dropped packets, bandwidth utilisation etc.

This allows for base-lining of both the network and application in order to later reconstruct a very realistic Emulated network environment in which to test your application(s). (See Below)

Network Scenario Generation

Using the information gathered during the base-lining phase, it is possible to generate network scenarios which can be imported into the iTrinegy Network Emulator product range for network modelling and application testing purposes.

Network Packet Tools

INE Companion Network Packet Tools enable you to do the following:

◆ Capture packets from an existing network link

This function allows the capture of packets on the network link to which the INE Companion is connected.

Whole packets can be captured or just the first "n" bytes of the packet to save space and prevent sensitive data being captured.

◆ Packet Generation

This tool provides the ability to generate network packets which have not been captured.

You can specify:

- ◆ Originating Addresses and Ports
- ◆ Destination Addresses and Port
- ◆ Protocols
- ◆ Packet sizes

and more.

Multiple traffic profiles can be set up for different flows.

Where only part of the packet is captured the original size is stored, so that on a replay a packet of the correct size will be generated.

◆ **Replay of Captured Packets**

Packets can be “replayed” i.e. generated based on the capture files produced above.

Packets are replayed using the same time intervals as when they were captured, permitting a realistic playback. Where only the first n bytes of a packet were captured the replayed packets will be padded with nulls to the full length of the original packet.

This feature allows a realistic background load to be introduced.

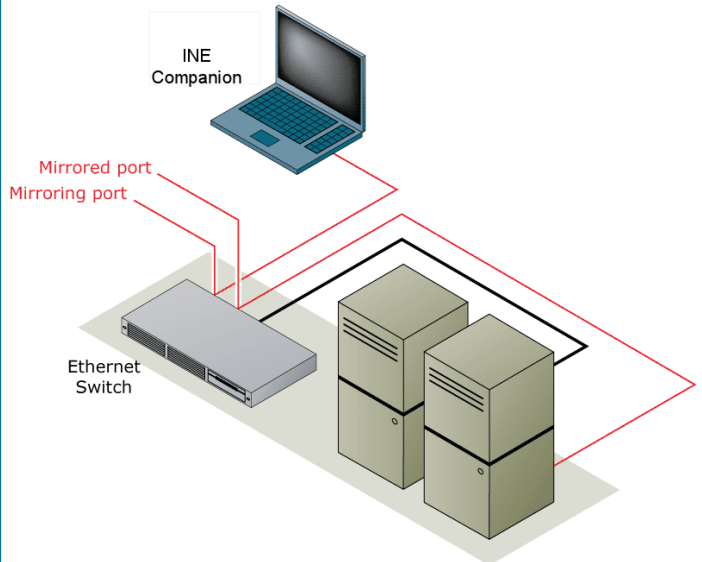
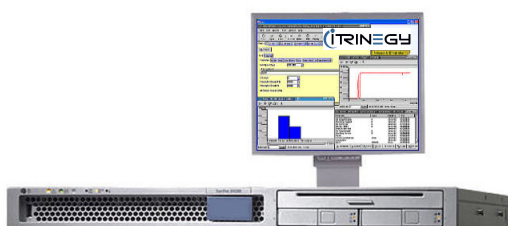
◆ **Decode the captured packets**

This will show the contents of captured packets (subject to the number of bytes stored) and will automatically format packets according to their type e.g. ARP, TCP, UDP etc decoding the IP Addresses, ports etc.

INE Companion Details

INE Companion is available as:

- ◆ A Laptop based solution - for rapid use in multiple situations e.g. different locations or in the production network and then the test network
- ◆ A Rackmount based solution for more permanent use in either the production or test networks



The INE Companion laptop plugs into a mirroring port on a network switch in order to profile network activity and capture traffic flows for later replay.

Reporting/Graphing

Reporting and Graphing is fully self contained and performed through a web browser interface which may be accessed locally on the desktop or remotely from any PC (even for the laptop edition).

In addition to the multitude of reports supplied custom reports/graphs are easily created through the web interface

Monitoring points:

- ◆ The INE Companion Laptop Edition can monitor from one of its network ports at a time
- ◆ The INE Companion Rackmount Edition can monitor from 1 or more of its network ports at a time

Data speeds of up to 1GB can be handled.



iTrinegy Limited
Bulse Grange,
Norton End, Wendens Ambo,
Saffron Walden, CB11 4JT
tel (UK): +44 (0)845 226 1900
fax (UK): +44 (0)845 226 0607

iTrinegy Inc.
255 West Moana Lane
Suite 110
Reno
NV 89509
tel / fax (USA): +1 (888) 448 4366

info@iTrinegy.com
www.iTrinegy.com