

# Illuminate Technologies

## Discovering Your Mobile and IP Network

### Solution Brochure

## Your challenge

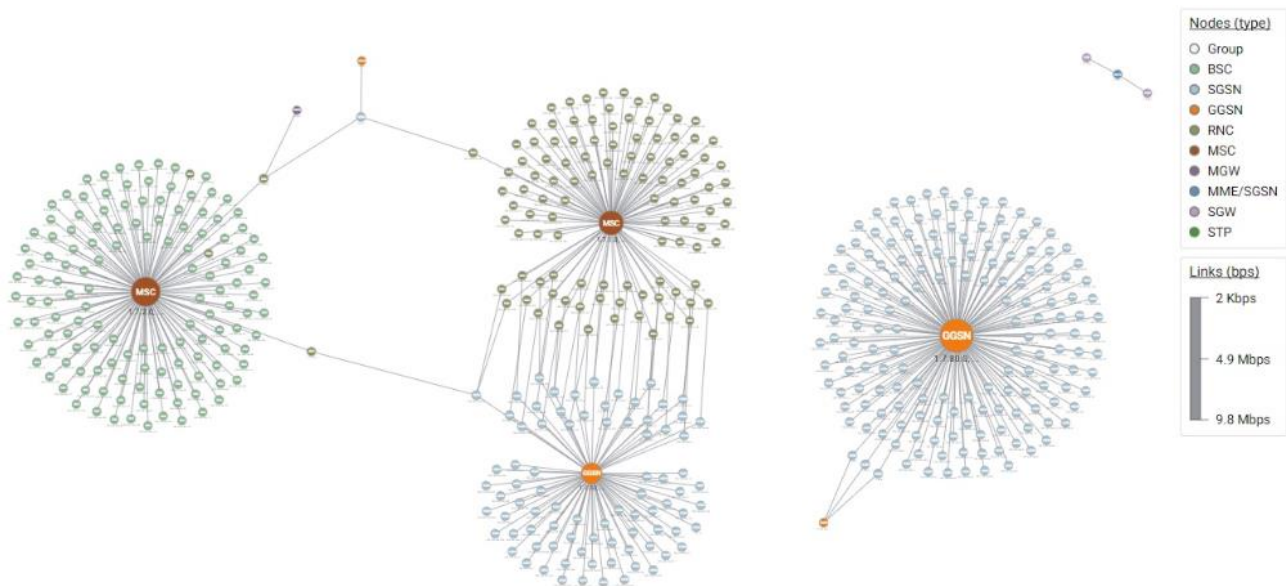
Telecommunications data rates are increasing exponentially, as are the variety of devices and associated protocols used in those networks. When you include advances used in modern networks such as Software Defined Networking (SDN) and Network Function Virtualization (NFV), building and maintaining a clear view of the topology of modern networks is a challenging but key enabler to achieving customer satisfaction.

As data volumes grow, it is important to have measurement insight into network node interconnectivity and traffic flows. Any solution to manage this challenge has to continually update its results in real-time, and be automated and scalable to provide the maximum possible return on the time and money invested.

Timely insight into key attributes of a network, such as network nodes and how they're interconnected, is critical. Access to underlying data (such as the examples below) allows you to continually maintain an up-to-date view of your network's topology and operations.

- IP addresses present
- MAC addresses present
- VLANs present
- Traffic flow statistics.

Having the ability to archive this snapshot and then compare it against either other archives or the current state means you can track and view changes more efficiently than other tools requiring manual link by link analysis.



# Your solution

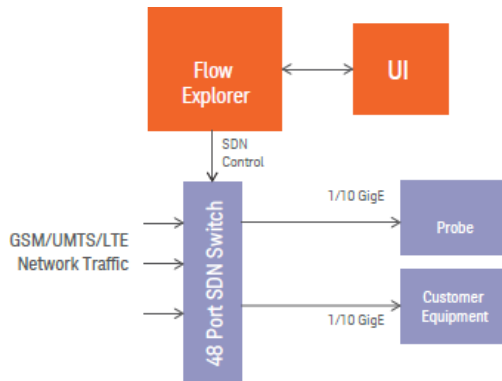
## Flow Explorer

Illuminate Technologies is a world leader in Test and Measurement equipment for telecoms networks with over 25 years' experience of testing, monitoring and managing these networks. This knowledge positions Illuminate expertly to provide solutions for these challenges.

Illuminate Technologies' Flow Explorer (FE) solution enables efficient troubleshooting and management of 2G, 3G and 4G mobile network traffic. FE automatically discovers the network elements and protocols of these mobile network technologies and displays switch statistics and network topologies in real-time. This makes it perfectly suited as a survey and maintenance tool for your network.

The Illuminate FE discovers and displays the network(s) seen within a given real-time signal flow and presents to the user a picture of the network including 2G, 3G, and 4G elements. The view presented to the user includes network nodes as well as traffic flow statistics. The graphic overleaf shows a typical user interface after network discovery.

A single instance of FE software can control up to 3\*48 port (1/10 GigE) switches feeding either an Illuminate probe or other customer equipment.



In addition to statistics associated with traffic flow between network nodes, statistics associated with application layer protocols in use are provided. For instance:

- Is 80% of the traffic associated with a given network node associated with video feeds?
- Is 60% of the traffic associated with another network node SMTP protocol?
- What is the true originating point of the traffic in your network?

In an environment where virtualization will become a reality over the next 5 -10 years, being able to track traffic flow and visualize which virtual nodes are connected will become increasing difficult.

Having a dynamic view of the logical network is key to being able to manage data for network management and troubleshooting.

### Key Features

- Real-time discovery of Network Elements in a dynamic cellular mobile network environment.
- Ability to archive network attributes at any point in time
- Continually updated visualization of the current state of your network.
- Easily identify network attributes that have changed between one archive and either a different archive or the current network.
- Configurable user interface that allows easy setup and access to the network nodes and associated data.

This information is subject to change without notice.

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