

# NovaTel Systems

Telecommunications Application Solutions

---

A White Paper from NovaTel Systems

Issue: March 2007

## STAT VOICE NETWORK DECISION-MAKING

Authored by:

**Simon Rolph**

NovaTel Systems Operation Manager

How do Telecoms (Telcos) organisations make voice network related operational, management and strategic decisions? Make the wrong decision too many times in today's low margin business environment and your voice operation is unlikely to remain profitable for long.

... what information do people need to make good decisions and how do organisations ensure alignment to their business objectives.

Who makes these decisions? What information do they need to make good ones and how do organisation's ensure alignment to and consistency with their business objectives? If they don't, the likelihood of marginal gains in one area of the business being negated by marginal losses in another is very high.

---

### Decision-Making

---

Broadly speaking, decision-making in Telcos can be classified as operational, managerial or strategic.

**Operational Decisions** are made by Switch Engineers; their primary responsibility being to ensure that the organisation's voice network is operating in accordance with its SLAs (Service Level Agreements), rectifying any problems in real time whilst at the same time proactively monitoring traffic to ensure early recognition of technical issues, whether at route, carrier or customer level.

**Managerial Decisions** are made by Network Planners, Traders (purchasing & selling), Billing and Finance personnel.

Network Planners constantly review their voice network looking primarily for excess capacity and bottlenecks, but also seeking out trends and patterns of usage with the view to making the best economic use of the organisation's network asset.

Traders have the responsibility of selling and purchasing Interconnect Capacity on behalf of the organisation: their decisions can have far-reaching impact upon the profitability of a route, carrier or customer.

---

Billing personnel's primary task is to ensure that the interconnect services provided by the organisation are billed in a timely and orderly manner. They are also responsible for the accuracy of their billing data; so essential if settlement delay and disputes (unpredicted cash flow variations) are to be minimised.

Finance personnel responsibilities not only include the reporting of voice network profitability, but also for providing funding for network development in a timely manner, enabling rapid exploitation of usage patterns and emerging trend opportunities.

**Strategic Decisions** are made by Senior Management personnel; their role being to take a high-level view of the performance of the organisation's voice network and how it is being utilised and managed. They review patterns and trends, develop strategic perspectives and formulate the policy and actions required to ensure ongoing – sustained profitability.

---

## Information Required

---

The ultimate source of the information required by all those involved in voice network decision-making, whether operational, management or strategic, are the organisation's switches.

Where does the information required to underpin this information come from – what is its source?

What information, for example, does a Trader require to underpin the sale of a tranche of interconnect capacity to another carrier. Selling under-utilised switch and trunk capacity is relatively straight forward but what about 'quality of service', especially when the service is terminated by another carrier? The Purchaser will want a guarantee of QoS (Quality of Service), which if not met could have far-reaching impacts upon future profitability.

The ultimate source of the information required by all those involved in voice network decision-making, whether Switch Engineer, Network Planner, Trader, Billing or Finance personnel, or Senior Management are the organisation's switches. But whilst switch engineers are at home, so to speak, with its raw output, those involved in making of management and strategic decisions are for most part, not; they need switch output in a form that is easily understood, makes sense and is aligned to the tasks they have to perform and the decisions they have to make.

---

## STAT

---

"Using STAT, I can do all that I have to do as controller of the voice network to drive the business."

STAT's function is to take switch output (CDRs – Call Detail Records) and other critical voice data and transform them, using organisation-defined business rules, into information that makes sense to and can be used by all Telco decision-makers.

As one Telco voice network controllers observed:

*"Using STAT, I can do all that I have to do as controller of the voice network to drive the business."*

STAT analyses traffic patterns, network performance and calculates KPIs (Key Performance Indicators) for each carrier and destination combination to which traffic is routed. STAT also provides the raw data for the other components of NovaTel Systems voice network Control Centre:

- Plan Management
- Switch Management
- Route & Carrier Performance Management
- Revenue Management

## Attributes

STAT has many of the attributes of a Business Intelligence System:

- It's core purpose is to meet the many and varied knowledge/information requirements of all its users;
- It provides essential, relevant and common data — decision-making is based upon the same and not different data sets from different sources;
- It provides its users with easy access to the current state of the business;
- It has a Support Structure — provided by NovaTel Systems who work collaboratively with their customers to ensure that all the information they require is provided in a timely manner.

Improved quality of decision-making, intangible as it is, is the output that leads to better strategy formulation and improved economic performance.

## Benefits

Not surprisingly, the benefits STAT brings to an organisation are similar to those provided by a good Business Intelligence System:

- Improved understanding of the dynamics of the enterprise – the drivers of the business;
- Improved management productivity by making readily available knowledge and information that would otherwise be difficult to acquire;
- Improved accuracy and relevancy of reporting – consolidating at a high level complex data sets with sacrificing the ability to drill down into the source data;
- Improved customer service – a key determinant of long-term business success;
- Improved supplier relations;
- Improved quality of decision-making, which intangible as it is, is the output that leads to better strategy formulation and improved economic performance.

## ABOUT NOVATEL SYSTEMS

NovaTel Systems is a UK based software applications and services company specialising in the development and deployment of analytical and management solutions for the telecommunication industry.

Founded in 1998 the company has seen steady methodical growth and remains privately owned by the founder.

NovaTel Systems  
IBEX House, 42-47 Minories  
London EC3N 1DY  
t. +44 (0) 207 481 3400  
f. +44 (0) 207 481 3450  
[www.novatel.co.uk](http://www.novatel.co.uk)