

# NovaTel Systems

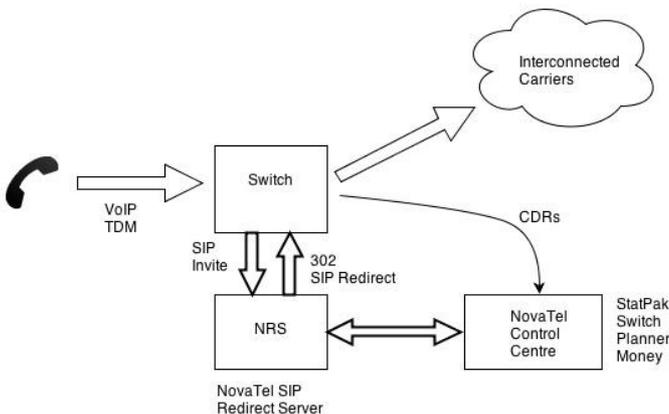
Telecommunications Application Solutions



## NRS SIP Redirect Server

**NRS** is NovaTel's state of the art, SIP Redirect Server. Based on RFC 3261 it can be used as a routing server for any SIP Network. The NRS Server can be easily integrated with any switch supporting RFC 3261 30X based Redirect.

### What is SIP Redirection?



When a phone call comes into the switch, it sends a SIP Invite to the SIP Redirect Server and this responds with a SIP Redirect message which contains the ordered list of carriers to use for routing that call. The switch then routes the call using the hunt group provided in the 302 Redirect message it receives from the NRS server.

### Why use NRS?

In the past, large amounts of routing data were required to be uploaded to the switch to effect routing. This put undue load on the switch and was very time consuming. With NRS, uploading of bulk data to the switch is no longer required. This reduces the load on the switch. Also provision of huge amounts of routing data to NRS is extremely fast, resulting in routing changes being effective almost immediately.

NRS integrates seamlessly with NovaTel Planner Module for generating LCR Plans.

NRS is part of the NovaTel Control Centre suite.

## NRS Benefits:

- ◆ Super-fast Routing Updates
- ◆ Reduces Load on the Switch
- ◆ Operates on standard hardware
- ◆ Fast, Robust and Reliable
- ◆ High Availability
- ◆ Fully Scalable
- ◆ High Performance
- ◆ Standards Based for interoperability
- ◆ Unlimited LCR Plans
- ◆ Unlimited number of routes
- ◆ Unlimited dial-code breakouts
- ◆ Easy integration to SIP compliant switch
- ◆ Zero cost integration
- ◆ Failover and redundancy built in
- ◆ Block negative margin calls

Never again miss out on hot offers from your suppliers when immediate route change is required.

Never again worry about loss making calls.

Never again feel limited by your switch. With NRS there is no limit on number of dial-code breakouts, routings and LCR plans.

Destination	Dial Codes	Carrier	Carrier2	Carrier3
Afghanistan	9372	BT	Telelobe	OTS Hungary
Afghanistan	9377	BT	Telelobe	AT&T
Afghanistan	93, 9320	50% ATL	50% Ocean	Telelobe
Afghanistan - Mobile Aircel	9370	OTS Hungary	ATL	
Afghanistan - Mobile Eutelsat	9375	NL	Sprint	Ocean
Afghanistan - Mobile Eutelsat	9378	50% ATL	50% ATL	
Afghanistan - Mobile Foonet	9379	Telelobe	BT	ASB
Albania	355420	OTS Hungary	AT&T	Sprint
Albania	355423	OTS Hungary	OT	Sprint
Albania	355, 3554, 35544, 355, 355, 35542, 35542, 35542, 35542	OT	OTS Hungary	Sprint
Albania	35566	ATL	NL	AT&T
Albania - Mobile Eagle	3554249, 3554251, 35, 35, 35567	AT&T	OTS Czechcom	Sprint
Albania - Mobile Eagle	35566	OT	OTS Hungary	NL
Albania - Mobile	35569	AT&T	OTS Hungary	NL
Algeria	213, 2131	AT&T	OTS Hungary	OT
Algeria	21302, 21303	OT	OTS Hungary	AT&T
Algeria	2135	Sprint	Ocean	ASB
Algeria	2136, 213618, 2139	AT&T	OTS Hungary	AT&T
Algeria	21364, 21365, 21366	ASB	OTS Czechcom	ATL
Algeria - Algeria	21320	OT	OTS Hungary	AT&T
Algeria - Algeria	21321, 21322	AT&T	ATL	
Algeria - Mobile	21365, 213659, 21366	Ocean	Sprint	NL
Algeria - Mobile	21366, 21368	Sprint	Ocean	AT&T
Algeria - Mobile - Orascom	21370, 213781	OTS Hungary	OT	NL
Algeria - Mobile - Orascom	21370, 213781	OTS Hungary	OT	AT&T
Algeria - Mobile - Orascom	21377, 213789	OTS Hungary	OT	ATL
Algeria - Mobile - Orascom	21370, 21378	Sprint	Ocean	AT&T
Algeria - Mobile - Orascom	2137, 213782, 213783	AT&T	ATL	NL
American Samoa	168419	AT&T	ATL	ASB
American Samoa	1684	AT&T	ATL	ASB
American Samoa - Mobile	16842	AT&T	ATL	ASB
Andorra	376	OTS Hungary	OT	ATL
Andorra - Mobile	3764, 3765	NL	AT&T	ATL
Andorra - Mobile	3769	AT&T	ATL	NL

Seamless integration with NovaTel Control Centre Suite

## NRS Features:

- ◆ 250 Call Attempts per second/per NRS server
- ◆ Standard Routing
- ◆ Percentage Routing
- ◆ Percentage Routing with back up carriers
- ◆ Optional prevention of negative margin routing
- ◆ Multiple Route Plans
- ◆ No limit of number of routes
- ◆ Unlimited dial-code breakouts
- ◆ Seamless integration with Control Centre
- ◆ Real Time logging
- ◆ Standards Based
- ◆ Web based rich client GUI for easy access
- ◆ Standards Based for interoperability
- ◆ Failover and redundancy built in
- ◆ Web GUI for route trace capability
- ◆ Detailed call logging
- ◆ High Availability
- ◆ Fully Scalable

Novatel Route Tracker

### Track routing for a given number

Put a prefix and a dialled number e.g. 3000#29830298123

TRK112 93192882132

Routing type is **Percentage** for dial code: **93**

#	Carrier Name	Carrier Prefix	% Routing
1	ATL	TRK010	50%
2	Ocean	TRK091	50%
3	Teleglobe	TRK109	Backup carrier

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**Route Tracker** — Web interface to NRS allows to check on the routing for a given number.

### Call trace

Search

```
8/3/2013 10:47:17:616; c:226006#880183081432#77.88.145.214; call-id:dbfen7b6c7a1419#77.88.145.214; r:284#880183081432 583#880183081432 501#880183081432
```

```
8/3/2013 10:47:17:623; c:226030#44211819571432#77.88.145.214; call-id:f19de9a35ab74fd7#77.88.145.214; r:383#44211819571432 284#44211819571432
```

```
8/3/2013 10:47:17:629; c:429042#923067445533#77.88.145.214; call-id:48576ef9a6865a7e#77.88.145.214; r:180#923067445533
```

```
8/3/2013 10:47:17:755; c:770031#919735314211#77.88.145.214; call-id:8f96fb2a2becbba7#77.88.145.214; r:446#919735314211 144#919735314211 101#919735314211
```

Prev 1 2 3 4 5 Next

### Full logging of each call made.

- ◆ **Standards Based** - NRS uses the standard RFC 3261 SIP Protocol and so is compatible with any SIP compliant switch.
- ◆ **Standard Hardware** - NRS runs on low cost commercial off the shelf (COTS) hardware.
- ◆ **High Performance** - An NRS server running on COTS hardware can support 250 calls attempts/second.
- ◆ **Scalable** - The number of call attempts per second can be increased linearly simply by adding NRS servers. NRS servers can be added and removed from a cluster without any down-time.
- ◆ **High Availability** - There is no limit to the number of servers which can be added to an NRS cluster, providing fail-proof high availability.

## Deployment Options:

**On Appliance:** A turnkey delivery on the appropriate hardware which is managed on the customers behalf. Can be installed in the NovaTel data centre or in the customers own data centre.

**On Site:** Lease of the application by the customer and installed on the customers own infrastructure.

**Planner** can be deployed with any commercially available relational database, ORACLE, MySQL, or MariaDB.



NRS is part of the Control Centre Suite of Applications. Other applications in the suite are **Planner, Sales Manager, Money, StatPak, Switch, and Alerts.**

## ABOUT NOVATEL SYSTEMS

NovaTel Systems, founded in 1998, is a UK based software applications and services company specialising in the development and deployment of analytical and management solutions for the telecommunication industry.

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