

# SiRRAN NETCORE

The power behind  
your mobile network

SiRRAN NetCore is an entirely software-based 2G/3G/4G mobile network solution, optimised for single-board computers and supports scaling up to server-based installations. The software consolidates configuration, monitoring and real-time analytics from a single easy-to-use dashboard.

## NETWORKS MADE EASY

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Traditional mobile networks are complex and require significant training to operate. This solution is designed differently; all configuration is web-based, intuitive and easy to use.

### SIMPLE INTERFACES

The system is designed to require little or no knowledge of the technology in order to operate and manage commonly changed parameters.

### WEB MANAGEMENT

Managed through an easy to use web interface, these pages are accessible over the LAN with support for common browsers and different device formats.

### PORTABLE SOFTWARE

SiRRAN NetCore is highly portable and designed to run on any hardware capable of supporting Linux.

## SOLUTIONS

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We make it easy to set up and run your own private mobile network for both operational situations and for testing and research purposes.

### LAB

Getting the most out of your mobile device, connected sensors or applications - when testing or researching.

### RESCUE

An instant private cellular network enables first responders to communicate with all mobiles in the affected area.

### FLEX

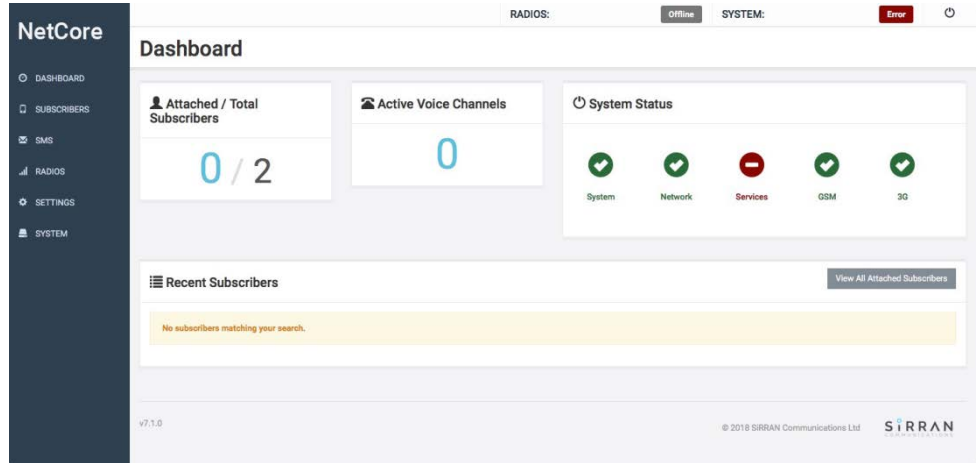
The power to create a flexible private cellular network in any situation.

# NetCore

SiRRAN's converged 2G/3G NetCore software provides the features and functionality of public network operators with the added flexibility of a localised private operation.

## AT A GLANCE

- ✓ Multi-technology - 2G/3G
- ✓ High-speed voice, messaging & data services
- ✓ Small to medium scaled installations
- ✓ Portable and can be virtualised
- ✓ Local call routing
- ✓ SIP client functionality
- ✓ Linux based
- ✓ Simplified interface
- ✓ Supports a range of hardware platforms
- ✓ Standards based 3GPP Release 9 luh

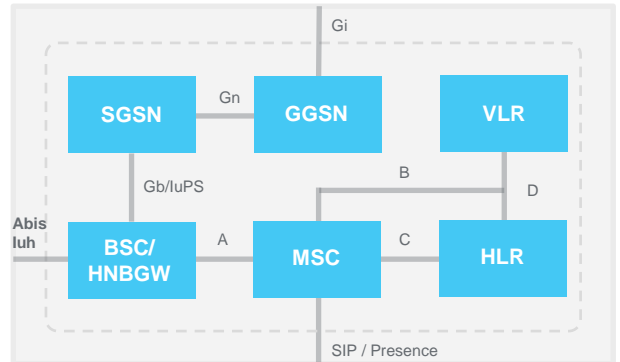


## TECHNICAL SPECIFICATION

### SOFTWARE

<b>Operating System</b>	Linux based
<b>CPU Requirements</b>	Intel, AMD (X64 - 64bit)
<b>Admin Browser</b>	Firefox, Chrome, IE, Mobile
<b>Supported Virtual Machines</b>	VMware Workstation 12, ESXi 5.5 and VirtualBox 5.0
<b>Minimum Hardware</b>	2 GB RAM, Intel Core 2 Duo CPU 2GB free HDD space 1 x 100Mbit Ethernet NIC
<b>BTS Interface</b>	Abis over IP, luH over IP
<b>Simultaneous BTS/3GAP</b>	Typical 3/3
<b>Subscribers</b>	Laptop/SBC: 100s idle Server: 1000s idle

### SOFTWARE CORE ELEMENTS



\*Data throughput rates and concurrent UE sessions supported are dependent on the performance of the hardware host and the capabilities of the BSC.

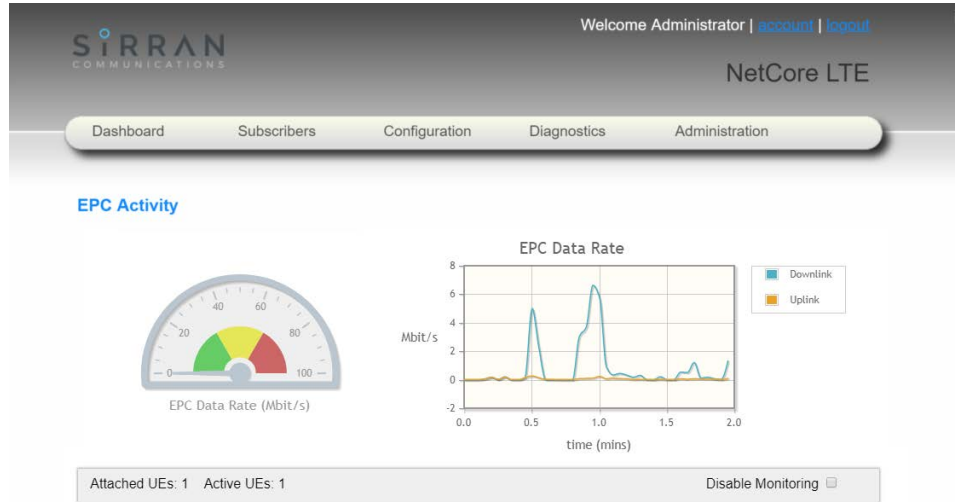
To achieve maximum performance the software should be installed on a server with at least 32GB RAM, Intel Xeon Quad Core CPUs and Gigabit Ethernet NICs.

# NetCore LTE

SiRRAN's LTE net EPC utilizes the latest mobile network technology to bring blisteringly fast data rates to mobile devices, enabling the creation of a 4G mobile data network anywhere.

## AT A GLANCE

- ✓ 4G EPC
- ✓ Achieving data rates of up to 150Mbps download speeds, real-time analytics and full Quality of Service (QoS) control
- ✓ Small to medium scaled installations
- ✓ Portable and can be virtualised
- ✓ Linux based
- ✓ Simplified interface and API
- ✓ Supports a range of hardware platforms
- ✓ Standards based S1 for interoperability with any eNodeB
- ✓ Award winning software

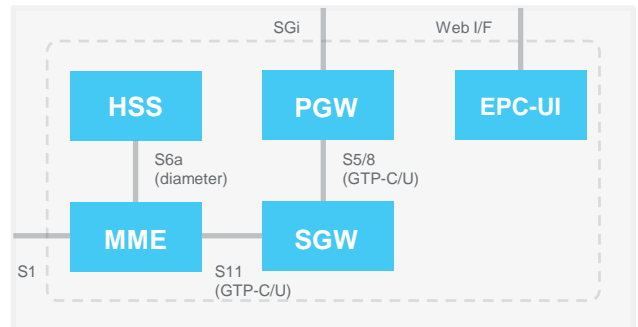


## TECHNICAL SPECIFICATION

### SOFTWARE

<b>3GPP Compliance</b>	3GPP Rel 8 (8.9.0)
<b>Operating System</b>	Linux based
<b>CPU Requirements</b>	Intel, AMD (X64 - 64bit)
<b>EPC-UI Browser</b>	Firefox, Chrome, IE, Mobile
<b>Minimum Hardware</b>	2 GB RAM, Intel Core 2 Duo CPU, 2GB free HDD space, 1 x 100Mbit Ethernet NIC
<b>eNodeB Interface</b>	S1 over IP
<b>eNodeBs*</b>	Laptop/SBC: 10 Server: 100
<b>Subscribers*</b>	Laptop/SBC: 100 Server: 1000+

### SOFTWARE CORE ELEMENTS



\*Data throughput rates and concurrent UE sessions supported are dependent on the performance of the hardware host and the capabilities of the eNodeBs. Numbers specified are estimated.

To achieve maximum performance the software should be installed on a server with at least 32GB RAM, Intel Xeon Quad Core CPUs and Gigabit Ethernet NICs.

# FEATURES & BENEFITS

FEATURE	ATTRIBUTE	BENEFIT
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## GENERIC

<b>Simplified Interface</b>	Managed entirely from a web interface providing access to parameters, settings and logging	<ul style="list-style-type: none"> <li>No need for domain specific knowledge</li> <li>Easy access via Wi-Fi or LAN</li> </ul>
<b>Flexible Deployment</b>	From a man-portable system to a rack-mounted or virtualised solution	<ul style="list-style-type: none"> <li>Supports a range of hardware platforms</li> <li>Located at customer or remote site</li> </ul>
<b>Subscriber Management</b>	With complete control over who can access the network, administrators can specify individual user services.	<ul style="list-style-type: none"> <li>Simplified provisioning</li> </ul>

## NETCORE

<b>Full Cellular Comms</b>	Voice, SMS and data functionality Add-on option for in-roaming of 3G subscribers from the macro network (with SIM authentication coordination)	<ul style="list-style-type: none"> <li>Individual and broadcast SMS</li> <li>GPRS and Edge high speed up to 386kbps, HSDPA up to 14.4Mbps (subject to 3G model)</li> </ul>
<b>Local Call Routing</b>	Data is offloaded locally - calls made between registered users can be switched locally	<ul style="list-style-type: none"> <li>Significant backhaul transport savings</li> </ul>
<b>SIP Integration</b>	Integration to the IP PBX over SIP allowing flexible dial plans and call routing	<ul style="list-style-type: none"> <li>Extension dialling from mobile devices</li> </ul>

## NETCORE LTE

<b>Data Speed</b>	High-speed access to information within the private network which can include real-time content such as voice, video, mapping	<ul style="list-style-type: none"> <li>Ten times faster than regular 3G achieving data rates of up to 150Mbps download speeds</li> </ul>
<b>Local Data Services</b>	Data is offloaded locally	<ul style="list-style-type: none"> <li>Significant backhaul transport savings</li> </ul>
<b>API</b>	The EPC supports an Application Programming Interface, via an HTTP connection.	<ul style="list-style-type: none"> <li>Build your own interface</li> </ul>
<b>Interconnection</b>	SiRRAN's EPC connects to external data services	<ul style="list-style-type: none"> <li>Allows for integration with enterprise or internet-based services and support for OTT applications</li> </ul>