



A comprehensive communications management solution

Product overview

The Auto Sky Roaming solution is transportable, scalable and suitable for any organisation that has direct or 3rd party control of their central site infrastructure and has a requirement for a fixed or Communications On The Move (COTM) deployable communications solution. The solution allows multiple device configurations to be housed on a highly scalable core processor, simplifying the management of the network infrastructure and eliminating the need to reconfigure essential services, thus allowing support staff to focus on their core competencies.

Zero Touch Configuration

Developed to simplify customer management with “Zero Touch” configuration functionality, the solution greatly reduces the costs associated with transporting expensive engineering resources to repair, install and configure equipment in failure and replacement circumstances. In many cases existing remote site personnel are able to activate the network component with a quick and simple phone call, advising the service centre of the component identification number, located on the casing. Once connected onto the network, ASR does the rest, auto-detecting the new network component and automatically downloading the necessary configuration software and activating the module.

Key benefits of Zero Touch Configuration

The solution enables the centralised control and commissioning of any nodes across any network infrastructure. All nodes in the network are kept in synchronisation with the most up to date configuration files, reducing downtime due to configuration mismatch and incompatibility errors. Systems that have configuration problems can be controlled centrally with configuration tables managed from HQ or central hub

Auto Sky Roaming - Features and Benefits

- Seamless blending of Inmarsat, VSAT, WiFi/WiMax, 3G and other network technologies.
- Central control and simple management and configuration for all satellite/terrestrial/wireless networks at the hub and at the edge/remote locations
- Provides rapid system provisioning and maintenance
- All user services are always terminated on the “Home Port” controller regardless of the Earth Station/Satellite/Service Provider with which the user is actually communicating
- Topology independent, it support SCPC, TDMA, P2P, MESH, P2MP, Wireless, PSTN
- Fully redundant and scalable with Zero touch configuration
- Central sharing of technical skill set
- Reduction in operational expenditure
- Operates across many vertical sectors and works equally well with terrestrial network operations
- Single point of connection for all services (Internet, voice, banking services, GSM traffic, telemetry)
- End user maintains the same IP addresses and phone numbers irrespective of network technology or SP used
- Provides seamless global roaming solution for VSATs
- Auto learning – system automatically detects the satellite with which a ship is communicating

What is ASR

ASR is a comprehensive end-to-end VSAT/IP/Legacy communication management solution that provides blended mobility, roaming management, auto configuration and quick system installation and provisioning, able to operate in any hybrid network environment (VSAT, Inmarsat, IP, PSTN, Lease Line & Wireless).

ASR addresses three key communication network needs:

1. Automatic traffic re-routing for satellite and/or terrestrial networks.
2. Uninterrupted service across a single logical network, irrespective of end-to-end connectivity or physical connections/networks. i.e. Automatically traffic re-routing whilst maintaining original IP address and vessel/vehicle contact numbers.
3. Automation & simplification of network configurations i.e. Ensuring all network nodes are updated automatically and kept in synchronisation.

Seamless Routing

ASR provides seamless switching between different satellites/network connections, with little or no operator intervention. In operation, the solution continuously monitors traffic and transparently changes the routing to match the current connectivity e.g. Satellite, ISDN, PSTN, Wireless, Lease Lines. The cut over requires little or no management or operator intervention and is initiated on the arrival of the first data packet.

The solution can provide an automated satellite roaming capability for the maritime sector, dramatically increasing the operational functionality of overlapping network footprints. For example, the seamless switch or blending between FleetBroadband and VSAT, the ASR solution auto detects the shift to the new satellite and initiates the voice and data traffic re-routing within the central site hub (earth station). ASR initiates the change on the arrival of the first packet from the new location and operates completely automatically without the need for operator intervention.

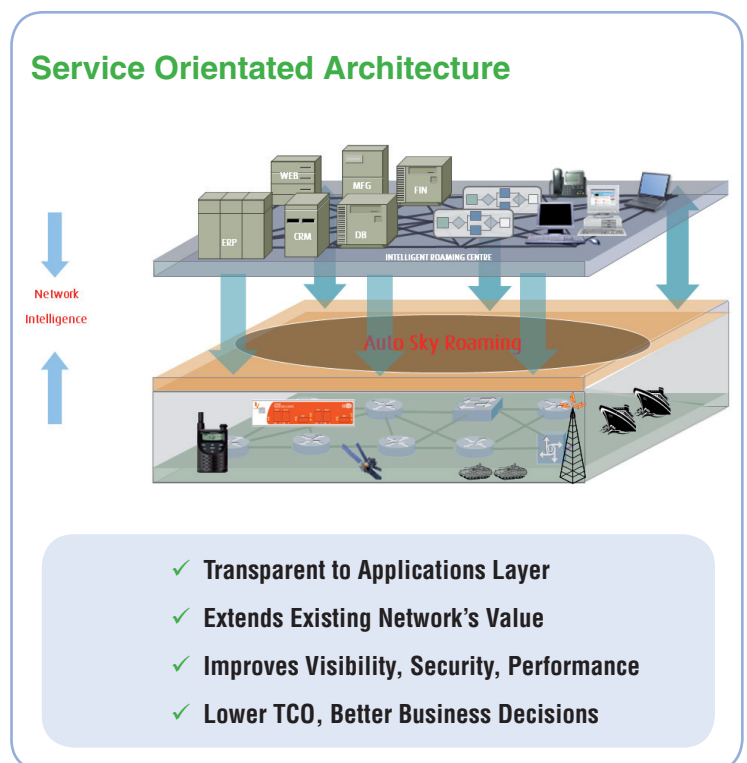
In operation the user maintains their original telephone number, and any phone conversations that are taking place during the shift are maintained without the need for re-dial. The Vessel also maintains its same IP address irrespective of ground station location, negating the need to reboot onboard systems.

The major advantage of the solution is that the support staff required to complete the migration will only need RF skills, with ASR dynamically managing the migration of the service onto the new satellite/network.

The solution features built-in rules and thresholds as well as automatic device identification and data collection to help enable easy setup and immediate monitoring of the managed network. It is extremely flexible and can monitor any third-party VSAT devices that may exist in the network such as router and satellite modems.

The deployment of ASR

As the Service Orientated Architecture diagram shows, the solution can be installed on any vehicle or vessel roaming between two geographical sites, where there is a requirement to shift the user from one communications system to another, seamlessly and quickly. Being totally infrastructure independent, it can be deployed on an IP, VSAT, Legacy, wireless Hybrid network without compromising any functionality and service.



Key Components of the Auto Sky Roaming Architecture

Configurator

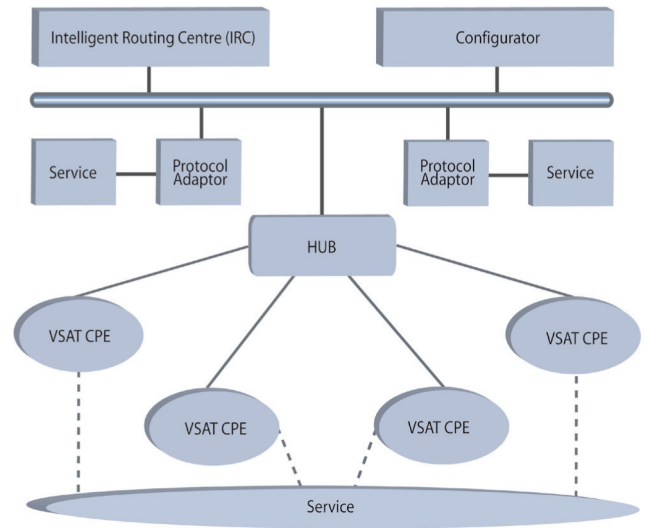
- Builds and stores the configuration file for the remote site CPE
- Provisioning of the Service across the network

Intelligent Routing Centre (IRC)

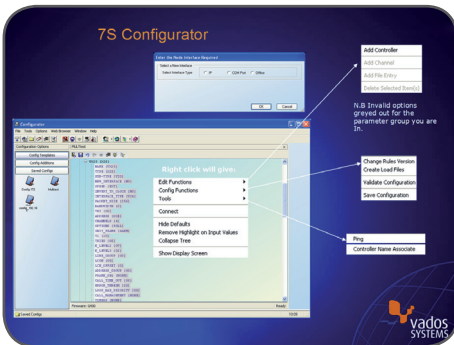
- Central control software
- Managed the roaming and controls Configurator

Protocol adapter

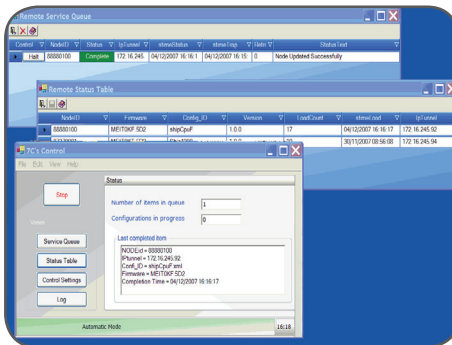
- Hides the any-to-any infrastructure differences i.e. seamless to the user
- Convert all the service to IP based – Not required in a pure IP environment.



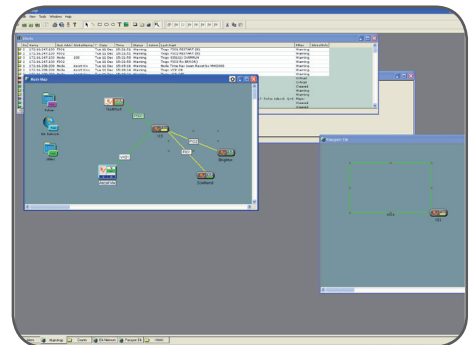
Configurator



Intelligent Routing Centre



Alarm Switching



The Configurator module is design to build and change the configuration of any equipment in the network. Configurator provides the end-to-end service provisioning capability across the network. It is scalable to support any third party equipment including CISCO and 3COM equipment.

The control module constantly monitors the end-to-end service status across the entire network, detecting any hardware or software change on the network

When the roaming ship initiates a network change, ASR generates an alarm to show which vessel and what links have been effected.

Product Specification

Description	Specification
Product compatibility	M-Watch R336/R337, Configurator R3.1/R3.2, IRC R1.1
Software compatibility	Windows 2000 Windows XP with SP2 Windows 2003 Server Windows Vista
Data collection mechanisms	SNMP, FTP, TFTP

System Requirements

Description	Specification
Processor	Single/Dual core P4, Xeon, or equivalent AMD processors greater than 1.66 GHz
Memory and hard disk	1 GB RAM and 30 GB Hard Disk
Operating system	Windows 2003 Server with Service Pack 1 or Windows XP with Service Pack 2, windows 2000 with SP4, Windows vista

Ordering Information

Product name	Part number
Central control software for network scheduling and monitoring	IRC-Host
SNMP Network management platform	M-Watch R337
M-Watch license	MW-Lic
Intelligent Roaming Center license	IRC-Lic

United States

Toll-Free: +1-877-638-4552
Tel: +1-732-652-5200

Email: sales@aepnetworks.com

Europe

Tel: +44 1344 637 300

Web: www.aepnetworks.com

Greater China

Tel: +8621 5116 7120

SE Asia, Singapore

Tel: +852 2961 4566

Japan

Tel: +81 3 5979 2149

Australia/New Zealand

Tel: +61 2 9413 2282

Malaysia

Tel: +60 32166 2260