Colibrí NetManager

Fig. 1 Colibrí NetManager

"The Colibrí NetManager (CNM) is an innovative flexible tool to centrally and globally manage Teldat devices. This solution is found in cloud mode or virtually in client head offices, allowing a device pool to be remotely managed through flexible licenses. This adapts perfectly to individual clients, SMEs and corporations with thousands of devices. The management suite is particularly exciting as technical personnel become redundant when deploying devices requiring management on client premises."*

Versatile Management Platform

PRODUCT OVERVIEW

The Colibrí NetManager feature-rich tool satisfies the management needs of the vast majority of clients who have Teldat devices in remote offices thanks to its innovative range of features.

Characteristics

- ✓ **Two operating modes: virtual appliance at the client premises or as a cloud service.**
- ✓ **Simple access to management environments from any network point through a browser (HTTP/HTTPS).**
- ✓ **Encrypted communication with certificate guaranteed security.**
- ✓ **Multiclient and multiuser.**
- ✓ **Profiles and permission restrict functionalities for both clients and users.**
- ✓ **Deployment of devices/applications without technical personnel, "Zero-touch Installation".**
- ✓ **User friendly configuration of devices based on groups, templates and profiles.**
- ✓ **Centralized monitoring together with quick, visible and intuitive analysis.**
- ✓ **Incorporates a single management tool for Teldat routers, applications and wifi equipment.**
- ✓ **Alarm reception and categorization reportable through email or SNMP to an external support center.**
- ✓ **Out-of-band management, Colibrí NetManager availability does not affect general device operations.**

*Cloud service available soon.

The Colibrí NetManager is a global suite to configure and monitor Teldat devices and applications. Each management element is activated through a system of licenses distributed via packets containing n units.

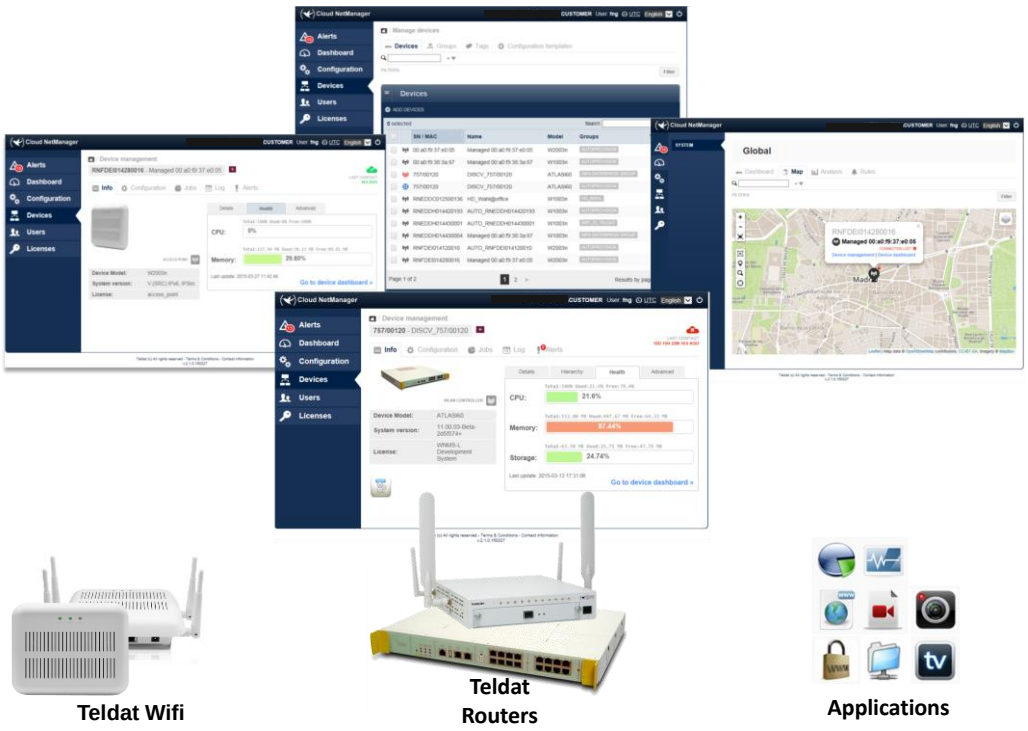

Fig 2. Unified management

OPERATING MODES

The Colibrí NetManager can offer one of two different operating modes:

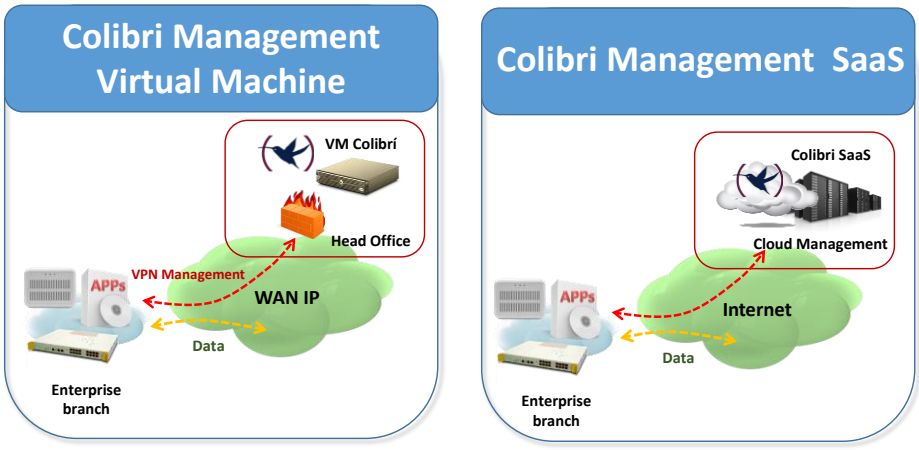

Fig. 3 Operating modes

Option 1: As a Virtual Machine at the client's head office.

The client's data processing center resources in this case provide a service enabling said client to administrate both the permissions and users who can operate over this particular platform. Characteristics include:

- ✓ Accessing the management suite is achieved through the client's IP connectivity.
- ✓ Private and public networks, with or without VPNs, can be used.
- ✓ This is normal in high security scenarios.
- ✓ User licensing system contracted through a single initial payment.

Option 2: As a Cloud service (SaaS)

In this case, clients can access their device management through a public cloud where this service is housed. Characteristics:

- ✓ Simplifies exploitation.
- ✓ Immediate device/application startup.
- ✓ Savings in infrastructure costs.
- ✓ Contraction system based on user licenses valid for 1, 3 or 5 years.
- ✓ Error free scalability, load balance and high availability.

OUT OF BAND MANAGEMENT

Management planning can monitor or change the configurations of the devices and applications managed by the Colibrí NetManager, without affecting the client's corporate data. Additionally:

- ✓ Management traffic doesn't need to follow the same path as corporate traffic.
- ✓ Bandwidth consumption is optimized.
- ✓ A drop in the control center does not affect the connected devices/applications base.

WEB USER INTERFACE

Regardless of the network connection point, the Colibrí NetManager is accessible without installing specific applications in the network management devices.

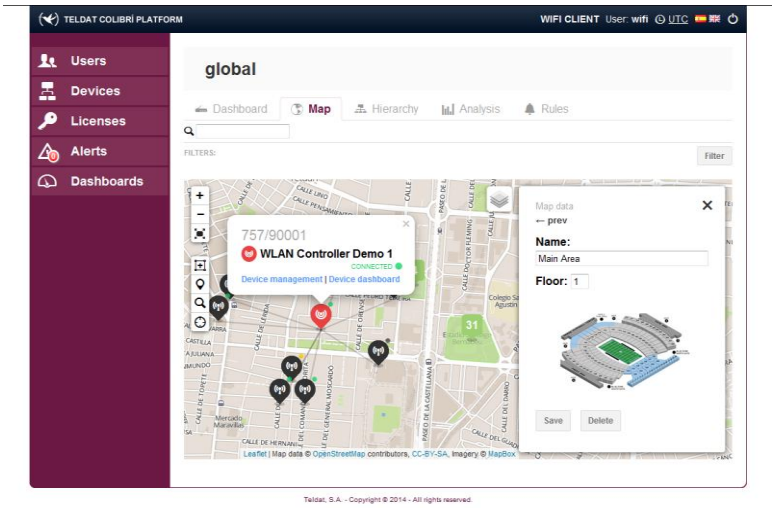

Fig. 4 User Interface

- ✓ Accesses the management interface from any point through a browser.
- ✓ Simple and intuitive to use.
- ✓ Multiple user accounts with different access permissions.
- ✓ Displays device locations on geographical maps.*
- ✓ Allows you to add private maps or building floor plans where the positions of the devices are shown.

*Mandatory connection to Internet

UNATTENDED INSTALLATION AND AUTODISCOVER

The Colibrí NetManager solution simplfies day to day operations over management devices, allowing network deployment to be planned and automizing many processes:

- ✓ Autodiscover is supported for new devices and autoregister optimizes startup processes.
- ✓ Massive device importing is possible through simple CSV files.
- ✓ Specific configuration per device is unnecessary, templates and groups are used to accelerate startup processes.
- ✓ Both devices and applications autoconfigure as soon as they are connected to a network that can access their management center.
- ✓ A device/application configuration may be individually personalized.
- ✓ Connection to central management is both secure and encrypted.

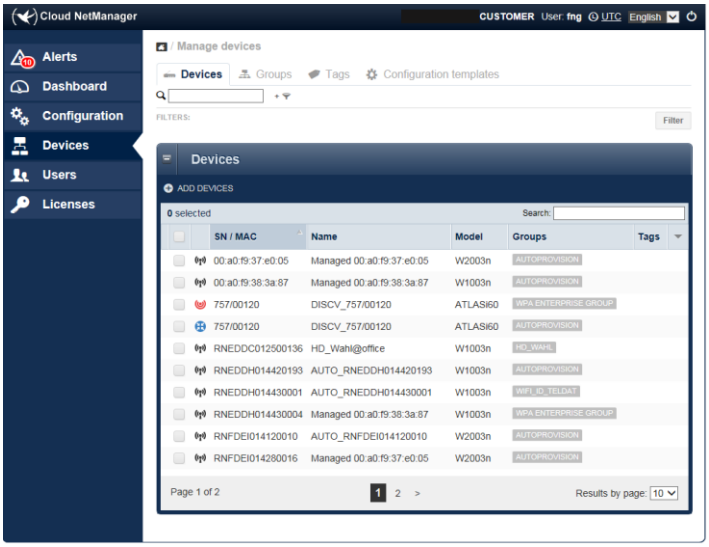

Fig. 5 Zero-Touch Provisioning

MONITORING AND DIAGNOSTICS

Once the Colibrí NetManager is accessed, you immediately view a menu containing the current alarms in a client network and can easily obtain a list of the alerts in this network.

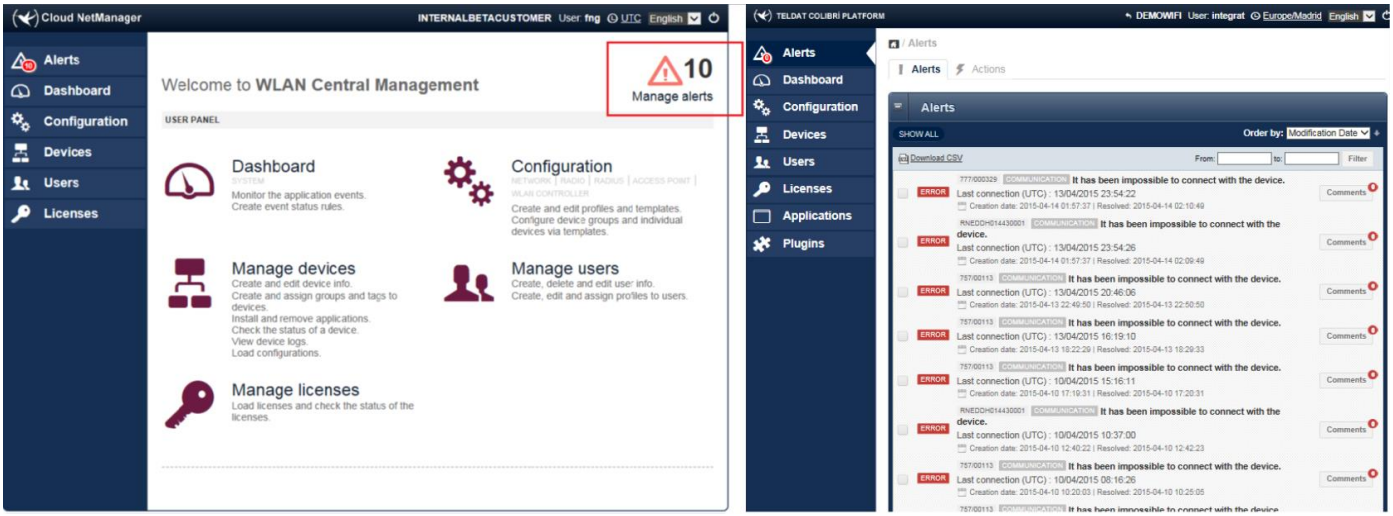

Fig. 6 Alarms

The alarms can be cataloged through criteria filters and sent via mail to a service account or through SNMP traps.

Additionally, the Colibrí NetManager automatically registers all devices with licenses in the dashboard for monitoring and incident diagnostic purposes, obtaining information such as:

- ✓ Statistics and/or information on accessible devices or applications activated in each device.
- ✓ Status of the active devices, administration data: model, SW release, location, etc.
- ✓ Graphic information on the CPU and equipment memory.
- ✓ Monitoring on the active SSIDs, the AP neighbors, “rogue APs” detection, etc.
- ✓ List of clients connected to a device.
- ✓ Spectrum of channels in the device area.
- ✓ Information on the statistics and minimum performance over the last 24 hours.

- **Example 1: Dashboard in the WiFi infrastructure:**

The Wifi dashboard provides information on device troubleshooting through multiple windows that can be personalized:

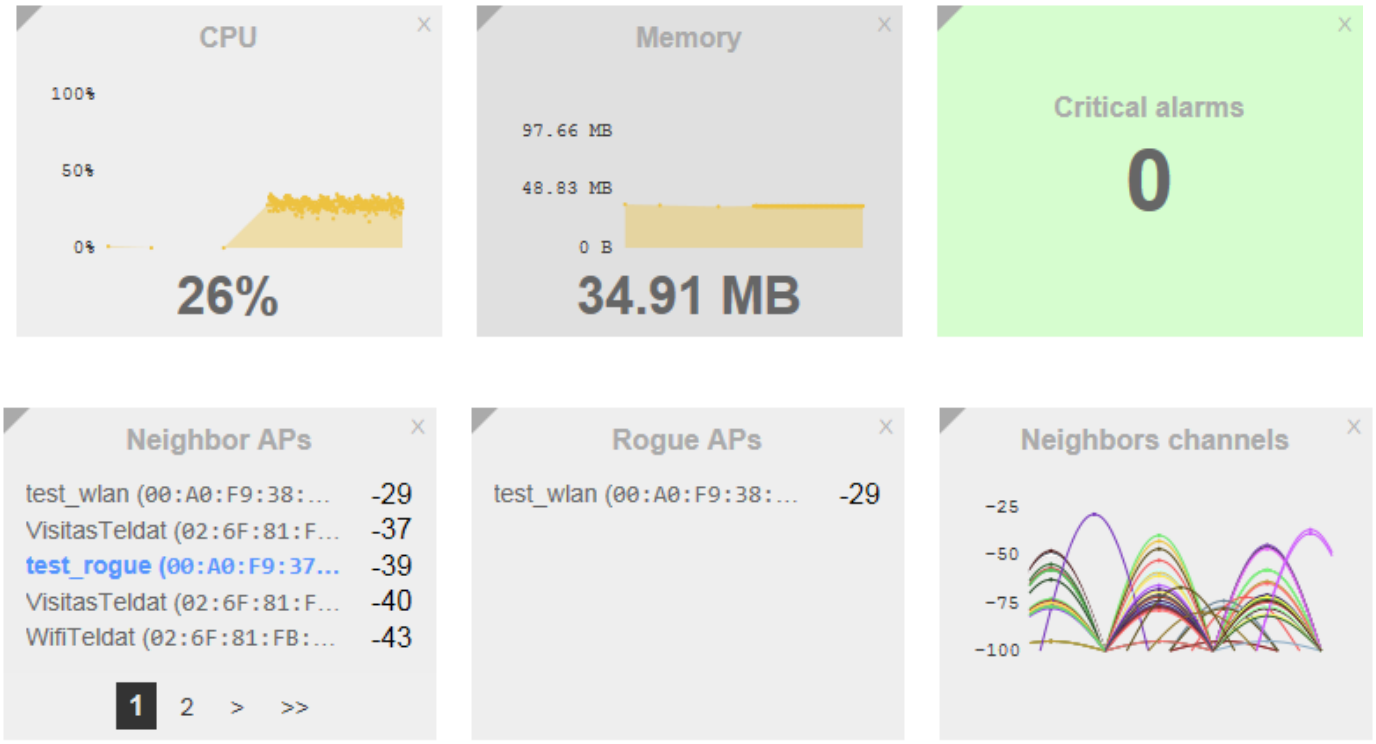

Fig. 7 Wifi Dashboard

Any of the above windows can be both increased and paramatrized to obtain additional information:

Fig. 8 Wifi channels

- **Example 2:Applications control Dashboard:**

An application's dashboard provides troubleshooting information including comprehensive statistic reports:

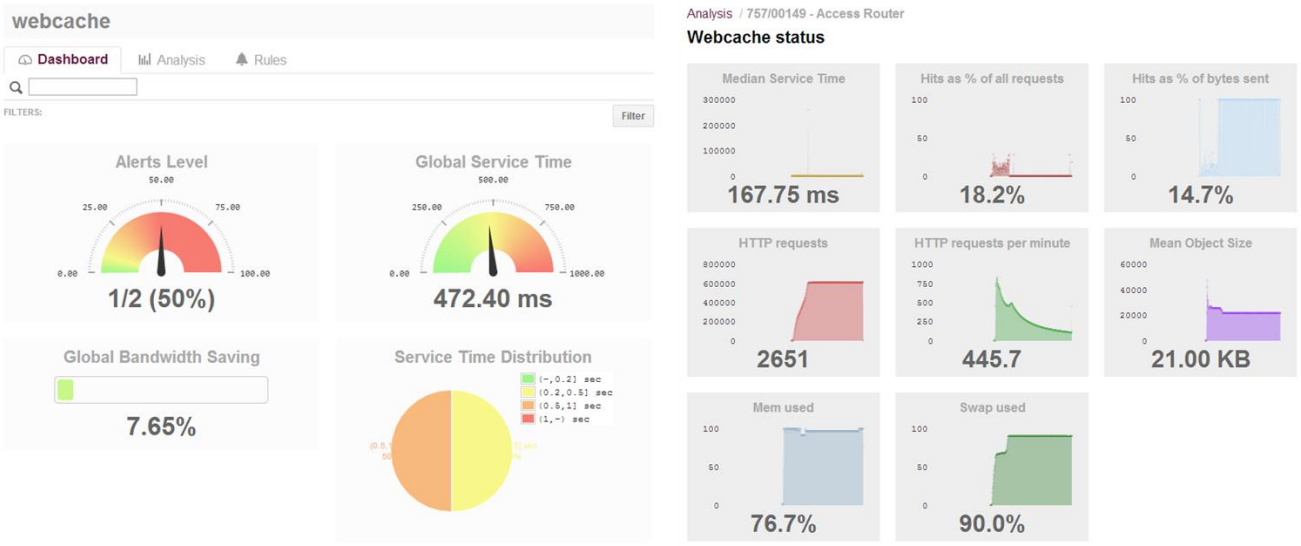

Fig. 9 Dashboard application webcache

MULTITENANT, GROUPS AND TEMPLATES

As a device configuration global platform, the Colibrí NetManager brings not only individual management but allows devices to be ordered through groups, assigned tags and associated to template configurations defining what services are to be applied to each client.
This functionality drastically reduces time spent on exploiting the network versus manually changing the devices individually.
An added advantage is that devices can be individually personalized without belonging to a group.

SECURITY AND AVAILABILITY

The Colibrí NetManager uses mutual authentication using certificates with all devices/applications it manages. In cloud mode, the server has both logical as well as geographical redundancy guaranteeing exceptionally high availability.
Additional Security and Availability details are:

ISO/IEC 27001

- ✓ Full compliance with the European data protection laws.
- ✓ Both managed devices and applications continue to operate should connection to the management suite drop.
- ✓ Only configuration and statistic data is exchanged between remote devices and the management platform.
- ✓ Only a few kB/sec are needed for management (<5kbits/sec).
- ✓ 99% SLA when operating as cloud.

Fig. 10 Security and High availability

USER SCENARIOS

The Colibrí NetManagercan operate from a single platform over scenarios that contain:

- ✓ Teldat Routers.
- ✓ Teldat Applications.
- ✓ Teldat Wifi.
- ✓ A combination of the above three elements.

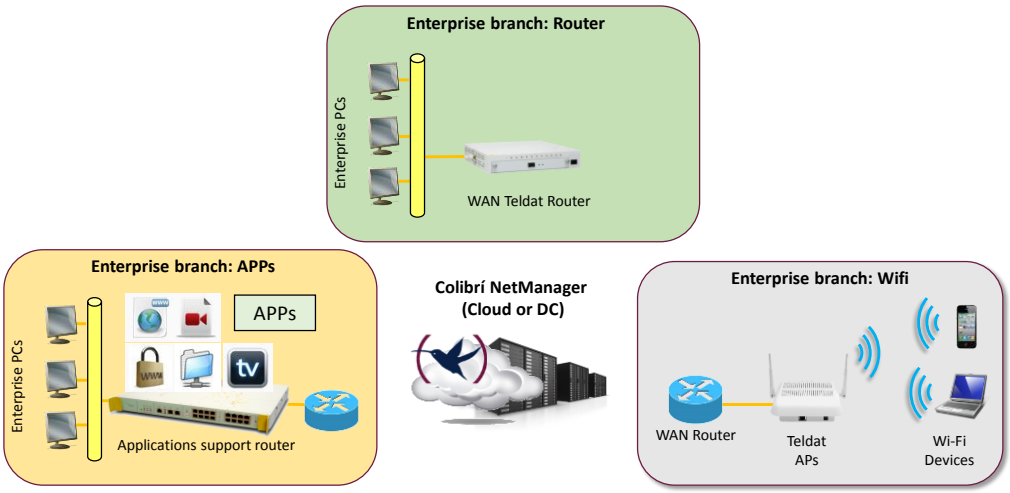

Fig. 11 User scenarios

VIRTUAL MACHINE REQUIREMENTS

The Colibrí NetManager needs the following to operate in local mode in the client installations:

The Colibrí Virtual Mode Management Requirements	
Implementation	Two virtual machines
Hypervisors	VMWare ESXi (5.1 or higher) or Citrix XenServer (6.0 or higher)
Virtual Machine 1	Database Content and Motor
Virtual Machine 2	Interaction motor for users and devices

Fig.12 Virtual machine requirements

Sizing by volume:

Minimum system requirements to manage 5000 devices				
Virtual Machine ID	Storage	Number of CPUs	CPU Clock	RAM
VM1	1 TBytes	4	> 2GHz	16 GBytes
VM2	64GBytes	2	> 2GHz	8 GBytes

Fig. 13 Requirements by volume

PRODUCT CODE AS A CLOUD SERVICE

Each device the Colibrí manages needs a management license in the platform. The licensing system for cloud mode management is executed through packets with a given value of units and duration: for 1, 3 or 5 years. Once this time has lapsed, the client devices remain operative but licenses have to be renewed so that the CNM continues to manage them.

PRODUCT CODES FOR VIRTUAL MACHINES

The licensing system is the same as above, however the validity period is permanent. The client acquires the management software installed in their data processing centers and contracts the licenses required without any renewal process.

	www.teldat.com **TELDAT S. A. (SPAIN)** Parque Tecnológico de Madrid. 28760 Tres Cantos, Madrid (Spain). Tel: +34 91 807 65 65 Anna Piferrer 1-3. 08023 Barcelona (Spain). Tel: + 34 93 253 02 22	
bintec elmeg GmbH (GERMANY) Suedwestpark 94. 90449 Nuremberg (Germany) Tel: +49 911 9673 0. Fax: +49 911 688 0725	**TELDAT MEXICO** Diagonal 27. Colonia del Valle, Mexico D. F. 03100 (Mexico). Tel: +52(55)55232213	**TELDAT USA** **Silicon Valley Offices** 718 University Ave, Suite 210 Los Gatos, CA 95032 (USA) Tel.: +1 (408) 892-9363 Fax: +1 (408) 300-9375
TELDAT ITALY Viale Edison 637. 20099 Sesto San Giovanni (MI) (Italy) Tel: +39(02)24416624	**TELDAT FRANCE** 6 Avenue Neil Armstrong Immeuble le Lindbergh 33692 MERIGNAC Cedex (France) Tel: +33(0) 57356300	**TELDAT CHINA** A 060, F10 SOHO Nexus Centre No19A, East 3rd Ring North Road, Chaoyang District, Beijing 100020 (China). Tel: +86 10 57351071