



Wholesale Market

VOIP Hosting with TIM Host

From Reseller to Operator to act
without intermediaries



VOIP Hosting with TIM Host

The service is for wholesale customers who wish to offer their end-customers carrier-grade voice services without investing in their network.

Service features

Provisioning the Connection:

- **60 working days** in **95%** of cases,
- **90 working days** in **100%** of cases,

Calculated on the number of days between the date of submission of the application and the date on which the Connection is activated, also including the relevant CAC forms

Provisioning for CAC module configuration service:

- **14 working days** in **100%** of cases,

Calculated on the number of working days between the date of submission of the order and the date the module is activated. Such activation shall be after the actual delivery or availability of the relevant Connection, and the calculation of days shall take place from the date on which the Connection becomes available.

Assurance Connection (in the event of a blocking failure):

- Within **8 working hours** (in the range **8-16 working days**) for Reporting from **8am to 12pm Monday to Friday**;
- Within **16 working hours** (in the range **8-16 on working days**) for reporting on public holidays, holiday eves, and **Mon-Fri. outside the hours 8am-12pm.**

Assurance Connection (in the event of a non-blocking failure):

- Within **24 working hours** (in the range **8-16 working days**) for Reporting from **8am to 12pm Monday to Friday**;
- Within **36 working hours** (in the range **8-16 on working days**) for reporting on public holidays, holiday eves, and **Mon-Fri. outside the hours 8am-12pm.** |

The recovery times indicated do not apply in the following cases:

- 1) Reasons due to force majeure
- 2) Faults caused by third parties



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Who is it for?

The 'VOIP Hosting service with TIM Host' offer is for Operators in the sector who:

- do not have their own network, but are looking to gradually extend their presence in the voice services market and do not rule out the possibility of acquiring their own network infrastructure by setting up a telephone switching network, anticipating revenues.
- intend to offer their customers the telephone service with the potential offered by IP technologies, which includes the possibility of evolution towards advanced communication systems (e.g., UCC).
- want to operate without intermediaries through self-provisioning tools designed with a wholesale perspective.

Preliminary services

- Easy IP ADSL
- Bitstream
- GEA

Description of the service

The 'VOIP Hosting service with TIM Host' allows Operators without their own telephone network to offer VOIP telephony services to their end-customers through a special service Platform made available by TIM, enabling the virtualisation of the Operator's telephony network.

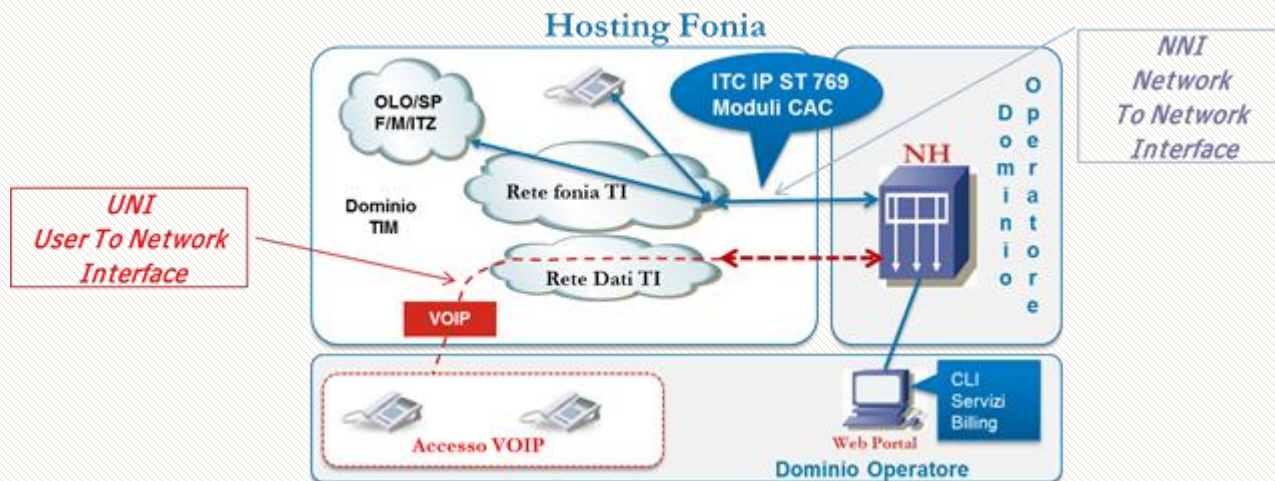
To implement the VOIP Hosting service with TIM Host, TIM has created a Platform on which it exclusively dedicates transmission, memory and processing resources to the Operator participating in the service, virtualising the existence of its voice network: the Platform emulates the presence of an Operator's switching node interconnected to TIM's telephone network.

For the hosted Operator, like that envisaged for IP interconnection, the appropriate logical channels for direct interconnection to the TIM network are created following the national technical specification ST-769, with the difference that the Operator is virtualised by the resources dedicated to it on the Platform. Therefore, for each call, the platform verifies that the VOIP line is active and enabled for the service and carries out the switching and management of basic and supplementary consumer or business services on the Operator's behalf.



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Other fixed, mobile and international Operators deliver traffic to the TIM network to the end-customer numbers of the Operator participating in the service, which routes it directly to the switching platform via the Operator's dedicated interconnection. Through this Interconnection, calls originating from its end-customers are routed from the Platform directly to the TIM network, for routing to the destination networks with any transit and termination services.



The Wholesale Portal allows the Operator to access the Platform autonomously and in 'secure' mode for the remote management of the services subscribed to by the Operator. Enabled functionalities include:

- activation and termination of hosted numbers,
- the management of service profiles (e.g., forwarding or barring of certain types of traffic, line blocking, etc.).)
- the recording of amounts;
- the display of traffic statistics,
- the display and download of detailed data relating to traffic developed by customers (traffic cards) either via the web or via FTP or sFTP connections integrated into the Operator's billing systems

The Platform has a protected interface that can also be reached from the Internet (SBC UNI), ensuring access to the VOIP service via any data connection that the Operator has or prefers.



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For data connectivity from the Operator's End Customers (UNI), several solutions are proposed, such as:

- **Easy IP** all by TIM: the Easy IP service is offered for every OLO end customer. The OLO can offer voice + Internet to its end-customers, delegating TIM for configuration activities.
- **Bitstream**: the Operator may purchase Bitstream kits from TIM and collect traffic from its end-customers up to its own Data Network. Then via Internet access from its own network it reaches the VOIP Hosting platform with TIM Host and can offer voice + Internet to its end customers.
- **GEA and IPG@te**: The Operator can autonomously collect VOIP traffic from its end customers and channel it into the TIM network with GEA and IPG@te products, through which it reaches the VOIP Hosting platform with TIM Host.
- All in the hands of the Operator: connectivity with TIM is entirely the Operator's responsibility. For example, each customer reaches the platform independently. The Operator already has a connectivity solution for the TIM network and requests a feasibility study from TIM to use it for the VOIP service.

The Antifraud service is offered to ensure complete control of the service. Through this, the Operator can define thresholds for notification of the exceeding of ordinary traffic conditions. These thresholds can be defined for traffic lines organised in seven tariff zones and valued in terms of number of calls per hour or maximum call duration per hour. Once each threshold is exceeded, the Operator is informed in real-time and can act immediately on the line(s) service profile.

The Operator may also decide which International routes to have opened for its end customers from among the traffic routing plans belonging to seven planned tariff zones. The tariff zones option, which is offered together with the Anti-Fraud Service, allows a modulation of the value of the guarantee in the range from a minimum value (domestic traffic only) to a maximum (traffic to all international routes, satellite and NNG).

Value proposition

The 'VOIP Hosting with TIM host' service proposal features the following elements of interest:

Immediate cost savings:

- No investment in platforms or network
- No system maintenance costs
- No interconnection kit to TIM fixed network
- Possibility of limiting the initial guarantee by choosing the tariff zones of interest



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Very quick start of the service:

- Very fast service activation (e.g., 30-40 days on average)
- No qualification test (no PVV&PQR)
- Anticipating revenues to grow together
- Global offer thanks to national coverage

Total control of the service:

- Self-Provisioning for all service management (provisioning, statistics, accounting etc.)
- Real-time monitoring with anti-fraud services
- C5 Carrier Grade platform that also includes compulsory services towards the AA.GG.
- Possibility of activating a SIP connection to migrate phone numbers

SLAS

Provisioning of IP_Number Hosting Interconnection Services (ITC-IP-NH, NNI Interface) :

- For each configuration request, the OPERATOR shall send in writing the Plant Plan (“PP”) and the Feasibility Study Request (“FS”) form, duly completed, to the competent TIM structure from Monday to Friday (excluding public holidays) between 8am and 4pm. Outside these hours, the request shall be charged to the next working day. Only after the successful completion of the FS can the OPERATOR proceed with the relevant orders.

Numbering configuration (Codes, Routing Numbers, etc.):

- 30 working days for Configuration of codes and Routing Numbers (e.g., OP_ID of the OPERATOR) and any numbers related to OPERATOR traffic. If the configuration is requested together with the delivery of an ITC-IP-NH connection, the configuration’s delivery time shall commence on the date of delivery of the ITC-IP-NH connection.



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Regulatory Conditions

The service is not subject to regulation and is intended exclusively for:

Operators with an individual license or a general authorisation for telecommunications networks and services for public use which existed before the entry into force of Italian Legislative Decree no. 259 of 1 August 2003, containing the 'Electronic Communications Code' (referred to in Article 38 of the Code), as last amended by Italian Legislative Decree no. 70 of 28 May, 2012.

Companies with a general authorisation for electronic communications networks and services pursuant to Art. 25 of Italian Legislative Decree no. 259 of 1 August 2003, as last amended by Italian Legislative Decree no. 70 of 28 May 2012.





Wholesale Market

TIM SPA

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Entry in the Register of Producers of Electrical and Electronic
Equipment (AEE) IT080200000799
Share Capital €11,677,002,855.10 fully paid-up