The history of global consensus on interconnection and telecom tariffs: The genesis of ITU-T Study Group 3

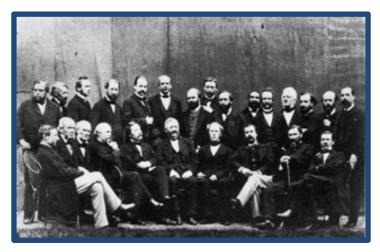
Spanning three centuries, the work of ITU-T Study Group 3 dates back to the origins of ITU and, as such, it can be said to be part of the very DNA of the organization.



It all began one fine day in Paris in 1865...

1865:

International Telegraph Convention & International Service Regulations



The interconnection of telegraph networks was at the core of the objectives of the International Telegraph Conference, ITU's founding conference in Paris in 1865. The conference had two main aims:

- To establish uniformity in the telegraph system to provide rapid and efficient exchange of messages between users in different countries; and,
- To establish a single uniform telegraph rate.

The conference drew up the *International Telegraph*Convention and the Regulations for International Service, and the International Telegraph Union (the first incarnation of

ITU) was established to supervise subsequent amendments to these agreements. These treaty documents set taxes (tariffs) on termination and transit, and covered issues such as the interworking of equipment and the settlement of accounts between countries. The 1865 conference documents are available here.

1865 - 1923:

Updating and Revising the Convention and the Regulations

The 1865 conference stipulated that the International Telegraph Convention should be periodically revised by international conferences to reflect technical and administrative progress. The Convention and Regulations – including the articles on tariffs/taxes and the settlement of accounts, as well as the *Tableaux des taxes (Table of Telegraphic Rates)* – were subsequently revised and updated at the International Telegraph Conferences of 1868 (Vienna) and 1871-1872 (Rome).

In 1875, the International Telegraph Conference in St. Petersburg completely re-drafted the International Telegraph Convention to create a simplified document that contained only general provisions of a policy nature that would remain in effect for an "indeterminate length of time". All details of a transitory and specific nature that could be subject to frequent changes, as well as all provisions related to tariffs/taxes and the settlement of accounts, were placed within the Regulations for International Service (also known as the *International Telegraph Regulations*). Looking to the future, the conference

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created "Administrative Conferences", responsible for revising the Regulations and the Table of Telegraphic Rates. These administrative conferences would be attended by technical experts from the Member States.

The Telegraph Regulations

The Telegraph Regulations, as annexed to the 1865 Telegraph Convention and revised and expanded over the years, contained provisions which dealt with the international telegraph network; the service provided by telegraph offices; charging systems, the composition of tariffs and the collection of charges; signaling codes; the preparation of telegrams and the counting of words; the routing, transmission and delivery of telegrams; telegrams relating to the safety of life; government telegrams; and press telegrams and other special cases.

The Telephone Regulations

Following the patenting of the telephone in 1876 and the expansion of telephony, in 1885 the International Telegraph Union decided to add regulations for "the international telephone service" to the Telegraph Regulations. These regulations were subsequently expanded and eventually became a separate set of regulations – the Telephone Regulations – at the 1932 Madrid Telegraph Conference. The Telephone Regulations contained provisions which dealt in particular with the international telephone network, methods of charging and international accounting. These Regulations also defined various categories of calls and priorities for the setting up of calls.



Tableaux des taxes (télégraphe)

A good summary of ITU's work on tariffs is found in a paragraph from *The International Telecommunication Union: An Experiment in International Cooperation*¹:

¹ Codding, George Arthur, *The International Telecommunication Union: An Experiment in International Cooperation* (Leiden: E.J. Brill, 1952), p. 57.

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"The problem of establishing an equitable basis for the determination of rates for international telegrams was a continuing preoccupation of the International Telegraph Union. The problem was first introduced at Paris, in 1865, when the Chairman of the Telegraph Conference explained that France had called the conference primarily to secure agreement on the substitution of a system of uniform tariffs for the old system of tariffs by zones. From that time on, the greatest amount of Union conference time was devoted to the task of finding agreement on a basis for international rates that would be low enough to permit the public to use the telegraph, and at the same time high enough to provide the level of compensation requested by the telegraph administrations. The problem was complicated and kept fresh by the development of the international service and by changing economic conditions."

The issue was so important that each administrative telegraph conference (and later each telegraph and telephone conference) created a "Commission des tarifs" to work on telegraph tariff issues during the conference. The *Tableaux des taxes* (télégraphe) were regularly revised and published by the Union up to the 1990s.

1923

Creation of CCIF (International Telephone Consultative Committee)

By 1923, ensuring efficient long-distance international telephony had become a significant challenge, given the diversity of equipment and operating procedures in place, the variety of technical improvements being achieved, and the diversity of languages.

Many telephone technicians felt that the regulations drawn up by the International Telegraph Conferences were too broad. Their view was that detailed study and cooperation by technical experts would prove more effective in addressing the challenges inherent to the systematic development of international long-distance telephony.



A Preliminary Technical Committee was convened in March 1923 to study means of ensuring systematic and continuous coordination on technical matters between the Administrations of various countries. The result was the creation of the International Telephone Consultative Committee (CCIF) in 1924.

1924

Study Groups are created (originally named Committees of Rapporteurs)

At its first meeting in 1924, the CCIF Assembly set up a small Standing Committee to study "questions" agreed by the Assembly. The Standing Committee struggled to work efficiently, quickly becoming too big, with too many different issues to study. The 1926 CCIF Plenary Assembly therefore decided to replace the Standing Committee with specialized *Committees of Rapporteurs*, each studying a main class of question. These Committees of Rapporteurs were later renamed *Study Groups*. The CCIT (created one year later - see below) established the same structure for telegraph issues.

The ITU-T Study Group 3 that we know today is the successor of the following Committees of Rapporteurs:

CCIF - Telephone

Assembly	Study Group	Name of Study Group
1926	6e Commission de Rapporteurs	Exploitation
	7e Commission de Rapporteurs	Trafic et exploitation
1927	6e Commission de Rapporteurs	Trafic et exploitation
1928-	7e Commission de Rapporteurs	Tarification / Tarification téléphonique
1954		

CCIT - Telegraph

Assembly	Study Group	Name of Study Group
1929	Study Group No. VIII	Exploitation
1931	Study Group No. VIII	Tarifs et exploitation
1934,	Study Group No. VIII	Exploitation
1936		
1948,	Study Group No. X	Services offerts aux usagers et tarifs autres que les tarifs telex
1953	Study Group No. XI	Service international des abonnés au télégraphe et tarifs y relatifs

1925

Creation of CCIT (International Telegraph Consultative Committee)

The International Telegraph Conference (Paris, 1925) officially recognized the International Telephone Consultative Committee (CCIF) and attached it to the International Telegraph Union. It also created an equivalent committee for telegraph matters, the International Telegraph Consultative Committee (CCIT).

The duties of the two committees were described as follows:

- CCIF charged with the study of standards regulating technical and operating questions for international longdistance telephony (International Telegraph Regulations (Paris, 1925), Article 71, Section S).
- CCIT charged with the task of studying technical questions and working arrangements concerning international telegraphy, particularly as regards long distance telegraphy, and the necessary measures for obtaining the best output from the installations (*International Telegraph Regulations* (Paris, 1925), Article 87).

<u>1932:</u>

In 1932 at <u>a conference in Madrid</u>, it was decided that a new name would be adopted to reflect the full range of ITU's responsibilities: **International Telecommunication Union**. The new name came into effect on 1 January 1934. At the same time, the International Telegraph Convention of 1865 was combined with the International Radiotelegraph Convention of 1906 to form the International Telecommunication Convention.

<u> 1959:</u>

Telegraph and Telephone Committee merge to form the CCITT (today's ITU-T)



telephony and to issue recommendations on them".

In view of the basic similarity of many of the technical problems faced by CCIF and CCIT by the 1950s, a decision was taken in 1956 to merge the two committees into a single committee: the International Telegraph and Telephone Consultative Committee (CCITT).

The duties of the CCITT were described in Article 13 of the International Telecommunication Convention (Geneva, 1959):

"The duties of the International Telegraph and Telephone Consultative Committee (C.C.I.T.T.) shall be to study technical, operating and tariff questions relating to telegraphy and

<u>1960-1992:</u>

Work on general tariff principles continues under newly named Study Group III

The work on tariffs, lease of telecommunication circuits continues within CCITT, mainly through a group labelled Study Group III. Naming Study Group 3 as the Study Group on "tariff and accounting principles" occurred at the 1988 World Telecommunication Standardization Assembly (WTSA).

Assembly	Study Group	Name of Study Group
1956	2/1	Telegraph operation and tariffs (Telex service included)
	2/2	Telephone operation and tariffs
	2/3	Costing
1960	Study Group I	Telegraph operation and tariffs (telex service included)
	Study Group II	Telephone operation and tariffs
	Study Group III	General tariff principles. Lease of telecommunication circuits
1964,	Study Group III	General tariff principles; lease of telecommunication circuits
1968,		
1972		
1976,	Study Group III	General tariff principles
1980		
1984	Study Group III	General tariff principles including accounting
1988	Study Group III	Tariff and accounting principles

1992 to today

ITU's activities are organized into Sectors and CCITT is renamed ITU-T

In 1992, at an additional ITU Plenipotentiary Conference, ITU's three main areas of activity were organized into "Sectors": telecommunication development, radiocommunication, and telecommunication standardization.

CCITT was renamed the Telecommunication Standardization Sector (ITU-T). Article 17 of The Constitution of the International Telecommunication Union (from the Final Acts of the Additional Plenipotentiary Conference (Geneva, 1992)) defined the functions of the new Telecommunication Standardization Sector (ITU-T):

"The functions of the Telecommunication Standardization Sector shall be to fulfil the purposes of the Union relating to telecommunication standardization, as stated in Article 1 of this Constitution, by studying technical, operating and tariff questions and adopting recommendations on them with a view to standardizing telecommunications on a worldwide basis".

Since the 1996 WTSA, ITU-T Study Group 3 has dealt with "tariff and accounting including related telecommunications economic and policy issues".

The group has been responsible for important international agreements on mobile termination rates and is now working on international mobile roaming, following the mandate described by WTSA Resolution 2 (Rev. Dubai, 2012):

"ITU-T Study Group 3 is responsible, *inter alia*, for studies relating to tariff and accounting matters (including costing methodologies) for international telecommunication services and the study of related telecommunication economic, accounting and policy issues. To this end, Study Group 3 shall in particular foster collaboration among its participants with a view to the establishment of rates at levels as low as possible consistent with an efficient service and taking into account the necessity for maintaining independent financial administration of telecommunications on a sound basis."

Note to reader: This abridged history of ITU highlights decisions most relevant to the evolution of the mandate now fulfilled by ITU-T Study Group 3. For a more comprehensive history of ITU, please consult the <u>ITU History Portal</u>.