

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 584

DATE: JANUARY 1, 2019

PROJECT RP0539

The following classification changes will be effected by this Notice of Changes:

<u>Action*</u>	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Titles Changed:	H04W	SUBCLASS
	H04W	28/16
	H04W	48/00, 48/08
	H04W	60/00
	H04W	68/00
	H04W	74/04, 74/08
	H04W	80/00, 80/12
	H04W	84/06
	H04W	88/18
DEFINITIONS:		
Definitions Modified:	H04W	subclass
	H04W	48/00
	H04W	48/08
	H04W	68/00
	H04W	74/04
	H04W	74/08

This Notice of Changes includes the following [Check the ones included]:

1. CLASSIFICATION SCHEME CHANGES

- A. New, Modified or Deleted Group(s)
- B. New, Modified or Deleted Warning(s)
- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
- B. Modified or Deleted Definitions (Definitions Quick Fix)

3. REVISION CONCORDANCE LIST (RCL)

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5. CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

H04W - WIRELESS COMMUNICATIONS NETWORKS (radio transmission systems H04B 7/00; transmission systems using electromagnetic waves other than radio waves, e.g. light, infrared H04B 10/00; communication systems using wireless extensions, i.e. wireless links without selective communication, e.g. cordless telephones H04M 1/72; broadcast communication H04H)

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	H04W	Subclass	WIRELESS COMMUNICATION NETWORKS (broadcast communication H04H; communication systems using wireless links for non-selective communication, e.g. wireless extensions H04M 1/72)	
M	H04W 28/16	1	Central resource management; Negotiation of resources or communication parameters, e.g. negotiating bandwidth or QoS [Quality of Service]	
M	H04W 48/00	0	Access restriction (access security to prevent unauthorised access H04W 12/08); Network selection; Access point selection	
M	H04W 48/08	1	Access restriction or access information delivery, e.g. discovery data delivery (signalling during connection H04W 76/00)	
M	H04W 60/00	0	Affiliation to network, e.g. registration; Terminating affiliation with the network, e.g. de-registration	
M	H04W 68/00	0	User notification, e.g. alerting and paging, for incoming communication, change of service or the like	
M	H04W 74/04	1	Scheduled {or contention-free} access (H04W 74/02 takes precedence)	
M	H04W 74/08	1	Non-scheduled {or contention based} access, e.g. random access, ALOHA, CSMA [Carrier Sense Multiple Access] (H04W 74/02 takes precedence)	
M	H04W 80/00	0	Wireless network protocols or protocol adaptations to wireless operation	
M	H04W 80/12	2	Application layer protocols, e.g. WAP [Wireless Application Protocol]	
M	H04W 84/06	3	Airborne or Satellite Networks (space-based or airborne stations H04B 7/185)	
M	H04W 88/18	1	Service support devices; Network management devices	

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*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; E= existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No { curly brackets } are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The { curly brackets } are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types .
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

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2. A. DEFINITIONS (modified)

H04W

References

Limiting references

DELETE: Row “Wireless sensing of record carriers”

DELETE: Row “Arrangements using wireless links”

DELETE: The words “covered by” from the row “Broadcast communication”

This place does not cover:

Broadcast communication	H04H
Communication systems using wireless links for non-selective communication, e.g. wireless extensions	H04M1/72

Informative references

REPLACE: Informative references table with the one below

Attention is drawn to the following places, which may be of interest for search:

Arrangements for programme control, e.g. control unit	G06F 9/00
Wireless sensing of record carriers	G06K 7/10
Signalling or calling systems	G08B
Traffic control systems	G08G
Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which at least one part is used for functions of transmitting and receiving	H04B 1/38
Spread spectrum techniques in general	H04B 1/69
Near-field transmission systems, e.g. inductive loop type	H04B 5/00
Control of transmission; Equalising	H04B 7/005
Diversity systems	H04B 7/02
Space-based or airborne stations	H04B 7/185
For communication between two or more posts at least one of which is mobile	H04B 7/26

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Transmission systems employing electromagnetic waves other than radio waves	H04B 10/00
Transmission systems employing sonic, ultrasonic or infrasonic waves	H04B 11/00
Transmission systems characterised by the medium used for transmission	H04B 13/00
Multiplex communication	H04J
Arrangements for detection or preventing errors in the information received	H04L 1/00
Arrangements affording multiple use of the transmission path	H04L 5/00
Arrangements for synchronising receiver with transmitter	H04L 7/00
Data switching networks	H04L 12/00
Modulated-carrier systems	H04L 27/00
Communication control or processing characterised by a protocol	H04L 29/06
Telephonic communication	H04M
Telephonic substation equipment	H04M 1/00
Telephonic automatic or semi-automatic exchanges	H04M 3/00
Metering arrangements; Time controlling arrangements; Time-indicating arrangements	H04M 15/00
Prepayment telephone systems	H04M 17/00
Arrangements using wireless links for the sole purpose of telecontrol or telemetry systems	H04Q 9/00

DELETE: Special rules of classification section

Glossary of terms

REPLACE: Existing Glossary of terms with the one below

In this place, the following terms or expressions are used with the meaning indicated:

Access point	means an equipment providing wireless user access to a backbone network by terminating a radio link.
<u>BSC</u>	Base Station Controller
<u>BTS</u>	Base Transceiver Station
Backbone network	designates equipment(s) for connecting one or several wireless access points to a wired or wireless infrastructure in order to allow communication(s) between users' inside or outside the wireless network.
Care-of-address	designates the termination point of a tunnel toward a mobile node, for datagrams forwarded to the mobile node while it is away from home.

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Cellular	an infrastructure deployment involving partitioning geographical areas in a plurality of sub-areas (cells) for the purpose of reusing wireless resources.
Communication link	means a physical or logical connection selectively established for the purpose of conveying messages or information between users or networks.
Connection	means network resource(s) allocated or reserved for an affiliated user.
Connected state	designates the state of a user/terminal having active i.e. allocated logical traffic/control channel, dormant or suspended, i.e. without allocated logical channels but with maintained service instances. It also incorporates context (PDP context), User Plane, Control Plane operations.
Control channel	transports control information used to control the function of the network element. ("signalling channel", e.g. paging channel, broadcast channel, pilot channel).
Core network, CN	3GPP standard terminology. PLMN architecture is divided into Core Network (CN) and Access Network (AN). Whereas Access Network comprises GERAN (BSS for GSM), UTRAN (RNS) and E-UTRAN, Core Network is logically subdivided into a Circuit Switched (CS) domain, a Packet Switched (PS) domain and an IP Multimedia (IM) subsystem.
Correspondent node	a peer with which a mobile node is communicating. A correspondent node may be either mobile or stationary.
Data network PoA [Point of Attachment]	entity within wireless network or mobility management infrastructure providing access to a data network for a wireless user.
Direct mode	establishing a direct communication link between user/terminal; the link can be established using an intermediate node.
Domain; CS domain, PS domain	3GPP standard terminology. Circuit Switched domain (CS domain) refers to the set of all core network entities offering "circuit switched type of connection" for user traffic and for the related signalling. Dedicated network resources are allocated at connection establishment and released at connection release. Entities specific to the CS domain are: MSC, GMSC, VLR. The Packet Switched domain (PS domain, Packet domain) refers to the set of all core network entities offering "packet switched type of connection" for user traffic and for supporting the related signalling. Transports user information using autonomous concatenation of bits called packets: each packet can be routed independently from the previous one. PS domain includes General Packet Radio Service (GPRS) and Evolved Packet Core (EPC). Entities specific to the PS domain are: SGSN, GGSN, PDN GW, S-GW, MME, SGSN. CS and PS domains also have common network entities: e.g. HSS, HLR
Downlink	means the wireless link from a wireless access point or network towards the user or terminal equipment (see also "uplink").

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Fixed allocation (of a dedicated resource)	allocation of a resource that is not changed with each frame or time slot. It is also named "persistent or semi-persistent scheduling".
Hand-off, handover	a change of radio link or data network point of attachment, while a connection is ongoing.
Home network	designates the network performing functions at a permanent location regardless of the location of the user's access point. The home network is responsible for subscription information management and for specific services not provided by the serving network; dedicated equipment used therefore is designed by HLR (Home Location Register); also Home Agent, Home Subscriber Server.
Idle state	designates the state of a user/terminal having no active traffic/control channel and no active service instances but being affiliated to the network. (See also "null state")
Mobility binding	designates the association of a home address with a care-of address, along with the remaining lifetime of that association.
Mobility data	information obtained by the network or exchanged by network components, in particular user affiliation or location data, to be used in providing a network service
Mobility management	designates techniques or arrangements allowing operation of, or services to be provided to, a user capable of selecting or changing his point of attachment to the network.
Mobility server	A network functional entity acting as an established reference point in location registration operations by (or on behalf of) a mobile user/terminal.
Mobile node	designates a host or router that changes its point of attachment from one network or subnetwork to another, without changing its constant home IP address.
Multi-call	means a plurality of communication links established over one or a plurality of networks for transferring information to one user/terminal.
Multiplexing	sorting packets of flows onto one or several channels in time, frequency, code and space division. better or space division.
Network	means the physical or logical entities involved in providing communication services to users.
Network security	(see Tanenbaum) roughly means the four intertwined areas: secrecy, authentication, nonrepudiation and integrity control for a interconnected collection of autonomous nodes, e.g, computers
Null state	designates the state of a user/terminal having no active traffic/control channel and no active service instances.
Originating	means a user/terminal acting as a requester for communication towards a wireless access point.
Packet domain PLMN	The 3GPP standard terminology defines two kinds of packet domain PLMN backbone networks: The intra-PLMN backbone network is the IP network comprising routers interconnecting ps domain(s)

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backbone network	within the same PLMN. The inter-PLMN backbone network is the IP network comprising routers interconnecting ps domain(s) of different PLMNs.
Paging	Notifying a terminating user of a communication event.
Paging service	one-way selective calling service.
Partitioning	means distributing/committing specific resources to a particular/specific network component.
Polling	questioning for needed transmission resources and according instant allocation for immediate transmission.
Private networks	designates networks owned and operated by non-public authorities.
QoS	Quality of Service
Resource allocation	means allocation of a resource to a communication.
Resource distribution	means committing a resource to an entity for future allocation thereof for communication.
RNC	Radio Network Controller
Scheduling	means establishing an order of transmission of communication information based on precedence or priority policies.
Scheduled access	access to a wireless resource follows a schedule or os performed in a defined order.
Scheduled allocation	resource allocation is continuously changed or adapted during a connection according to a transmission schedule. This requires the usage of a shared channel.
(semi-) persistent scheduling	allocation of resources that is persistent for a number of (consecutive) time slots or frames according to a transmission schedule. This requires the usage of a shared channel.
Serving network	designate the part of the network to which the access point providing user's access is connected. The serving network is responsible for path finding and transport of users data; dedicated equipment used therefore is designed by VLR (Visitor Location Register; also Foreign Agent, Visiting Subscriber Server.
SLA	Service Level Agreement
Subscriber	means an entity recognized and authorized as user.
Terminal	means the equipment acting as/or on behalf of a user.
Terminating	means a user/terminal specified as a recipient for communication from within or via a wireless network.
Tracking	monitoring a user or terminal activity in the network for purposes of gathering, e.g. location, activity or status information.
Traffic channel	transports communication information (user data) to and from one or several users.
Trigger, triggering	the act of initiating an action. This could be caused by certain criteria or events or involve the exchange of information.
(transmission) scheduling	defines an order of transmission of one or several data flows in time, frequency, code and space dimension.

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Uplink	means the wireless link from the user or terminal equipment towards a wireless network or access point (see also "Downlink").
User	means an entity acting as an information source (sender, transmitter, server) or information sink (recipient, receiver, client).
Wireless extension	means equipment using a pre-defined dedicated wireless link.
Wireless link	means a communication link established via radio, infra-red, inductive or other electromagnetic radiation.
Wireless resource	means a communication link using a specific frequency, time, code or space (or combination thereof).
Zoned	designates an infrastructure deployment involving partitioning geographical areas in a plurality of sub-areas (zones, cells) for the purpose of reusing wireless resources.

H04W 48/00**Definition statement**

ADD: The following paragraph to the Definition statement

Access restriction is considered as restricting network access for any reason except security, performed without affiliation of a terminal. It can be implemented because of contract between user and provider, for the purpose of avoiding congestion, etc.

References

ADD: Limiting references section

Limiting references

This place does not cover:

Access security to prevent unauthorised access
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H04W12/08

H04W 48/08**References**

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ADD: Limiting references section and table

Limiting references

This place does not cover:

Signalling during connection	H04W 76/00
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H04W 68/00

References

ADD: Informative references and table

Informative references

Attention is drawn to the following places, which may be of interest for search:

Messaging; Mailboxes; Announcements	H04W 4/12
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H04W 74/04

References

ADD: Limiting references section and table

Limiting references

This place does not cover:

Hybrid access techniques	H04W 74/02
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H04W 74/08

References

ADD: Limiting references section and table

Limiting references

This place does not cover:

Hybrid access techniques	H04W 74/02
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