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Reference:

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ISO/IEC JTC 1/SC 25 N 1612

Date: 2008-12-05

Replaces ISO/IEC JTC 1/SC 25 N/A

Customer Premises Cabling Secretariat: Germany (DIN)

PROPOSAL FOR A NEW WORK ITEM

Pages 29

Date of presentation of proposal: 2008-12-05	Proposer: ISO/IEC JTC 1/SC 25
Secretariat: Germany DIN	ISO/IEC JTC 1 N 9441 ISO/IEC JTC 1/SC 25 N 1612

A proposal for a new work item shall be submitted to the secretariat of the Subcommittee of the ISO/IEC joint technical committee concerned with a copy to the Secretariat of ISO/IEC/JTC 1 and the ISO Central Secretariat.

Presentation of the proposal - to be completed by the proposer. Guidelines for proposing and justifying a new work item are given in ISO Guide 26.

Title ISO/IEC TR 14763-2-1: Generic cabling – Implementation and operation of customer premises cabling – Identifiers within administration systems

Scope Requirements and recommendations for the development of an identifier scheme for cabling infrastructure elements to support ISO/IEC 14763-2 and equivalent standards.

Purpose and justification The topic is large enough to justify a Technical Report outside ISO/IEC 14763-2 and which can be referenced by other standards and standards bodies

Programme of work

If the proposed new work item is approved, which of the following document(s) is (are) expected to be developed?

_____ a single International Standard

_____ more than one International Standard (expected number:)

_____ a multi-part International Standard consisting of parts

_____ an amendment or amendments to the following International Standard(s)

.....

__X__ a technical report , type 3 proposed number 14763-2-1.

And which standard development track is recommended for the approved new work item?

__X__ a. Default Timeframe

_____ b. Accelerated Timeframe

_____ c. Extended Timeframe

Relevant documents to be considered (attached)

Co-operation and liaison (IEC TC 3)

Preparatory work offered with target date(s) (attached)

Signature: Dr Walter von Pattay, Secretary of the ISO/IEC JTC 1/SC 25

Will the service of a maintenance agency or registration authority be required? No
 - If yes, have you identified a potential candidate?
 - If yes, indicate name

Are there any known requirements for coding? No
 -If yes, please specify on a separate page

Does the proposed standard concern known patented items? No
 - If yes, please provide full information in an annex

Comments and recommendations of the JTC 1/SC 25 Secretariat -

Comments with respect to the proposal in general, and recommendations thereon:
 It is proposed to assign this new item to JTC 1/SC 25. Project number: 1.25.03.14

Voting on the proposal - Each P-member of the ISO/IEC joint technical committee has an obligation to vote within the time limits laid down (normally three months after the date of circulation).

The vote shall be sent to the Secretary of ISO/IEC JTC 1 / SC 25 - Dr.-Ing. Walter P. von Pattay,
 Member of ZVEI FV 7 & FV 8, Germany,
 Tel.: +49/89/923 967 57, Tfx.: +49/89/923 967 59 (on request only), **EM: Walter@Pattay.com**

Date of circulation: 2008-12-05	Closing date for voting: 2009-03-06	Signature of Secretary: Dr. Walter P. von Pattay
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NEW WORK ITEM PROPOSAL - PROJECT ACCEPTANCE CRITERIA

Criterion	Validity	Explanation
A. Business Requirement		
A.1 Market Requirement	Essential ____ Desirable ____ Supportive ____	
A.2 Regulatory Context	Essential ____ Desirable ____ Supportive ____ Not Relevant _X	
B. Related Work		
B.1 Completion/Maintenance of current standards	Yes ____X____ No ____	ISO/IEC 14763-2
B.2 Commitment to other organisation	Yes ____ No _X_	
B.3 Other Source of standards	Yes ____ No _X_	
C. Technical Status		
C.1 Mature Technology	Yes ____ No _X_	
C.2 Prospective Technology	Yes ____ No _X_	

C.3 Models/Tools	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
D. Conformity Assessment and Interoperability		
D.1 Conformity Assessment	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
D.2 Interoperability	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
E. Adaptability to Culture, Language, Human Functioning and Context of Use		
E.1 Cultural and Linguistic Adaptability	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
E.2 Adaptability to Human Functioning and Context of Use	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
F. Other Justification		

Notes to Proforma

A. Business Relevance. That which identifies market place relevance in terms of what problem is being solved and or need being addressed.

A.1 Market Requirement. When submitting a NP, the proposer shall identify the nature of the Market Requirement, assessing the extent to which it is essential, desirable or merely supportive of some other project.

A.2 Technical Regulation. If a Regulatory requirement is deemed to exist - e.g. for an area of public concern e.g. Information Security, Data protection, potentially leading to regulatory/public interest action based on the use of this voluntary international standard - the proposer shall identify this here.

B. Related Work. Aspects of the relationship of this NP to other areas of standardisation work shall be identified in this section.

B.1 Competition/Maintenance. If this NP is concerned with completing or maintaining existing standards, those concerned shall be identified here.

B.2 External Commitment. Groups, bodies, or fora external to JTC 1 to which a commitment has been made by JTC for Co-operation and or collaboration on this NP shall be identified here.

B.3 External Std/Specification. If other activities creating standards or specifications in this topic area are known to exist or be planned, and which might be available to JTC 1 as PAS, they shall be identified here.

C. Technical Status. The proposer shall indicate here an assessment of the extent to which the proposed standard is supported by current technology.

C.1 Mature Technology. Indicate here the extent to which the technology is reasonably stable and ripe for standardisation.

C.2 Prospective Technology. If the NP is anticipatory in nature based on expected or forecasted need, this shall be indicated here.

C.3 Models/Tools. If the NP relates to the creation of supportive reference models or tools, this shall be indicated here.

D. Conformity Assessment and Interoperability

D.1 Indicate here if Conformity Assessment is relevant to your project. If so, indicate how it is addressed in your project plan.

D.2 Indicate here if Interoperability is relevant to your project. If so, indicate how it is addressed in your project plan

E. Adaptability to Culture, Language, Human Functioning and Context of Use

NOTE: The following criteria do not mandate any feature for adaptability to culture, language, human functioning or context of use. The following criteria require that if any features are provided for adapting to culture, language, human functioning or context of use by the new Work Item proposal, then the proposer is required to identify these features.

E.1 Cultural and Linguistic Adaptability. Indicate here if cultural and natural language adaptability is applicable to your project. If so, indicate how it is addressed in your project plan.

ISO/IEC TR 19764 (Guidelines, methodology, and reference criteria for cultural and linguistic adaptability in information technology products) now defines it in a simplified way:

“ability for a product, while keeping its portability and interoperability properties, to:

- be internationalized, that is, be adapted to the special characteristics of natural languages and the commonly accepted rules for their se, or of cultures in a given geographical region;

- take into account the usual needs of any category of users, with the exception of specific needs related to physical constraints”

Examples of characteristics of natural languages are: national characters and associated elements (such as hyphens, dashes, and punctuation marks), writing systems, correct transformation of characters, dates and measures, sorting and searching rules, coding of national entities (such as country and currency codes), presentation of telephone numbers and keyboard layouts. Related terms are localization, jurisdiction and multilingualism.

E.2 Adaptability to Human Functioning and Context of Use. Indicate here whether the proposed standard takes into account diverse human functioning and diverse contexts of use. If so, indicate how it is addressed in your project plan.

NOTE:

Human functioning is defined by the World Health Organization at <http://www3.who.int/icf/beginners/bg.pdf> as:

<<In ICF (*International Classification of Functioning, Disability and Health*), the term *functioning* refers to all body functions, activities and participation.>>

Content of use is defined in ISO 9241-11:1998 (*Ergonomic requirements for office work with visual display terminals (VDTs) – Part 11: Guidance on usability*) as:

<<*Users, tasks, equipment (hardware, software and materials), and the physical and societal environments in which a product is used.*>>

Guidance for Standard Developers to address the needs of older persons and persons with disabilities).

F. Other Justification Any other aspects of background information justifying this NP shall be indicated here

WORKING DRAFT TECHNICAL REPORT TYPE 3

Generic cabling – Implementation and operation of customer premises cabling – Identifiers within administration systems

For the information of national bodies and experts considering SC 25 N 1612, it is intended that the future ISO/IEC 14763-2 will reference a TR covering "Identifiers" as follows:

"Each element of a telecommunications infrastructure to be administered ... shall have an identifier that is:

- unique within the administration system;
- explicitly defines the element to which it refers (e.g. closure, cable, outlet etc).

Unless the installation specification requires an alternative scheme that meets the above requirements, the identifier scheme shall conform to the requirements of ISO/IEC TR 14763-2-1".



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**INFORMATION TECHNOLOGY –
Generic cabling –
Implementation and operation of customer premises cabling –
Identifiers within administration systems**

FOREWORD

ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission) form the specialised system for world-wide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards. Their preparation is entrusted to technical committees; any ISO and IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with ISO and IEC also participate in this preparation.

- 1) In the field of information technology, ISO and IEC have established a joint technical committee ISO/IEC JTC 1.
- 2) The formal decisions or agreements of ISO and IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports, technical specifications or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, ISO National Members and IEC National Committees undertake to apply ISO and IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) ISO and IEC provide no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 7) No liability shall attach to ISO and IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 6) Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.
- 6) All users should ensure that they have the latest edition of this publication.

The main task of IEC technical committees is to prepare International Standards. However, a technical committee may propose the publication of a technical report when it has collected data of a different kind from that which is normally published as an International Standard, for example "state of the art".

ISO/IEC XXXXX, which is a Technical Report, has been prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

**INFORMATION TECHNOLOGY –
Generic cabling –
Implementation and operation of customer premises cabling –
Identifiers within administration systems**

1 Scope

This Technical Report contains requirements and recommendations for the development of an identifier scheme for cabling infrastructure elements to support ISO/IEC 14763-2 and equivalent standards.

2 References

This document contains dated or undated references to specifications from other publications. For dated references, only the edition cited applies and subsequent changes or revisions to these publications belong to this standard only if they have been incorporated by change or revision. In the case of undated references, the latest edition of the relevant publications is applicable in each case.

ISO/IEC 14763-2 *Information technology – Implementation and operation of customer premises cabling - Part 2: Planning and installation*

3 Definitions, abbreviations and conventions

3.1 Definitions

For the purposes of this international Technical Report the definitions of the applicable generic cabling standards ISO/IEC 14763-2 apply.

3.2 Abbreviations

For the purposes of this international Technical Report the definitions of the applicable generic cabling standards ISO/IEC 14763-2 apply.

3.3 Conventions

Square brackets indicate optional fields. The square brackets are not part of the identifier.

For example, the telecommunications space identifier has the format:

[[c]-b-][f]s

Thus, depending on the need to include the campus identifier (*c*), building identifier (*b*), or floor (*f*) identifier the identifier may have the format of either:

c-b-fs, b-fs, fs, c-b-s, b-s, or s

where *s* is the space identifier.

Note that the brackets for the campus identifier *c* are nested within the brackets for the building identifier *b*. Thus, the campus identifier *c* is only included if the building identifier *b* is also included.

4 Requirements

4.1 Premises identifiers

4.1.1 Site or campus

Campus or site identifiers shall use the following format:

c = one or more alpha-numeric characters identifying a campus or site.

Campus and site identifiers shall be unique within a telecommunications administration system.

For example, a company uses the three character airport name and a single digit to identify each campus. The second campus in London is named:

'LHR2'.

4.1.2 Building

Building identifiers shall use the following format:

[c-]b

where the fields are defined as follows:

c = optional field, one or more alpha-numeric characters identifying a campus or site,

b = one or more alpha-numeric characters that uniquely identify the building on the campus/site.

For example, the fourth building on the LHR2 campus is named:

'LHR2-4'.

4.2 Space identifiers

4.2.1 Indoor telecommunications space

Indoor telecommunications space identifiers shall have the format:

[[c-]b-][f]s

where the fields are defined as follows:

c = optional field, one or more alpha-numeric characters identifying a campus or site, this field is only included if the building field *b* is included;

b = optional field, one or more alpha-numeric characters that identify the building on the campus/site;

f = optional numeric character(s) identifying the floor of the building occupied by the space (it may be excluded for buildings with only a single floor);

s = alphabetic character(s) uniquely identifying the telecommunications space on floor *f*, or the building area in which the space is located.

183
184 For buildings with non-numeric floors, alpha-numeric characters may be used in the “f” field
185 and shall be consistent with the floor naming convention used within the building.

186 All telecommunications space identifiers in a single infrastructure should have the same
187 format.

188 For example, the data centre on the ground floor of building LHR2-4 is named ‘LHR2-4-0DC’.
189 If the building had only the ground floor, the data centre could alternatively be named ‘LHR2-4-
190 DC’. The two floor distributors on the 3rd floor of building LHR2-4 could be named:

191 ‘LHR2-4-3FDA’ and ‘LHR2-4-3FDB’.

192 **4.2.2 Outdoor telecommunications space**

193 Identifiers for outdoor telecommunications spaces such as maintenance holes, handholes,
194 joining chambers, pedestals, or outdoor cabinets shall have the format:

195 $[c-]U[(g)]$

196 where

197 c = optional field, one or more alpha-numeric characters identifying a campus or
198 site, this field is not required if the identifiers for the outdoor telecommunications
199 spaces U are unique within the administration system

200 U = alphanumeric characters that identify the outdoor telecommunications space
201 (for example, MH45 could be the identifier for maintenance hole 45).

202 (g) = optional field with the GPS co-ordinates of the outdoor telecommunications
203 space in parentheses.

204 For example, a maintenance hole 27 at GPS co-ordinates 37.797413,-122.414925 in San
205 Francisco could have the identifier

206 SFO-MH27(37.797413,-122.414925)

207 This outdoor telecommunications space identifier may be used in place of an indoor
208 telecommunications space identifier $[[c-]b-][f]s$, as part of another identifier such as an outdoor
209 pathway identifier or outdoor cable identifier.

210 **4.2.3 Cabinet, frame, and wall space**

211 **4.2.3.1 Rooms with grid co-ordinates**

212 In telecommunications spaces with multiple rows of cabinets, or frames such as computer
213 rooms, large distributors, or telecommunications equipment rooms, it is recommended that a
214 grid co-ordinate system be used to identify the name and location of equipment, cabinets, and
215 frames.

216 See clause 4.2.3.2 for alternatives to a grid system for cabinet, frame and wall space
217 identification.

218 In rooms that have access floor systems, identification for the space shall use the access floor
219 grid identification scheme described in this Clause. In rooms without access floor, the ceiling
220 tile grid, if present, should be used as the basis for space identification. If the room has
221 neither a floor tile grid nor ceiling tile grid, a grid should be applied to the floor plan. The grid,

if used, shall be dense enough to ensure that two racks or cabinets do not occupy the same grid co-ordinates – consider grid spacing between 500 mm and 600 mm (20 in to 24 in).

The quantity of characters used along the “X” and “Y” axes shall be adequate to cover the entire space to be covered by the grid.

The “X” and “Y” axes may be reversed to minimize the quantity of characters required – consider selecting the long axis of the room as the “X” axis and the short axis of the room as the “Y” axis.

The starting point for the grid may be any one of the four corners of the space to be covered. When selecting the starting point, consider the direction in which the room might be expanded. The starting point of the grid should be in a corner of the room away from any likely direction of room expansion.

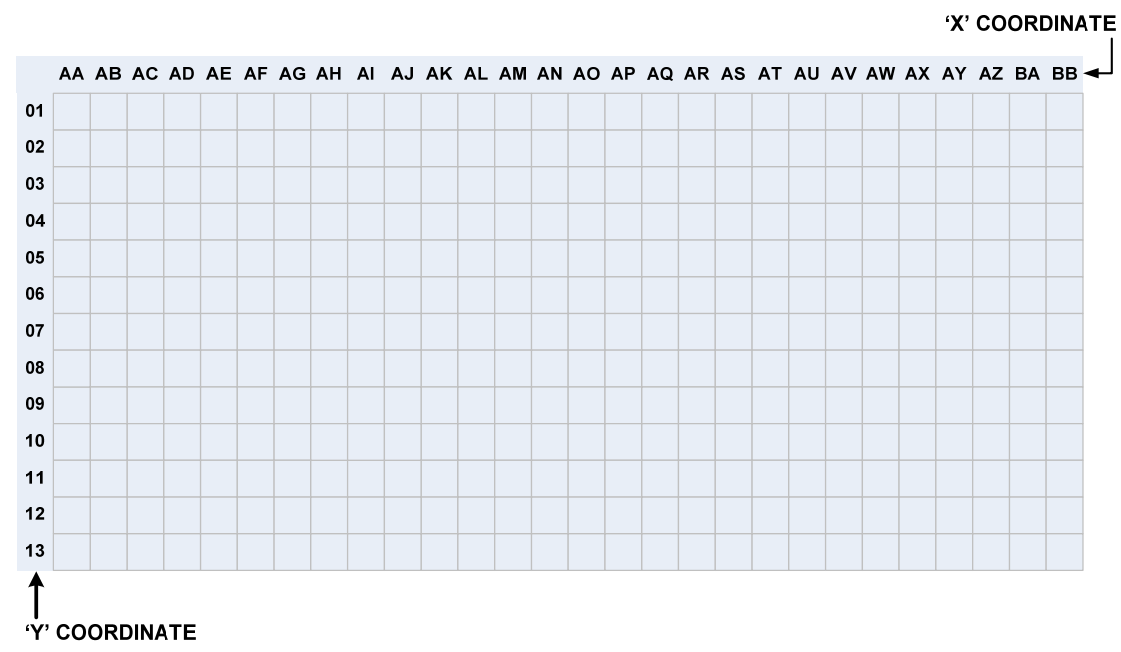


Figure 1 – Example of room grid co-ordinate

It is recommended that grid co-ordinate s markings be placed on walls. Floor tiles or ceiling tiles (if they are used as the basis of the grid) may also be marked.

A grid co-ordinate identifier shall have a format of:

[[[c-]b-][f]s.]xy

Note that the period ‘.’ character separates the portion of the identifier for the space and the portion of the identifier for the grid co-ordinate.

The fields are defined below.

c = optional field, one or more alpha-numeric characters identifying a campus or site, this field is only included if the building field *b* is included.

b = optional field, one or more alpha-numeric characters that uniquely identify the building on the campus or site. This field is only included if the telecommunications space identifier *s* is used

247 f = optional numeric character(s) identifying the floor of the building occupied by
 248 the space. This field is only included if the telecommunications space identifier s is
 249 used and may be excluded for buildings with only a single floor.

250 s = optional telecommunications space identifier to be used when more than one
 251 contiguous computer or equipment space is present in a building and each space uses
 252 common grid co-ordinate s . The field should consist of alphabetic character(s) that
 253 uniquely identify the telecommunications space on floor f , or the building area where
 254 the space is located.

255 x = one or more alphabetic characters designating the cabinet's or frame's "X" co-
 256 ordinate. The quantity of characters used for the "X" co-ordinate shall be the same
 257 throughout the entire space covered by the grid. Thus, as shown in Figure 1, a space
 258 that requires between 26 and 676 co-ordinate s along the "X" axis shall start the X-axis
 259 sequence at "AA" rather than "A." The number 676 represents the quantity of co-
 260 ordinate s between AA and ZZ.

261 y = one or more numeric characters designating the cabinet's or frame's "Y" co-
 262 ordinate. The quantity of digits used for the "Y" co-ordinate shall be the same
 263 throughout the entire space covered by the grid. Thus, as shown in Figure 1, a space
 264 that requires more than 10 but fewer than 100 co-ordinate s along the "Y" axis shall
 265 start at "00" or "01" rather than "0" or "1".

266 For rooms using the grid system, it is possible that cabinets, racks, and frames will occupy
 267 more than one grid location. In this case, the same location shall be used on every cabinet or
 268 frame to determine the grid location. This location may be the left front corner, right front
 269 corner, or front centre as long as the same location is used throughout the room.

270 In the following example shown in Figure 2, the location on the floor space grid where the left
 271 front corner of the cabinet is located determines its identifier.

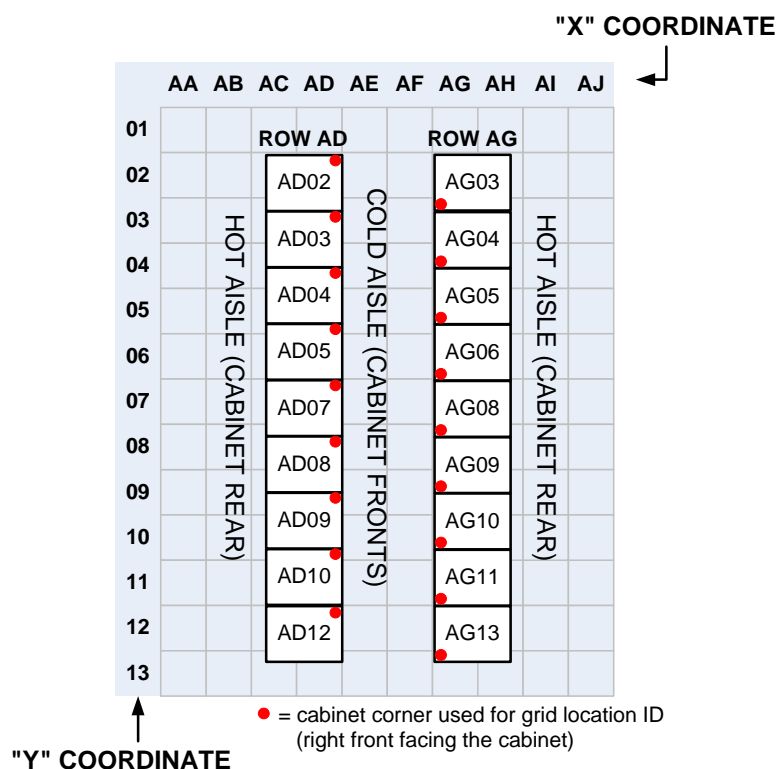


Figure 2 – Frame / cabinet identifiers using grid example

274 Wall spaces in rooms using grids shall use the grid co-ordinates of the wall space. The wall
 275 space should be divided into sections the width of each grid co-ordinate.

276 The grid co-ordinate system may be used to identify enclosures under access floors or in
 277 ceiling spaces in rooms that have grid co-ordinates.

278 In the example above in Figure 2, the cabinet whose front left corner is located at grid location
 279 AD02 in the data centre LHR2-4-0DC would have the identifier:

280 'LHR2-4-0DC-AD02'.

281 However, the labelling in the may exclude the 'LHR2-4-0DC' portion of the identifier as the
 282 location would be typically be understood by someone in the room.

283 **4.2.3.2 Small rooms and rooms without grids**

284 In rooms that are unable to utilize the grid identifier, cabinets and frames may be identified by
 285 their row number and location within the row. This method is only recommended in spaces
 286 that meet the following criteria:

287 • small number of cabinets or frames that occupy only a one or two rows,
 288 or
 289 • uniformly spaced or static equipment rows – rows that will not be reoriented or replaced
 290 with more or fewer rows of equipment
 291 and
 292 • uniform width cabinets, racks, and frames that will not be replaced those of different width.

293 The quantity of characters used shall be the same throughout the space.

294 Where grid co-ordinate s are not available, a location identifier shall have a format of:

295 $[[[c-]b-][f]s.]y$ for cabinets, frame, and racks in spaces with one equipment row,
 296 or
 297 $[[[c-]b-][f]s.]xy$ for cabinets, frame, and racks in spaces with several equipment rows.

298 Note that the period '.' character separates the portion of the identifier for the space
 299 and the portion of the identifier for the cabinet or frame.

300 The fields are defined below.

301 $c =$ optional field, one or more alpha-numeric characters identifying a campus or
 302 site, this field is only included if the building field b is included.

303 $b =$ optional field, one or more alpha-numeric characters that uniquely identify the
 304 building on the campus/site. This field is only included if the telecommunications
 305 space identifier s is used

306 $f =$ optional numeric character(s) identifying the floor of the building occupied by
 307 the space. This field is only included if the telecommunications space identifier s is
 308 used and may be excluded for buildings with only a single floor.

309 $s =$ optional telecommunications space identifier to be used when more than one
 310 contiguous computer or equipment space is present in a building and each space uses
 311 common grid co-ordinates. The field should consist of alphabetic characters(s) that

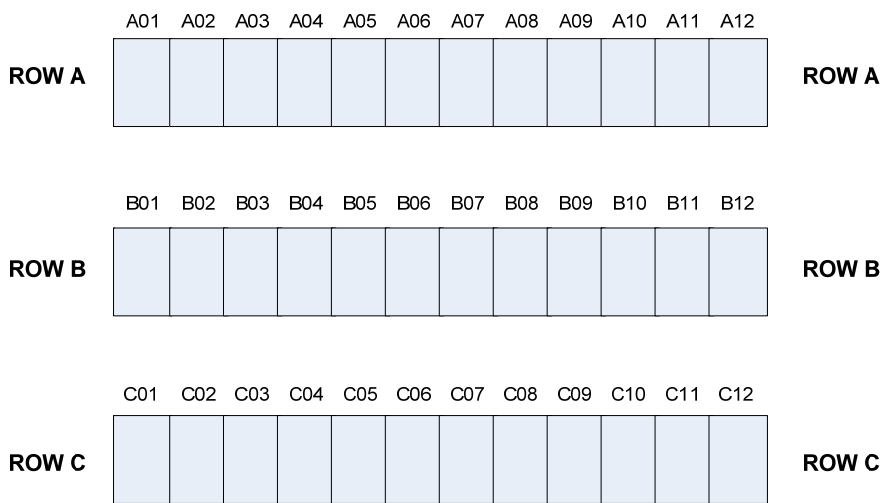
312 uniquely identify the telecommunications space on floor *f*, or the building area where
 313 the space is located.

314 *x* = one or more characters designating the cabinet's or frame's row identifier. The
 315 quantity of characters used for the row identifier should be the same throughout the
 316 entire space. This character is optional if there is only one row in the
 317 telecommunication space.

318 *y* = one or more characters designating the cabinet's or frame's location within the
 319 row. The quantity of characters used should be the same throughout the entire space.
 320 The location identifiers within a row should be consistent between rows, with numbers
 321 starting from the same end and increasing in the same direction.

322 Figure 3 provides an example of cabinet and frame location identifiers using the non-grid
 323 scheme (row/position method) described above.

324

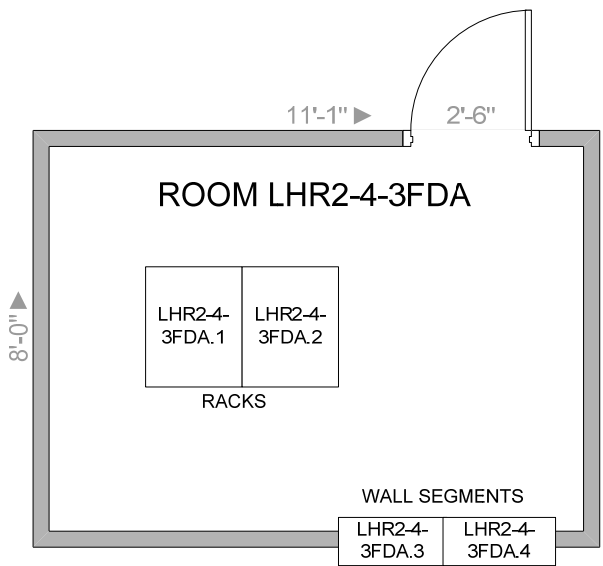


325

326

Figure 3 –Example of non-grid co-ordinate

327 Wall spaces in rooms that don't use grids should assign row identifiers to each wall on which
 328 telecommunications equipment is mounted. The wall space should be divided into sections
 329 (corresponding to frame or cabinet numbers), the sections may either be the width of a typical
 330 cabinet or frame, or be the distance from the left edge of the wall in meters (rounded up to the
 331 nearest integer).



332

Figure 4 – Example of floor distributor cabinet and wall segment identifier

For example, Floor Distributor A on the Third Floor in building LHR2-4 shown in Figure 4 below has two racks and two wall segments, and thus does not require a grid identification scheme. The two racks could be named:

‘LHR2-4-3FDA.1’ and ‘LHR2-4-3FDA.2’.

The wall space used for wall-mounted blocks is the width of two racks, the wall segments could be named:

‘LHR2-4.3FDA.3’ and ‘LHR2-4.3FDA.4’.

4.3 Closure identifiers

4.3.1 Vertically aligned closures

Closures mounted in cabinets and racks in a single vertical column shall have identifiers with the following format:

$[[[c-]b-][f]s.][x]y-r$

The format of the fields are defined below.

$[[[c-]b-][f]s.][x]y$ = is the cabinet, frame, or wall space identifier as defined above in clause 4.2.3.

$r = nn$ = two numerical digits designating the location of the top of the closure in IEC 60297 rack units (U) from the bottom of the usable space in the cabinet or frame.

$r = ann$ = one letter indicating the side of the cabinet or frame followed by two numerical digits designating the location of the top of the closure in rack units from the bottom of the usable space in the cabinet or frame. The letter indicating the side may be any set of unique letters consistently used within the infrastructure – for example:

A, B, C, D for the four sides of a cabinet starting from the front and proceeding clockwise (when viewed from the top)

N, S, E, W for the four sides of the cabinet (if the sides are aligned with the four compass directions)

F, R if only the front and rear of cabinets, racks, and frames are used.

In the example below the third closure in cabinet LHR2-4-0DC.AD02 that is 35U from the bottom of the usable space in the cabinet would be named:

‘LHR2-4-0DC.AD02-35’.

Using cabinet and racks with rails marked with rack unit positions aids in the identification and placement of closures.

4.3.2 Non-vertically aligned closures

Closures mounted where they are not in a single vertical column shall be identified using the following format:

$[[[c-]b-][f]s.][x]y-r_1, r_2$

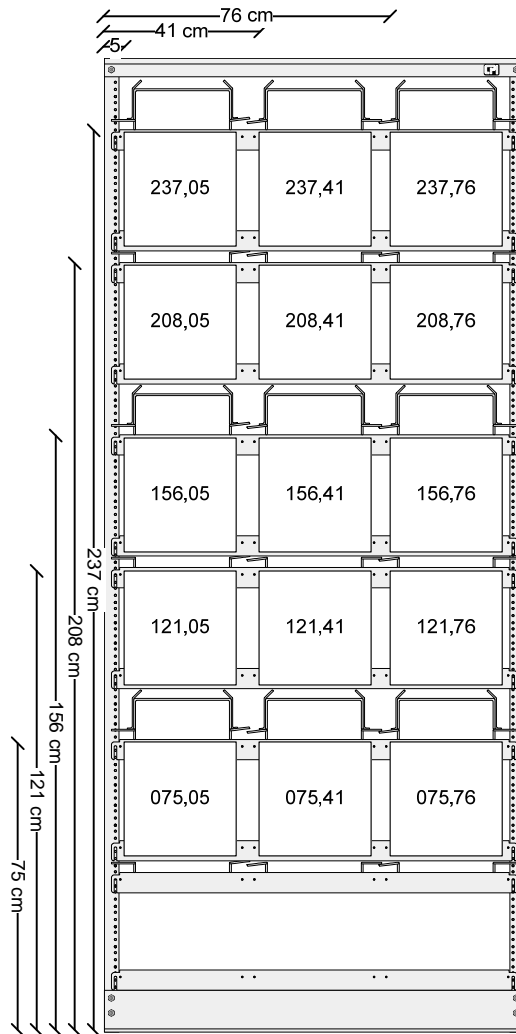


Figure 6 – Example of non-vertically aligned closure identification

4.4 Closure port and block termination point identifiers

Closure ports and block termination points shall be identified using the following format, using the colon ':' between the characters designating the closure or block and the characters designating the port:

$$[[[c-]b-][f]s.][x]y-r_1[,r_2]:P$$

where:

$[[[c-]b-][f]s.][x]y-r_1[,r_2]$ is the closure or block identifier as specified in clauses 4.3.1 and 4.3.2.

P = One to three characters designating the port on the closure or termination point on the block.

- For closures that do not include subpanels or for closures whose ports will be labelled in sequence, ignoring the presence of subpanels this field is a single number:

P = one to three numeric characters corresponding to the port/termination number.

398 The quantity of digits used for port/termination point identifiers shall be the same
 399 for all ports or terminations on the closure or block. Thus, the first port on a 24-
 400 port closure should be "01" and the first port on a 144-port closure should be "001".

- 401 • For closures or blocks that include subpanels:

402 $P = pn,$

403 where:

404 p = one alphabetic character that identifies the subpanel located within the
 405 closure starting sequentially from "A" and excluding "I" and "O."

406 n = one or two numeric characters corresponding to the port number within the
 407 subpanel. The quantity of digits used for port identifiers shall be the same
 408 for all ports on the closure. Thus, the first port on a subpanel with 12-ports
 409 should be "01" instead of "1".

410 This identifier format shall also be used for telecommunications outlets terminated in cabinets,
 411 racks, frames, and wall segments within a distributor, telecommunications room, or data
 412 centre.

413 For example, the closure in cabinet LHR2-4-0DC.AD02 35U from the bottom is a 48-port
 414 Category 6 closure named LHR2-4-0DC.AD02-35. Thus, the first port on that 48-port closure
 415 would be named:

416 'LHR2-4.0DC.AD02-35:01'.

417 An optical fibre closure using subpanels on the same cabinet installed 41U from the bottom
 418 would be named LHR2-4-0DC.AD02-41. The first port on a 12-port sub-panel in the fourth
 419 position (position D), would be named:

420 'LHR2-4-0DC.AD02-41:D.01'.

421 4.5 Cable identifiers

422 4.5.1 Backbone and inter-cabinet cabling

423 4.5.1.1 Cable

424 Identifiers for all backbone cables and cables between cabinets, racks, frames, and wall
 425 segments within a distributor, telecommunications room, or data centre shall be identified by
 426 the identifiers of the ports/terminations on both ends of the cable separated by a forward
 427 slash. If the cable supports multiple ports/terminations, then the first and last port on each
 428 end of the cable should be provided in the identifier. The format of these identifiers shall be:

429 $[[[c_1-]b_1-][f_1]s_1.][x_1]y_1-r_1[,r_2]:P_1-[P_2] / [[c_2-]b_2-][f_2]s_2.][x_2]y_2-r_3[,r_4]:P_3-[P_4]$

430 The fields are defined below.

431 c_1 and c_2 = identifiers for the campuses or sites on either end of the cable.

432 b_1 and b_2 = identifiers for the buildings on either end of the cable.

433 f_1 and f_2 = identifiers for the floors numbers on either end of the cable.

434 s_1 and s_2 = identifiers for the telecommunications spaces on either end of the cable.

435 x_1 or x_1y_1 = identifiers for the cabinet, frame, or wall segments on either end of the
 436 cable. The optional y_1 can be dropped for cabinets, racks, or frames in
 437 rooms with only a single row.

438 x_2 or x_2y_2 = identifiers for the cabinet, frame, or wall segments on either end of the
 439 cable. The optional y_2 can be dropped for cabinets, racks, or frames in
 440 rooms with only a single row.

441 r_1 or r_1, r_2 = identifiers for the closures on one end of the cable. The optional ' r_2 ' is
 442 used for closures that are not aligned in a single vertical column.

443 r_3 or r_3, r_4 = identifiers for the closures on one end of the cable. The optional ' r_4 ' is
 444 used for closures that are not aligned in a single vertical column.

445 P_1 or P_1-P_2 = identifiers for the ports or terminations at one of the cable. Only a
 446 single port (P_1) is needed if the cable terminates on a single point. If
 447 the cable terminates on multiple ports/terminations, then P_1 is the first
 448 port/termination and P_2 is the last port/termination on one end of the
 449 cable.

450 P_3 or P_3-P_4 = identifiers for the ports or terminations at the other end of the cable.
 451 Only a single port (P_3) is needed if the cable terminates on a single
 452 point. If the cable terminates on multiple ports/terminations, then P_3 is
 453 the first port/termination and P_4 is the last port/termination.

454 The termination closest to the campus distributor or main distributor (if there is no campus
 455 distributor) in the telecommunications cabling system hierarchy shall be listed first (before the
 456 forward slash). If the terminations are equal within the cabling system hierarchy, then the
 457 termination with the lesser alpha-numeric identifier shall be listed first.

458 For example, a 24-pair (48 fibre strand) optical fibre cable terminated between an optical fibre
 459 panel at rack unit position 45 in cabinet LHR2-4-0DC.AD02 and an optical fibre closure at rack
 460 unit position 41 in cabinet LHR2-4-3FDA.1 would have the identifier:

461 'LHR2-4-0DC.AD02-45:1-24 / LHR2-4-3FDA.1.41:1-24'.

462 4.5.1.2 Balanced pairs and optical fibres

463 Copper pair or optical fibres between ports for backbone cables and cables between cabinets,
 464 racks, frames, and wall segments within a distributor, telecommunications room, or data centre
 465 shall use the following format:

466 $[[[c_1-]b_1-][f_1]s_1-][x_1]y_1-r_1[,r_2]:P_1 / [[c_2-]b_2-][f_2]s_2-][x_2]y_2-r_3[,r_4]:P_3$

467 The square brackets indicate fields that may not be present or required based on the location
 468 of the cable or the class of administration.

469 The fields are defined 4.5.1.1.

470 The termination closest to the campus distributor or main distributor (if there is no campus
 471 distributor) in the telecommunications cabling system hierarchy shall be listed first (before the
 472 forward slash). If the terminations are equal within the cabling system hierarchy, then the
 473 termination with the lesser alpha-numeric identifier shall be listed first.

474 The number of pairs or strands referenced by the identifiers will depend on the type of
 475 terminations. For example, for cables terminated on modular jacks, the identifiers refer to four
 476 balanced pairs. For optical cables, the identifiers may represent either individual fibers or
 477 pairs of fibers, the scheme used (pairs or strands) shall be consistent throughout the
 478 administration system..

479 For example, the first optical fibre pair between an optical fibre panel at rack unit position 45 in
 480 cabinet LHR2-4-0DC.AD02 and an optical fibre closure at rack unit position 41 in LHR2-4-
 481 3FDA.1 would have the identifier:

482 'LHR2-4-0DC.AD02-45:01 / LHR2-4-3FDA.1-41:01'.

483 4.5.1.3 Splices

484 The following identifier format shall be used for:

- 485 • splices on backbone links
- 486 • splices on horizontal links between cabinets, racks, frames, and wall segments within a
- 487 distributor, telecommunications room, or data centre

488
$$[[[c_1-]b_1-][f_1]s_1.][x_1]y_1-r_1[,r_2]:P_1 / [[c_2-]b_2-][f_2]s_2.][x_2]y_2-r_3[,r_4]:P_3.SPz[(g)]$$

489 Where z and (g) following the period and letters 'SP' are defined as follows:

490 z = approximate distance in meters from the first port $[[[c_1-]b_1-][f_1]s_1.][x_1]y_1-$
491 $r_1[,r_2]:P_1$. No two splices on the same cable will use the same value z. The
492 termination closest to the campus distributor or main distributor (if there is no
493 campus distributor) in the telecommunications cabling system hierarchy shall
494 be listed first (before the forward slash). If the terminations are equal within the
495 cabling system hierarchy, then the termination with the lesser alpha-numeric
496 identifier shall be listed first.

497 (g) = optional field with the GPS co-ordinate s of the outdoor telecommunications
498 space in parentheses.

499 The identifier is applied to each balanced pair or optical fibre grouping to which a unique
500 identifier is applied as defined in 4.5.1.2.

501 4.5.1.4 CPs (inter-cabinet links)

502 The following identifier format shall be used for each port on a consolidation point on
503 horizontal link between cabinets, racks, frames, and wall segments within a distributor,
504 telecommunications room, or data centre

505
$$[[[c_1-]b_1-][f_1]s_1.][x_1]y_1-r_1[,r_2]:P_1 / [[c_2-]b_2-][f_2]s_2.][x_2]y_2-r_3[,r_4]:P_3.CP$$

506 The termination closest to the main distributor in the telecommunications cabling system
507 hierarchy shall be listed first (before the forward slash). If the terminations are equal within the
508 cabling system hierarchy, then the termination with the lesser alpha-numeric identifier shall be
509 listed first.

510 The identifier is applied to each balanced pair or optical fibre grouping to which a unique
511 identifier is applied as defined in 4.5.1.2.

512 4.5.2 Horizontal cabling

513 4.5.2.1 Cable

514 A horizontal cable is identified by the port on the closure on which the cable terminates
515 followed by a period '.' and capital letters 'CBL':

516
$$[[[c_1-]b_1-][f_1]s_1.][x_1]y_1-r_1[,r_2]:P_1.CBL$$

517 The fields are defined 4.5.1.1.

518 For example, the horizontal cable to the telecommunications outlet supported by the 21st port
519 on the panel at position 35U in cabinet 1 in floor distributor LHR2-4-3FDA would have the
520 identifier:

521 'LHR2-4-3FDA.1-35:21.CBL'.

522 If the horizontal cable terminates in cabinets, racks, frames, or wall segments located in a
523 distributor, telecommunications room, or computer room, the horizontal cable is identified by
524 the closure ports or block termination positions on both ends as specified in 4.5.1.1.

525 **4.5.2.2 Telecommunication outlets**

526 A telecommunications outlet is identified by the port on the closure on which the horizontal link
527 terminates followed by a period '.' and capital letters 'TO':

528
$$[[[c-]b-][f]s.][x]y-r_1[,r_2]:P.TO$$

529 The fields are defined in 4.5.1.1.

530 **4.5.2.3 Splices**

531 Each pair grouping in a splice on a horizontal cable is identified by the port on the closure on
532 which the horizontal cable terminates as follows:

533
$$[[[c-]b-][f]s.][x]y-r_1[,r_2]:P.SPz$$

534 Where z following the period and capital letters 'SP' is defined as follows:

535 z = approximate distance in meters from the closure on which the horizontal cable
536 terminates $[[[c-]b-][f]s.][x]y-r_1[,r_2]:P$. No two splices on the same cable will use the
537 same value z.

538 The fields are defined in 4.5.1.1.

539 The identifier is applied to each optical fibre grouping to which a unique identifier is applied as
540 defined above in 4.5.1.2.

541 **4.5.2.4 CPs**

542 Each port in a consolidation point is identified by the port on the closure on which the
543 horizontal link terminates followed by a period '.' and capital letters 'CP':

544
$$[[[c-]b-][f]s.][x]y-r_1[,r_2]:P.CP$$

545 The fields are defined in 4.5.1.1.

546 **4.6 Patch cord and jumper identifiers**

547 Patch cords and jumpers shall be identified by the identifiers of the ports/terminations on
548 either end of the cable separated by the back slash '\' as follows:

549
$$[[[c-]b-][f]s.][x_1]y_1-r_1[,r_2]:P_1 \setminus [[[c-]b-][f]s.][x_2]y_2-r_3[,r_4]:P_3$$

550 The square brackets indicate fields that may not be present or required based on the location
551 of the cable, class of administration, or need for unique identifiers for patch cords and jumpers
552 throughout an enterprise, campus, or building.

553 The termination closest to the campus distributor or main distributor (if there is no campus
554 distributor) in the telecommunications cabling system hierarchy shall be listed first (before the
555 back slash). If the terminations are equal within the cabling system hierarchy, then the
556 termination with the lesser alpha-numeric identifier shall be listed first.

557 The fields are defined in 4.5.1.1.

558 All patch cords and jumper identifiers should have the same format where possible.

559 For example, a patch cord between the 24th port on the closure at position 35U in cabinet
560 LHR2-4-0DC.AD02 and the 23rd port on the closure at position 31U in the adjacent cabinet
561 LHR2-4-0DC.AD03 would have the identifier:

562 'LHR2-4-0DC.AD02-35:24 \ LHR2-4-0DC.AD03-31:23'.

563 Since the location of the room is generally understood, patch cords generally stay within a
564 single telecomm space, and space on labels is limited, the label for the patch cord may not
565 include the space identifier 'LHR2-4-0DC' and instead read

566 'AD02-35:24 \ AD03-31:23'.

567 **4.7 Pathway system identifiers**

568 **4.7.1 Inter-campus or Inter-site pathway system**

569 Pathway systems between buildings at different sites or campuses shall have the format:

570 $c_1-b_1[[-f_1]s_1] / c_2-b_2[[-f_1]s_2]-UUU.n[d]$

571 The fields are defined below.

572 c_1 and c_2 = identifiers for the campuses or sites on either end of the cable.

573 b_1 and b_2 = identifiers for the buildings on either end of the cable.

574 f_1 and f_2 = identifiers for the floors numbers on either end of the cable.

575 s_1 and s_2 = identifiers for the telecommunications spaces on either end of the cable.

576 UUU = a user defined identifier that specifies to type of element. For example,

577 CN = conduit,
578 PN = penetration,
579 SL = sleeve,
580 TN = tunnel,
581 TY = tray.

582 n = two to four numeric characters identifying the pathway system element – this
583 sequence number is the major element identifier.

584 d = innerduct, sub-duct, or tray section – this sequence number is the minor
585 element identifier is optional if the pathway system is not subdivided.

586 The termination with the lesser alpha-numeric identifier shall be listed first.

587 For example, the second innerduct in the third conduit between LHR1 Building 1 and LHR2
588 Building 5 would at minimum have the identifier:

589 'LHR1-1/LHR2-5-CN-3.2'.

590 The room and building names may be added to the identifier to add more information. For
591 example,

592 'LHR1-1-0MD/LHR2-5-0MD-CN-3.2'

593 adds the room names (ground floor main distributor or '0MD') on both ends of the pathway
594 system.

595 **4.7.2 Campus or building entrance pathway system**

596 Campus or building entrance pathway systems shall have the following format:

597 $EN / [c_1-]b_1[[-f_1]s_1]-UUU.n[d]$

598 The fields are defined in 4.7.1.

599 The campus and room identifiers are optional, but the building identifier should be included.

600 **4.7.3 Site or campus pathway system**

601 Pathway systems between different buildings, maintenance holes, or hand holes on the same
602 site or campus shall have the format:

603 $[c-]b_1[[-f_1]s_1] / [c-]b_2[[-f_1]s_2]-UUU.n[d]$

604 The fields are defined in 4.7.1.

605 The termination closest to the campus distributor in the telecommunications cabling system
606 hierarchy shall be listed first (before the forward slash). If the terminations are equal within the
607 cabling system hierarchy, then the termination with the lesser alpha-numeric identifier shall be
608 listed first.

609 **4.7.4 Building pathway system**

610 Pathway systems within a building shall have the format:

611 $[[c-]b][[-f_1]s_1] / [[c-]b][[-f_1]s_2]-UUU.n[d]$

612 The fields are defined in 4.7.1.

613 The termination closest to the campus distributor or main distributor (if there is no campus
614 distributor) in the telecommunications cabling system hierarchy shall be listed first (before the
615 forward slash). If the terminations are equal within the cabling system hierarchy, then the
616 termination with the lesser alpha-numeric identifier shall be listed first.

617 **4.8 Earthing and bonding identifiers**

618 **4.8.1 Main earthing terminal**

619 The main earthing terminal (MET) identifier shall have the format:

620 $[[c_1-]b_1][[-f_1]s_1]-MET$

621 where:

622 $[[c_1-]b_1][[-f_1]s_1]$ = telecommunications space identifier for the space containing the MET.

623 The fields are defined in 4.7.1.

624 **4.8.2 Local common bonding network access identifier**

625 The local common bonding network (CBN) access identifier shall have the format:

626 $[[c_1-]b_1][[-f_1]s_1]-CBN$

627 where:

628 $[[c_1-]b_1][f_1]s_1$ = telecommunications space identifier for the space containing the CBN.

629 The fields are defined in 4.7.1.

630 **4.8.3 Bonding conductor identifier**

631 Bonding conductors shall be identified by the identifiers of the components that they connect.
632 For example, the bonding conductor from a cabinet or frame and the local common bonding
633 network access should be:

634 $[[[c_1-]b_1-][f_1]s_1].[x_1]y_1 / [[c_1-]b_1][f_1]s_1\text{-CBN}$

635 Where $[[[c_1-]b_1-][f_1]s_1].[x_1]y_1$ is the identifier of the cabinet or frame and $[[c_1-]b_1][f_1]s_1\text{-}$
636 CBN is the identifier of the local common bonding network access identifier.

637 The fields are defined in 4.7.1.

638 **5 Recommendations**

639 **5.1 Consistency in identifier formats**

640 In specifying identifier formats, this Standard recommends that each identifier have a
641 consistent format throughout the infrastructure where possible. In most instances this will be
642 possible by using leading zeros to maintain the same number of numeric characters in the
643 identifier.

644 For example, in the telecommunications space identifier with the format fs , the f represents the
645 floor level in the building. For buildings up to nine floors, the numbers 1 through 9 could
646 represent the floors. In a twenty-story building, the f would expand to two characters and the
647 identifiers would number 01, 02, 03, and so on, up to 20. In a one hundred story building, the
648 floors could start with 001, 002, 003, etc.

649 The nn in the format will often represent port numbers on a closure. Since most closures have
650 ninety-six or fewer ports, two numeric characters will be sufficient, and the ports would be
651 numbered 01, 02, 03, and so forth. If, instead, the a represents a group of wall-mounted IDC
652 connectors which can terminate three hundred horizontal cables, then the termination
653 positions for each cable would be numbered 001, 002, 003, on up to 300.

Table 1 - Summary of identifier formats

Component to be identified	Clause	Identifier format
Campus or site	4.1.1	c
Building	4.1.2	[c-]b
Indoor telecommunications space	4.2.1	[[c-]b-][f]s
Outdoor telecommunications spaces such as maintenances holes, handholes, joining chambers, pedestals, or outdoor cabinets	4.2.2	[c-]U[(g)]
Cabinet, frame, or wall segment	4.2.3	[[[c-]b-][f]s-][x]y
Closure or block	4.3	[[[c-]b-][f]s-][x]y-r ₁ [,r ₂]
Port or termination on closure/block	4.4	[[[c-]b-][f]s-][x]y-r ₁ [,r ₂]:P
Backbone cable or cable between cabinets, racks, frames, or wall sections.	4.5.1.1	[[[c ₁ -]b ₁ -][f ₁]s ₁ -][x ₁]y ₁ -r ₁ [,r ₂]:P ₁ -[P ₂] / [[[c ₂ -]b ₂ -][f ₂]s ₂ -][x ₂]y ₂ -r ₃ [,r ₄]:P ₃ -[P ₄]
Pair/port within backbone cable or cable within distributor, telecommunications room, equipment room, or computer room	4.5.1.2	[[[c ₁ -]b ₁ -][f ₁]s ₁ -][x ₁]y ₁ -r ₁ [,r ₂]:P ₁ / [[[c ₂ -]b ₂ -][f ₂]s ₂ -][x ₂]y ₂ -r ₃ [,r ₄]:P ₃
Splice - pair in splice on backbone cable or horizontal cable to outlets mounted in a cabinet, frame, or wall section in distributor, telecommunications room, or data centre	4.5.1.3	[[[c ₁ -]b ₁ -][f ₁]s ₁ -][x ₁]y ₁ -r ₁ [,r ₂]:P ₁ / [[[c ₂ -]b ₂ -][f ₂]s ₂ -][x ₂]y ₂ -r ₃ [,r ₄]:P ₃ .SPz[(g)]
CP - port in consolidation point on horizontal cable to outlets mounted in a cabinet, frame, or wall section in distributor, telecommunications room, or data centre	4.5.1.4	[[[c ₁ -]b ₁ -][f ₁]s ₁ -][x ₁]y ₁ -r ₁ [,r ₂]:P ₁ / [[[c ₂ -]b ₂ -][f ₂]s ₂ -][x ₂]y ₂ -r ₃ [,r ₄]:P ₃ .CP
Horizontal cable to telecommunications outlet not mounted in a cabinet, frame, or wall section in distributor, telecommunications room, or data centre	4.5.2.1	[[[c-]b-][f]s-][x]y-r ₁ [,r ₂]:P.CBL
Telecommunications outlets not mounted in a cabinet, frame, or wall section in distributor, telecommunications room, or data centre	4.5.2.2	[[[c-]b-][f]s-][x]y-r ₁ [,r ₂]:P.TO
Splice - pair in splice on horizontal link to telecommunications outlets not mounted in a cabinet, frame, or wall section in distributor, telecommunications room, or data centre	4.5.2.3	[[[c-]b-][f]s-][x]y-r ₁ [,r ₂]:P.SPz
CP - port in consolidation point on horizontal link to telecommunications outlets not mounted in a cabinet, frame, or wall section in distributor, telecommunications room, or data centre	4.5.2.4	[[[c-]b-][f]s-][x]y-r ₁ [,r ₂]:P.CP
Patch cord or jumper	4.6	[[[c-]b-][f]s-][x ₁]y ₁ -r ₁ [,r ₂]:P ₁ \ [[[c-]b-][f]s-][x ₂]y ₂ -r ₃ [,r ₄]:P ₃
Inter-campus or inter-site pathway system	4.7.1	c ₁ -b ₁ [-f ₁]s ₁ / c ₂ -b ₂ [-f ₁]s ₂ -UUU.n[d]
Campus or building entrance pathway system	4.7.2	EN / [c ₁ -]b ₁ [-f ₁]s ₁ -UUU.n[d]
Site or campus pathway system	4.7.3	[c-]b ₁ [-f ₁]s ₁ / [c-]b ₂ [-f ₁]s ₂ -UUU.n[d]
Building pathway system	4.7.4	[c-]b[-f ₁]s ₁ / [c-]b[-f ₁]s ₂ -UUU.n[d]
Main earthing terminal	4.8.1	[[c ₁ -]b ₁][-f ₁]s ₁ -MET
Local common bonding network access	4.8.2	[[c ₁ -]b ₁][-f ₁]s ₁ -CBN
Bonding conductor for cabinet or frame	4.8.3	[[[c ₁ -]b ₁ -][f ₁]s ₁ -][x ₁]y ₁ / [[c ₁ -]b ₁][-f ₁]s ₁ -CBN

NOTE: square brackets indicate fields that may not be present depending on the class of administration or the location of the component being identified.

- 659 IEC 60297 series, Dimensions of mechanical structures of the 482.6 mm (19 in) series