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(54) Title: UPSTREAM EXTERNAL PHY INTERFACE FOR DATA AND CONTROL PLANE TRAFFIC

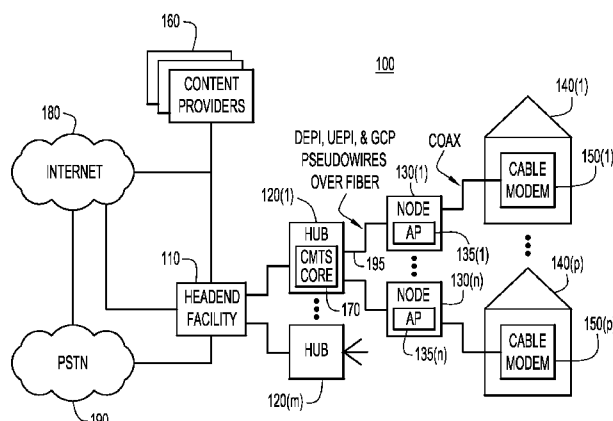


FIG. 1

(57) Abstract: Techniques are provided for controlling downstream Converged Cable Access Platform (CCAP) access points. At the CCAP access point having a network interface and a coaxial interface, control plane information is received from a Cable Modem Termination System (CMTS) via the network interface, where the control plane information is designed to configure the CCAP access point to enable communication over the network interface and the coaxial interface. At the CCAP access point, data plane and control plane information is transmitted to the CMTS, and may include information from one or more customer termination devices.

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# INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
INV. H04L12/28 H04N7/173 H04N21/43 H04L12/24  
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal , WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 7 701 951 B2 (CHAPMAN JOHN T [US] ET AL) 20 April 2010 (2010-04-20) abstract column 1, line 5 - column 4, line 45; claims 1-13; figures 1-7 column 7, line 18 - line 25 column 9, line 35 - line 40 -----	1-25
Y	US 2011/058491 A1 (HSU LU-MENG [TW] ET AL) 10 March 2011 (2011-03-10) abstract page 1, paragraph 2 - paragraph 13; claims 1-7; figures 1-3 ----- -/- .	1-25



Further documents are listed in the continuation of Box C.



See patent family annex.

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 2010/177784 AI (ASATI RAJIV [US] ET AL) 15 July 2010 (2010-07-15) abstract page 1, paragraph 3 page 1, paragraph 1 - page 2, paragraph 20; claims 1-21; figures 1-4 -----	1-25
A	W0 01/19080 A2 (ERICSSON INC [US] ) 15 March 2001 (2001-03-15) the whole document -----	1-25

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