505291220 01/23/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5337997

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| ANDREA ALLASIA | 08/25/2016 |
| FRANCO CANAVESE | 09/12/2016 |
| GIUSEPPE FIOCCOLA | 09/12/2016 |
| CHIARA MORIONDO | 08/30/2016 |
| ANTONIA PAOLICELLI | 08/30/2016 |

RECEIVING PARTY DATA

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| Postal Code: | 20123 |

PROPERTY NUMBERS Total: 1

| Property Type | Number | | | | |
|---------------------|----------|--|--|--|--|
| Application Number: | 16319884 | | | | |

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SIGNATURE: /Analiza Stepina/

DATE SIGNED: 01/23/2019

Total Attachments: 2

Address Line 1:

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PATENT REEL: 048106 FRAME: 0765

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PATENT REEL: 048106 FRAME: 0766



| SOLE/JOINT INVENTION (Worldwide Rights) Attorney Docket No.: |
|--------------------------------------------------------------------|
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ASSIGNMENT AND DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION

WHEREAS I/We, the below named inventor(s), (hereinafter referred to as Assignor(s)), of a claimed invention in an application entitled:

DYNAMIC BANDWIDTH CONTROL OVER A VARIABLE LINK

| filed | berewith | or | án | August | 02, | 2016 | as | United | States | Application | No. | | (Confirmation | No. |
|-------|----------|------|-----|------------|--------|--------|-------|----------|---------|--------------|------|--------------|---------------|-----|
| |) | atta | che | d hereto a | and/or | PCT Ir | iteri | national | Applica | ation No. PC | T/EP | 2016/068397. | | |

WHEREAS, TELECOM ITALIA S.p.A., a corporation of ITALY whose post office address is Via Gaetano Negri, 1, 20123 Milano, Italy (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application for United States Letters Patent on this invention and the Letters Patent to be issued upon this application;

AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

AND, I/WE HEREBY authorize and request that the attorneys having Power of Attorney in this application, insert here in parentheses (Application No., filed) the filing date and application number of said application when known.

As a named inventor below, I hereby declare that: (1) This declaration is directed to the above-identified application; (2) the above-identified application was made or authorized to be made by me; (3) my residence and mailing address are as stated below next to my name; and (4) I believe I am an original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any wilful false statements made in this declaration are punishable by fine or imprisonment of not more than five (5) years, or both, under section 1001 of Title 18 of the United States Code.

As a below named inventor, I have reviewed and understand the contents of the application, including the claims, and am aware of the duty to disclose to the US PTO all information known to me to be material to patentability as defined in 37C.F.R. § 1.56.

| SOLE/JOINT INVENTION |
|----------------------|
| (Worldwide Rights) |
| Attorney Docket No.: |

Authorization To Permit Access To Application by Participating Offices:

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the Applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified application is filed to have access to the above identified patent application is filed to have access to the above identified patent application.

In accordance with 37CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filling the Authorization to Permit Access to Application by Participating Offices.

| | | DATE |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------|
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| 6. FULL NAME OF SIXTH ASSIGNOR, IF ANY | ASSIGNOR'S SIGNATURE | DATE |
| | | |
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| | | |
| 7. FULL NAME OF SEVENTH ASSIGNOR, IF ANY | ASSIGNOR'S SIGNATURE | DATE |
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| MAILING ADDRESS | | RESIDENCE |
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