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**Datasheet for the decision
of 8 September 2021**

Case Number: T 0429/19 - 3.5.03

Application Number: 06291698.6

Publication Number: 1919155

IPC: H04L29/06, H04L29/12

Language of the proceedings: EN

Title of invention:

Resolution of flexible address schemes for IMS services

Applicant:

Alcatel Lucent

Headword:

Address resolution for IMS/ALCATEL

Relevant legal provisions:

EPC Art. 56

EPC R. 103(4) (c)

RPBA 2020 Art. 12(8)

Keyword:

Decision in written proceedings: cancellation of hearing following appellant's announcement of non-attendance
Inventive step - (no): obvious combination of known features



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0429/19 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 8 September 2021

Appellant: Alcatel Lucent
(Applicant) Site Nokia Paris Saclay
Route de Villejust
91620 Nozay (FR)

Representative: Novagraaf Technologies
Bâtiment O2
2, rue Sarah Bernhardt
CS90017
92665 Asnières-sur-Seine Cedex (FR)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 13 September
2018 refusing European patent application
No. 06291698.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair K. Bengi-Akyürek
Members: J. Eraso Helguera
C. Almberg

Summary of Facts and Submissions

- I. The appeal was lodged by the applicant against the decision of the examining division to refuse the present European patent application for lack of inventive step (Article 56 EPC) with respect to the claims of a main request and a first auxiliary request.
- II. During the examination proceedings, the examining division referred *inter alia* to the following prior-art documents:
- D1:** Mockapetris P: "DOMAIN NAMES - CONCEPTS AND FACILITIES", Request For Comments 1034, pp. 1-53, November 1987;
- D2:** WO 2004/006534 A1;
- D3:** WO 03/045074 A1;
- D4:** Vixie P: "DNS and BIND Security Issues", Proceedings of the Fifth USENIX UNIX Security Symposium, Salt Lake City, Utah, pp. 1-12, June 1995;
- D7:** US 2006/0039352 A1.
- III. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of a **main request** filed with the statement of grounds of appeal.
- IV. In a communication pursuant to Article 15(1) RPBA 2020, the board stated its preliminary opinion on the main request.

V. In their reply to the board's communication pursuant to Article 15(1) RPBA 2020, the appellant informed the board that they would not be represented at the oral proceedings. They did not submit any comments on the substance of the board's communication.

VI. The board then cancelled the oral proceedings.

VII. Claim 1 of the **main request** reads as follows:

"A method for resolving a Uniform Resource Identifier (URI) for use in routing messages in or between IP Multimedia Subsystem (IMS) networks comprising the following steps:

a. sending a query (201) for resolving said Uniform Resource Identifier from a device capable of sending messages to said IP Multimedia Subsystem networks (220), to a private name server (221) with a limited set of known domains, managed by an organisation and separated from domain name server infrastructure available to the public in the Internet; and

b. resolving (202) said Uniform Resource Identifier by said private name server (221);
characterized in that said method further comprises:

c. sending a new query (203) for resolving said Uniform Resource Identifier to a public name server (222) in the Internet in case resolving said Uniform Resource Identifier by said private name server (221) fails, wherein the sending of the new query is performed by said private name server (221);

d. resolving (204) said Uniform Resource Identifier by said public name server (222); and

e. receiving a response (205) to said query (203) by said device (220)."

Reasons for the Decision

1. *Decision in written proceedings*
 - 1.1 Where oral proceedings are appointed upon a party's request and that party subsequently expresses its intention not to attend, such statement is normally considered to be equivalent to a withdrawal of the request for oral proceedings.
 - 1.2 As the board does not consider holding oral proceedings to be expedient or necessary in this case (cf. Article 116(1) EPC), these were cancelled and a decision was handed down in written proceedings (Article 12(8) RPBA 2020).
 - 1.3 Given that the appellant's indication of non-attendance was not submitted within one month of notification of the board's communication under Article 15(1) RPBA 2020, the appeal fee cannot be partially reimbursed under Rule 103(4)(c) EPC.

2. MAIN REQUEST

Claim 1 of the main request comprises the following limiting features:

A method for resolving a Uniform Resource Identifier (URI) for use in routing messages in or between IP Multimedia Subsystem (IMS) networks comprising the following steps:

- (a) sending a query for resolving said URI from a device capable of sending messages to said IMS networks, to a private name server with a limited set of known domains, managed by an organisation

and separated from domain name server infrastructure available to the public in the Internet;

- (b) resolving said URI by said private name server;
- (c) sending a new query for resolving said URI to a public name server in the Internet in case resolving said URI by said private name server fails, wherein the sending of the new query is performed by said private name server;
- (d) resolving said URI by said public name server;
- (e) receiving a response to said query by said device.

2.1 *Claim 1 - inventive step (Article 56 EPC)*

2.1.1 Claim 1 of the present main request allegedly corresponds to claims 1 and 3 of the main request filed with the written submission dated 4 January 2018. Its subject-matter is substantially the same as the subject-matter of claim 1 of the first auxiliary request subject to the impugned decision (see point II.21 of the decision).

2.1.2 The board concurs with the appellant that a state-of-the-art IMS scenario with private name servers resolving SIP URIs, e.g. the ENUM-DNS servers of **D2** and **D3**, and applying state-of-the-art DNS techniques, e.g. as those described in **D1** and **D4**, discloses the preamble of claim 1, i.e. **features (a) and (b)**.

2.1.3 The subject-matter of claim 1 thus differs from that known prior-art method in **features (c) to (e)**.

2.1.4 The objective technical problem framed by the appellant in view of these differences is "how to enable operators to use their own domain names in combination with a DNS infrastructure which is managed by an

organization and which is completely separated from the DNS infrastructure used by the general public in the internet".

- 2.1.5 The board agrees in principle with this objective technical problem, but considers that the subject-matter of claim 1 does not involve an inventive step. At the application's date of filing, it was well-known to query a public name server from a private name server in order to resolve a query originating from a client in the private network, e.g. it was widely used in residential gateways. The latter would act as private DNS servers and allow the use of private domain names, while recursively querying public DNS servers from a list typically provided by the network provider.

The skilled person in the field of telecommunication networks, starting from a state-of-the-art IMS environment using private servers, would have considered applying this same technique as the most straightforward solution when seeking to solve the objective problem stated above.

- 2.1.6 The appellant submitted that **D4** should be considered to be the closest prior art because D4 disclosed the forwarding of queries by a name server to a next name server (e.g. in section 4.6). D4 disclosed forwarding of queries. The effect of sending a new query instead of forwarding a query was that the private network acted as an end device for the public name server. A result was that confidential information is not exchanged between the private and the public server. The private name server would not be considered a "branch server" in the tree of public name servers. When forwarding a query, as is being done in D4, the

same query was sent to a *different* server. More specifically, in section 4.7 of D4, it was stated that when a resolver needed to forward a query, "it chooses the next name server address from it[s] statically configured list, sends the query, waits a short time for an answer, chooses the next name server address, sends and waits, and so on". Moreover, it was disclosed in section 4.6 that forwarding a query could result in "other servers being free to put almost anything into the response, even if it has nothing to do with the query". It was also said to have disastrous effects on security. In D4, forwarding was disclosed as sending the same query over and over again to name servers from a list, until the answer is received. This implementation could result in heavy traffic at the private name server.

Furthermore, document **D7** taught the provision of a list with DNS servers. Paragraphs [0011] to [0014] described features which are all based on the computer system sending queries to different DNS servers. The DNS servers were accessed in a pre-defined order. However, document D7 did not provide the skilled person with a hint to send a *new* query by the private name server to another name server.

2.1.7 This is not convincing. Section 4.6 of D4 clearly states that (emphasis added) "... [f]orwarding **is not a three-party transaction** -- a forwarded query results in a response to the forwarder who must then complete the original transaction by forwarding the response back to the originator." Hence, the "forwarded" query is to be understood as one or more two-party transactions in which the forwarder queries one or more servers on behalf of the client. In the view of the board, this is to be interpreted as a "new" query within the meaning

of feature (c). As for D7, this document has no relevance in the board's inventive-step reasoning.

- 2.2 In conclusion, the main request is not allowable under Article 56 EPC.
3. Since there is no allowable claim request, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



B. Brückner

K. Bengi-Akyürek

Decision electronically authenticated