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D E C I S I O N
of 23 September 2005

Case Number: T 0997/02 - 3.5.03

Application Number: 99308205.6

Publication Number: 0998076

IPC: H04L 12/26

Language of the proceedings: EN

Title of invention:

Method for controlling a network element from a remote workstation

Applicant:

LUCENT TECHNOLOGIES INC.

Opponent:

-

Headword:

Network Management/LUCENT

Relevant legal provisions:

EPC Art. 52(1), 56, 113(1)

RPBA Art. 11(3)

Keyword:

"Reasons for rejecting appellant's request to cancel oral proceedings"

"Inventive step - no, both requests"

Decisions cited:

G 0010/93

Catchword:

-



Case Number: T 0997/02 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 23 September 2005

Appellant:

LUCENT TECHNOLOGIES INC.
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Representative:

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 28 March 2002
refusing European application No. 99308205.6
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: A. S. Clelland
Members: D. H. Rees
R. Moufang

Summary of Facts and Submissions

- I. This is an appeal from the decision of the examining division, dispatched on 28 March 2002, to refuse the European patent application number 99 308 205.6, publication number 0 998 076. The reason given for the refusal was that the claimed subject-matter lacked novelty with respect to the disclosure of document
- D1: US 5 491 796 A.
- II. Notice of appeal was filed and the fee paid on 16 May 2002. A statement setting out the grounds of the appeal was submitted on 1 August 2002 together with a new set of claims 1 to 10. The appellant argued that D1 did not teach or suggest a number of features which had now been added to claim 1.
- III. The board issued, of its own motion, a summons to attend oral proceedings to be held on 23 September 2005. In the accompanying communication the board gave its preliminary opinion that the new features pointed out by the appellant followed from a decision to implement elements of the system of D1 on separate computers connected via a network; they would have been standard in a network context at the priority date of the application and were disclosed in a very similar context in a document mentioned in the decision under appeal:
- D4: J. Kotschenreuther, "Betreiber brauchen offene Netzmanagementsysteme", NTZ Nachrichtentechnische Zeitschrift, VDE Verlag, Berlin, DE, vol. 50, No. 5, 1997, pages 50-52.

The board therefore took the preliminary view that the claimed subject-matter did not involve an inventive step.

IV. In a submission on 24 August 2005 the appellant's representative informed the board that he would not attend the oral proceedings. It was requested that the oral proceedings be cancelled and that the procedure be continued in writing. If this were not possible a written decision "based on the papers" was requested. A new set of claims, including an amended claim 1, was submitted as the basis of an auxiliary request. Claim 1 of the auxiliary request added another feature of the refused claim 1 and the features of refused dependent claim 3.

V. The single independent claim 1 of the main request reads as follows:

"A method for controlling a network element (38) in a network from a remote work station (22) connectable to the network, characterized by the steps of:
registering to track an attribute of the network element;
polling for the attribute only if a client requests monitoring of the network element, wherein the polling is performed in a single polling cycle when multiple clients register for the attribute;
running an object oriented program at the remote work station (22) to control an object associated with the network element;
translating interface (26) operations generated by the work station (22) during the running of the object

oriented program to corresponding translated interface (26) operations in an object oriented language associated with the object, wherein the translating includes automatically determining which of a plurality of different object oriented languages is the object oriented language associated with the object and generating the corresponding translated interface (26) operations from the remote work station (22) to an object server (25) in accordance with the object oriented language;

connecting the corresponding translated interface (26) operations through the network to the object server (25) to control the object associated with the network element (38) in accordance with the translated interface (26) operations, wherein the translating includes communicating with the object server (25) through a distributed object request architecture to provide a consistent interface (26) to the object that hides implementation details associated with the object;

and

gathering information concerning the network element (38) at the object server (25), and conveying the information that has been gathered to the remote work station (22) by dynamically generating a web-page visual display associated with the network element (38) for interfacing with the remote work station (22) to display the information that has been gathered."

Claim 1 of the auxiliary request specifies the following extra features inserted in the second, polling, step after "when multiple clients register for the attribute,":

"and wherein polling the network element, through employment of the object server, for only the particular one or more attributes for which the one or more distributed clients have registered interest and only once during an instance of the polling interval regardless of whether the one or more distributed clients comprise a plural number of clients includes the steps of:

notifying, through employment of the object server (25), the one or more distributed clients that have registered interest for the particular one or more attributes of a first view of the particular one or more attributes of the network element (38) in a first instance of the polling interval;

notifying, through employment of the object server (25), the one or more distributed clients that have registered interest for the particular one or more attributes of a different view of a first one or more of the particular one or more attributes of the network element (38) in an instance of the polling interval that is consecutive to the first instance of the polling interval upon a change of the first one or more of the particular one or more attributes; and

withholding notification, from the object server (25), to the one or more distributed clients that have registered interest for the particular one or more attributes of a same view of a second one or more of the particular one or more attributes of the network element (38) in an instance of the polling interval that is consecutive to the first instance of the polling interval upon an occurrence of unchanged value of the second one or more of the particular one or more attributes from the first instance of the polling interval to the instance of the polling interval that

is consecutive to the first instance of the polling interval;"

VI. The appellant requests that the decision under appeal be set aside and that a patent be granted on the basis of

claims 1 to 10 submitted on 1 August 2002 (main request) or 1 to 10 submitted on 24 August 2005 (auxiliary request);

description

pages 10, 13 and 16 as originally filed;

pages 1, 1a, 2 to 4, 6, 6a, 6b, 7, 7a, 8, 9, 11, 12, 14, 15, 17 and 18 submitted on 22 January 2001;

page 5 received on 9 June 2001, with letter of 6 June 2001;

drawing sheets 1 to 6 submitted on 22 January 2001.

VII. Oral proceedings took place as scheduled on 23 September 2005, the board having informed the appellant that they would not be cancelled. The appellant was not represented at the oral proceedings, during which the board deliberated and the chairman announced the decision taken.

Reasons for the Decision

1. The function of a board of appeal is to reach a decision on the issues presented to it, not to act as an alternative examining division (G 10/93 OJ 1995, 172, in particular Point 4). The need for procedural economy

dictates that the board should reach its decision as quickly as possible while giving the appellant a fair chance to argue its case. In the present appeal the holding of oral proceedings was considered by the board to meet both these requirements. A summons was therefore issued. The appellant gave no reasons to support the request to cancel the oral proceedings scheduled by the board and to continue the procedure in writing. The board considered that, despite the appellant's announced intention not to attend, the twin requirements of fairness and procedural economy were still best served by holding the oral proceedings as scheduled. The mere choice by the appellant not to attend was not sufficient reason to delay the board's decision. As made clear in the Rules of Procedure of the Boards of Appeal, Article 11(3), a party duly summoned to oral proceedings and not attending may be treated as relying only on its written case. The board considered that Article 113(1) EPC had been satisfied. The request to cancel the scheduled oral proceedings was therefore refused.

2. *The invention*

The invention relates to network management and more particularly to the requirement of users or processes in a network to monitor the behaviour of other network elements. Network elements may be polled (interrogated at regular intervals) using a standard protocol, SNMP. However, if every process which wishes to monitor a network element simply carries out the polling itself, this can lead to large numbers of requests being sent to a single element which various processes need to monitor, using significant resources in the network

element and creating a large amount of network traffic. The application therefore proposes that a single unit, which the board will refer to as the "element management server", be set up to carry out the polling on behalf of processes wishing to monitor elements. The processes register what attributes of what elements they need to monitor with the element management server. The element management server then carries out the polling, only once for each relevant element in each time unit, even when several processes have registered to monitor the element. Only registered attributes are polled for and, to save traffic further, after reporting the results of a first poll to a process, only changes in the registered attributes are reported, rather than the results of each poll. The processes and management unit use a client server arrangement, and in the preferred embodiment communications between client and server conform to the CORBA standard, with the poll results being communicated to the client using HTML web pages, so that they can be viewed in a standard browser. The necessary "callback" mechanism in the client is set up using JAVA applets.

3. *Disclosure of the claimed subject-matter*

3.1 Claim 1 of the main request is derived from the features of original claims 1, 7, 8, 9, 14 and 17. Dependent claims 2 to 10 specify the features of original dependent claims 15, 16, 20, 21, 22, 23, 24, 29 and 30 respectively.

3.2 As mentioned above (Point IV), in the auxiliary request the independent claim includes further features taken from claims 1 and 3 of the claims refused by the

examining division. These features are disclosed at page 4, lines 8 to 14 of the application as filed.

3.3 The amendments to the description and drawings are, apart from the acknowledgement of the background art in accordance with Rule 27(1)(b) EPC, merely editorial in nature.

3.4 The board is therefore satisfied that neither request contains subject-matter which extends beyond the content of the application as filed and thus that the requirements of Article 123(2) EPC are satisfied.

4. *Inventive step*

4.1 Since its independent claim is of narrower scope than that of the main request, the auxiliary request will be considered first.

4.2 In the client-server model of processing, a client is a process which requests services from another process, the server. In the closest prior art document D1 the "windows" (column 4, lines 31 to 33) and "engine" (column 2, line 46, column 3, lines 39 and 40, and Figure 1) perform the roles of clients and server. Thus a central network management server coordinates the monitoring needs of a plurality of clients - see column 2, lines 32 to 42. Monitoring requirements are registered with the server by the clients (column 35, line 66 to column 36, line 4), polls are carried out for only the attributes registered, and only once per polling period, even when plural clients have registered to monitor the same attribute of a network element (column 4, lines 30 to 39). It is clear to the

- skilled person that the result of the first poll after the client registers an interest would be reported; after that only changes of values of attributes need be reported (column 32, lines 10 to 20).
- 4.3 D1 apparently does not contemplate having the clients distributed at different network nodes to the server, and the technical problem solved by the subject-matter as claimed may therefore be considered to be the implementation of this separation. In the board's view this problem would present itself inevitably to the skilled person with the increasing distribution of functions over networks in general.
- 4.4 D4 is one example of the use of CORBA, Java and Internet browsers (and therefore HTML web-pages) to implement this separation of clients and network management server - see for example the diagram on page 51 and its caption. It is clear both from D4 and from the application in suit that the skilled person is expected to be familiar with these standard tools - see e.g. the application at page 5, line 27, where CORBA is described as "industry standard". The features of claim 1 relating to the interaction of client and server, i.e. from "running an object oriented program" onward, are a mere consequence of the application of these techniques - see originally filed dependent claims 10, 11, 18 and 26, which specify the same tools as D4 and are implementations of the features claimed in original dependent claims 8 and 17 and thus current claim 1.
- 4.5 The appellant did not put forward any counter arguments in response to the board's preliminary opinion that

these features of the interaction between server and clients did not involve an inventive step (communication accompanying the summons to oral proceedings, Point 4).

- 4.6 However, the appellant did put forward arguments that the system disclosed in D1 operated in a different way to that of the application. The board supposes that these arguments were intended to show that some of the claimed features which are apparently shown by D1 (see Point 4.2 above) are not in fact the same as those claimed, but it is not clear to the board which features were meant.

In detail, the appellant argued in the submission of 24 August 2005 as follows:

"The Applicant discloses and claims single polling for a plurality of clients that registers for the same attribute, and asynchronous reporting of changes in the attribute to a plurality of clients. As noted, in the Applicant's system, a network element is registered for attributes to be tracked, but polling for attributes associated with the network element occurs only if the client requests the monitoring of the network element.

Reference D1 teaches directly away from this technique. In the first place, the values of expressions that may be displayed are retrieved from a database and not explicitly polled proximate the time of evaluation (D1: column 25, lines 8-20). Furthermore, D1 requires that a synchronous update submodule control the values module. In other words ... a component is not necessarily updated every time an event occurs that affects the component, but the component is updated, at

most, at a specified rate (D1: column 31, line 60 through column 32, line 10). In addition, in D1, function is monitored on behalf of a specific User Interface component (column 35, lines 23-34). This is contrary to the teachings of Applicant's invention, in which a single required variable is polled only once (if any instance of the variable is required) and the poll results are shared with other requestors."

4.7 However the board notes firstly that the application does not teach that a client is sent an updated value every time that an event occurs that affects the value, since the network elements are polled once (and by implication only once) per polling period. Thus the application too updates a value, and therefore also a client, "at most, at a specified rate", namely the polling rate. Secondly, the invention as claimed and described only operates asynchronously in the sense that a change in value may or may not be reported in any given polling period; for this purpose a "callback" mechanism is used, and precisely the same technique is used in D1 - see column 32, lines 12 to 19.

4.8 That D1 employs a database and User Interface component as intermediates to calculation and presentation of the values reported to the clients is an irrelevant implementation detail. D1 discloses, e.g. at column 2, lines 59 to 61, that network elements are polled to update the database, and while what is reported may be a processed function of the raw network element attributes, it is clear that it can also be the raw values (e.g. column 10, lines 14 to 17). The use of a database or a User Interface component is not excluded by the present independent claim, nor is it clear what

- technical problem would be overcome by not using these elements.
- 4.9 Thus the appellant's arguments do not invalidate the board's conclusion that the subject-matter of the single independent claim of the auxiliary request does not involve an inventive step with respect to the teaching of D4 applied to D1.
- 4.10 The independent claim of the main request is of broader scope than the independent claim of the auxiliary request and is therefore open to the same objection of lack of an inventive step as raised at Points 4.2 to 4.9 above against the independent claim of the auxiliary request.
5. Hence neither request is allowable, and the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Magliano

A. S. Clelland