

(12) 按照专利合作条约所公布的国际申请

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国际局

(43) 国际公布日
2019 年 3 月 21 日 (21.03.2019)



(10) 国际公布号
WO 2019/052075 A1

(51) 国际专利分类号:
G06F 17/30 (2006.01)

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(21) 国际申请号: PCT/CN2017/117698

(22) 国际申请日: 2017 年 12 月 21 日 (21.12.2017)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
201710841537.4 2017年9月18日 (18.09.2017) CN

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(54) Title: QUERY ENHANCEMENT SYSTEM AND METHOD FOR CONSTRUCTING ELASTIC FIELD BASED ON TIME DELAY

(54) 发明名称: 一种基于时延构建弹性现场的查询增强系统和方法

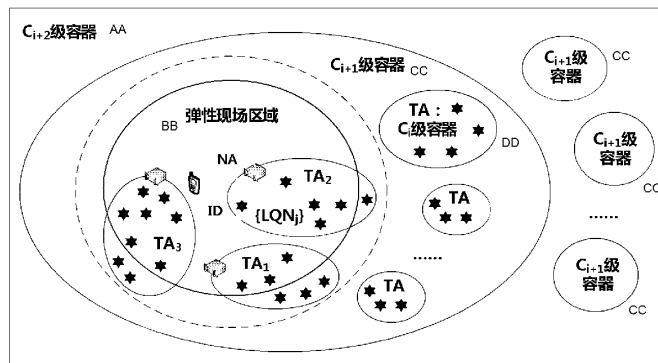


图1

AA C_{i+2}-level container
BB Elastic field area

CC C_{i+1}-level container
DD C_i-level container

(57) Abstract: The present invention relates to a query enhancement system for constructing an elastic field based on a time delay, the system comprising: logically dividing a network node to obtain a set of containers composed of several containers, wherein the several containers have a nested relationship; the several containers constitute a set of containers; and each of the containers comprises a management node for performing node organization, neighbor maintenance and query services within the container. Further disclosed is a query enhancement method for constructing an elastic field based on a time delay, the method comprising: carrying out same-layer non-intersection full-coverage logical division on a network node to obtain a set of containers composed of several containers, wherein the several containers have a nested relationship, and respectively execute a query flow without a given low time delay requirement and a nearby query flow with a given low time delay requirement; the query flow without a given low time delay requirement uses an existing query technique; and the query flow with a given low time delay requirement uses a distributed nearby querying method to carry out a nearby query, with an actual query time delay index T_i being less than the requirement of a certain upper time delay limit T_s.

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本国际公布:

- 包括国际检索报告(条约第21条(3))。

(57) 摘要: 本发明涉及一种基于时延构建弹性现场的查询增强系统, 包括: 对网络节点进行逻辑划分得到由若干容器组成的一组容器; 该若干容器间具有嵌套关系, 若干容器构成一组容器, 每个该容器包括: 一管理节点, 用于该容器内的节点组织、邻居维护与查询服务; 还公开了一种基于时延构建弹性现场的查询增强方法, 包括: 对网络节点进行同层无交集全覆盖逻辑划分, 得到由若干容器组成的一组容器, 该若干容器间具有嵌套关系, 分别执行无给定低时延要求的查询流程和给定低时延要求的就近查询流程; 该无给定低时延要求的查询流程, 采用现有查询技术; 该给定低时延要求的查询流程, 采用分布式就近查询方法进行就近查询, 实际查询时延指标 T_i 小于某个时延上限 T_s 的要求。