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PC

* **

PC SETI@Home
Cell Computing PC
PC



I.

II. PC

III. PC

IV. PC

V. PC

VI.

* ETRI 가 /

**

I.

PC /

가

가

PC

. SETI@Home

()NTT

Cell Computing

PC 'SETI@Home: Search for ExtraTerrestrial Intelligence'
 David Anderson 1997 1999 5
 PC 400 PC 가
 가 , 2001 4 United Device
 'UD Cancer Project' , 200 PC 가
 가 , 가 PC
 , SETI@Home
 , P2P(Peer-to-Peer) [3,6].

II. PC

()
 , PC 가
 SETI@Home NTT
 Cell Computing 가 PC
 PC PC

1.

SETI@Home 가
 , 가
 SETI(Search for Extraterrestrial Intelligence)
 가 PC
 SETI@Home (setiathome. ssl. Berkeley. edu)
 가 (가)
 PC

SETI@Home 1997 5 2

Arecibo

PC

(Collect Data Find Candidate Signals Check Data

Integrity Remove Radio Interference Identify Final Candidates)

가

가

. SETI@Home

PC

PC

2001 5 300

가

IBM

(ASCI White)

(Department of Energy)

가 11

106

12.3

(Tera-Flops)

, SETI@Home

가 1%

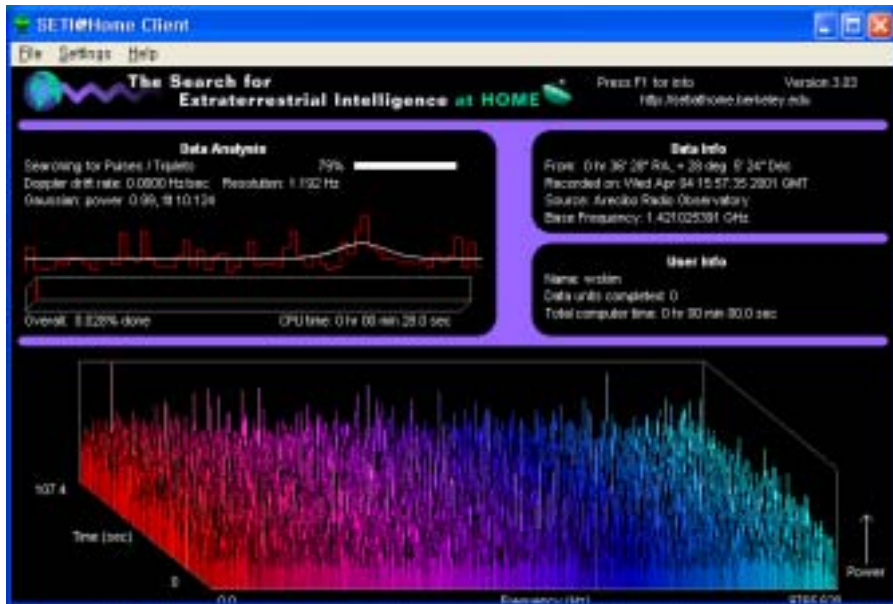
가

SETI@Home

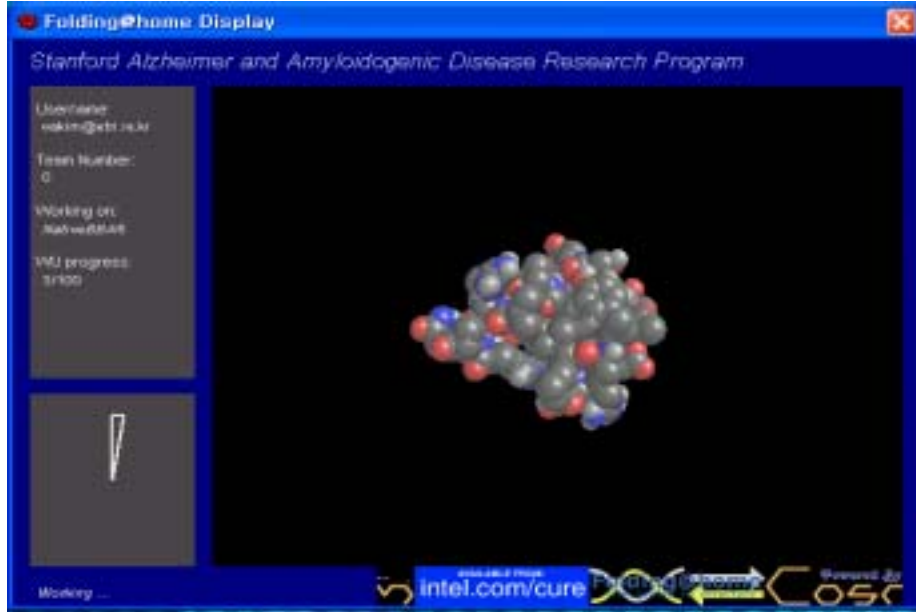
70

20

2



(1) SETI@home



(2) Folding@home

SETI@Home David P. Anderson
 United Devices , PC 가
 , 가
 , P2P 가 Intel*
 philanthropic peer-to-peer program . (1) SETI@Home v3.03
<http://www.setiathome.ssl.berkeley.edu/download.html> , (2) Folding@home
<http://www.intel.com/cure/> 2002 1
 . SETI@Home 390 가 [2,4,7].

2.

(human interaction)

PC

.....

가
 , IP
 가
 2001 11 SC2001
 SC Global , , 40 가
 가 . 가
 , GGF, iGrid 가 ,
 가 가
 In-SORS ()
 AG 1.x Access Grid Toolkit 2.0 ,
 , GGF ACE(Advanced Collaborative Environments)-
 WG Security Requirement 가 .
 , 가 , 가 ,
 (IT), (BT), (NT),
 (ET)
 [1].

3. Cell Computing

()NTT 2001 5 PC
 . ()NTT Cell Computing 'cell'
 PC . PC
 United Devices
 PC , 2002 12 20 United
 Devices (), (), IBM(), NTT ()
 가 'BOLERO'

1136 2004. 3. 10.

() .

'OPAL'

NTT

2003 4 1

, 가 PC

11,200

PC

450

. ,

(2003 4 1).

OPAL

2

PC

200

20

(6,300), 21

(4,500), 22

(4,800)

(2003 2 21).

()NTT

, CG

,

Cell Computing

ASP

PC

PC

PC

, ,

PC

()

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PC

가

PC

Cell Computing

, SI

Cell Computing

[1,5].

III. PC

PC

가

PC

((3)),

PC

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PC

PC

가).

PC

가

PC

가

PC

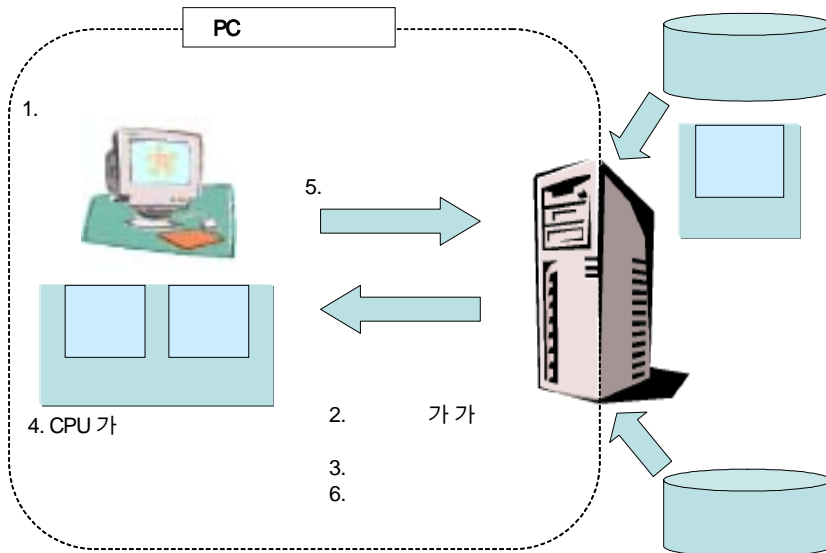
PC

PC가

PC

PC

PC



(3) PC

, CPU 가

PC

가

PC

PC

PC

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, PC

[1].

IV. PC

SETI@Home

SETI@ home

. PC

52

가

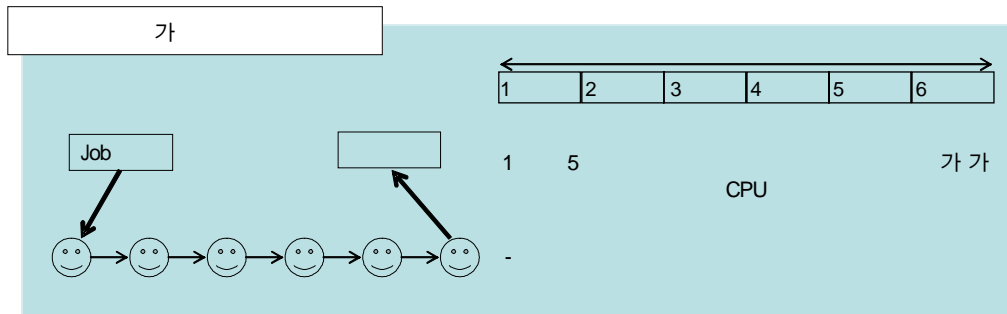
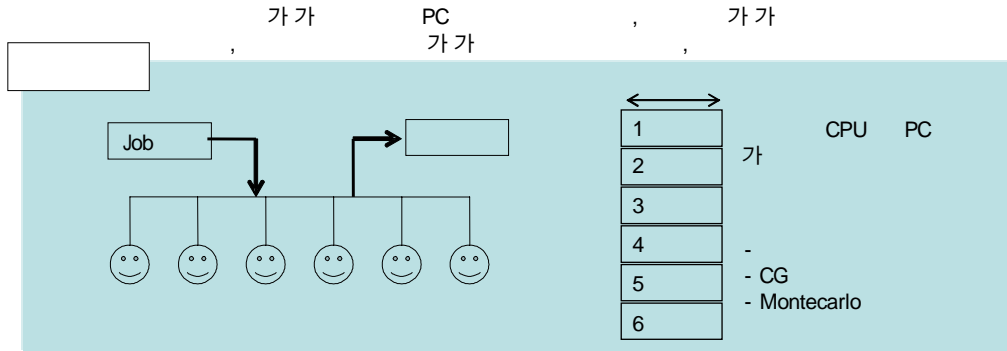
가

() NTT

2002 12 1

PC 200

Cell Computing 2



(4) PC 가

PC . 가 PC
 PC .
 PC , PC
 . , PC
 . , . .
 , PC LAN xDSL, PC
 , PC
 가 . , PC PC
 가 가 가 ((4)).
 PC PC
 .
 , PC PC

.....

CG

SETI@Home PC

가 . SETI@Home, Cancer Research Project, Folding@home, Gateway Processing on Demand PC

PC 가 ,

PC 가 가 .

PC 가

PC

(< 1 >).

< 1 > PC

	University of Oxford	Drug Design
	Novartis Pharmaceuticals	Screening for drug discovery
	U.S. Department of Defense	Screening for drug discovery
	Pacific Life Insurance	Financial modeling and simulation
	ISIS Pharmaceuticals	Life Science Research
	BRISTOL - MYERS SQUIBB	Drug Discovery
	Algorismics Incorporated Services	Risk Management
	Abbey National Treasury Services	Risk Calculations
	West Virginia University	Life Science Research
	First Union National Bank	Trading

PC

[1].

V. PC

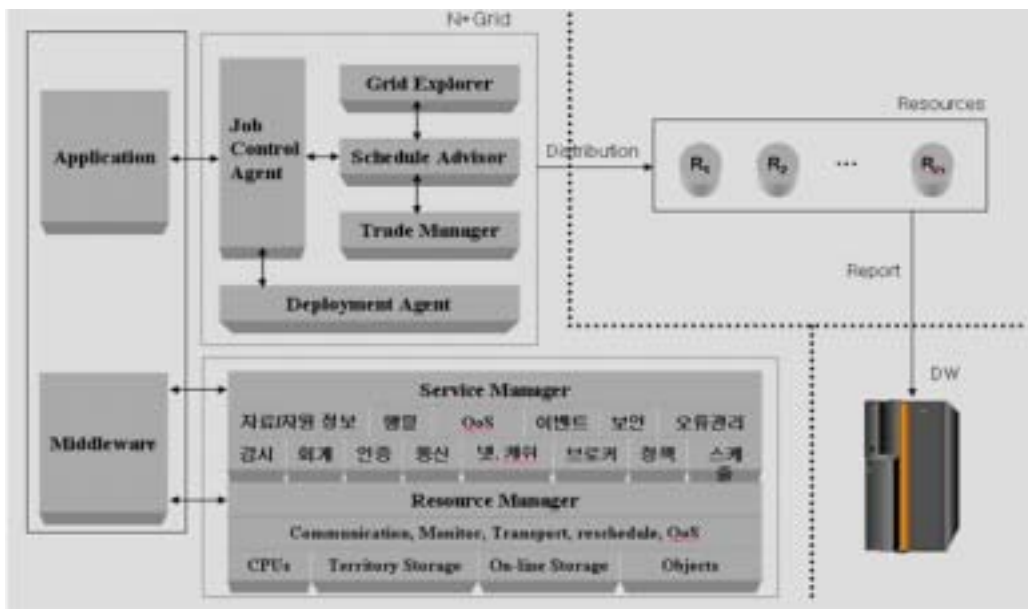
가 PC

2000 5 128 CPU PC ,

AMD 40 CPU PC

가 PC 가 CPU 256 가 PC
 , 2004 256
 CPU
 PC
 PC 가 PC 2004 500
 . 2004 PC
 (<http://www.ngrid.co.kr> 'N*' CPU

가



< >: <http://www.ngrid.co.kr/software.php?id=software>

(5) N*

.....

12.7 500 OS 가

(DNA ,) (,) (,) (,)

PC http://www.epowergate.co.kr 가 ()

(Global Rendering Service: GRS)

(GRS)

2004

GRS 1,000 CPU , 100 CPU , DCRC KDAH . . 3

80

20

DCRC,

KDAH GRS 가 , 2004

3

PC

1,500 PC SETI@Home Folding@home Korea@Home

(KISTI) Korea@home 5 177

2002 1 30

~ PC 가

PC 1,500 PC

CPU 20% 가 , 80% 1,200 PC

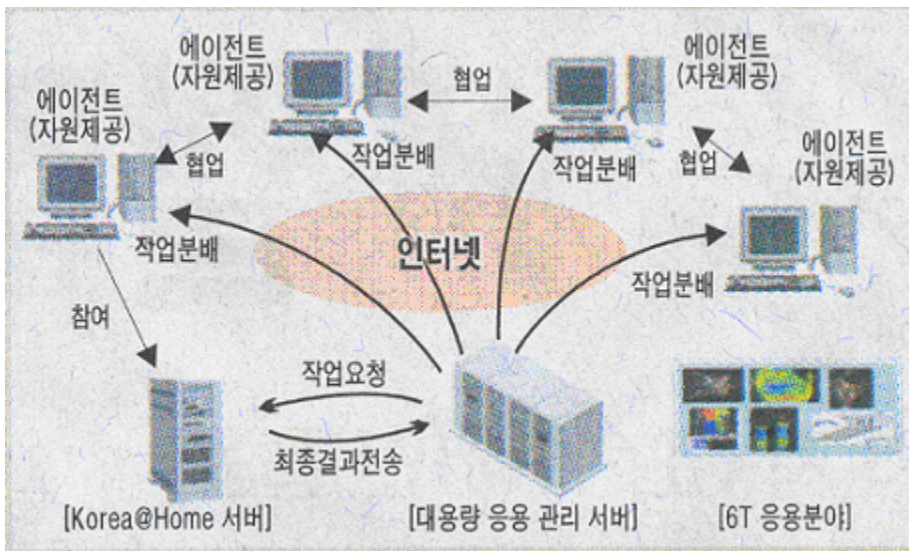
Korea@Home CPU 10% 150

PC 3

12.7 가 700

2004 1 14

@ 가 가 (KISTI)



.....
 () PC 1,300 (600) (1 =1) 가 P2P , 2003 . PC IT · BT 2 (2), 1.2 . KISTI 10 , 9.95 4 가 , KISTI 2003 . 1 1,217 PC 53.5 가 (1 가=10) , 31.78 가 , 2 6,472 PC 644 가 , 470.6 가 [8].

VI.

TCP/IP e-mail , PC . PC (Peer 가). PC , PDA , Any* IT 가 (*@home) PC GGF , (Glous) 가 PC ASP PC 가 , IT 가 PC 가 가

. (<http://postnology.wenetcom.co.kr/>)

[1]

[1]

< >

- [1] IPSJ Magazine Vol.44 No.6 June 2003
- [2] SETI@Home, <http://setiathome.ssl.berkeley.edu>
- [3] UD Cancer Project, <http://www.grid.org/projects/cancer/>
- [4] Floding@home, <http://folding.stanford.edu>
- [5] NTT Cell Computing, <http://www.cellcomputing.jp>
- [6] 伊藤直樹著, “ P2P コンピューティング ”, Soft Research Center, 2001.11.25.
- [7] <http://www.intel.com/cure/>
- [8] <http://www.etnews.co.kr/>
- [9] <http://postnology.wenetcom.co.kr/>