Script = CJK, BoldFont = SimHei, ItalicFont = KaiTiSimSun

2019-04-18

•

•

Script=CJK,BoldFont=* BoldMicrosoft YaHei

1

1.1

/ / /

1.2

1.1

| IM | Instant Messaging | |
|-------|-------------------------------------|--|
| RSA | Rives Shamir Adleman | |
| DES | Data Encryption Standard | |
| PMI | Privilege Management Infrastructure | |
| UI | User Interface | |
| SQL | Structured Query Language | |
| NoSQL | Not only Structured Query Language | |
| URL | Uniform Resource Locator | |
| CPU | Central Processing Unit | |
| API | Application Programming Interface | |
| DB | Database | |

2

2.1

2.1.1

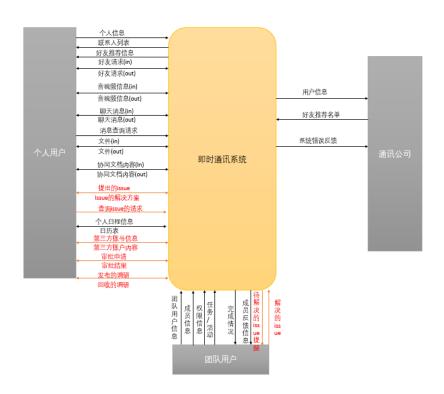
2.1.2

5

Board () • Board() (github LinkedIn)

6

??



Android IOS Windows Linux

•

Board

Board

•

3

3.1

3.1.1 R.INTF.CALC.001:

3.1.1.1

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•

•

3.1.1.2

4096

3.1.1.3

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3.1.1.4

3.1.2 R.INTF.CALC.002:

3.1.2.1 R.INTF.CALC.002.1:

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"

• """

• "/ "" "

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• ""

3.1.2.2 R.INTF.CALC.002.2:

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4096

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3.1.2.3 R.INTF.CALC.002.3:

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• GPS

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3.1.2.4 R.INTF.CALC.002.4:

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- •

• " "

" "

3.1.3 R.INTF.CALC.003: /

3.1.3.1 3.1.3.2 3.1.3.3 3.1.3.4 3.1.4 R.INTF.CALC.004: ()

3.1.4.1 3.1.4.2 u nu n unu n un 3.1.4.3 3.1.4.4 3.1.5 R.INTF.CALC.005:

3.1.5.1 R.INTF.CALC.005.1:

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(,)¹

(()) (())

• ""

• "" "" ""

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16

3.1.5.2 R.INTF.CALC.005.2:

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3.1.5.3 R.INTF.CALC.005.3:

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() ()

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3.1.6 R.INTF.CALC.006:

3.1.6.1

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• txt xls

3.1.6.2

(C 27 (C 27

3.1.6.3 •

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•

3.1.6.4

• 4GB

3.1.7 R.INTF.CALC.007: 3.1.7.1 3.1.7.2 3.1.7.3 3.1.7.4 3.1.8 R.INTF.CALC.008: Board() Board 3.1.8.1 : Board Board Board

| 3.1.8.2 | | | | | |
|------------------|--------------|-------|--|--|--|
| • "Board" E | Board | | | | |
| • Board " " | | 32MB | | | |
| • Board | <i>دد</i> >> | ω, γ, | | | |
| • Board | Board | | | | |
| 3.1.8.3 | | | | | |
| • Board | | | | | |
| • Board | | | | | |
| 3.1.8.4 | | | | | |
| • | | | | | |
| • Board | | | | | |
| 3.1.9 R.INTF.CAL | _C.009: | | | | |
| | | | | | |
| 3.1.9.1 | | | | | |
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3.1.9.2

| 3.1.9.3 |
|-------------------------|
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| 3.1.9.4 |
| 3.1.10 R.INTF.CALC.010: |
| 3.1.10.1 |
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| • |
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| 3.1.10.2 |
| " " 4GB |
| 3.1.10.3 |
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| 3.1.10.4 | |
|-------------------------|--|
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| • | |
| 3.1.11 R.INTF.CALC.011: | |
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| 3.1.11.1 | |
| : | |
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| • | |
| 3.1.11.2 | |
| 0.1.11.2 | |
| | |
| 3.1.11.3 | |
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| 3.1.11.4 | |
| | |
| 3.1.12 R.INTF.CALC.012: | |

3.1.12.1 3.1.12.2 • "" 4096 3.1.12.3 3.1.12.4 3.1.13 R.INTF.CALC.013: 3.1.13.1

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3.1.13.2 4GB 3.1.13.3 3.1.13.4 3.1.14 R.INTF.CALC.014: 3.1.14.1

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3.1.14.2

3.1.14.3

3.1.14.4

3.1.15 R.INTF.CALC.015:

3.1.15.1

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- •
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- •
- •

3.1.15.2

- " "
- " "
- " "
- . " "
- "" ""

3.1.15.3

- •
- •

3.1.15.4

3.1.16 R.INTF.CALC.016:

3.1.16.1

:

- •
- •
- •
- •

3.1.16.2

- " "
- . ""
- •
- " "

3.1.16.3

- •
- •

3.1.16.4

3.1.17 R.INTF.CALC.017:

3.1.17.1

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•

•

3.1.17.2

3.1.17.3

•

•

3.1.17.4

3.2

3.2.1

3.2.1.1

• 1 PC 1-50

3.2.1.2

• 1000

3.2.1.3

• ≥ 10000 ≥ 1000000 ≥ 1000 ≥ 500000

• $\leq 50 \leq 20 \leq 10 \leq 50$

• ≥ 100000 ≥ 10000000 ≥ 10000 ≥ 5000000

```
\leq 500 \qquad \leq 200 \qquad \leq 100 \qquad \leq 500
3.2.1.4
• ≤ 4GB
3.2.1.5
       ( )
   • ≤ 15
   • \geq 10^8
3.2.1.6
            \geq 10 \text{KB/s}) \leq 0.30 \text{s}
3.2.1.7
     ( \geq 10 \text{KB/s}) \leq 0.15 \text{s}
3.2.1.8
            IOS WindowsPC Linux
3.2.1.9
               \leq 256MB, \leq 512MB
3.2.2
                10s
               10s
                   \leq 0.1s
```

10000

60s

3.3.1



3.1 (PC)

| 1. | Android 4.0 IOS 6 | |
|---|-------------------------------|--|
| 2. | JAVA | |
| 3. | Eclipse IDE 2019-03 | |
| 3.3.2.2 | PC | |
| 1. | Windows7 Linux4.1.0 IOS 6 | |
| 2. | JAVA | |
| 3. | Eclipse IDE 2019-03 | |
| 3.3.2.3 | | |
| | | |
| 3.3.3 | | |
| 3.3.3.1 | | |
| 1. | MSM800 Exynos5433 HelioX10 A8 | |
| 2. | 512MB | |
| 3.3.3.2 | PC | |
| 1. | Intel® Core TM i5 | |
| 2. | 512MB | |
| 3.3.4 | | |
| TCP RFC793 https://tools.ietf.org/html/rfc793 | | |
| | | |

3.3.2

3.3.2.1

4

4.1

GNU General Public License v3.0

- 1. ISO 8601 Data elements and interchange formats -Information interchange Representation of dates and times
- 2. GB/T 13702-1992
- 3. GB/T 19003-2008
- 4. GB/T 15538-1995
- 5. GB/T 9385-2008
- 6. GB/T 18221-2000
- 7. GB/T 5532-2008
- 8. GB/T 8567-2006

4.2

4.2.1

- 1. MSM800 Exynos5433 HelioX10 A8
- 2. 512MB

4.2.2 PC

- 1. Intel® CoreTM i5
- 2. 512MB

Oracle 18.3

- 1.
- 2.

5

5.1

5.2

5.3

5.4

5.5

5.6

5.7

5.8

5.9

5.10

5.11

10 KB/s

6 6.1 Unicode 40% JAVA 6.2 : 1. 2. 3. 1. 2. 6.3 6.4 Oracle18.3 6.5

2.

3.

2.

3.

1. Board

2.3.

4.5.

1.

2.3.

4.

6.6

37

| ID | | | |
|-----|-----------------------------|----------------------------|---|
| 001 | | | |
| | (R.INTF.CALC.009) | (R.INTF.CALC.001) | |
| 002 | , | / | |
| 002 | (P. D. ITEL C. 1.1. C. 000) | (D. D. TETE C. A. C. 0.02) | |
| | (R.INTF.CALC.009) | (R.INTF.CALC.002) | |
| 003 | | | |
| | (R.INTF.CALC.009) | (R.INTF.CALC.005) | |
| 004 | | Borad | |
| | (R.INTF.CALC.009) | (R.INTF.CALC.008) | |
| 005 | | | |
| | (R.INTF.CALC.001) | (R.INTF.CALC.005) | |
| 006 | | | |
| | (R.INTF.CALC.002) | (R.INTF.CALC.005) | |
| 007 | | | |
| | (R.INTF.CALC.010) | (R.INTF.CALC.013) | |
| 008 | / | Borad | / |
| | (R.INTF.CALC.003) | (R.INTF.CALC.008) | |
| 009 | / | | / |
| | (R.INTF.CALC.003) | (R.INTF.CALC.002) | |
| 010 | | | |
| | (R.INTF.CALC.014) | | |
| 011 | | | |
| VII | (R.INTF.CALC.015) | (R.INTF.CALC.005) | |

7.2 ()

| ID | | |
|-----|-------------------|-------------------|
| 012 | (R.INTF.CALC.015) | (R.INTF.CALC.007) |
| 013 | (R.INTF.CALC.015) | (R.INTF.CALC.011) |
| 014 | (K.INTT.CALC.013) | Borad |
| | (R.INTF.CALC.016) | (R.INTF.CALC.008) |
| 015 | (R.INTF.CALC.016) | (R.INTF.CALC.002) |
| 016 | (R.INTF.CALC.016) | (R.INTF.CALC.005) |
| 017 | (R.INTF.CALC.017) | (R.INTF.CALC.007) |
| 018 | (R.INTF.CALC.017) | (R.INTF.CALC.011) |

8

8.1

| ID | | |
|-----------------|----------|--|
| R.INTF.CALC.001 | | |
| R.INTF.CALC.002 | | |
| R.INTF.CALC.003 | / | |
| R.INTF.CALC.004 | () | |
| R.INTF.CALC.005 | | |
| R.INTF.CALC.006 | | |
| R.INTF.CALC.007 | | |
| R.INTF.CALC.008 | Board() | |
| R.INTF.CALC.009 | | |
| R.INTF.CALC.010 | | |
| R.INTF.CALC.011 | | |
| R.INTF.CALC.012 | | |
| R.INTF.CALC.013 | | |
| R.INTF.CALC.014 | | |
| R.INTF.CALC.015 | | |
| R.INTF.CALC.016 | | |
| R.INTF.CALC.017 | | |

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9.1

| ID | | | | (Open/- |
|-----------------|---------|--|---|---------|
| | (H/M/L) | | | Close) |
| R.INTF.CALC.001 | Н | | _ | Open |
| R.INTF.CALC.004 | M | | _ | Open |
| R.INTF.CALC.010 | M | | _ | Open |
| R.INTF.CALC.013 | M | | _ | Open |
| R.INTF.CALC.017 | L | | _ | Open |

Α

A.1

IOS Windows

Linux Intel JAVA Eclipse

A.2

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A.3

•

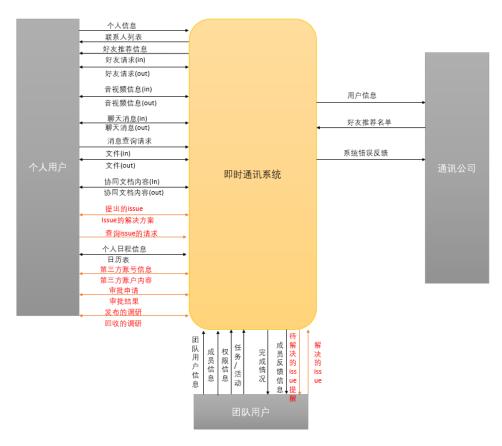
A.4

В

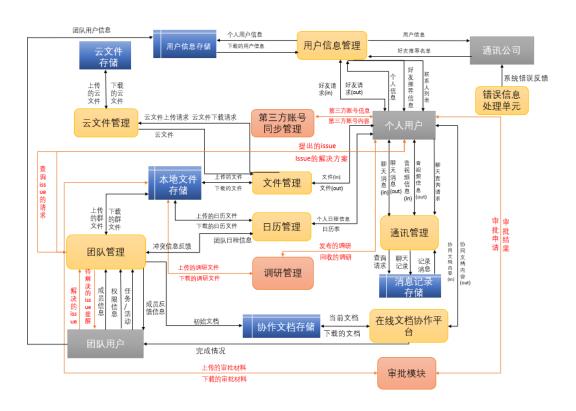
B.1

B.1.1

45



B.1



B.2 0

B.2

B.2.1

B.2.1.1

- •
- •
- = + +
- •
- = {0...9}
- = {char}
- =

B.2.1.2

- •
- .
- =[]
- •
- = {0...9}
- = {char}

B.2.1.3

- •
- •
- = + +

•

$$= \{char\}$$

B.2.1.4

•

•

•

$$= \{0...9\}$$

$$= \{0...9\}$$

$$= \{char\}$$

B.2.1.5

•

•

•

B.2.1.6 issue

•

•
$$issue = + + issue$$

•

= time

issue $= \{char\}$

B.2.1.7 issue

•

•

•

$$= \{0...9\}$$

issue = $\{0...9\}$

issue = $\{char\}$

B.2.1.8 issue

•

•

• issue = issue + issue +

•

issue
$$= \{0...9\}$$

issue =
$$\{char\}$$

 $= \{char\}$

B.2.1.9

•

•

• = + + + +

•

$$= \{char\}$$

=

= time

B.2.1.10

•

•

•

=

B.2.1.11

•

•

$$= \{0...9\}$$

= $\{0...9\}$

=

B.2.1.12

•

•

•

=

B.2.1.13

•

•

•

=

B.2.1.14

•

•

=

B.2.1.15 issue

•

•

• issue =
$$\{issue + issue \}$$

•

issue =
$$\{0...9\}$$

issue =
$$\{char\}$$

B.2.1.16 issue

•

•

issue =
$$\{0...9\}$$

issue =
$$\{char\}$$

B.2.1.17 (out)

•

•

• (out) = [(out) | (out) |]

•

B.2.1.18 (in)

•

•

• (in) = [(in) | (in) |]

•

B.2.1.19 (out)

•

•

• (out) = [| | |

{char}

B.2.1.20 (in)

•

•

char

•

•

•

= time

•

•

•
$$(in) = + \{char image\} +$$

•

= time

B.2.1.23

•

•

B.2.1.24 (out)

•

•

•

=

= time

B.2.1.25 (in)

•

•

•

=

= time

B.2.1.26 (out)

•

• (out) = + + +

•

= {char, image}

= time

= {char}

B.2.1.27 (in)

•

•

•

= {char image}

B.2.1.28

•

•

• = +

•

B.2.1.29

•

• = +

•

$$= \{0...9\}$$

 $= \{ + \}$

B.2.1.30

•

•

•

= time

= {char}

B.2.1.31

•

•

• = +

•

=

B.2.1.32

•

• = { } •

=

B.2.1.33 /

•

•

• / = { + [|]+ }

•

=

= {char, image}

= {char, image}

= time

B.2.1.34

•

•

• = =[|] ={}

•

= {0...9}

B.2.1.35

•

•

•

$$= \{0...9\}$$

= $\{char\}$

B.2.1.36

•

•

•

= float

B.2.1.37

•

•

•

= {char, image}

= time

B.2.1.38

•

•

•

B.2.1.39

•

•

• =

B.2.1.40

•

• = { }

• =

B.2.1.41

•

•

• = { + + }

•

= {char}

= time

 $= \{char\}$

B.2.1.42

•

•

• = { + }

_

= {0...9}

=

B.2.1.43

•

•

• = { + }

•

=

B.2.1.44

•

•

•

=

B.2.1.45

•

•

.

=

B.2.1.46

•

=

B.2.1.47

•

•

•

=

B.2.1.48

•

•

•

=

B.2.1.49

•

• = +{ + }

•

= time

 $= \{char\}$

B.2.1.50

•

•

•

=

B.2.1.51

•

•

•

_

B.2.1.52

•

• = +{ + }

•

= time

 $= \{char\}$

B.2.1.53

•

•

•

= time

 $= \{char\}$

B.2.1.54

•

•

• = + +

•

= time

 $= \{char\}$

B.2.1.55

•

•

• = + + +

•

= time

= {[char, image]}

B.2.1.56

•

•

•

= {char}

B.2.1.57

•

•

• = + + +

•

= time

= {[char, image]}

B.2.1.58

•

•

• = +

•

= {char, image}

= time

B.2.1.59

•

•

• = +

.

= {char, image}

= time

B.2.1.60

•

•

• = { + }

•

= {0...9}

= {char}

B.2.2

B.2.2.1 issue

- issue
 - D0
 - issue
 - issue

•

issue +issue +issue +issue

B.2.2.2

•

• D1

• [,]

• [,]

+ +

+()+ +

B.2.2.3

•

• D2

• []

• []

• +

B.2.2.4

•

• D3

• []

•

• + +

+ + +

B.2.2.5

•

• D4

• []

• []

•

+[]+ + + + +

B.2.2.6 • D5 • [,] B.2.3 B.2.3.1 B.1

B.2.3.2

•

• []

• []

•

•

B.2

B.2.3.3

•

• :[]

• []

•

B.3

B.2.3.4

•

• [(in),]

• [(out),]

•

•

B.4

```
1 IF(
           ):
2
3
4
5
6
7
8
9
   IF(
   ELSE
10
11
12
13
   IF(
       ):
14
15
      IF( )
16
17
      ELSE IF( )
18
19
20
      ELSE
21
22
23
```

B.2.3.5

•

• []

•

• :

B.5

B.2.3.6

•

• []

• []

•

• :

B.6

```
1
  IF()
2
3
4
     IF()
5
     ELSE:
6
7
8
9
  ELSE (
     FOR( in )
10
11
12
13
      IF( )
14
15
16
17
     FOR( in )
18
19
20
```

B.2.3.7

•

• []

• [

•

• :

B.7

```
IF( )
IF( )
1
2
4
5
      ELSE IF( )
6
7
8
      ELSE IF(
                  )
9
10
11
      ELSE IF(
               )
12
13
   IF(
14
          )
15
16
17
   IF(
           )
18
19
   IF(
         )
20
21
22
23
   IF(
           )
24
25
26
  IF( )
27
```

B.2.3.8

•

• [(out) (out)]

• [(in) (in)] B.8 IF() IF() 2 3 ELSE 5 6 ELSE IF(9 IF(10 11 ELSE IF(12 13 14 ELSE IF() 15 B.2.3.9 • [(out)] • [(in)] B.9

```
10
11
12
13
```

B.2.3.10

•

- [(out)]
- [(in)]
- /
- •

B.10

B.2.3.11

•

•

•

B.11

| 1 | IF(|) | | | | |
|---|-----|---|--|--|--|--|
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |